

2017

Constructing digital literary texts: A case study of six year 5 children

Kylie Lipscombe
University of Wollongong

Follow this and additional works at: <https://ro.uow.edu.au/theses1>

University of Wollongong

Copyright Warning

You may print or download ONE copy of this document for the purpose of your own research or study. The University does not authorise you to copy, communicate or otherwise make available electronically to any other person any copyright material contained on this site.

You are reminded of the following: This work is copyright. Apart from any use permitted under the Copyright Act 1968, no part of this work may be reproduced by any process, nor may any other exclusive right be exercised, without the permission of the author. Copyright owners are entitled to take legal action against persons who infringe their copyright. A reproduction of material that is protected by copyright may be a copyright infringement. A court may impose penalties and award damages in relation to offences and infringements relating to copyright material.

Higher penalties may apply, and higher damages may be awarded, for offences and infringements involving the conversion of material into digital or electronic form.

Unless otherwise indicated, the views expressed in this thesis are those of the author and do not necessarily represent the views of the University of Wollongong.

Recommended Citation

Lipscombe, Kylie, Constructing digital literary texts: A case study of six year 5 children, Doctor of Philosophy thesis, School of Education, University of Wollongong, 2017. <https://ro.uow.edu.au/theses1/18>

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: research-pubs@uow.edu.au

CONSTRUCTING DIGITAL LITERARY TEXTS: A CASE STUDY OF SIX YEAR 5 CHILDREN

A thesis submitted in fulfilment of the requirement
for the award of the degree

DOCTOR OF PHILOSOPHY

University of Wollongong

Kylie Lipscombe BEd (Latrobe University), MEd
(Latrobe University)

School of Education, Faculty of Social Sciences
2017

CERTIFICATION

I, Kylie Lipscombe, declare that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Philosophy in the School of Education, Faculty of Social Sciences, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Signed:

Kylie Lipscombe

Date: 20/09/2016

DEDICATION

This thesis is dedicated to my husband Brent and parents Marg and Geoff. Your commitment to supporting my study over the years has been such an encouragement. Without judgment, you have always managed to help me find the time and energy to continue. Thank you.

~

To my daughters, Tayah and Ava – my beautiful, kind, intelligent girls. I have learned so much from you both.

Tayah your patience, empathy and thoughtfulness continue to remind me of the gentle nature children bring to the world. Ava, your inquisitive, vibrant and energetic nature, which shines through in both learning and life, reminds me of the drive and motivation young children have. Together you have kept me dedicated to the all-important work in education and young children.

I love you endlessly.

~

And to my dear friend Anne Smith.

You started me on this journey with your guidance, support and belief. I will be forever grateful.

ACKNOWLEDGEMENTS

It gives me great pleasure to thank those who have helped me in my journey to thesis completion.

To my supervisors, Associate Professor Lisa Kervin and Dr Jessica Mantei, words can really not express my gratitude for the time, dedication, advice and support you have provided me throughout this research project. The inspiration I have derived from your own classroom-based research has provided me with the confidence to conduct research in such an important and sensitive field, where the voices of the children and educators are at the forefront of the research design. Jess, your attention to detail, your accessible and respectful feedback, and passion and experience in children's literature provided me with the motivation and specificity required to complete this thesis. Lisa your big ideas, conceptual and theoretical challenges, and your extensive interest and experience in digital literacy and classroom-based ethnography kept me challenged in a supportive way where new insights and wonderings were always emerging. Together, the endless conversations, conferences, feedback, questioning, cups of tea and cake have helped me grow as both a researcher and educator, and I will be forever grateful.

To the six children and their classroom teacher who I worked with, your interest, commitment, questions and encouragement made this inquiry possible. It was an absolute privilege to work in the classroom with such interesting and motivated people.

To my university colleagues, who along the way have asked about my inquiry or shared a reading, I thank you for your interest and encouragement.

And finally to my family. Thank you for attempting to understand the life of a working mother, wife, educator and part-time PhD candidate. Brent, the weekends and nights

spent completing my study have meant extra housework and parenting duties and less social and sporting activities for you. Thank you for making this journey possible and for never complaining. My daughters Ava and Tayah, I draw my strength and motivation to work in education by watching the ways in which you both are growing up, in a world that is constantly evolving and challenging the way young children learn, communicate and make meaning. And to my parents, who have inherited the extra parenting responsibilities of my two children when I have had my head buried in books or when I've attended conferences, thank you for your patience, support and understanding.

This research has been conducted with the support of the Australian Government Research Training Program Scholarship.

ABSTRACT

Children's lives have changed due to the increased access to, and focus on, information technology in contemporary western cultures. These new technologies enable children to access new forms of content, and they provide them with opportunities to contribute their own digital texts. Despite this, there have been few studies conducted that explore the literacy practices children require to construct digital texts, and fewer that have focused on the construction of digital literary texts, a significant expectation in Australian Curriculum English policy documents.

This inquiry examines the literacy practices of six Year 5 children during the construction of their own digital literary texts. It draws on two events – the children's deconstruction of two digital literary texts, and the subsequent construction of their own digital literary texts. It explores the literacy practices associated with the children's experiences, writing practices and resource selections.

Ethnographic principles and collective case study were used in this qualitative inquiry. Data were collected from six Year 5 children and their classroom teacher in a primary school in New South Wales, Australia. The data were collected over a six-week period from interviews, observations, work samples and artefacts.

Two complementary theoretical frames inform this qualitative inquiry; literacy as social practice and new literacies. Together these theoretical orientations recognise how literacy can be mediated by digital technologies and how, as a consequence, new social literacy practices may be needed.

The findings of this inquiry show how the previous literacy experiences of the participants invited particular forms of literate practices. Further how digital literary text construction often demands new and dynamic literacy practices that vary according to circumstances and the context of an evolving digital environment.

TABLE OF CONTENTS

CERTIFICATION	II
DEDICATION	III
ACKNOWLEDGEMENTS	IV
ABSTRACT	VI
TABLE OF CONTENTS	VII
LIST OF TABLES	XI
LIST OF FIGURES	XII
LIST OF ABBREVIATIONS	XIV
CHAPTER 1: INTRODUCTION	1
OVERVIEW	2
PURPOSE	2
BACKGROUND	3
A PERSONAL PERSPECTIVE	6
SIGNIFICANCE	8
THEORETICAL UNDERPINNINGS.....	9
METHODOLOGICAL APPROACH.....	10
LOCUS OF THE INQUIRY	11
DEFINITION OF TERMS	12
THESIS OVERVIEW	14
CHAPTER 2: THEORETICAL ORIENTATION AND REVIEW OF LITERATURE.....	16
CHAPTER INTRODUCTION	17
THEORETICAL ORIENTATION OF THE INQUIRY	19
<i>Literacy as social practice.....</i>	<i>20</i>
<i>New literacies as social literacy practice.....</i>	<i>24</i>
<i>An integration of theoretical orientations.....</i>	<i>29</i>
REVIEW OF LITERATURE.....	30
<i>Writing in a digital environment</i>	<i>30</i>
Reconsidering text	31
New possibilities for literary text.....	33
Practices for digital literary text construction.....	35
Practices associated with modes for communication.....	36
Practices associated with media composition.....	40
Practices associated with interactive digital elements.....	41
Practices associated with intertextuality.....	43
<i>Classroom practice and digital literary text construction.....</i>	<i>44</i>
New social practices.....	45
Writing process.....	46
Reading digital literary text as a text model for writing	49
Resource selection and use	51
CHAPTER CONCLUSION	53
CHAPTER 3: METHODOLOGY	54
CHAPTER INTRODUCTION	55
RESEARCH QUESTIONS.....	55
RESEARCH DESIGN	55
<i>Social constructivist paradigm</i>	<i>56</i>

<i>Ethnographic principles</i>	57
<i>Case study</i>	60
LOCUS OF THE INQUIRY	61
<i>Research site</i>	61
<i>Participants</i>	62
RESEARCH DESIGN SEQUENCE	65
DATA COLLECTION – DESIGN AND IMPLEMENTATION	67
<i>Interviews</i>	67
Initial teacher interview to explore the classroom context.....	68
Initial child interview to explore past literacy experiences	69
Final interview with children (post-observation) to reflect on digital literary text construction	69
Final Interview with teacher (post-observation) to reflect on digital literary text.....	70
<i>Observations</i>	70
Observations to explore the classroom context.....	73
Observations of the deconstruction of two digital literary text.....	73
Observations of the construction of digital literary text	78
<i>Work sample collection during construction of digital literary text</i>	79
<i>Artefact collection during the exploration of the classroom context</i>	80
PREPARING THE DATA AS CASE RECORDS FOR ANALYSIS	80
DATA ANALYSIS	83
<i>Social context as a theoretical frame of analysis</i>	83
<i>A three-step process of data analysis</i>	84
Segmenting and reducing the data of the social context into the two literacy events	85
Deductive analysis of the two literacy events.....	87
Inductive analysis	90
PARAMETERS OF THE INQUIRY	93
<i>Sample size</i>	93
<i>Classroom context</i>	94
ETHICAL CONSIDERATIONS	95
<i>Valid research design</i>	95
<i>Informed consent</i>	96
<i>Confidentiality</i>	96
CREDIBILITY OF INQUIRY	96
<i>Prolonged engagement</i>	97
<i>Triangulation</i>	97
<i>Audit trail</i>	98
CHAPTER CONCLUSION	98
CHAPTER 4: FINDINGS	100
CHAPTER INTRODUCTION	101
MEET THE TEACHER – MRS MADDEN.....	102
MEET THE CLASSROOM LITERACY EXPERIENCES AND LITERACY EVENTS	105
INDIVIDUAL CASE PORTRAITS.....	112
<i>Case portrait 1: The Bush family by Ben</i>	112
Meet the author – Ben	112
Overview of The Bush family.....	114
Ben’s writing process for the construction of ‘The Bush family’	119
Interpretative summary	128
<i>Case portrait 2: Escaping the Kidnapper by Mischa</i>	130
About the author – Mischa	130
Overview of Escaping the kidnapper	132
Mischa’s writing process for the construction of ‘Escaping the Kidnapper’	135
Interpretative summary	143

<i>Case portrait 3: The missing items by Luke</i>	145
About the author – Luke.....	145
Overview of The missing items.....	147
Luke’s writing process for the construction of ‘The missing items’.....	150
Interpretative summary.....	156
<i>Case portrait 4: Family secrets by Sarah</i>	157
About the author – Sarah.....	157
Overview of Family secrets.....	160
Sarah’s writing process for the construction of Family secrets.....	163
Interpretative summary.....	175
<i>Case portrait 5: Tales of Peter Wright by Tate</i>	176
Meet the author – Tate.....	176
Overview of Tales of Peter Wright.....	179
Tate’s writing process for the construction of Tales of Peter Wright.....	181
Interpretative summary.....	191
CHAPTER CONCLUSION.....	193
CHAPTER 5: DISCUSSION AND CONCLUSION	195
CHAPTER INTRODUCTION.....	196
WHAT WRITING PRACTICES DO SIX YEAR 5 CHILDREN ENACT DURING DIGITAL LITERARY TEXT CONSTRUCTION?	197
<i>Digital literary text construction is hybridised and recursive</i>	198
<i>Constructing literary text features extends print based writing practices</i>	202
HOW DID THESE SIX YEAR 5 CHILDREN SELECT AND UTILISE RESOURCES DURING DIGITAL LITERARY TEXT CONSTRUCTION?.....	207
<i>Multiple resources were required to construct the texts</i>	208
<i>Meaning making is influenced by the affordances and constraints of resource selection</i>	211
<i>A model to guide resources for digital literary text construction</i>	215
Access to digital resources.....	215
Time to explore and play.....	219
Understanding how digital resources can work together.....	220
IMPLICATIONS FOR THEORY, POLICY AND PRACTICE.....	221
CONCLUSION.....	226
REFERENCE LIST	227
APPENDIX A: GLOSSARY OF KEY TERMS	250
APPENDIX B: UNIVERSITY OF WOLLONGONG ETHICS APPROVAL	251
APPENDIX C: PRINCIPAL CONSENT FORM	252
APPENDIX D: PARENT/STUDENT CONSENT FORM	255
APPENDIX E: TEACHER CONSENT FORM	259
APPENDIX F: AUDIT TRAIL	263
APPENDIX G: INTERVIEW SCHEDULE	264
APPENDIX H: TEACHER INITIAL OBSERVATION INTERVIEW	265
APPENDIX I: TEACHER POST-OBSERVATION INTERVIEW	266
APPENDIX J: INITIAL INTERVIEW WITH CHILD	267
APPENDIX K: CHILD POST-OBSERVATION INTERVIEW	268
APPENDIX L: THINK ALOUD PROTOCOL	269

APPENDIX M: EXAMPLE FROM DECONSTRUCTION SCRIPT_ CHILD PARTICIPANT	270
APPENDIX N: EXAMPLE FROM A CONSTRUCTION SCRIPT_ CHILD PARTICIPANT ...	274
APPENDIX O: OVERVIEW OF STRUCTURED OBSERVATIONS.....	276
APPENDIX P: CODING SCHEME.....	278
APPENDIX Q: EMMA'S CASE AS A PUBLISHED ARTICLE.....	279
APPENDIX R: PRINTED COPY OF THE BUSH FAMILY- BY BEN.....	299
APPENDIX S: PRINTED COPY OF A DIFFERENT CHRISTMAS- BY EMMA.....	307
APPENDIX T: PRINTED COPY OF ESCAPING THE KIDNIPPER BY MISCHA.....	316
APPENDIX U: PRINTED COPY OF THE MISSING ITEMS- BY LUKE.....	323
APPENDIX V: PRINTED COPY OF FAMILY SECRETS BY SARAH.....	330
APPENDIX W: PRINTED COPY OF TALES OF PETER WRIGHT BY TATE.....	346
APPENDIX X: TATE'S ORIGINAL TEXT.....	352

LIST OF TABLES

TABLE 3.1: AN OVERVIEW OF THE CHILDREN AS PARTICIPANTS	64
TABLE 3.2: OBSERVATION SCHEDULE.....	72
TABLE 3.3: CATEGORISING TO SEGMENT CASE RECORD DATA INTO TWO EXTENDED LITERACY EVENTS.....	85
TABLE 3.4: EXCERPT OF SUB-THEMES USED IN DEDUCTIVE ANALYSIS.....	91
TABLE 3.5: EXAMPLE OF INDUCTIVE ANALYSIS ACROSS CASE STUDIES WITHIN THE CATEGORY CODE (WP) OF THE WRITING PROCESS.....	93
TABLE 4.1: OVERVIEW OF THE BUSH FAMILY.....	115
TABLE 4.2: ANALYSIS OF BEN'S DRAFTING FROM MULTIPLE DATA SETS.....	122
TABLE 4.3: OVERVIEW OF ESCAPING THE KIDNAPPER.....	134
TABLE 4.4: COMPARISON OF MISCHA'S PRE- AND POST-OBSERVATION INTERVIEW DATA ABOUT DIGITAL WRITING	143
TABLE 4.5: OVERVIEW OF THE MISSING ITEMS.....	149
TABLE 4.6: OVERVIEW OF FAMILY SECRETS	161
TABLE 4.7: OVERVIEW OF TALES OF PETER WRIGHT.....	180
TABLE 4.8: SUMMARY OF CASE STUDY FINDINGS.....	193

LIST OF FIGURES

FIGURE 2.1: OVERVIEW OF THE ORIENTATION OF THE INQUIRY.....	18
FIGURE 2.2: EIGHT PRINCIPLES OF NEW LITERACIES THEORY.....	26
FIGURE 2.3: INTEGRATION OF THEORETICAL ORIENTATIONS.....	29
FIGURE 3.1: METHODOLOGICAL DESIGN OF THE INQUIRY.....	56
FIGURE 3.2: RESEARCH SEQUENCE OF THE INQUIRY.....	66
FIGURE 3.3: CORE AND SUPPORTING DATA COLLECTION METHODS.....	67
FIGURE 3.4: EXAMPLES FROM THE CASE RECORD OF THE TEACHER AS PARTICIPANT.....	81
FIGURE 3.5: EXCERPT OF ONE CHILD’S SCREEN RECORDING SCRIPT.....	82
FIGURE 3.6: ORGANISATION OF DATA AS INDIVIDUAL CASE RECORDS.....	83
FIGURE 3.7: SOCIAL CONTEXT AS A ANALYTICAL FRAME.....	84
FIGURE 3.8: THEORETICAL FRAME OF ANALYSIS IN ASSOCIATION WITH THE TWO LITERACY EVENTS.....	86
FIGURE 3.9: CATEGORY CODES DERIVED FROM THE THEORETICAL FRAME AND LITERACY EVENTS OF THE ANALYSIS.....	88
FIGURE 3.10: EXAMPLE OF DEDUCTIVE CODING IN EMMA’S CONSTRUCTION SCRIPT.....	90
FIGURE 4.1: SCHEMATIC REPRESENTATION OF THE RELATIONSHIP BETWEEN THE THEORETICAL UNDERPINNINGS AND THE REPORTING OF DATA.....	102
FIGURE 4.2: ARTEFACT COLLECTED OF A SMALL GROUP ACTIVITY FOCUSED ON TEXT DECONSTRUCTION.....	107
FIGURE 4.3: EXAMPLE OF WHOLE-OF-CLASS ACTIVITY FOCUSED ON ANALYSING A DIGITAL LITERARY TEXT.....	108
FIGURE 4.4: DIGITAL LITERARY TEXT WRITING SESSIONS.....	111
FIGURE 4.5: BEN’S DIGITAL WRITER’S NOTEBOOK.....	120
FIGURE 4.6: SAME CHARACTERS REPRESENTED IN THREE DIFFERENT WAYS.....	123
FIGURE 4.7: ANNOTATED EXAMPLE OF BEN’S INITIAL STAGES OF DRAFTING A DIGITAL LITERARY TEXT.....	124
FIGURE 4.8: COMPARISON OF BEN’S VISUAL LAYOUT AND THE LAYOUT OF <i>THE FANTASTIC FLYING BOOKS OF MR MORRIS LESSMORE</i>	125
FIGURE 4.9: INSERTION OF IMAGES IN KEYNOTE.....	126
FIGURE 4.10: MATCHING OF VISUAL AND WRITTEN MODE IN KEYNOTE.....	127
FIGURE 4.11: FOUR HYPERLINKS INSERTED ON THE FINAL PAGE OF BEN’S TEXT.....	128
FIGURE 4.12: INTERACTIVE FEATURE IN <i>THE FANTASTIC FLYING BOOKS OF MR MORRIS LESSMORE</i> IN WHICH MISCHA HAD DIFFICULTIES NAVIGATING.....	131
FIGURE 4.13: MISCHA’S DIGITAL WRITER’S NOTEBOOK.....	135
FIGURE 4.14: SECOND SCREEN FROM MISHCA’S DIGITAL WRITER’S NOTEBOOK.....	136
FIGURE 4.15: INITIAL STAGES OF MISCHA’S DRAFT USING GOODNOTES APP.....	137
FIGURE 4.16: CAMTASIA RECORDING OF MISCHA MOVING BETWEEN DIFFERENT RESOURCES.....	138
FIGURE 4.17: TEXT PLACEMENT IN FINAL TEXT.....	139
FIGURE 4.18: EXAMPLE OF A DRAFT PAGE MISCHA COMPLETED ON HOLIDAYS.....	140
FIGURE 4.19: IMAGE CREATED BY SOURCING A PICTURE FROM THE INTERNET WITH FREE DRAWN ILLUSTRATION.....	141
FIGURE 4.20: STILL IMAGE SOURCED FROM THE INTERNET AND EDITED.....	141
FIGURE 4.21: ANNOTATED EXAMPLE OF SOUND BUTTON PLACEMENT AND DIRECTIONS.....	142
FIGURE 4.22: LUKE DIGITAL WRITER’S NOTEBOOK.....	150
FIGURE 4.23: IMAGE LIBRARY ON LUKE’S IPAD.....	151
FIGURE 4.24: ROTATING IMAGE AND INTERACTIVE QUIZ.....	155
FIGURE 4.25: STRUCTURE OF LUKE’S PUBLISHED TEXT.....	156
FIGURE 4.26: SARAH’S DIGITAL WRITER’S NOTEBOOK.....	164
FIGURE 4.27: IMAGES SARAH USED TO CREATE A MOVING IMAGE.....	168
FIGURE 4.28: STILL IMAGES EDITED TO BECOME A MOVING IMAGE.....	169
FIGURE 4.29: EXAMPLE OF THE INTERACTION BETWEEN VISUAL AND WRITTEN MODES.....	170
FIGURE 4.30: STILL IMAGE ADAPTED TO REFLECT THE TIME IN WHICH HER STORY TOOK PLACE.....	171

FIGURE 4.31: STILL IMAGES THAT MISREPRESENT THE TIME SETTING OF THE TEXT	172
FIGURE 4.32: STILL IMAGE CREATED FROM AN IMAGE ON THE INTERNET AND EDITED WITH TEXT	172
FIGURE 4.33: MOVING IMAGE CREATED BY EDITED IMAGES FROM DIFFERENT STILL IMAGES	173
FIGURE 4.34: MOVING IMAGE CREATED USING THE APP PUPPETPALS	174
FIGURE 4.35: TATE’S DIGITAL WRITER’S NOTEBOOK.....	181
FIGURE 4.36: SCREEN RECORDING OF TATE’S WRITING PRACTICES DURING AN INDEPENDENT WRITING SESSION	185
FIGURE 4.37: TATE’S DRAFTING PROGRESS OVER TWO WRITING SESSIONS.....	186
FIGURE 4.38: FIRST AND SECOND DRAFT OF TATE’S TEXT	189
FIGURE 4.39: THREE IMAGES OF THE ONE CHARACTER USED ACROSS MULTIPLE SETTINGS AND EMOTIONS.....	190
FIGURE 5.1: A MODEL TO GUIDE RESOURCES FOR DIGITAL LITERARY TEXT CONSTRUCTION.....	215

LIST OF ABBREVIATIONS

ACARA: Australian Curriculum Assessment and Reporting Authority

AC:E: Australian Curriculum: English

BOSTES: Board of Studies Teaching and Educational Standards NSW (NSW authority in curriculum, teaching, assessment, registration and policy)

ICT: Information and communication technology

KLA: Key Learning Area (used in NSW to define specific curriculum areas)

NAPLAN: National Assessment Program – Literacy and Numeracy

NSW: New South Wales

CHAPTER 1: INTRODUCTION

Overview

Understanding the literacy practices required to construct digital text plays a central role in children's literacy experiences. This inquiry examined what literacy practices a group of six primary aged children utilised to construct digital literary texts, a genre included in current Australian Curriculum English policy (Australian Curriculum Assessment and Reporting Authority (ACARA), 2015). This qualitative case study responded to a need for more research that explores the relationship between children's text construction, digital writing practices and literary texts. Increased focus in this area creates new possibilities for theory, policy and practice to increase our understanding of how children as young authors can create and share meaning in literary texts using the digital environment.

Purpose

The purpose of this qualitative case study was to explore the literacy practices of six Year 5 children as they constructed their own digital literary texts. The following research questions framed this inquiry:

1. What writing practices do six Year 5 children enact during digital literary text construction?

This question explored the writing practices of six Year 5 children as they constructed their own digital literary texts. Specifically, through interviews, observations, and artefact and work sample collection, the children's knowledge, beliefs and behaviours of digital literary composition practices were examined.

2. How do these six Year 5 children select and utilise resources during the digital literary text construction?

To understand how the participating children constructed digital literary texts, it was necessary to identify and explore the myriad of resources they accessed and how these were used to shape text construction. This question therefore examines what resources were available and used, and how they enabled children to construct digital literary texts.

Background

In February 2010 the Australian federal government released the draft National Curriculum: English (2010; now known as the Australian Curriculum: English (AC:E)) (ACARA, 2015). This document outlines the future direction of English education, recognising that Australian children will need to interact in a global and technological environment, and will need to use language to communicate across an increasingly broad repertoire of spoken, written, multimodal and digital texts (Commonwealth of Australia, 2009).

The curriculum expectations of the AC:E highlight the changing nature of literacy today. The emphasis on digital technology and literacy, as is the case in comparable countries around the world (such as the US and Canada), stresses the significance of digital technology in the lives and learning of today's students. This focus responds to the rapid use and distribution of technology in the home and school lives of students. For example, the Australian Bureau of Statistics (2016) reports that in Australia in 2014–2015, 86% of all households across the nation had access to the Internet. In those households, 97% had children aged 15 and under with most of these households accessing the Internet using a computer (94%), mobile or smart phone (86%) and/or tablet device (62%). Further, in schools, federal and state governments have invested heavily in digital technology through education policies and financial commitments to initiatives such as the \$2.2 billion Digital Education Revolution (DEEWR, 2008), designed to provide children with access to their own device in schools. As a result some students across Australia are using school and personal devices daily as part of regular instruction. For educators, policies are providing some guidance on the application of digital devices and information technology in the curriculum. Information and communication technology (ICT) is a both a separate Key Learning Area (KLA) and a General Capability in the new Australian Curriculum policy. The use of ICT is interwoven throughout all schooling years and KLAs of the Foundation to Year 10 curriculum. Additionally, digital technology is implemented directly as part of the English curriculum where students are expected to listen, read, write, interpret and

evaluate digital texts (ACARA, 2015). It is crucial, therefore, that educators have the understanding and capacity to integrate technology, and the practices employed to use them successfully throughout literacy learning.

The implementation of digital technology in the English curriculum is complex and often hard to realise. Burnett and Merchant (2015) argue that despite curriculum shifts affecting the important nexus between digital technology and literacy, literacy education still tends to privilege traditional literacy skills and printed texts. They explain that curriculum policy often provides little guidance about the practices students must enact to be successfully literate in the digital space, with curriculum statements instead often limited to future-oriented and aspirational recommendations.

The rapid advancement of technology means print-based literacy practices now co-exist with new digital practices that will constantly grow as technology continues to expand. As a result educators are required to teach literacy within the entanglement of digital and non-digital practices. Edwards-Groves (2011) found that for many educators, their personal familiarity and their capacity to access and utilise digital technology often determines the extent to which they incorporate digital technology into literacy teaching and learning. Such findings illustrate the complexity of the role of digital technology in literacy education and the need to support educators to ensure that the use of digital technology in literacy education prepares students for a changing, interconnected world (Burnett, Merchant, Pahl & Rowsell, 2014).

With the increased attention to digital writing in AC:E policy, this inquiry focused on exploring the literacy practices associated with the construction of digital texts. While some research has identified that writing digitally differs from print composition (Edwards-Groves, 2012; Grabill & Hicks, 2005; Cope & Kalantzis, 2000; Matthewman & Triggs, 2004; Merchant, 2007) there is still work to be done gathering evidence about the particular writing practices required. Given children's lives now include opportunities to write in digital spaces, coupled with the curriculum expectations associated with digital text construction, there is need for a focus on this area.

Research on digital writing has tended to focus on areas such as word processing (e.g., Morphy & Graham, 2012; Nicholas, 1996; Owston, Murphy, & Wideman, 1992; Snyder, 1993), digital spaces (e.g., Boling, Castek, Zawilinski, Barton, & Nierlich, 2008; Groff & Fecich, 2012; Lorenz, Green, & Brown, 2009; McGrail & Davis, 2011; Woo, Chu, Ho, & Li, 2011) and media (e.g., Burns & Durrant, 2007; Jenkins, 2006; Snyder & Prinsloo, 2007). Little is known about the construction of digital literary texts. Within the context of the AC:E, the increased attention on literary texts means students must acquire the skills and knowledge needed to construct this type of text across different mediums.

Over recent times the mediums in which literary texts are created have shifted. Whilst oral and written modes (including drawings) dominated the way in which literary texts were shared in the past, more recently digital platforms have evolved to provide another space for children to share, engage, interpret and construct literary texts. Computers, tablets and smartphones are now common digital formats of literary texts (Yokota & Teale, 2014). This has introduced possibilities for new and more complex literary texts. Whilst the AC:E acknowledges the connective nature of literary texts with the digital space with its emphasis on literary, digital and multimodal texts as a significant text form for construction, recontextualising these in connection with the literacy practices expected by the new curriculum presents challenges for educators. Narrator voice overs, hyperlinks, animation and sound effects are some features used to communicate meaning in digital literary texts (Serafini, Kachorsky, & Aguillera, 2015). The inclusion of such features requires new knowledge, skills and processes in recognition of how digital technology transforms how we write.

New curriculum expectations, coupled with dynamic and complex digital literary text elements, informed the design of this research inquiry. With increasing pressures on schools and educators to ensure their students are skilled in the practices and understandings associated with digital writing, there have been calls for further research into areas related to new and evolving digital literacies (e.g., Hutchison & Reiking, 2010; Leu, Kinzer, Coiro, Catsek, & Henry, 2013; Tierney, 2009). Therefore, this

inquiry focuses on literacy practices in digital literary text construction under the AC:E. It examines the nexus of literary texts, digital technology and writing.

A personal perspective

Understanding the researcher's own background, bias and experience in connection with the inquiry's focus assists in understanding how they have informed the design, implementation and outcomes of the inquiry. In positioning this inquiry for the reader, I reflect on my professional experiences with policy, teaching and literature. My professional experience and values have strongly shaped who and what I believe about literacy and teaching and learning. As I reflected on my own lived experience I noticed two key events in my professional career that brought me to this inquiry.

Firstly, through my 12 years of experience as a primary school teacher in Australia, I developed an interest in observing and exploring children's literacy learning. I have worked with children in the first year of school and in Years 5 and 6 (the last years of primary school). In this time I have learned that to truly provide an authentic literacy experience for all children, we need to understand them as learners. We need to observe their interests, beliefs, motivations, choices and skills. As a teacher, I worked to develop literacy experiences based on what I knew about the children as I worked in partnership with their homes and communities to provide authentic and real-life experiences. In doing so, I learned about the significance of context, what each child brought to the classroom was a result of their past experiences and environments, and it was my responsibility to incorporate this into my teaching.

Responding to the specific literacy learning needs of children continued to be a focus throughout my career. I worked in a range of leadership positions. They included leading individual schools as a literacy coordinator, overseeing networks of schools as a literacy coach, and coordinating over 181 schools as a regional literacy officer. In each of these positions my drive to support schools and teachers to improve the literacy learning of their students was underpinned by a belief that although new curriculum policies, directives and resources will continue to emerge, these external

influences are best understood in the context in which they are implemented. In this way, educators are best placed to deal with such changes by working as unofficial ethnographers of sorts, gathering data on children's learning, reading literature, and using the understandings they gain by doing so to inform best practices for their classrooms.

In the mid-2000s my interest in literacy practices merged with the developments in technology. At the time, I was working as a literacy officer when a multi-million dollar one-to-one laptop initiative was implemented. As a result all children in Years 5 and 6 across our network were provided with a laptop. With this came the expectation that educators must use these laptops in their literacy teaching. What I observed was that many educators were provided with very little training, which resulted in a lack of confidence as to how best to use this technology in their literacy teaching. Consequently, much of the teaching remained print focused, with worksheets scanned onto computer screens and text construction opportunities still focused on written texts. I recall worrying that these pedagogies were not transformative and did not add to existing practices or capitalise on the possibilities of the technology. I began to ask questions such as: "*What is different?*", "*What is the same?*", "*Why do we need this?*" as I contemplated the possibilities for technology in literacy teaching and learning. I remember thinking then that technology wasn't really a *tool* for literacy learning but rather a means to change how meaning is created and distributed. While this turbulent time left many questions unresolved, it fuelled my passion for learning about how technological advancements could shape the literacy practices of young literacy learners.

My personal life and career underwent a change with my family's move to the South Coast of New South Wales. I left the primary school sector and began working in teacher education at the University of Wollongong. During this time I had the privilege of working alongside two academics driven by a passion for researching literacy within classrooms by learning about the practices of children as literacy learners to understand what educators need to consider in teacher practice. Collaborating

formally and informally on both small and large scale projects fuelled my own interest in answering some of the unanswered questions from my teaching and leadership experiences. This was coupled with a visit from Professor Donald Leu in 2012. Professor Leu was working as a critical friend on a colleague's research project. During this visit he spoke about his recent research with colleagues (Coiro, Castek, Henry, Zawilinski and Kinzer) from the University of Connecticut, focused on new literacies. He shared preliminary thoughts on his development of a dual level theory of new literacies, in which literacy was recognised as a continuously evolving practice with new possibilities for literacy teaching and learning emerging as new technologies are designed and embraced. My experiences thus far, and these conversations, motivated me to begin my PhD study focused on the relationship between literacy and technology and the possibilities for literary text construction.

During the initial stages of my research, the AC:E was implemented. As a teacher educator I was deeply immersed in considering what this new curriculum policy meant. In particular, I was interested in the new skills and knowledge children were expected to have and what teachers were expected to teach. I focused my attention on the increased prominence of literary texts in this curriculum. I was also drawn to the notion of digital texts, specifically the expectation that children should create them. I noted the use of the words 'create' and 'construct' to refer to 'writing' and the spoken, written and multimodal texts children were expected to construct. I began to read in areas such as multimodality (Bull & Anstey, 2010; Jewitt, 2006), digital writing (Merchant, 2007) and new literacies (Leu et al., 2013), only to realise there was limited research devoted to the construction of digital literary texts, particularly in relation to primary aged children. This journey brought me to the inquiry presented here, which explores the literacy practices children enacted during digital literary text construction.

Significance

This inquiry responds to calls for further research that explores the nexus of digital technology and literary text construction. Prior research has shown that the construction of digital texts requires a broadening of composition to include, for

example, visual design (Kress & van Leeuwen, 2001) and choice of mediums (Burn & Durrant, 2007), resulting in new and multiple ways of being skilled in writing (Burnett & Merchant, 2015). This is highlighted in the AC:E, with content descriptors describing expectations related to multiple text features, such as visual images, soundtracks and spoken words (ACARA, 2015). However, educators are given little advice on what new practices and resources young authors require for constructing such digital text features. This is certainly the case for the text form of digital literary text, which as a result of the digital environment now demands that new features be created.

In this inquiry the literacy experiences of six Year 5 children as they construct their own digital literary texts will provide insights into the processes children engage with, the modes enacted and the decisions made regarding the selection and use of resources to construct their own digital literary texts. The findings of this inquiry support theoretical perspectives of literacy and research, AC:E policy and classroom practice. Understanding the literacy practices that children enact in consideration of AC:E requirements is valuable for educators involved in the design and implementation of teaching and learning opportunities required to enable children to successfully author digital literary texts. Further, the findings should provide important insights into the relationship between the context of the classroom and the literacy behaviours of the children as they construct digital literary texts. Such insights provide valuable contributions to theory associated with literacy as social practice and new literacies. Both areas of theory will be now discussed as the two theoretical orientations of the inquiry.

Theoretical underpinnings

The theoretical framework employed in this qualitative inquiry is informed by two orientations: literacy as social practice and new literacies. Literacy as social practice recognises that literacy varies according to circumstances and context (e.g., Comber & McCormick, 1997; Grenfell, Bloome, Hardy, Pahl, Rowsell, & Street, 2012) and that we use a multiplicity of literacies in real world contexts to get things done (e.g., Barton &

Hamilton, 2000). Literacy as social practice offers a powerful way of theorising the relationship in this inquiry between the writing practices that the children enacted during digital literary text construction and the social structures within which they learn.

As a complementary area of theory, new literacies theory informs this inquiry by considering the ways writing practices evolve within the digital environment. The theoretical lens of new literacies uses advances in digital technology to explore traditional and established forms of literacy as well as those that are developing and evolving based on technology (Kalantzis & Cope, 2012; Lankshear & Knobel, 2011; Leu et al., 2013). Together, these theoretical orientations recognise literacy as being mediated by digital technology and that consequently, new social literacy practices are needed that may differ fundamentally from traditional print-based practices.

Methodological approach

This inquiry takes place within a social constructivist paradigm because it situates the social context of learning within the environment in which it is learned (Vygotsky, 1986). Because the inquiry examined the detailed understandings of six children in their respective environments, a deep understanding of current practices in their learning context could be explored.

The inquiry employed a qualitative research approach, incorporating ethnographic principles and case study methodology. Given the research site was a primary school classroom, careful consideration of the sensitive nature of this site was required. The research design was guided by the ethnographic principles of understanding and interpreting multiple realities; fieldwork; empathy; multiple data collection procedures; and emic and etic perspectives. The six digital literary texts constructed by six Year 5 children formed the bounded collective case study.

Data collection methods included semi-structured interviews with the teacher and the

children; structured and unstructured observations; and artefact and work sample collection. These data collection methods, in connection with collective case study methodology, were used to explore the phenomenon of digital literary text construction. The data obtained by studying the literacy practices associated with the construction of six different texts allowed for multiple facets of the phenomenon to be understood (Stake, 2000).

Data collection was focused on two planned literacy events designed to engage children in the process of creating digital literary text. Firstly, the deconstruction of two digital literary texts and secondly, the primary event, which flowed from this deconstruction, the construction of new digital literary texts. Further data were collected to explore the classroom context, past experiences and reflections of the participants.

In consideration of the inquiry's theoretical orientation based on literacy as social practice and new literacies, social context was used to frame analytical procedures. In this way data collected on the literacy practices used in digital literary text construction were analysed within the context in which they were learned.

Locus of the inquiry

School Site: The inquiry is based in a primary school located in a small coastal town in New South Wales, Australia. The school caters for children from kindergarten to Year 6 and was a single stream school, in that one class is offered per year level. At the time of the inquiry the primary school had approximately 300 students enrolled, one principal, one assistant principal, 16 teachers and six support staff. The school's Index of Community Socio-Educational Advantage (ICSEA) was 1114. This was 114 points above the average for Australian schools.

Classroom Site: The inquiry was based in a Year 5 classroom in the final term of the school year. At the time of the inquiry the classroom had 27 students and was in the

first year of implementation of a one-to-one iPad program in Year 5. All children had their own iPads, which they brought to school each day with the understanding it would be integrated into their teaching and learning activities.

Participants: One teacher and six children from this Year 5 classroom participated in the inquiry. The teacher, who had over 20 years of teaching experience, selected six Year 5 children to participate, based on their confidence in literacy and technology use. All six children came from technologically rich households and represented a mix of literacy abilities, with most working at or slightly above the minimum national expected levels of achievement for Year 5 according to The National Assessment Program- Literacy and Numeracy (NAPLAN).

Definition of terms

Below is a list of significant terms used throughout the thesis. Further, a glossary of terms is provided as Appendix A and includes key delineations of terms commonly used in the literature but often misunderstood in the field.

Digital literary text

For the purposes of this inquiry and in consideration of definitions of literary text and digital text in the literature, a digital literary text is defined as a story using a series of events that entertain or evoke an emotional response (Derewianka, 1991), told in written, oral, visual and/or multimodal modes that is produced through digital or electronic technology (ACARA, 2015).

Writing

This inquiry, in consideration of the AC:E (ACARA, 2015) acknowledges the breadth of the term writing to include both writing and creating. In this way writing is defined across both print and digital text forms and includes the creation of multimodal digital forms.

Writing practices

This term is used here to describe the way that the participants use literacy to construct text. The term is derived from the work on literacy as social practice in which literacy practice is defined as the knowledge, attitudes and beliefs associated with reading and writing texts within particular contexts (Barton, Hamilton, & Ivanic, 2000; Baynham, 1995; Street 1984).

Resources

Resources in this inquiry are defined as the material tools, such as apps, screens, paper, texts and software that are available to the participants.

Deconstruction of digital literary texts

Deconstruction in this inquiry refers to an experience where a child and the researcher explore a digital literary text to examine the social context and purpose of the text and the ways the structural and multimodal features were employed to make meaning.

Construction of digital literary texts

Construction in this inquiry is defined as the process children enacted to construct their own texts.

Index of Community Socio-Educational Advantage (ICSEA)

The ICSEA represents a numerical value relative to student and school-level factors such as demographics and family backgrounds. ICSEA values typically range from approximately 500 (representing extremely educationally disadvantaged backgrounds) to about 1300 (representing schools with students with very educationally advantaged backgrounds). According to this index the research site had students from educationally advantaged backgrounds.

Thesis overview

Chapter 1: Introduction

This first chapter explains the purpose of the inquiry and outlines the significance of exploring the literacy practices associated with digital literary text construction. The theoretical and methodological stance taken in this thesis is outlined and will be further explained in the following chapters.

Chapter 2: Theoretical orientation and review of the literature

This chapter positions the inquiry within the theoretical orientation of literacy as social practice and new literacies. The review of the literature also situates the inquiry within the broader context of education, the changing nature of literacies and digital text construction. It discusses the nature of writing in a digital environment by exploring the notion of text, with a specific focus on literary texts and the common text features associated with this form of text when produced in a digital space. It identifies key considerations for classroom practice and highlights the paucity of research focused on the construction of digital literary texts.

Chapter 3: Methodology

This chapter describes the methods used in data collection and introduces the research site and participants. Utilising a qualitative case study approach underpinned by ethnographic principles, data collection methodologies of teacher and child interviews, classroom observations, field notes and artefact and work sample collections are shared. The research activities and extended literacy events of data collection are discussed in detail. Each of these methods is explained and justified. Additionally, organisational and analytical procedures are presented and explained. Finally, the parameters, ethical considerations and credibility are addressed.

Chapter 4: Findings

Chapter Four reports the findings from the inquiry. The chapter begins by presenting the findings related to the classroom context in which children learned. An exploration

of the classroom teacher's literacy pedagogy, beliefs and assumptions, and the integration of technology throughout the literacy program are shared in order to fully understand the past and current experiences of the child participants. Next, individual case portraits examining the construction of each digital literary text are reported. An introduction to each author, an overview of the text and an exploration of the literacy practice and resources enacted during text construction are shared. Each case portrait concludes with an interpretative summary.

Chapter 5: Discussion and conclusion

In the final chapter of this thesis, analysis from the collective case study is drawn on to make connections between and across cases in order to respond to the two research questions. The process of analysis revealed important insights associated with the literacy practices enacted by the six Year 5 children as they constructed their own digital literary texts. Further, insights in connection to resource selection and use are discussed. These understandings are presented as a model to guide resources for digital literary text construction. Implications for theory, policy and practice are also discussed before concluding comments in relation to the inquiry's framing research questions.

CHAPTER 2: THEORETICAL ORIENTATION AND REVIEW OF LITERATURE

Chapter introduction

Contemporary understandings of literacy are shaped by rapid technological advancements. Such changes contribute to the ways children learn and educators teach literacy. This inquiry is concerned with the literacy practices Year 5 children enact during digital literary text construction at school. The aim of this chapter is to contextualise the inquiry in connection with theoretical and research orientations. The contexts of education, and the changing nature of literacies and digital text construction, are examined.

This chapter begins by positioning the inquiry within the theoretical perspective of literacy as social practice. From this perspective literacy is conceptualised as referring to practices that are grounded in specific social and cultural contexts. As this inquiry is concerned with literacy practices in the digital environment, the theoretical and conceptual work of new literacies are discussed to complement literacy as a social practice to examine the literacy practices mediated by digital technology. This is followed by a review of the literature.

In the review, literature associated with writing in the digital environment will firstly be considered to explore how the literacy practices of digital text construction have been researched and understood prior to this inquiry. The notion of text, and specifically digital literary texts for children, is then considered as a way to explore changes in the ways texts are created and shared. A narrower focus then affords an exploration of the practices associated with digital literary text elements of modes, media, interactivity and intertextuality.

Finally, key considerations for classroom practice of digital literary text construction are explored. What becomes clear is that although literature based on the nexus of technology and literacy guides much of the literature review, there is a paucity of literature related to literacy practices associated with the construction of digital literary texts. Figure 2.1 provides an overview of the theoretical orientation and review of literature of the inquiry.

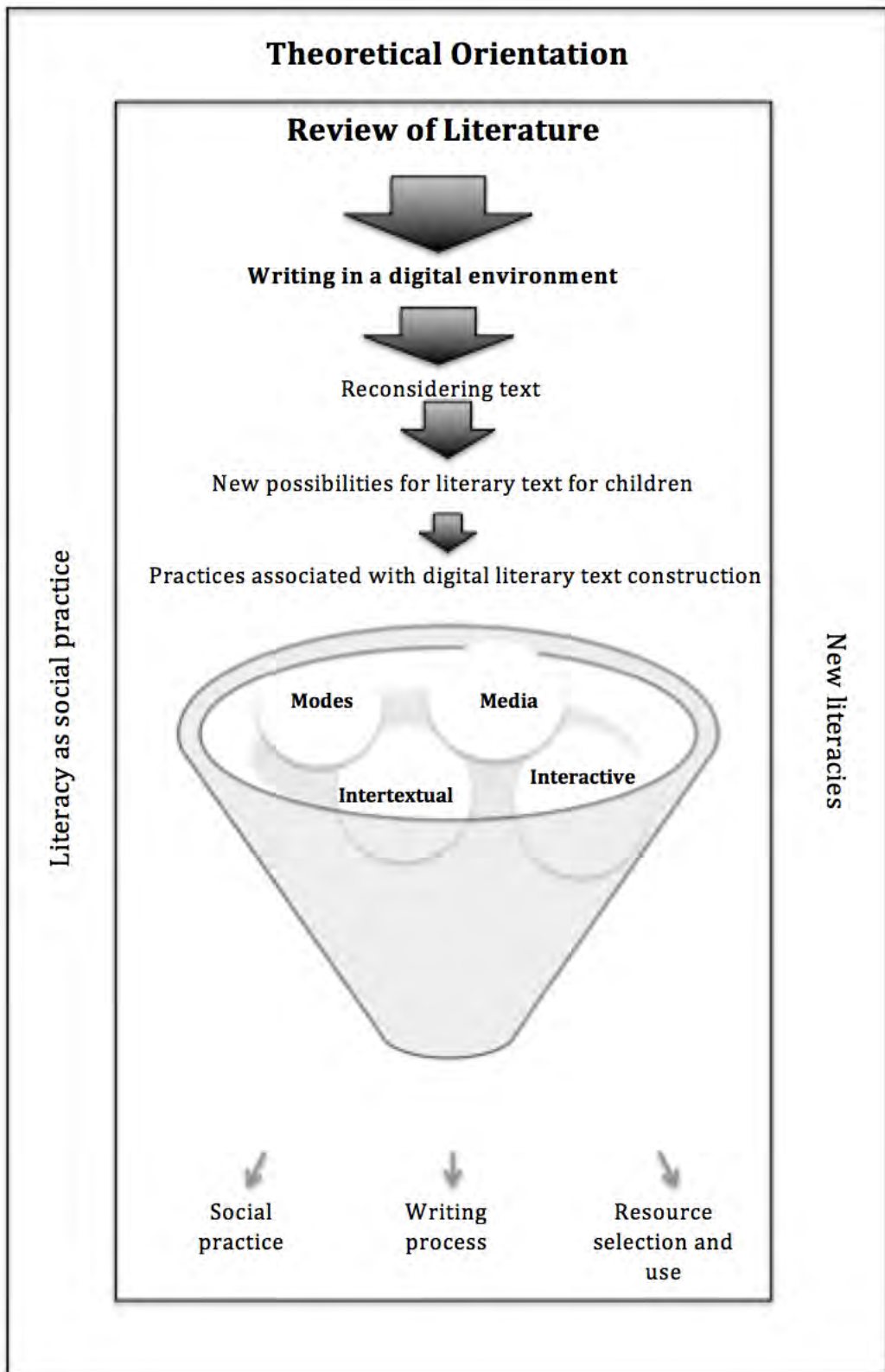


Figure 2.1: Overview of the orientation of the inquiry

Theoretical orientation of the inquiry

This inquiry draws upon theoretical orientations of literacy as social practice and new literacies perspectives. Literacy as social practice recognises that individuals and groups construct literacy in everyday life. The focus is on how literacy is used in different contexts and how it is taught, learned and practised across different communities (Comber & McCormick, 1997). Much of the theorising of this perspective has focused on families and out-of-school and community contexts (e.g., Barton & Hamilton, 1998; Heath, 1983; Street, 1984). However, understanding the ways children use literacy in educational contexts plays a key role in ensuring literacy education is meaningful and relevant to contemporary societal and curriculum demands. This perspective informs the inquiry by focusing on the literacy practices children utilise during digital literary text construction, a curriculum requirement in Australian primary schools. When focusing on literacy practices in a social practice paradigm, the literacy practices explored are best understood as a set of social practices that are embedded in the social and cultural contexts unique to each individual student and the group as a whole (Barton & Hamilton, 2000).

The theoretical lens of new literacies also informs this inquiry as it considers the ways literacy practices continue to evolve, particularly in relation to digital technologies. New literacies researchers seek to explore the ways societies produce, negotiate, distribute and share meaning in new times, often looking beyond the present and into the foreseeable future (Knobel & Lankshear, 2014). Further, Hamilton (2010), who investigates new literacies, suggests focusing on the participants, settings, resources and activities in use in social practices. This inquiry is concerned with the literacy practices that Year 5 children use in their school context to create a literary text mediated by digital technology. Considering literacy as a social practice and new literacies as complementary theoretical perspectives recognises that literacy is mediated by digital technology and consequently identifies new social literacy practices that are needed.

This chapter will now discuss literacy as it considers the shift to a perspective, which sees literacy as a social practice, acknowledging that literacy is highly contextual and ever changing. It then explores new literacies and positions them as social practices, bringing together the theoretical perspective that is informed by a social constructivist paradigm and new digital technologies.

Literacy as social practice

Literacy is socially constructed. This view acknowledges that literacy varies according to circumstances such as place, purpose, culture and power relations (Comber & McCormick, 1997). We use a multiplicity of literacies in real world contexts to get things done (Barton & Hamilton, 2000) and literacy learning is dependent on the contexts in which it is learnt (Grenfell et al., 2012). Social contexts organise literacy.

This view is in contrast to a technical or physiological literacy perspective, which assumes that achieving the status of being literate requires targeted psychological skills and processes (Anderson, 1980; Bear, Invernizzi, Templton & Johnston, 2000) to decode and encode texts and emphasises letter word recognition, automaticity, schemas and stages of skill learning (Purcell Gates, Jacobson & Degener, 2009). This perspective has shaped the educational sector in many ways where the degree to which students acquire technical and psychological skills depends on the effectiveness of the education of students. This is reflected in literacy policies, such as the National Reading Panel (National Institute of Child Health and Human Development, 2000) and the National Early Literacy Panel (2008), which focus exclusively on constrained skills that are taught and mastered (Paris, 2005) such as phonics and comprehension strategies.

This inquiry considers that viewing literacy, as only a technical or psychological perspective, does not explain why some people learn to read easily and why others don't, or the "different uses to which different groups of people put literacy" (Comber & Cormack, 1997, p.22). Street (1984) argues that a single perspective on the accumulation of item knowledge ignores social contexts and various social purposes.

The relationship between human practice and producing and sharing meaning (Lankshear & Snyder, 2000) is missing in a technical and physiological literacy perspective.

While a technical literacy perspective contrasts with literacy as a social practice, both technical and social literacy perspectives have contributed to literacy learning today. For example, literacy knowledge and skills are valued within both perspectives, however are taught in different ways. A technical based approach views learning as a series of discrete skills, taught sequentially through a developmental continuum of learning. There are clear expectations for mastery of the skills with a focus on repetition of instruction until a level of automaticity of the learned skill is reached (Anderson, 1980; Bear, Invernizzi, Templton & Johnston, 2000). The focus on a clear predetermined series of skills and a scope and sequence for teaching these skills has been seen as an advantage of this perspective (Flint, Kitson, Lowe & Shaw, 2014). On the other hand, social practice to literacy is more concerned with a contextualised approach to literacy learning. In this perspective literacy knowledge and skills are taught within broader representations of text with a focus on meaning making (Edwards-Groves, 2010; Kalantzis & Cope, 2012). This perspective is valued for a focus on access to a variety of texts for different purposes and language systems such as reading, writing, speaking and listening seen as interrelated components of literacy learning (Goodman, 1986). Inquiries in how children learn literacy continue to spark questions and debate in research, politics, curriculum policy and schools. Negotiating these different perspectives becomes a crucial aspect for literacy research.

This inquiry uses literacy as social practice as its theoretical frame. When literacy is viewed as a social practice, the scope of what counts as literacy broadens, and literacy practices across communication processes of reading, viewing, writing, creating, talking and listening, are seen as interrelating human acts of making and producing meaning. Literacy in this way is therefore always contested both within meaning and in practice (Street, 2003), and particular views of literacy are situated within the context they are learned.

Much of the theoretical and conceptual work of literacy as social practice came together in the 1980s as an explicit challenge to the psychological and technical explanations of literacy acquisition. Brandt and Clinton (2002) observe that perspectives on the social practice of literacy gained momentum in the late 1970s early 1980s as a challenge to previous perspectives that isolated literacy from its social and cultural contexts. These new views were based on the work of social anthropologists (e.g., Street, 1984), sociologists (e.g., Freebody, Luke & Gilbert, 1991), educational ethnographers (e.g., Heath, 1983) and linguists (e.g., Barton & Hamilton, 1998). More recently, the perspective which views literacy as a social practice has come to be termed New Literacy Studies (NLS) (Gee, 2007, Street, 2003) and researchers (e.g., Barton & Hamilton, 1998; Janks, 2010; Lankshear & Knobel, 2006; Pahl & Rowsell, 2010) have explored what it means to think of literacy as a social practice. Street (2003) explains:

What has come to be termed the “New Literacy Studies” (NLS) (Gee, 1991) represents a new tradition in considering the nature of literacy, focusing not so much on acquisition of skills, as in dominant approaches, but rather on what it means to think of literacy as a social practice (Street, 1984). This entails the recognition of multiple literacies, varying according to time and space, but also contested in relations of power...and asking “whose literacies” are dominant and whose are marginalized or resistant. (p. 77)

In this way, the term New Literacy Studies is equivalent to literacy as social practice with the adjective ‘new’ indicating a new paradigm of literacy compared to what was already established based on technical and psychological perspectives (Lankshear & Knobel, 2003). The emphasis on a social-cultural perspective helps explain what types of knowledge are necessary for effective literacy practices (Anderson, Purcell-Gates, Gagne & Jang, 2009).

In respect to this inquiry the literacy practices that are explored and analysed are therefore a consequence of the individual children within the inquiry and the context and relationship of the literacy events in which they participated. Literacy practices

and events, as aspects of literacy as social practice, will now be defined and explained to inform the conceptual relationship between the activities of digital text construction in this inquiry and the social structures in which they were embedded and shaped.

Literacy events and practices

Researchers of social theories of literacy often use literacy events and literacy practices as the units of analysis (e.g., Barton & Hamilton, 1998; Neuman & Roskos, 1997; Street & Baker, 2006). Literacy events are “observable episodes” (Barton et al., 2000, p. 8). In other words they are activities in which literacy has a role. Literacy events are embedded in larger contexts and domains, such as schools, worksites and communities (Barton & Hamilton 1998; Street 2003). Therefore, literacy can never be regarded as neutral but is instead shaped by the contexts in which they operate. The concept of literacy practices has been reworked over the years (Lankshear & Knobel, 2011), but originated from the work of Scribner and Cole (1981) who describes literacy practices as “socially recognised patterns of activity” (p. 236) used through the medium of texts. More recently and specifically related to literacy as social practice, Barton, Hamilton and Ivanic (2000) define literacy practices as “general cultural ways of utilising written language which people draw upon in their lives. In the simplest sense, they are what people do with literacy” (p. 7). Literacy practices include the construction of skills, values, attitudes and understandings associated with texts within specific contexts (Barton & Hamilton 1998; Street 1984). For this reason literacy practices are usually inferred from observable evidence. This is because they involve practices that are difficult to physically observe such as values, beliefs and feelings (Street, 1993) and are fluid and they change according to the context in which they occur (Barton, Hamilton, & Ivanic, 2000). To avoid confusion, it is worth noting that literacy practices in this inquiry do not therefore, refer to something learnt by repetition or a common set of activities, but instead the term refers to the social contexts in which the participants use literacy. Research into literacy practices use observations to collect observable data from literacy events.

Texts play a central role in literacy events and practices with the events usually described according to those using texts, and where and how texts are used (Hamilton, 2010). In this way Barton and colleagues (2000), contend they “are observable in events which are mediated by written text” (p. 9). Blommaert (2008) argues that in many literacy studies, texts, the products of literacy, have been artificially separated from practices. Instead she suggests researchers should use text to uncover literacy practice by participants.

This inquiry explores the literacy events and the associated literacy practices that a group of Year 5 children enacted during the construction of digital literary texts. In this inquiry the moment of constructing a digital literary text is described as a literacy event, an event in which literacy is mediated by text. The construction process draws on a child’s experiences of literacy practices, particularly the practice of writing, which will be observed and inferred from the literacy event. Whilst some literacy practices may be observable, others, such as a child’s values, must be inferred as a result of unobservable beliefs and power structures (Barton, et al., 2000). In this way literacy in this inquiry is described, not as a universal set of skills learned, but as social and cultural practices and events of text. When researchers understand the different ways in which children practise literacy within the contexts in which they exist, in this case the school in which they learn, research is able to provide educators with findings on how best to tailor literacy instruction to meet the multiple needs of learners in their classrooms.

New literacies as social literacy practice

As a theoretical construct, new literacies is integral to literacy as social practice in the understanding that literacy events and practices change and new literacies emerge through the changing nature of its context. In this inquiry, the changing context is the ways technology may be utilised in the construction of text.

As a construct, new literacies theory is highly contested terrain with multiple standpoints being offered by scholars. Some are focused on the technological influences on literacy (e.g. Abraham, 2008; Beavis & O’Mara, 2010; Coiro & Dobler,

2007; Henry, 2006) while others are broader, and more concerned with conceptual and theoretical insights into the changing nature of literacy (e.g. Gee 2007; Kalantzis & Cope, 2012; Kress, 2003). Lankshear and Knobel (2011) view the term 'new' in new literacies in two ways: paradigmatic and ontological. The paradigmatic view refers to the new research paradigm within which researchers explore a more expansive view of situated literacy that extends beyond technical and psycholinguistic processes. New Literacy Studies (Gee, 1991) is an example of this paradigmatic shift where the 'new' defines a shift from an existing orthodoxy of technical and psychological development to multiple literacies that vary according to time and space. The view of 'new' is considered as "different kinds of 'stuff' from conventional literacies we have known in the past" (Lankshear & Knobel, 2011, p. 28) with an emphasis on how technology impacts literacy-related social practices and what new literacy practices are used and required. The ontological concept emphasises the ways technology impacts literacy related social practices and considers what new literacy practices are used and required.

Not all researchers are convinced that thinking in terms of new and traditional practices is worthwhile. Carrington and Robinson (2009) argue that either/or thinking about print and digital literacies is outmoded, as different contexts call on different skill sets. Similarly, Leander's (2009) claim that parallel pedagogy, wherein print and digital technologies are "fruitfully taught side-by-side, rather than the 'old' being a precursor to the new or being replaced by it" (p. 149) is a more useful way to consider changes in literacy. Further, Levinson (1999) and Manovich (2002) explain that new literacies simply connect with slips and slides over traditional literacies, suggesting that there is no significant time or space that can capture what is traditional and what is new. Technologies, however, have brought change on an unprecedented scale to literacy learning, and although it may be difficult to determine exactly which literacy practices are 'new' and which are 'traditional', acknowledging and being able to continuously adapt to the literacies required by new technologies is critical. Lankshear and Knobel (2011) provide some useful guidance for considering this binary by explaining that thinking in terms of a continuum between ongoing changes and

different literacy paradigms. In this way the emergence and maturation of literacies is dynamic and changes continually according to the context in which they are used.

Leu and colleagues (2013) have conceptualised New Literacies as a theoretical construct to respond to the shifts in literacies in societies. Eight principles underpin the essence of this theory (see Figure 2.2) as a way to explain the impact of digital technologies on literacy learning and the changing demands for participation in society.

New Literacies theory	1. The Internet is this generation's defining technology for literacy and learning within our global community.
	2. The Internet and related technologies require new literacies to fully access their potential.
	3. New literacies are deictic.
	4. New literacies are multiple, multimodal, and multifaceted, and, as a result, our understanding of them benefits from multiple points of view.
	5. Critical literacies are central to new literacies.
	6. New forms of strategic knowledge are required with new literacies.
	7. New social practices are a central element of new literacies.
	8. Teachers become more important, though their role changes, within new literacy classrooms.

Figure 2.2: Eight principles of New Literacies theory

Much of the research considered within New Literacies theory is focussed on information and Internet based text (e.g., Leu et al 2004; Flanagin & Metzger, 2010; Rouet, Ros, Gourimi, Macedo-Rouet & Dinet, 2011; Killi, Laurinen, Marttunen & Leu, 2012). While these studies offer important insights into the digital demands of such texts, a focus on the unique and complex nature of digital literary texts is not apparent. Further, New Literacies studies have a strong association with reading research (e.g., Afflerbach & Cho, 2008; Coiro, 2003; Coiro & Dobler, 2007; Hartman,

Morsink & Zheng, 2010). While these findings inform understandings about the reading and extraction of information related to research skills such as key terms and the reliability of a text, there is far less research to describe the specific practices and resources children must negotiate as they plan, produce and share text in a digital environment (Dezuanni, 2015). This inquiry therefore draws on four of the New Literacies principles to inform the inquiry and expand New Literacies theory by exploring the writing practices enacted by six Year 5 children as they construct their own digital literary text. These four principles will now be discussed and considered in the frame of the current inquiry.

Principle 4. New literacies are multiple, multimodal, and multifaceted, and, as a result, our understanding of them benefits from multiple points of view New Literacies theory categorises the multiplicity of new literacies on three levels; multiple representation of meaning, multiple usage of tools and multiple social practices needed to encounter a wide range of social contexts (Leu et al., 2013).

Representation of meaning: texts in the digital environment often draw on multiple modalities such as text, image and audio (Cope & Kalantzis, 2009). In comparison to traditional paper based methods, these new combinations challenge users' traditional understandings about how information is represented and shared with others (Jewitt & Kress, 2003).

Multiple usage of tools: proficient Internet users must use multiple tools to construct meaning but also to design, manipulate and upload their own contributions to the growing body of information that defines the digital environment (Leu et al., 2013).

Multiple social practices: the range of social contexts where users share and encounter information have important implications for consumers, in particular the need to become more critically aware of the social and cultural influences that impact the construction of information found on the Internet (Henry, 2006; Leu et al., 2013)

In this inquiry, exploring the writing practices of six Year 5 children as they construct

their own digital literary text will aid in understanding the multiple modes, resources and practices used to create and share meaning during digital literary text construction.

Principle 6. New forms of strategic knowledge are required with new literacies.

Technology is diverse and requires users to be skilled using different strategies in different contexts in order to construct meaning of what they are reading and creating (Coiro & Dobler, 2007; Leu et al., 2013; Reinking, 1998). Therefore new literacies are often defined around the strategic knowledge that is central to their ever-changing environment.

In this inquiry a close examination of the writing practices the Year 5 children enact during digital literary text construction will be explored and considered in order to understand possible new forms of writing practices children require to construct such texts.

Principle 7. New social practices are a central element of new literacies

New literacies enable the construction, access and sharing of information in very different ways than have traditionally been possible. As a result, new social practices of literacy emerge (Gee, 2007; Lankshear & Knobel, 2003; Leu et al., 2013; Street, 2003), in particular for students and teachers in schools. In the classroom, social learning plays an important role in the exchange of skills and strategies and has often focused on the role of the teacher possessing the knowledge. This is no longer possible, in the world of new literacies as the construction of knowledge will be increasingly collaborative (Leu et al., 2013). Consequently learning experiences are dependent on social practices between students and teacher (Leu et al., 2013).

In this inquiry the writing practices of participants will be considered through the theoretical lens of literacy as social practice theoretical acknowledging that literacy practices are highly contextual and interwoven in the experiences and values of each participants.

Principle 8. Teachers become more important, though their role changes, within new literacy classrooms

The central role a teacher plays is of critical importance within the new literacies classroom. Educators must be aware of evolving technologies, be capable of using and teaching the new literacies required of them and be proficient at supporting the learning needs of students in the classroom when reading and creating digital texts (Coiro & Fogleman, 2011; Leu et al., 2013).

In this inquiry the classroom teacher of the six participating children is interviewed to understand the literacy learning opportunities associated with digital literary texts the teacher has provided for the children leading up to this inquiry.

An integration of theoretical orientations

This inquiry draws together theories of literacy as social practice and new literacies, in recognition that literacy is mediated by digital technology and as a result new social literacy practices emerge. Figure 2.3 demonstrates the relationship between the theories, where new literacies is embedded within the theory of literacy as social practice.



Figure 2.3: Integration of theoretical orientations

Positioning new literacies within the orientation of literacy as social practice offers a powerful way of theorising the literacy practices the children as participants enact during digital literary text construction. By situating context and relationships of the participants as significant factors of the inquiry, the new literacies practices of the literacy event of digital literary text construction is understood as a set of social practices that change as new text forms, tools and processes emerge.

Review of literature

Since this inquiry focuses on digital literary text construction, the review of the literature used to inform it begins with a discussion about writing in a digital environment. Guided by the assumption that different texts draw upon different sets of writing practices, this study examines the changing nature of text and possible associated literacy practices. To conclude, classroom practice related to digital text construction is considered. In this way, the need for additional research attention to digital literary text construction will be assessed in relation to the emerging research associated with new literacies and digital writing.

Writing in a digital environment

Writing digitally differs from print composition in terms of both the processes enacted and resources used. Navigating the myriad of different modes of language in the technological space requires literacies that move beyond a reliance on written language alone and instead includes new ways of creating and sharing meaning as image, audio and written and oral language come to the forefront.

These changes in the formats, uses, and technologies of writing have raised fundamental questions about the nature of writing education in schools today (Emmitt et al., 2015; Ljungdahl & March, 2010). For example, Edwards-Groves (2012) argues that the term 'writing' is now not adequate to describe the construction, composition and creation of the texts that children are required to produce with visual, audio and written modes on digital platforms. Grabill and Hicks (2005) suggest that the rhetoric associated with the teaching of writing must change to one of production (e.g.,

resources), distribution (e.g., online) and delivery (e.g., media) to accommodate the broadened formats of text and writing practices utilised in digital spaces. Likewise Woods, Comber and Kervin (2015) call for a focus on 'text production' rather than 'writing'.

Recent research has provided evidence of how the affordances of digital resources support digital writing. This research has involved recorded oral rehearsal talk (Bogard & McMackin, 2012), collaboration through blogs and wikis (Boling et al., 2008; McGrail & Davis, 2011; Woo et al., 2011), and planning via multi-media graphic organisers (Lorenz, Green, & Brown, 2009). Further, studies positing the effects of digital technology on student's collaboration (Jenkin, 2009; McKeon, 2001; Sabatino, 2014; Siraj-Blatchford, 2009), creativity and motivation (Clarke & Besnoy, 2010; Hutchison, Beschorner, & Schmidt-Crawford, 2012) and problem solving (Marsh & Hallett, 2009) have emerged informing educators on critical practices of digital text construction. However, such research does not discuss the implications of technology to digital *literary* text construction. It seems therefore that in order to understand the new skills, knowledge, resources and decisions young authors require when writing literary text digitally, the often unfixed, non-linear and multidimensional qualities of digital text must also be explored. This inquiry is not focused only on the features of digital literary text, but also on understanding how technology is shaping the meaning making elements of this text to mediate new ways of thinking about writing practices.

Reconsidering text

Texts play a central role in providing a medium through which meaning is created and shared between a writer and an audience. While text is a common form of communication, its definition has broadened. Historically the concept of text has been positioned in print (Kress, 2003). However, today with technological advancements, texts are much more than individual words or images (Larson, 2010) and the concept has broadened to move beyond the borders and boundaries of print to incorporate communication through written words (print), oral language, images (both still and moving) and audio recordings that are developed, shared and disseminated on a screen. As such, studies such as Callahan and King (2011), who explored the concept of

remix in poetry text in Year 9 and 10 classrooms, are beginning to question what now defines what we have traditionally known as text and how technology functions within traditional paper based text elements.

Print-based text is often described as static, as it stays the same each time it is accessed (Schmar-Dobler, 2003). In this way it is temporally and physically bound. In contrast, digital text is often dynamic and unbound in time and space (Dalton & Proctor, 2008) because it is easily modified or updated and can be shared in multiple forums simultaneously.

Print-based text is often described as linear in structure, in that the making of meaning relies on the reader following the intended pathway of the author. However, the high reliance in digital texts on hyperlinks, moving images, and interactive animations alters the ways meaning is created and shared. For example, hyperlinks embedded in text alter the pathways used to create and share meaning by often linking to additional texts. By selecting links in a variety of sequences, the intended path of the author or other readers may be altered (Coiro, 2003). In this way intertextuality is increased, as easily accessible content is distributed and used (Goldsmith, 2011).

Further, digital text often includes a more complex multimodal ensemble of predominantly written, oral, visual and audio modes than print-based text (Kalantzis & Cope, 2012; Wyatt-Smith & Kimber, 2009). Cope and Kalantzis (2000) suggest these digital features hold promise for deepening and enhancing our meaning making practices, but are complex in design and distribution. Moreover, digital text includes rich multimedia such as graphics and videos. Studies have begun to document the development the choices that media writers make as they compose texts (e.g., Burn, 2008; Snyder & Prinsloo, 2007).

Changes to the textual environment have transformed what children learn about texts classrooms today. The meaning of the term 'text' in AC:E documents now implies many and varied forms of communication:

Texts can be written, spoken or multimodal and in print or digital/online forms.

Multimodal texts combine language with other systems for communication, such as print text, visual images, soundtrack and spoken word as in film or computer presentation media (ACARA, 2015).

Further, findings from digital writing studies demonstrate the importance of expanding the definition of text in order to scaffold children's understandings of meaning making practices (Edwards-Groves, 2011; Ranker, 2007; Schaenen, 2013). Because this inquiry is situated within the textual form of children's digital literary texts, and it assumes that different texts require different practices, digital literary texts will now be explored.

New possibilities for literary text

Literary texts tell stories that include a series of events that entertain or evoke an emotional response (ACARA, 2015; Derewianka, 1991) and are often multilayered with multiple levels of meaning (Ewing, Miller, & Saxton, 2008). They can be in the form of traditional tales, such as myths, epics and dreamtime stories. These stories are handed down from one generation to another, connecting to the past, cultural identities and national heritage (Short, Lynch-Born & Tomlinson, 2015). More contemporary literary texts include modern day stories such as post- modern picture storybooks and graphic novels. Such stories often reflect the multimodal and fragmented nature of modern society with frequent changes in attitudes, styles and knowledge (Short et al., 2015).

Literary texts for children are valued for their social and cultural values. Socially they are a powerful part of a child's development because they are central to making sense of the world (Bruner, 1986). Culturally, literary texts are highly valued as they are symptomatic of the values, attitudes and beliefs of the culture and subculture in which they are produced (Rossbridge & Rushton, 2014). A child's encounters with literary text helps shape their experiences by not only recounting their own cultures but also of the world's culture in other contexts (Madej, 2008).

Literary elements of plot, character, setting, theme and style (Short et al., 2015) are common features of literary text and provide writers with structures when writing. Multiple storylines and perspectives contribute to the plot, often producing conflict to

build the excitement and suspense literary texts are renowned for (Ewing, Miller, & Saxton, 2008). Descriptive language is often used to create a strong aesthetic appeal to a reader with adverbial phrases and clauses, clauses, similes and dialogue often used extensively through the text (Wing Jan, 2009).

Literary techniques or devices such as irony, contradictions (Goldstone, 2004), metaphors, symbolism and idioms are used to enrich the text expressing artistic meaning through the use of language. Illustrations are often used to support meaning making and the aesthetic value of literary text (Short et al., 2015).

Literary text can include spoken, written and visual language and can be published in oral, print or digital form. This inquiry takes a focus on digital literary text and the ways children create them. Like all literary texts, a digital literary text will encompass literary elements and devices, and these are combined with the viewing platform of digital technology, such as a computer, television or touch device. Digital literary texts may be published in an open networked system such as the Internet or a closed electronic system such as an application on an iPad. Examples of children's digital literary texts include eBooks, story apps, short films and hypermedia websites. Because of the relatively rapid emergence of technology, children's digital literary texts tend to be contemporary literary stories rather than the traditional canon. Such stories often reflect the multimodal and fragmented nature of modern society, with frequent changes in attitudes, styles and knowledge (Short, Lynch-Born & Tomlinson, 2015). Multiple digital features such as animation and narration accompany storylines and perspectives with literary devices such as irony and contradiction (Goldstone, 2004). Additionally, images, while not a set feature of digital literary texts, are common. These images may be produced as still or moving compositions.

The digitisation of digital literary text varies from print-based literary formats for dissemination to a networked audience, to the creation of interactive, multimodal and intertextual formats using sophisticated software that provides new options for design (Serafini, 2015). Using the term 'electronic literary texts', Unsworth (2006), identifies three main representations of digital literary texts. The first is electronically

augmented texts and refers to literary texts that are published in book form but are augmented with the online resources to extend the original text. An example is a picture-story book published online with the addition of a narrator reading the story. These forms of digital literary texts are often static and include words and still images with minimal changes to the print-based digital form. The second category is re-contextualised literary texts, in which the story was originally published in paper form but republished for the screen. In this category the digital format can take a variety of forms, most commonly, eBooks and story apps. Examples are re-contextualised texts using images, narration and interactivity in new ways. An example is hypermedia websites for children that include various online stories. These stories are often developed after the story has been published in print and can include visuals transformed from static presentations into dynamic, interactive moving images to which narration can be added. Others involve more subtle changes such as new images added or icons designed to support navigation. The third category is digitally originated literary texts, those published in digital form only. Many story apps for children are examples of this category and include rich interactive story contexts and hypermedia models of narratives. In this inquiry, the children spent time deconstructing both print and digital types of literary text, and then creating their own digital literary texts.

These three categories are important for exploring the elements of digital literary texts for children as they highlight the importance of understanding the broadened notion of text (Bloome & Egan-Robertson, 1993) and the types of literary texts children can now access. These texts provide educators with opportunities to engage children with multiple examples of literary texts and the associated dynamic elements they are composed of.

Practices for digital literary text construction

It is clear from the aforementioned discussion that digital literary texts include multiple textual elements used to make and share meaning. For writers, this means new practices that go beyond traditional print forms are required to construct digital literary texts. Supporting this is the view that new literacies are not mere additions of

traditional literacies (Leu et al., 2013; Unsworth, 2008), and nor can they be discussed in similar terms. Instead, the broadened perspective of texts generates additional and new literacy practices (Coiro & Dobler, 2007; Jenkins, 2006; Lankshear & Knobel, 2006; Leu et al., 2013) that are not always isomorphic with print-based texts. In a study that explored the digital writing practices of Year 6-8 children at summer camp, Martin and Lambert (2015) found writing digitally demands different competencies to print based writing and that writing practices of children were largely shaped by their prior experiences with technology and digital text models. Although only a small study of three children, such insights highlight that digital writing is different to paper based writing and as such, careful consideration to new skills and prior experiences including text immersion is required.

An important, yet significantly under-researched area relates to the practices associated with digital literary texts construction. Although digital literary texts are a significant text form in AC:E policy (ACARA, 2015) studies exploring and determining what practices may be required to construct such a text are still emerging. This review will move to explore the aforementioned textual elements of digital literary texts in consideration of the literature associated with digital writing, with the aim of determining what practices may be required by children to construct digital literary texts.

Practices associated with modes for communication

Writing concerns not only the words on a page but also the multiple modes for communication, commonly known as multimodality (Bull & Anstey, 2010; Jewitt, 2005; Kress, 2010; Walsh, 2010). Image and words are commonly used in texts to communicate meaning (Bezemer & Kress, 2008). Additionally, the music, speech and moving images often found in digital texts add to the modes authors may use to communicate meaning to an audience. Multiplicity of modes is particularly significant to digital literary texts. Creators use an ensemble of written, oral, visual and audio modes to create the aesthetic appeal of literary texts.

A broad range of research and literature has informed what we know about how

people read and comprehend multimodal and digital texts (e.g., Bezemer & Kress, 2008; Jewitt, 2006; Kress and van Leeuwen). How the construction and sharing of multiple modes impacts writing is less apparent. However, some researchers have begun to explore the nexus between multimodality and writing. For example, in a theoretical review of the literature, Jewitt (2008) claimed that each mode makes a discrete contribution to meaning whilst also being dependent on the others to shape meaning. A consequence for writers is that this multimodal ensemble offers specific resources for meaning making that vary according to their assemblages (Jewitt, 2005). Kress and van Leeuwen (2006) describe this interaction between modes as complementary (e.g., in a child's eBook where the words lead you to look at the picture), hierarchical (e.g., in an online advertisement where the image dominates the intended meaning and the caption in the image is secondary) or reinforcing (e.g., in an electronic book where the audio communicates the same message as the written words). Users must therefore identify how each mode contributes to meaning and differentiate their attention to the mode that best addresses the purpose of reading or creating the text. This means that an understanding of how to create each mode in addition to knowing how powerful the relationships is between modes is required.

All scholars are not convinced however, that the process of meaning making across multimodality is as controlled as some claim. For example, Bazalgette and Buckingham (2013) describe the process of modal meaning making, particularly in the case of children in classrooms, as a response to "economics, power, convenience and perhaps accessibility, as much as by the suitability of mode to content" (p. 98). They suggest that current theories of multimodality rely too much on multimodality meaning making as a rationale and controlled process and instead argue that social, human and emotional dimensions play a significant part in the way children use and consume multimodal meaning making. Schultz (2006), in discussing qualitative methodologies in writing research explains that writing of multimodal and digital texts are often heavily influenced by "history, values and intentions the composer brings to the piece, as well as the assignment and context in which it was written" (p. 368). Maybe the reality is more nuanced, that children do and should have knowledge and skill of multimodal

encoding and decoding however, as literacy as a social practices claims, the environment will also influence literacy practices.

In a digital environment this is particularly significant given that the construction of these modes requires the writer to have not only knowledge of the best way to determine how meaning can be created and presented to an audience, but also the access to resources and the technical skills required to construct and integrate each mode (Leu, Slomp, Zawilinski, & Corrigan, 2014) into digital elements such as moving image. For example, to construct a short moving image consisting of image and sound it is necessary to understand how meaning is created and conveyed in both visual and audio mode and how they can be integrated to communicate multiple layers of meaning to an audience. Additionally, determining the most appropriate location for the moving image to be placed in relation to the other modes, for example written text, plays an important role in meaning making. Further, technical knowledge on how to create the image, and record, save and integrate the sound file with the image is required to successfully compose the ensemble.

Other multimodal studies focus on the processes children enact when constructing digital text. Researchers Matthewman and Triggs (2004) draw from four cases of students from both primary and secondary classrooms in the United Kingdom to examine how technology enhances writing. Their findings suggest that teachers in the study were heavily reliant on print models of instruction, in particular in the visual mode where images were mostly treated as an aspect of a final publication rather than an integrated part of composition. On the other hand, students in this study were often observed working across a range of modes through the affordance of their chosen software. They concluded that students require pedagogical support to negotiate the multimodal stages of composition and that a starting point may be the selection of available resources. Although not current, this study provides useful insights to the importance of explicit pedagogy associated with multimodality and the significance of resource selection to support multimodal composition.

In a more recent study in Australia, Edwards-Groves (2011) explored the digital writing

and text construction practices of 17 primary school teachers and their students over an eighteen-month period. Results indicated that the planning of digital multimodal text involves both the preparation and design of multiple modes, which results in increased recursive movements across phases of writing than is typically seen in print-based text. Additionally the elements and design of multimodal texts must be an integral dimension to text construction pedagogy. This, Edwards-Groves (2011) suggests, is a new way of conceptualising traditional writing practices. Pedagogical practices associated with design, production and presentation must sit alongside traditional writing processes such as planning, drafting, editing, redrafting and proof-reading (Graves, 1983).

Similarly, Kervin and Mantei (2016), in a single case study of a Year 3 student reported findings that indicate the multimodal nature of digital text construction means authors must “activate planning, producing and sharing processes” (p. 13), often recursively whilst paying close attention to the resources that will support them to construct the multiple modes and ultimately the cohesive text. Although only a small study, the findings affirm both Matthewman and Triggs’ (2004), and Edwards-Groves’ (2011) studies where digital multimodal text composition is seen as fluid and recursive and resource selection is critical to the text construction.

Further, research suggests that educators are more familiar and comfortable with traditional forms of communication such as written and oral language, and as a consequence they tend towards an overreliance on linear writing practices that dismiss modes such as audio and visual that are common in classrooms (Kalantzis, Cope, & Cloonan, 2010). Although studies have emerged about the multimodal elements young authors must consider when creating digital text (Bull & Anstey, 2010; Downes & Zammit, 2001; Harris, Mishra, & Koehler, 2009; Leander, 2009), current understandings of writing practices that recognise the multidimensional nature of multimodal digital texts in the ever expanding role of technology is warranted.

A multimodal perspective regarding the digital writing of literary texts widens the range of tools used for composing to include modal affordances and structures that

shape the production of meaning (Kress, 2003). The practices available to children have expanded considerably due to technology (Bezemer & Kress, 2008; Rowsell & Walsh, 2011). These increased opportunities have also expanded the use of text creation for entertainment, as well as communication of the emotional and aesthetic dimensions associated with digital literary texts.

Practices associated with media composition

The digital environment offers writers opportunities to use digital media to compose digital texts. Leander (2009) explains:

The fact that we use ‘compose’ and ‘composition’ to describe the activity and products of writers, visual artists and sculptors alike is ... an invitation to explore how composing shares something in common across media (p. 150).

This is true in the Australian curriculum with the term ‘compose’ being used across multiple disciplines such as English, the arts and languages (ACARA, 2015). Media composition is significant in digital literary texts with many examples, such as story apps including media seamlessly in their design. Gibson and Ewing (2011) explain that students require both the skills and processes needed to critically analyse and appreciate the aesthetic qualities of media in order to become media literate. This, they state requires “more than technical understanding” (p. 93).

In his critical review and analysis of learning, young people and media, Buckingham (2007), suggests there has been a cultural shift in the teaching of writing from focusing on consuming media to composing media, and that media production often involves a hybridisation of textual practices such as blending and modifying literacy practices to developing new text forms and structures within the context they are used (Cope & Kalantzis, 2000) and as result educators must therefore take into account the social landscape where students live and learn (Atwell, 1998; Graves, Tuyay & Green, 2004). Consequently, knowing and understanding media is an essential part of a young learner’s literacy world. Buckingham’s 2007 review aligns with current AC:E (2015) policy where children, particularly in upper primary and lower secondary school, are expected to analyse media texts and how, for example, technology and cultural

perspectives influence content and design.

In a more recent study and focused specifically on younger children, Marsh, Hannon, Lewis and Ritchie (2015) report on a study aimed at identifying the digital literacy practices 2-4 year old children use at home. This small study (4 children) found that young children were engaged in media rich homes and were often observed moving fluently, and at times more expertly than their parents, across multiple forms of media in their meaning making practices. As a result the four children acquired complex knowledge about the “the ways in which communication takes place in a digital world” (Marsh et al., p. 13). These findings resonate with Marsh, Brooks, Hughes, Ritchie, Roberts and Wrights’ (2005) larger scale research where 1852 parents of children aged from birth to six in England were surveyed about their use of popular culture, media and new technologies. The study concluded that many young children were competent users of technologies from an early age and that parents felt their children developed a wide range of skills, knowledge and understanding in this use.

Much of the interest in media composition in digital and multimodal text construction has centered on the new meaning making formats that media offer to children as writers. Knowing and understanding media is an essential part of new literacies pedagogy. Young writers’ worlds involve using technology to access media related to their sociocultural environments. This social practice of consuming and producing media is a significant factor in practices associated with digital text construction.

Practices associated with interactive digital elements

Researchers are now arguing that an understanding of literacy needs to go beyond fields such as modal design to one that also considers interactivity (Rowell, 2014; Dezuanni, Dooley, Gattenhof, & Knight, 2015). The interactive capacities of digital texts enable meaning to be created and communicated by a writer to a reader through the reader’s active involvement. According to this view Ceric (2013) explains that interactivity is the choice created by the writer for the reader through partial selection (such as the choice of two options). An example is a hyperlink embedded into a text.

Interactivity is a significant aspect of digital literary texts. Interactive features such as animation give writers the opportunity to enhance engagement for the reader. For example, participatory animation, where viewers can activate animation as they read, gives writers the ability to design meaning that can be shifted and created by the reader, and as a consequence the reader becomes more involved in the text. Additionally, hyperlinks connect pages within one text or across multiple texts (Coiro & Dobler, 2007; Reinking, 1998); enabling readers to play an active role in determining the pathway they read. Hyperlinks can be used to divert the reader to an external webpage or online video. They can activate sound or movement of images and uncover or reveal written text (Askehave, Ellerup, & Nielsen, 2005; Unsworth, 2008).

Interactive text elements also provide opportunities for social interactions, increasing participation and audience sizes. Tao and Reinking (2000) describe how digital text affords users opportunities for connecting with other users across the world. Online forums, for example, allow users to collaborate with others across nations and cultures (Coiro, 2003). In addition, on many online information and networking sites, interactivity includes downloading audio and video feeds, contributing to discussion forums, following hyperlinks and posting comments (Chung, 2008). For writers, this provides exciting platforms to encourage reader participation but also complex thinking in consideration of author–text–audience relationships.

Cover (2006) cautions that as the interactivity of digital text increases, so too do the tensions between author, text and audience. These tensions impact on the intended messages and reading pathways of the author and the chosen messages and pathways of the reader. For writers, careful consideration of how interactive features promote and not disrupt the intended meaning is a significant consideration (Cover, 2006; Ryan, 2002).

While the aforementioned research highlights challenges and possibilities of interactivity in digital text, they do not offer insights into the ways children go about constructing such digital features during digital text construction, which is a feature of the current inquiry.

Practices associated with intertextuality

Intertextuality is a literary element often used in literary text. It refers to the way meaning exists between the authored text and all the other texts to which it refers and relates (Allen, 2000; Worton & Still, 1990). In his review of the literature about authorship in a digital environment, Goldsmith (2011) found that intertextuality is increased in a digital environment explaining,

while traditional notions of writing are primarily focused on originality and creativity, the digital environment fosters new skill sets that include manipulation and management of the heaps of already existent and ever-increasing language (p. 15).

In other words, digital text is often an augmentation of another text. Although all text is claimed to be intertextual, in that layers of knowledge and past experiences build and influence one another (Fairclough, 2003; Halliday, 2003), in digital literary text intertextuality becomes more overt than it is in print-based text as information is more freely available and adaptive.

In consideration of the digital construction of literary text this is of significance given that for writers in today's schools, experience in print-based literary texts will open up opportunities for new experiences in digital literary texts. Grabill and Hicks (2005), in their discussion about digital writing and literacy education, explain that considerations about "borrowing from others" (p. 305) are among the significant issues in the context and practices of digital text construction. Digital sampling (Rice, 2007) or appropriation practices (Goldsmith, 2011) as some researchers call it, will require writers to consider not only larger issues such as intellectual property and plagiarism (DeVoss & Rosati, 2003) but also the nuances of the interaction between print and digital forms of meaning making. As a consequence, writers require a hybridisation of textual practices in which intertextuality is ethically and morally driven, and in which there is an understanding of how literacy practices can converge but also diverge according to the context of the digital space. As such, intertextuality in digital text construction seems to be as much about authorship than it is about

intertextual design.

While intertextuality is seen as a key characteristic of digital text, such findings are limited to discussion papers and reviews. Instead empirical research focused on intertextuality is centered on areas, for example, associated with reading and writing of printed text (e.g., Bloome & Egan-Robertson, 1993), second language university writers (Pecorari, 2003), linguistic skills associated with print genre writing (Harman, 2013) and small qualitative studies focused on reading literary text and text connections (Pantaleo, 2004). There are limited empirical studies that directly focus on the relationship between intertextuality and digital text construction.

The multimodal, multimedia, interactivity and intertextual practices mentioned here illustrate how digital literary texts are constructed differently from print literary texts. Digital literary texts use traditional and different skills collectively referred to as new literacies associated with digital literary text construction. The next section discusses some key considerations in relation to these new literacies and classroom practice.

Classroom practice and digital literary text construction

This review has established that digital texts have distinct features and associated writing practices that enable children to construct them in very different ways to print-based texts. As a consequence, the way literacy is learnt and taught is changing (Lowther, Ross, & Morrison, 2003; Windschitl & Sahl, 2002). The digital environment offers new possibilities for writing pedagogy. While there is a need for more studies describing the changing nature of classroom instruction related to digital literary text construction, there are some studies that consider how technology has reshaped literacy instruction in classrooms. In consideration of the textual elements and associated practices of digital literary text construction discussed above, the social practice of instruction, the recursive nature of the writing process, the importance of reading and deconstruction text models, and the resource selection and use associated with digital literary text construction will now be explored.

New social practices

The new literacies perspective argues that digital technologies create new literacies, which in turn require new instructional considerations for educators in classroom focused on social learning. Because digital technologies enable children to construct, access and share information in very different ways, new social practices of literacy emerge in response to them (Gee, 2007; Lankshear & Knobel, 2003; Leu et al., 2013; Street, 2003).

Models of literacy instruction often focus on the educator as expert who transfers knowledge and teaches skills to children as learners (Leu et al., 2013). However, studies in new literacies have found that learning experiences in classrooms are dependent on the ability of educators to facilitate social literacy learning opportunities between children, communities and teachers (Kiili, Laurinen, Marttunen, & Leu, 2012). Children bring a range of distinct technological skills to the classroom, and they are able to share them in ways that are useful to others (Castek, Leu, Coiro, Gort, Henry, & Lima, 2008). This knowledge is often developed and enacted outside of the classroom within third-space learning sites (Gutierrez, Baquedano-Lopez, & Tejeda, 1999), which include community, home and digital spaces. Additionally, Leu and colleagues explain that as technology changes increase the scope of new literacies available, “no one person can hope to know everything about the expanding and ever changing technologies of the Internet and other ICTs” (2013, p. 11). Consequently, learning experiences become increasingly dependent on social practices to distribute knowledge of the new literacies in the classroom. The construction of knowledge becomes a collaborative venture between students and their teacher (Leu et al., 2013).

The nature of social practice in new literacies studies raises some important issues for digital literary text construction in classrooms. This chapter has already argued that digital literary texts often combine multiple modes, media, interactivity and intertextual elements and that the practices associated with constructing these text elements broaden the scope of practices taught in classrooms. Many of these practices are practices, which children commonly learn in their homes and communities. For

example, remixing music, producing videos and creating animations are practices children often engage in as leisure activities (Marsh & Bishop, 2014). While it should not be assumed that all children bring these skills to the classrooms, orchestrating opportunities for children to collaborate and exchange the experiences and skills they have learnt in their homes and communities to the classroom requires social learning practices involving students and teachers. Designing instruction for digital literary texts is therefore as much about organising how children work collaboratively as it is about the new practices that emerge. The challenge for educators is therefore bridging the learning spaces between home, community and classroom activity.

Writing process

Many theories have underpinned writing pedagogy in schools over the years. During the 1960's writing was focussed on encoding (Harris, McKenzie, Fitzsimmons, & Turbill, 2003), with an emphasis on isolated skills often taught as a single lesson (Walshe, 1981). During the 1970's writing pedagogy shifted to emphasise creativity and personal expression (Harris et al., 2003). Literature, drama and arts contributed to writing pedagogy (Murray, 1982) with a clear connection between talk and writing. Sweeping changes emerged in the 1980's with an introduction to the notion that writing is a process. Key theorists (Graves, 1994, Murray, 1982; Walshe, 1981) sought to explain how writers undertook writing with a focus on the stages of writing. Three categories were proposed: pre-writing, during-writing and after-writing with an emphasis on planning, drafting, editing and publishing as a recursive process throughout the construction. Today, and particularly in Australia, writing resources and programmes still encourage the use of this process approach (Edwards-Groves, 2011). During the 1990's concern was raised over the overemphasis on process at the expense of product (Harris et al., 2003). This led to a closer examination of writing content and text types children at school were expected to learn. The genre approach to writing emerged as a response to genre theorists working in functional linguistics (e.g., Christie, 1996; Derewianka, 1991) who argued that children must develop competence in writing across a range of genres using systematics and explicit instruction (Harris et al., 2003). This approach to writing is closely linked to a critical

literacy approach that focussed on text ideologies and empowerment of children as users of language (Comber, 2011). Today, our understanding of children as writers and how best to teach writing in schools continues to grow and expand. Now with the rapid emergence of technology in the lives of children, writing practices are again being reconsidered, with past writing pedagogies being taken forward into contemporary teaching practices. Elements central to this research is the need to understand how technology impacts on the writing process (Edwards-Groves, 2011). Considering opportunities for digital text construction requires an understanding of how these traditional processes of planning, drafting, editing and publishing sit alongside new practices associated with digital technology.

Australian writing pedagogy owes much to the foundational writing research in the 1980's focussed on the writing process. Pedagogically, 'good' or proficient writers are those who use a range of different writing practices at different stages within the process of writing (Calkins, 1983; Murray, 1982); they seek and give feedback to hone the construction of their message (Graves, 1994) to suit the purpose of their text (Butler & Turbill, 1984).

The writing process has traditionally been viewed as a recursive craft based on the shaping and reshaping of meaning until a final product is produced (Calkins, 1994; Graves, 1983; Murray, 1982; Nichols, 1996). Much of the planning stage is focused on recording ideas that document what and how the writing will take shape. Thinking, talking, reading and note-making are common print planning practices (Calkins, 1983; & Hall, 2006; Smith, 1983; Walshe, 1981). The drafting stage is focused on getting ideas down. Messages take precedence over attention to mechanisms such as spelling and grammar. Reading back while writing is a common practice (Graves, 1994; Murray, 1982) as too is multiple drafts (Jones & Hafner, 2012). While some editing and revising can take place during drafting, most "polishing" (Calkins, 1980) occurs after the draft as writers prepare for their text to be read. Feedback from peers and teachers is common practice during this stage (Walshe, 1981). The process associated

with the publishable product is centered on presentation and design, ensuring the final version is ready for an audience and suits the intended purpose (Duke & Hall, 2006; Smith, 1983).

More recently, some scholars (e.g., Burn, 2009; Edwards-Groves, 2011; Kervin & Mantei, 2016; Merchant, 2007) have begun to document the process young authors use as they compose digital text, arguing that traditional writing processes need to be reconsidered. For example Edwards-Groves (2011), in a multiple case study of 17 primary teachers and their students, discovered a need for educators and children to expand their understanding of the writing process. She claims that processes of design, production and presentation should be added to traditional writing processes to accommodate the new multifaceted view of writing. In this way conception of the writing processes broadens to accommodate the multimodal, multimedia, intertextual and interactive nature of digital text where creators enact new writing practices. Edwards-Groves (2011) asserts that this view does not mean that traditional practices associated with writing are replaced, but that new processes are included to account for the shift in textual formats and writing demands.

Similarly, Walsh (2010), in an Australian study of nine primary school classrooms focus on embedding technology into literacy learning, found students engage in writing processes that extend what is expected in paper-based writing, with processes such as design, production, and transformation. Further, students traditionally begin digital text processes on paper before transforming their work to a digital form. This example highlights the hybridised processes associated with digital text construction in which careful consideration of the traditional writing processes within the context of digital technologies is necessary.

Researchers such as Kist (2013) are beginning to explore the challenges associated with writing processes of digital text construction with emerging findings suggesting that writing processes related to multimodal texts require less formulaic approaches to

composition and more opportunities to experiment and innovate in ways which suit the resources, purpose and audience. Consequently, while students as writers will require specific learning experiences associated with the unique writing practices digital text provides, the writing process is more fluid, and often evolves and develops as the writing progresses.

Stewart (2014), in a historical account of the literature surrounding writing and technology, explains that while digital tools have afforded many new opportunities for the writing process of digital text, the use of technology does not guarantee that the product will be more effective. Instead careful consideration to what digital resources support composition and communication is necessary.

The fluidity of digital writing processes raises some important issues for classroom instruction associated with digital literary text construction. It appears that digital text composition extends on traditional practices related to planning, drafting, editing and publishing to accommodate the potential for meaning making across modes, the ability provided by the technology to amend and edit texts with ease, and the opportunities for immediate sharing, feedback and critique. As a consequence educators, instead of seeing digital technology as a tool (Hutchison & Reinking, 2010), must consider adopting instructional practices that recognise that digital spaces alter the writing process.

Reading digital literary text as a text model for writing

That reading and writing are interrelated has been well established in the literature over many years (e.g., Abadiano & Turner, 2002; Corden, 2007; Griffith, 2010; Smith, 1983). The relationship between reading and writing was a particular focus in the 1980's where both reading and writing were established as acts of composing (Butler & Turbill, 1984; Tierney & Pearson, 1983). To read requires prior knowledge of meaning making practices to compose meaning *from* the text. To write requires prior knowledge of meaning making practices to compose meaning *into* text (Turbill & Bulter, 1984; Spivey, 1984). Given the reciprocal nature of reading and writing, it is

clear that opportunities to pull apart, or deconstruct, a text as part of the reading pedagogy will inform a learner's understanding about how texts are constructed. This will then support the creation of texts. In this inquiry, the children deconstructed digital literary texts in order to develop understandings that informed the creation of their own.

Digital literary texts are designed differently to print based texts, due to their increased use of images (Unsworth, 2006), multimodality (Bull & Anstey, 2010; Jewitt, 2005; Kress, 2010; Walsh, 2010) and interactivity (Dezuanni et al., 2015). Studies (e.g., Kalantzis & Cope, 2012, 2008; Kress 2003) report that authors therefore need to control a number of elements in the creation of them. Exploring the research in association with reading of digital literary texts aids in understanding some of the challenges writers may face when constructing them.

In an exploratory study focussed on the digital features of mobile story apps and the associated book handling skills readers must acquire to make use of them, Javorsky and Trainin (2014) found that different story apps typically contain more complex features than print based stories. Further, digital text features were often highly variable from text to text. By coding the digital features of a select set of free story apps and then pairing each feature with its paper based equivalent, Javorsky and Trainin (2004) concluded while some digital features are similar to paper based print, the reading processes for using the features was often very different. For example, children can listen to both a print based story (e.g., by reading aloud or asking a reader to read aloud) or digital story (e.g., by clicking on a sound button). While activating an oral narration in a mobile story app provides children with a means to access the written mode (Dooley & Dezuanni, 2015), it does often require knowledge and skill to navigate icons and animations. Such an inquiry highlights the importance of reading and deconstructing multiple digital features of digital literary text, teaching children the multiple ways that digital story app creators design and communicate meaning and how such a "flexible" (Javorksy & Trainin, 2014, p. 617) and dynamic environment requires new ways of reading and therefore new ways of constructing meaning.

In another study focussed on iPads and the digital literacy practices in three pre-school classrooms in Australia, Dezuanni and colleagues (2015) found that children's reading engagement in iBook stories generated certain pedagogical considerations. In one classroom it was reported that children often didn't persist with reading iBook stories and instead often became either distracted or disengaged. However, they found that if the iBook was a familiar printed text shared in class story time (e.g., had been read in print form) and was complemented by direct teaching on operations of the story app and literacy learning activities such as story retellings and dramatisation, then reading engagement increased. Further, text innovation, where children were engaged in creating their own digital and multimodal texts after reading a story during class story time, provided positive opportunities for 'story literacy'. This term is used to define a "form of schooled literate practice in which reading and writing are conceived of as processes of narrative meaning making" (Dezuanni et al., 2015, p. 19) where opportunities to participate in multiple literacy activities focussed on text support both reading and writing practices. Although this study is focussed on young children and such findings are limited to one preschool classroom, insights highlight the importance of the relationship between reading and writing of digital text not only to skill development but also engagement.

Resource selection and use

The resources children need to construct digital texts are a significant consideration given the multiple elements of digital literary texts – for example words, images, sounds, videos and hyperlinks. Digital literary texts offer creative opportunities to use a range of resources to create such elements and share them with an audience. The selection and use of resources for digital literary text construction are important concerns for classroom teachers as they consider what resources should be used in classrooms as part of the writing process. Additionally, the freedom to select the resources, which suit the format, audience and purpose of their text, provides significant opportunities for children to be powerful and productive producers of text (Kervin & Mantei, 2016).

Today, as technology continues to expand, educators and children have access to many resources. Digital resources such as video editing software, animation apps and audio recordings can provide children with the opportunity to create multimodal and multimedia texts differently to paper based text types (Anderson, 2014). However, Hutchison and Reinking (2010) observe that many teachers are not using digital resources to their full potential and instead view them in terms of conventional goals such as word processing or as fill the gap writing activities, such as those described as substitution activities, in the Substitution Augmentation Modification Redefinition Model (Puentedura, 2013), where technology is used to perform the same tasks that were previously undertaken without computers.

As a consequence, digital text construction is limited. In a study of eight adolescent multimodal retellings, Jocius (2013) found that the resources used by writers affected what modes they designed. For example, students using PowerPoint relied heavily on written and oral language rather than the moving images, music and voiceovers favoured by students using software such as iMovie. In a similar finding, a study by Johnson and Smagorinsky (2013), focussed on multimodal composition by a pre-service English educator, argue that the use of digital resources made available to students influenced the quality of the ways different modes were used. The affordances and limitations of the resources significantly shaped how meaning was created and shared. Burnett et al., (2014) explain that, like print-based texts, digital text is made up of symbols and tools that encode certain meanings. In consideration of digital text construction, authors must therefore carefully negotiate the ways resources can be used to make meaning.

Further, in their research on digital writing, Kervin and Mantei (2016) argue that children require specific and substantive opportunities to collaborate in using the available resources, and with the support of educators and peers, make careful selections of technological tools and multimodal resources. Their study highlights the need for classroom instruction that is considerate of the knowledge children bring to the learning space whilst providing carefully guided instruction that supports logical

resource selection for the text creation processes. Teachers need to know, evaluate, select, teach and blend available resources as part of their teaching of digital literary text construction. This is an important consideration given the effect resource use and selection has on the process and production of digital text composition.

Chapter Conclusion

The literature reviewed in this chapter has revealed that new literacies practices require significant paradigm shifts in classroom pedagogy for writing. New pedagogies for digital literary text construction involve more than knowing about digital resources and technical skills. They require the planning of learning opportunities that foster collaboration involving different people and spaces with processes to facilitate feedback and mentoring. These learning opportunities need to be adapted to the particular purposes involved.

When considering digital text construction, it is generally accepted that technology is no longer merely a tool for word processing and is instead considered an important mechanism for creating and communicating meaning across modes as the practices available to writers are extended. Scholars (e.g., Edwards-Groves, 2011; Mackenzie, 2014; Merchant, 2007) have explored what writing for children can look like in a digital environment. However, an understanding of what is involved in digital literary text construction is limited. Insights from the literature do suggest that the social learning of digital text construction requires a focus on the practices (i.e. the new writing literacies children require to construct texts), contexts (i.e. the experiences children bring from home and community) and the learning experiences involved (i.e. the ways educators orchestrate learning experiences for the children they teach). Supporting this is the well accepted view that new practices such as blogging, photo curating and sharing, video gaming, editing online and creating animations (Knobel & Lankshear, 2014) increase the need for educators to experience what it means to be “fully engaged in new literacies practices” (p. 11). This inquiry seeks to contribute to the research on digital literary text construction, by further exploring the connections that exist across literacies related to print and digital forms of literary text.

CHAPTER 3: METHODOLOGY

Chapter introduction

The research design of this inquiry uses a qualitative case study methodology to explore the literacy practices six Year 5 children use to construct their own digital literary texts. This chapter firstly presents the research questions and design of the inquiry followed by the research procedures used to select the participants and the site. The qualitative case study, utilising ethnographic principles, is explained and justified as an appropriate approach for this inquiry. This is followed by an outline of the specific procedures that were used to collect data. Finally, a discussion on analytical procedures and the factors contributing to the rigour and quality of the research are explained.

Research questions

This investigation was driven by two research questions:

1. What writing practices do six Year 5 children use during digital literary text construction?
2. How do these six Year 5 children select and utilise resources during their digital literary text construction?

Research design

This inquiry is situated within a qualitative paradigm. The classroom environment is considered in examining the multiple sources of data from the perspectives of the participants (Merriam, 1998). Through a social constructivist frame the knowledge of the participants is viewed as a product of their context, with interactions between participants and their environment. The inquiry applies the principles of ethnography to support the examination of a specific phenomenon reported using case study methodology. In selecting an appropriate methodology for this inquiry, the major

considerations were that it would both theoretically and practically support the inquiry and fit as naturally as possible into the daily lives of the collaborators and informants, while also being rigorous and credible. Figure 3.1 provides an overview of the methodological design.

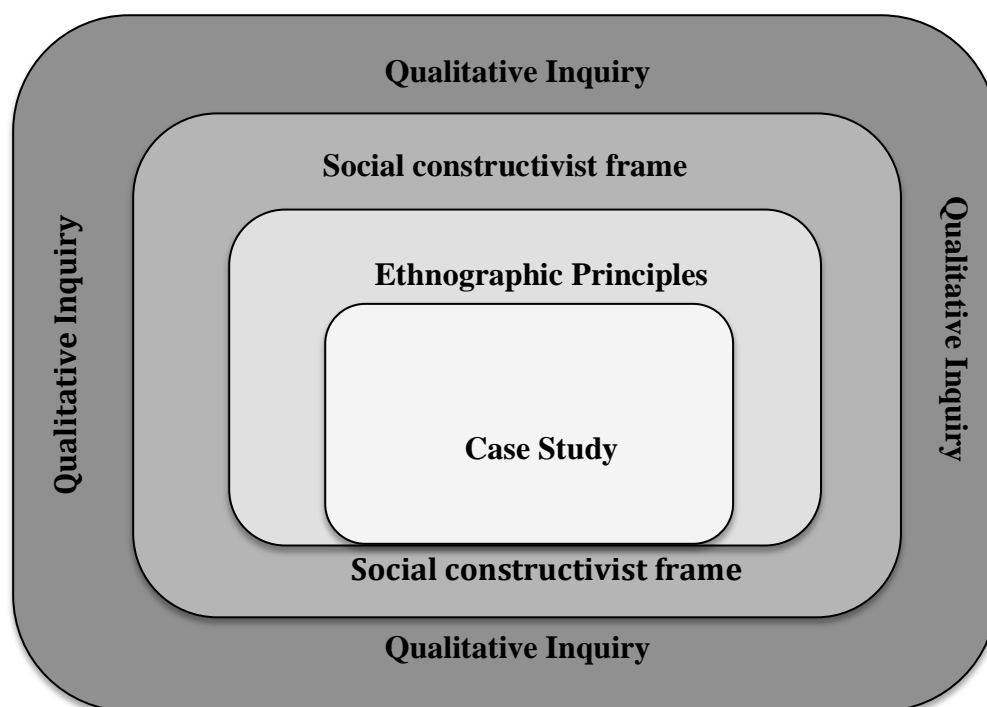


Figure 3.1: Methodological design of the inquiry

Social constructivist paradigm

Social constructivist was identified as an appropriate paradigm within which to situate this qualitative inquiry because it accentuates the social and cultural contexts of learning (Vygotsky, 1986). According to this paradigm knowledge is a product of the environment (Prawat & Floden, 1994) and takes account of the prior experiences of an individual (Doolittle & Hicks, 2003) and the dialogue and interactions as co-constructors of learning (Vygotsky, 1978). Social constructivism acknowledges that literacy is a socially constructed phenomenon that is defined and redefined within and across differing social groups (Cook-Gumperz, 2006; Street, 1984, 1993). Reading and writing are considered to be social activities in which meaning construction evolves

through social interactions between people and resources. Smith (1983) advocates the adoption of a social constructivist approach to researchers who wish to place themselves within a social setting to observe individuals because the researcher can focus on observing social interactions between learners and their environments.

Social constructivism was an appropriate choice because of this inquiry's focus on a detailed understanding of the complex relationships between the experiences of six children and their respective varied learning experiences in their classroom (Flick, 2006; Maxwell, 2005). As such this paradigm complements the theoretical orientation of literacy as social practice literacy where literacy is defined within the context it is used. Moreover, social constructivism allowed the researcher to identify patterns and themes, and interpret data in terms of the meanings the participants brought with them (Creswell, 1998; Flick, 2006; Maxwell, 2005; Merriam, 1998). By observing the participants in their environment, a deeper understanding of their literacy practices from the perspectives of the participants could be explored (Merriam, 1998; Silverman, 1993).

Ethnographic principles

Because this inquiry is located within a classroom, careful consideration of the unique setting was required. While this inquiry is not ethnography, it does draw on ethnographic principles to gain insight into the interactions, relationships and resources within the classroom setting (Kervin, Mantei & Lipscombe, in press). In particular, in this inquiry ethnographic principles were used to guide: understanding and interpreting multiple realities; fieldwork; empathy; multiple data collection procedures; and emic and etic perspectives. Each of these is now defined in connection with the inquiry and in consideration of ethnography in a classroom setting.

Understanding, interpretation and multiple realities

Burns (1995) and Fetterman (1998) argue that a person's understanding of the world is an interpretation of their experiences and relationships and that these perspectives

will not only differ between people, but will change for an individual over time. For this reason comprehensive description of the settings and scenarios supported the process of understanding the actions and realities within the context of the participants' settings (Brewer, 2000; Fetterman, 1998). Data were collected in a range of ways such as interviews, observations and artefact collection. This multi-faceted approach to data collection was designed to explore the realities of the participants and to capture the views and beliefs that were formed through each participant's experiences and interactions.

Fieldwork

Cresswell (2013) claims that gathering information about the environments of participants recognises the importance of the context in which the participants operate. Doing fieldwork enables the researcher to develop an intuitive understanding of the research site and to develop sufficient insight into the participants' learning (Wolcott, 2008). In this inquiry the researcher was observed the selected research site before working with individual participants. This meant that a relationship could be built between participants and the researcher, and trust could be established. Further, artefacts of the environment were collected during the inquiry as a way to learn more about the research site.

Empathy

Having the ability to understand and be attentive to the feelings of the participants allows the researcher to acknowledge that tensions may exist. Mills and Morton (2013) explain that ethnographic research in education demands empathy and that empathic dialogue, exchange and collaboration are practices that ethnographers should embrace. In this inquiry, the researcher crafted interview questions to support participants to reflect on both prior experiences and their experiences during the inquiry as well as their preferences, beliefs and attitudes towards these learning experiences. Further, observation data were collected that captured the individual and collaborative practices of participants with each other and with the researcher. These

interactions allowed the researcher to respond with empathy to the ways the participants engaged with the setting.

Multiple data collection procedures

The internal reliability of research associated with ethnography is enhanced by use of multiple data collection procedures, or as Wiersma (1995) calls it, triangulation of data. By gathering data, analysing it and drawing comparisons, there is a greater confidence in the interpretations and conclusions (Mertens, 1998). Data from a range of sources were gathered in this inquiry to ensure a diversity of perspectives on the events and to support triangulation. Observations, interviews, and work samples formed the primary data set, while secondary data were gathered as artefacts. More detail about these data collection methods is in the section titled 'Data collection'.

Emic and etic perspectives

Understanding the emic (insider) and etic (outsider) perspectives of a group provides the researcher with a detailed understanding of the past and current behaviours, ideas, and beliefs of a particular people (Mertens, 1998). The researcher worked with primary school student participants to gain insider perspectives and also with their teacher to gain the outsider perspective. The insider perspectives, collected through field notes, observations and interviews, valued the children as full participants in their setting, giving voice and perspective to their thoughts, behaviours and attitudes. The outsider perspective, collected through teacher interviews, artefact collection and field notes, gave insights into the role of the teacher, prior practices and the learning contexts in which the children as participants learned.

By describing and interpreting the shared and learned patterns (Harris, 1968) of knowledge and behaviour of the participants and their environment, a more complete understanding of their literacy practices associated with digital literary text could be obtained. Using the principles of ethnography to examine events in the classroom context supports an inductive process of data collection and analysis by acknowledging the children as full participants in the setting who have an understanding of the

literacy events and practices that are situated within this inquiry. In this way multiple data tools are often used to capture the unique environment of the research site, with the interplay between data sets being utilised to build up a holistic picture of the phenomena under investigation.

Case study

A case study methodology is characterised by an emphasis on the wholeness of the case. Miles and Huberman (1994) describe this wholeness as a bounded system, “a phenomenon of some sort occurring in a bounded context” (p. 25). Consequently, case study methodology involves researching a phenomenon through intensive and detailed research into an individual or group as an entity (Mertens, 1998; Stake, 1995).

The inquiry adopted a case study approach because it sought to explore a phenomenon within specific boundaries. The bounded system was six digital literary texts created by Year 5 children and the phenomenon was the construction of these digital literary texts. The six texts form a bounded system as they are bound by the authors’ use of the same text format in the same classroom and school environment (Adelman, Jenkins, & Kemmis, 1976). Text was chosen as the bounded system because it provided a stable and consistent artefact across all six child participants as a way to uncover the literacy practices they enacted during digital literary text construction. Literacy as social practice theory advocates the use of text to uncover literacy practices (Brommaert, 2008). The digital literary text also provided a bounded system in which data from the teacher as participant pertaining to classroom instruction associated with technology, digital writing and literary text could be discussed and analysed within the frame of the text format, not individual children.

Texts play a central role in literacy events and practices with the events usually described according to those using texts, and where and how texts are used (Hamilton, 2010). In this way Barton and colleagues (2000), contend they “are observable in events which are mediated by written text” (p. 9). Blommaert (2008) argues that in many literacy studies, texts, the products of literacy, have been artificially separated from practices. Instead she suggests researchers should use text to uncover literacy

practice by participants.

Additionally, this inquiry utilised a collective case study approach. Stake (2000) explains collective case studies encompass more than one case "in order to investigate a phenomenon, population, or general condition" (Stake, 2000, p. 437). Using a collective case study approach encouraged stronger interpretation and "perhaps better theorizing" (Stake, 2000, p. 437) by considering the literacy practices associated with digital literary text construction by the six Year 5 children. Each text is considered firstly as an individual case and then as a collective case (Stake, 1995) and cross case analysis took place. By researching contrasting cases, the precision and stability of findings is strengthened. Multiple cases have been shown to be an asset in the field of literacy studies (Brooker, 2002; Heath, 1983) because it increases their trustworthiness and the richness of the data obtained (Guba & Lincoln, 1989).

Locus of the inquiry

Research site

Site selection was a critical component of the design of this inquiry because of the focus on literary text construction supported by digital technology. As such, a school was sought that had suitable access to appropriate technology and policies that would support a research design which require the children to spend extended time creating digital literary texts. The selection was aided by discussions with local community members such as a technology educational consultant, educators and academics. The independent school that became the site for the research is located in a metropolitan region in New South Wales, Australia. The school has approximately 300 students, 18 teaching staff and 6 support staff. Additionally, the selected school site had implemented a one-to-one technology device program in Year 5. This indicated that the school valued and had regularly access to technology and a pedagogical focus that would support the incorporation of technology within literacy experiences.

The classroom site was selected as the only Year 5 classroom at the school. Year 5 was chosen as an appropriate year level based on the relevance of the inquiry's focus to children's literacy development and access to technology for all students. According to AC:E policy, students in Year 5 are expected to work independently to read and view complex texts such as digital texts and also create individual well-structured multimodal digital texts. They are also expected to employ a range of digital technologies to present texts effectively for different purposes and audiences (ACARA, 2015). The focus for the literacy program for that term in the Year 5 classroom was narrative text, which also aligned with the study's focus on digital literary texts.

Participants

Six Year 5 children and their teacher participated in this inquiry. After discussions and approval from the school principal (see Appendix C), Mrs Madden (pseudonym), the sole Year 5 teacher at the school, was invited to participate in the study and, following an information session, she gave written consent for her participation (Appendix E). Mrs Madden had over 20 years of teaching experience in primary schools. In the three terms leading up to the inquiry Mrs Madden had been part of a school initiative in which teachers of the upper primary years (years 5 and 6) were using their own iPads as part of classroom learning.

The design of the inquiry meant that children would participate in interviews and tasks that required them to engage in a range of digital literacy experiences. Therefore, the criteria for the selection of participants were based on purposive sampling. Mrs Madden, as classroom teacher with knowledge of the children as literacy learners, was invited to select students in her class with a range of abilities in literacy, and with digital technology. This typical case sampling technique provided opportunities to explore the unique characteristic of each child participant while at the same time being able to illustrate examples typical of Year 5 children. Mrs Madden identified six children. This small sample size was most appropriate for the purposes of this inquiry because descriptive data could be collected during interviews and observations over an extended period. This sampling technique was used to ensure careful

consideration was given to the delicate nature of working with children in research. Mrs Madden had deep knowledge of each child's experiences, attitudes and understandings in literacy.

A parent/guardian information sheet (Appendix D) was sent home to the six child participants. Five of the six students accepted the invitation and one did not. Through discussions with the teacher, another child was identified and invited to participate, and both the child and their parents granted permission. All participants were identified and approached only after successful application was made for ethical approval from the University of Wollongong Ethics Committee (HE) (see Appendix B).

Table 3.1 provides an overview of the six child participants as literacy learners. Information about each child is shared in three columns. Column one identifies each child using a pseudonym for reference throughout the thesis. The second lists each child's access to technology in their home as reported during semi-structured interviews. The third column lists literacy results from school reports and literacy rankings identified in the national standardised assessment, NAPLAN (National Assessment Program in Literacy and Numeracy) for reading, writing, spelling conventions and language conventions.

Table 3.1: An overview of the children as participants

Child's name (pseudonym)	Technology access at home	Achievement in literacy as reported by Mrs Madden
Ben	Family has iPads, iPhones and iPods. Ben has his own iPad that he takes to school each day	<ul style="list-style-type: none"> • School report indicates above stage appropriate levels in literacy. • NAPLAN: above school and national levels in all tested areas.
Emma	Family has a desktop computer, laptops and iPads. Emma owns an iPad that she brings to school each day	<ul style="list-style-type: none"> • School report: above age appropriate levels. • NAPLAN: above school and national levels in reading, writing, language conventions and spelling.
Luke	Family has desktop computer, two iPods and two laptops Luke has his own iPad that he takes to school each day	<ul style="list-style-type: none"> • School report: at stage appropriate levels. • NAPLAN: well above national and school average in reading, below school but above the national average in writing and slightly above both school and national averages in language conventions.
Mischa	Family has a computer, an iPad and an iPod. Mishca has own iPad that she brings to school each day	<ul style="list-style-type: none"> • School report: above stage levels in literacy. • NAPLAN: above national and state average in all tested areas of literacy.
Sarah	Family has two iPads, three iPods, two iPhones and a computer. Sarah has her own iPad that she brings to school each day	<ul style="list-style-type: none"> • School report: above stage appropriate levels. • NAPLAN: below school but above national levels in reading, above school and national levels in writing and below school but above national levels in language conventions.
Tate	Family has an iPad, two iPods, a Wii and a desktop computer. Tate has an iPad that he brings to school each day.	<ul style="list-style-type: none"> • School report: slightly below stage levels. • NAPLAN: above school and national levels in reading, below school but above national levels in writing and above school and national levels in language conventions.

Research design sequence

Data for this inquiry were gathered over a period of six weeks. The children as participants worked with the researcher in two to three sessions per week. The duration of each session was between 0.5 and 1.5 hours. During these sessions the children engaged in a range of literacy learning experiences designed to support their eventual construction of digital literary texts. The sessions were a collaborative effort planned between Mrs. Madden and the researcher. In this way, Mrs. Madden contributed to the planning based on her knowledge of the children as literacy learners and the children as participants were participating in similar literacy experiences to their peers in the classroom.

Data collection focused on two extended literacy events designed to engage children in the process of creating digital literary texts. These two events were observable experiences in which literacy had a role and texts were central to the activities within the event (Barton & Hamilton, 1998). The first literacy event, initiated over the first two weeks, was the deconstruction of two digital literary texts: *The Fantastic Flying Books of Mr Morris Lessmore* (Moonbot, 2011) and *Dust echoes: the Mimis* (Australian Broadcasting Commission (ABC), 2007). This event was designed to encourage the children to consider the ways the authors had created each text. Time was spent in this first event examining the modal choices made and the effects these had on the reader's experiences. When deconstructing the two digital literary texts, the researcher and children explored the social contexts in which the texts were written, the social purposes of the texts and their structural, digital and multimodal features. In this inquiry, developing understandings through text deconstruction was classified as secondary data because in fact this inquiry sought to develop insights into the following literacy event, the construction of digital literary text.

In the primary literacy event the children engaged in their own digital literary text constructions in response to their understandings developed during text

deconstruction. Over a period of four weeks the six participating children planned, constructed and published their own digital literary texts for a self- selected audience.

In addition to the two literacy events, four research activities in the form of interviews were used to develop a deep understanding of the unique context of the setting of the classroom, the past experiences and practices each participant brought to the inquiry, and their insights and reflections throughout. Figure 3.2 provides an overview of the overall research sequence of the study, positioning the two literacy events among the four research activities. Additionally, the data collection methodology utilised in the two events and associated research activities are identified. The data collection methodology and a more detailed explanation of each of these experiences are explained in the next section of this chapter.

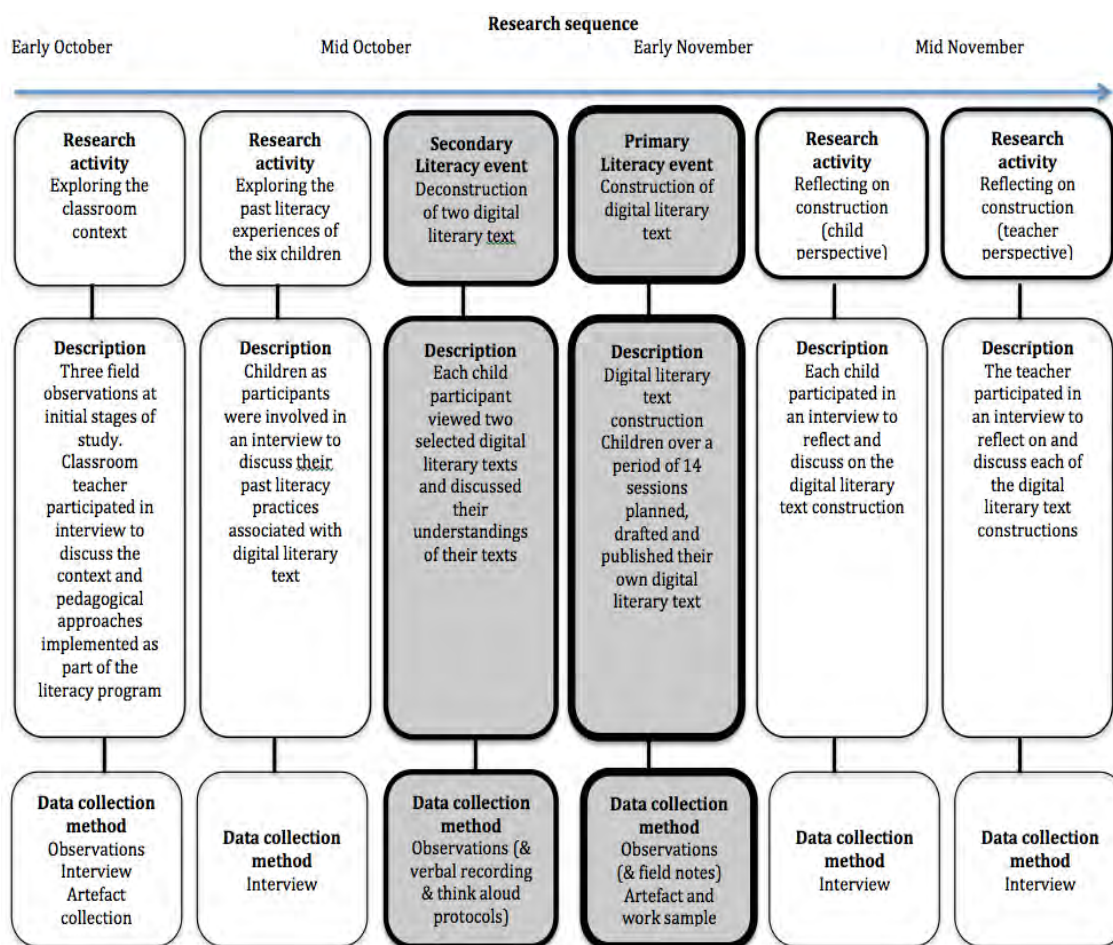


Figure 3.2: Research sequence of the inquiry

Data collection – design and implementation

The data collection methods for this inquiry were chosen for gathering data to support the focus of the inquiry, with particular emphasis given to the context of a school setting for the child participants. Forming core data were interview transcripts, field notes from observations and the collection of work samples. These data were collected from the case study participants. Supporting data included artefacts gathered throughout the period of data collection. An audit trail (Appendix F) was designed for the purposes of outlining the iterative stages of data collection and analysis, and to code the sets of data emerging from each of the data collection methods. Figure 3.3 outlines the data collected in this inquiry. Each of the methods of data collection used is discussed.

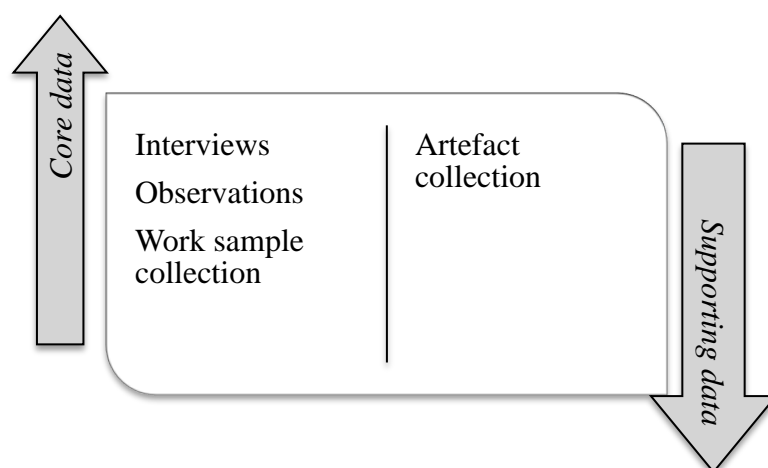


Figure 3.3: Core and supporting data collection methods

Interviews

Interviews provide rich insights into participants' experiences, attitudes and feelings (May, 1997). Lincoln and Guba (1985) describe interviews as an important method for capturing the constructions, reconstructions and projections related to a participant's experiences and beliefs. Stake (1995) observes that qualitative researchers use interviews in case study research to discover and portray multiple views of the case. Semi-structured interviews were incorporated into this research design.

Semi-structured interviews

Merriam (1998) describes semi-structured interviews as open ended and only somewhat structured. Semi-structured interviews assume that the respondents define their experiences in unique ways. In the present study, information was collected from each of the participants in order to determine their prior knowledge. However, flexibility was required with the wording of questions, the order of questions and the use of follow-up prompts and guiding questions. This flexibility was particularly useful when participants required additional information to answer the questions, or when refocusing on the question's intent was needed. A semi-structured interview design allowed the researcher to probe beyond the set questions to discover more information if required. This meant that the interviewer could seek both clarification and elaboration of the answers given (May, 1997).

Semi-structured interviews were conducted with both the children and the teacher and were used at the following four different points in the research sequence: 1) exploring the classroom context, 2) exploring the past literacy experiences of children, 3) reflecting on digital literary text construction (child perspective), and 4) reflecting on digital literary text (teacher perspective) (see Figure 3.2). All interviews were recorded using audio and/or movie recorders.

The semi-structured interview schedule is available in Appendix G. An explanation of the interviews at each of the four points in the research sequence is now given.

Initial teacher interview to explore the classroom context

A semi-structured interview with Mrs Madden was conducted prior to classroom observations, with twofold intent. First, it would afford the building of rapport so Mrs Madden could feel at ease to express her own feelings and experiences throughout the interviews. This rapport was essential because later data collection with the child participants would be conducted over an extended time in a setting that was the responsibility of the teacher. Secondly, the interview data allowed for the collection of background information about the classroom in which all of the children learned. Mrs Madden was invited, through a series of questions and prompts, to: a) discuss ways

that technology had been integrated into the literacy teaching and learning program that year, b) share the prior literacy experiences in the classroom, and c) predict the six children's responses to viewing the two digital literary texts and creating their own. The questions designed for this semi-structured interview can be found in Appendix H. The interview took place in a small meeting room at the school and was recorded using an iPad and later transcribed.

Initial child interview to explore past literacy experiences

The initial semi-structured interview with each child (see Appendix J) was designed to allow the researcher to explore the past literacy experiences of the six children before they participated in the literacy events designed for this inquiry. The data from these interviews was the first from the individual child participants. Prior to the interviews the researcher visited the classroom on three occasions in order to get to know the students and their learning environment (see 'observation' section in this chapter for further details).

The initial child interviews provided opportunities for the researcher to spend time and hear them talk about their experiences as authors and users of texts. Each interview was held in a small room next to the regular classroom and recorded via movie recorder and audio recorder. The aim of these initial interviews was to capture each child participants' perceptions of themselves as viewers and authors of digital literary texts as well as their preferences and attitudes to technology and literacy. Determining the participants' prior knowledge about digital literary texts supported a deeper analysis of the data collected during the field observations that followed.

Final interview with children (post-observation) to reflect on digital literary text construction

A final semi-structured interview (Appendix K) was completed with the six child participants after they had viewed two digital literary texts and created their own. As with the initial interviews, each interview was recorded using both movie and audio recording. They were held in the same small room as the initial interviews. The intent of the post-observation interviews was to invite each of the children to reflect on their

experiences as they created their own digital literary texts and to add any additional insights about their literacy practices.

Final Interview with teacher (post-observation) to reflect on digital literary text

A final post-observation interview (Appendix I) was also held with Mrs Madden at the conclusion of the data collection. The teacher's post-observation interview was approximately 45 minutes in duration and it was recorded using an audio recorder. The aim of this interview was to share with Mrs Madden observations, interview responses and artefacts collected from the children throughout the inquiry, and to invite her reflections and insights as their regular classroom teacher. These reflections added to the thick description of the collective case study by providing etic perspectives (Lankshear & Knobel, 2004) of the children's practices.

Observations

Observations of participants as they engage with the literacy events and practices of their communities are a primary technique of classroom-based ethnographers. In this inquiry, the researcher recorded the interactions of the children with each other and with the researcher as they engaged with the literacy events of deconstructing and then constructing digital literary texts. Lankshear and Knobel (2004) explain that researchers in educational contexts should become 'insiders' in the environment being observed in order to deeply understand the participants' practices. The researcher therefore worked alongside the participants, viewing, talking, supporting and learning along the way. Bogdan and Biklen (1992) refer to this as "capturing a slice of life" (p.84). These observations provided a basis for in-depth exploration of the literacy practices of the six digital literary text constructions.

Participant observer techniques were utilised when working with the six child participants (Cresswell, 2013). The child participants were fully aware of the researcher and the intent of the observations. As the researcher was also the facilitator of the deconstructing and constructing of digital literary texts, the learning experiences were recorded via audio and visual recordings. This allowed a more active interaction between the children and the researcher, and field notes were written

once the lessons were finished at each data collection session.

Over a period of six weeks, the child participants were the focus of approximately twenty structured and unstructured observations (Lankshear & Knobel, 2004) with each observation lasting between approximately half an hour and one and a half hours. The observations were undertaken two to three times per week. Depending on the completion time of text construction, there was a variation in the number of observations for each child. Observations occurred during the normal morning literacy time between 9.00 and 11.00am. Structured observations were carefully planned to include literacy experiences that the children participated in based on digital literary texts. For example, children engaged in an author's chair, as an opportunity for each writer to share and receive feedback from their peers. The unstructured observations had no defined tasks planned and instead focused on capturing the children's behaviours and practices throughout their literacy experiences. While the three initial field observations took place in the classroom based on planned literacy learning experiences organised by the teacher, all other observations were completed in a small room next to their regular classroom. The purpose of using this room was to provide a space where the children could freely participate in the deconstruction and construction literacy events in the inquiry in an environment that was close to their teacher but also provided a safe and productive environment for video and audio recording. Whilst the literacy experiences that the children participated were a slight departure from the normal classroom routine, the general focus on the deconstruction and construction of literary text was carried on throughout the normal literacy program for all Year 5 students. This ensured that the observations, as part of this inquiry, did not impede on the literacy teaching and learning for the child participants.

Observations occurred across three stages in the research sequence: 1) exploring the classroom context, 2) deconstruction of two digital literary texts, and 3) construction of digital literary texts. Table 3.2 provides an overview of the observation schedule. Further details about each observation follow.

Table 3.2: Observation schedule

Research sequence	Audit trail codes	Observation type	Literacy activities observed
Exploring the classroom context	FN0.1	Unstructured	Field observations of children during literacy learning time completing planned activities by teacher
	FN0.2	Unstructured	
	FN0.3	Unstructured	
Deconstruction of digital literary text	SCR_ <i>Mimis</i> AVR_ <i>Mimis</i>	Structured	Text deconstruction: <i>Dust echoes: the Mimis</i> using verbal reporting
	TAP_ <i>Mimis</i>	Structured	Think aloud protocol
	SCR_ <i>Lessmore</i> , AVR_ <i>Lessmore</i>	Structured	Text deconstruction: <i>The Fantastic Flying Books of Mr Morris Lessmore</i> using verbal reporting
Constructing digital literary text	FN1, AVW1	Structured and unstructured	Writer's notebook & independent writing
	FN2, AVW2	Unstructured	Independent writing
	FN3, AVW3	Structured	Reflective conversations on pre-writing ideas and independent writing
	FN4, AVW4	Structured and unstructured	Text deconstruction with a focus on digital features and independent writing
	FN4, AVW5	Unstructured	Independent writing
	FN6, AVW6	Unstructured	Independent writing
	FN7, AVW7	Structured	Mini lesson on aligning text form with writing style
	FN8, AVW8	Unstructured	Independent writing
	FN9, AVW9	Structured	Author's chair
	FN10, AVW10	Structured and unstructured	Independent writing and visit from IT consultant
	FN11, AVW11	Unstructured	Independent writing
	FN12, AVW12	Unstructured	Independent writing
	FN13, AVW13	Unstructured	Independent writing
	FN14, AVW14	Unstructured	Independent writing

Observations to explore the classroom context

Three field observations were completed at the beginning of the inquiry in order to observe the children as participants in their classroom program. The purpose of these observations was to learn about the children as literacy learners and to get to know them in a familiar environment before working one-on-one in structured observations. During these observations children engaged in a range of literacy learning experiences, planned by Mrs Madden as introductory activities focused on digital literary texts. Field notes were completed during and after each observation.

Observations of the deconstruction of two digital literary text

Following the field observations the six child participants were invited to work with the researcher in three structured observation sessions focused on the deconstruction of digital literary texts. In this inquiry, deconstruction refers to a time when the child as participant worked with the researcher to explore examples of digital literary texts. These sessions were opportunities to talk about the social context and purpose of the texts and the structural and multimodal features designed to make and share meaning. Derewianka (1991) explains that deconstruction provides a means of examining models of texts, which students might refer to when writing independently. These observations were designed to provide children with examples of digital literary text formats to support their understanding of the text they would later plan and construct. Three observation sessions engaged the children in the viewing and deconstruction of two digital literary texts. The purpose was to look across the data sets of two texts to examine the students' literacy practices when viewing the texts against one another to generate substantial conclusions.

Text selection

Two digital literary texts were selected for each of the six children to view and deconstruct with the guidance of the researcher. The Board of Studies (BOS) in New South Wales (NSW) recommended texts to teachers of kindergarten to Year 10 in the document, 'Suggested Texts for the English K-10 Syllabus guide for teachers in NSW' (Board of Studies (BOS), 2012). This document provides a list of different texts considered relevant to a variety of genres, ages and themes. One category of

suggested texts in this guide is 'media, multimedia and digital texts'. Students in NSW are expected to study, evaluate and create these types of text as part of the English curriculum. For students in Year 5, there are five suggested media, multimedia and/or digital texts suggested, of which, two were selected for deconstruction: *Dust echoes: the Mimis* (ABC, 2007), and *The Fantastic Flying Books of Mr Morris Lessmore* (Moonbot, 2011).

The Mimis is a story from the *Dust echoes* website (ABC, 2007). The website includes twelve animated Aboriginal dreamtime stories from the Wugullar (Beswick) Community in Central Arnhem Land in the Northern Territory in Australia. Each story was originally recorded as an audio file and then interpreted as a short animated movie by various Australian animators. In addition to the animated movies, the website includes a written version of each dreamtime story with accompanying resources such as a synopsis, quiz, study guide and glossary.

The Mimis is about a small child with perceived weaknesses who follows the spirits from the underworld and becomes lost from his family. The underlying message of the story is about acceptance and diversity. The text is told as a movie, including audio, oral narration and visual animations. It includes a written synopsis incorporating a description of what the story means and where it comes from.

The second text, *The Fantastic Flying Books of Mr Morris Lessmore* manifests in four versions by William Joyce and Moonbot Studios: an animated film (2011), an app (2011), a picture story book (2012) and an interactive IMAG-N-O-TRON augmented reality app (2012). For the purposes of this inquiry the app was used as part of a txt deconstruction with children.

The digital literary story app tells the tale of Morris Lessmore, a man who loves books. After a hurricane sweeps away the buildings and many people of his township he is left with a colourless world filled with little hope. As Morris ponders the purpose and

direction of his life he notices a woman flying through the sky, led by a squadron of books. The flying lady urges Morris to follow her to a library where he soon amongst the books. Initially Morris tends to the books, fixing and repairing bindings and torn pages and also crafting and refining his own story in the hope that it may also one day fly. Soon, his passion for books is extended when he shares the myriad of books with others. Through the sharing of books Morris literally brings colour back to the lives of people who visit the library. Moonbot (2011) describes their interactive story app as a reinvention of digital storytelling that blurs the line between picture books and animated film. The use of animation, interactivity, original music, vivid illustrations and playful games augments the story and invite users to embed themselves in the digital literary text through interactive features on every page.

Observation process during deconstruction

Each observation during the text deconstructions started with an introduction to the task and a general preview of the text. It was emphasised to each child that the reading experience that they were invited to participate in was not a test and therefore there was no right or wrong way to view the text. During observations each child was invited to engage with the text using their own iPad. Each child had control of their iPad and the reading pathway they took to view of the text.

Pea and Lemke (2007) suggest that data from multiple sets of observations be used to capture the communicative exchange and to support a closer and more detailed reading of collaborative interpretations that ultimately allows for clearer explanations. Therefore, as each child viewed the two texts, their literacy practices were captured using a movie camera and screen recording software. The movie camera was set up to focus on the screen of the iPad. The intent was to capture the behaviours of the child as well as their oral interactions with the text and the researcher. Additionally a screen capturing software program called Camtasia (TechSmith, 2011) was used to capture the movements on the screen from each child. This recording provided valuable

observational data such as the navigational pathways each child used to view the texts.

To support the observation data collection, verbal reporting was also employed. Verbal reporting allowed the researcher to gather data by asking participants to vocalise thoughts as they performed the task (van Someren, Barnard, Sandberg,, 1994). The researcher discussed with each child their thinking and reading behaviours during and after the reading. Below is an excerpt of a recording using a verbal protocol that was used when Emma (E) was discussing *Dust echoes: the Mimis* with the researcher (R).

R: *What are you thinking?*

E: I understand like what they are trying to say and now that I have read it I can understand what they say in the story. And I can sort of connect to my own life, when it happens to me and like my parents and friends like help me and that they just aren't going to leave me (7.35)

R: *Is there anything that surprised you in the story?*

E: Umm, I was surprised like how the Mimis' world was upside down. Like when you went to the Mimis' world it was like turned around. Like it sort of meant to me that you have to look at things like the other way around. So they are looking at it the other way but then the son sees it a different way.

R: *Umm, anything that confused you?*

E: It confused me how the hills were moving and how the son's like umm, no like the father's hair grew.

Think-aloud protocol

A think-aloud protocol (Appendix L) was used in between the first and second reading observation of the two select texts. This method of inquiry has been used by many literacy scholars (e.g., Coiro & Dobler, 2007; Ericsson & Simon, 1993; Pressley & Afflerback, 1995) and is an effective way to encourage participants to talk about their

behaviours and practices and it can help the researcher learn more about cognitive processes that cannot be observed. Spires and Estes (2002) recommend that think-aloud protocols be used to support observational data to help uncover potential cognitive processes inherent in texts such as digital literary texts. In this inquiry a think-aloud protocol was used to collect the verbalisation of the participant after they had completed the first viewing of the *Dust echoes: the Mimis*. It was designed to support the children to have some space to discuss with the researcher their initial thoughts when deconstructing the text and to aid the children to build some confidence and language to partake in the second digital literary text reading of *The Fantastic Flying Books of Mr Morris Lessmore* (Moonbot, 2011).

To conduct the think-aloud, the researcher played back sections of the children's digital reading of *Dust echoes: the Mimis* (using the screen recordings from Camtasia), highlighting different events and asking the child to tell the researcher more about the strategies they used and the choices they made. Below is an excerpt of the think-aloud from one of the children Ben (B) as he discussed his viewing with the researcher (R).

R: Thanks for working with me today. I wanted to play you back some of the recording of when you read The Mimis to talk to you about some of the decisions you made when reading the digital literary text. I'm interested to learn about how you read it. Is that okay?

B: Yeah.

R: Now when you started the story, can you remember what the first thing you did was?

B: Umm, I watched the movie of it.

R: Yeah the first thing you did was watch the movie. Why do you think that you made that decision?

B: Umm, so then I can sort of get a feeling for what it is about and like and then I can see what they think it is about and I can interpret it my way and like get a basic outline of like what the story is like.

R: Hmm, okay. Next you went to what the story means. Why do you think

you did that?

B: Umm, because I had my interpretation of what the story means and I wanted to see what the story means to them.

R: *And what did you find out?*

B: Umm, I found out that what my interpretation of it was similar to what they thought of

Observations of the construction of digital literary text

After viewing the two digital texts, the six child participants, over the course of four weeks, created their own digital literary text across fourteen writing sessions. Each of these sessions was set up in a small room next to the children's classroom. All six children worked in this room at the same time. This environment allowed the observations to be recorded without the likelihood of non-participants being videoed. It also provided an opportunity for the six child participants to create their own digital literary texts and also collaborate with one another. Structured and unstructured observations occurred throughout the fourteen sessions.

Structured observations

The structured observations were a collaborative effort planned between Mrs. Madden and the researcher based on mini lessons focused on the writing processes of digital literary texts. The researcher administered the sessions. From the initial interview data it was identified that while the children had vast experience in creating narratives and factual digital texts, they had limited experience creating digital literary texts, and therefore these sessions acted as scaffolds to support their learning and enabled them share their writing practices. A summary of the tasks and intent of the structured observation sessions is available in Appendix O. Each session was recorded using an audio-visual camera that was placed in the corner of the room in a position that captured the interactions and behaviours between participants.

Unstructured observations

The six children also were observed during independent time. During these sessions they worked independently, however the researcher and teacher were available for

consultation as requested by the individual children. Unstructured observations gave the researcher the opportunity to observe individual children and provide support where needed. Observations during these sessions were captured in four different ways. The audio-visual camera was used to capture general interactions and behaviours of the students as a group. The contextual data from the camera added important insights to the environment in which the child participants worked. Field notes were also utilised to record the thoughts of the researcher during and after observing the participants. However, the researcher's role of participant observer meant that field notes could not always be captured as the child participants required support with their writing. In these instances, the audio-visual camera acted as the main observation tool. After each recording the researcher viewed these recordings and scribed the actions and discussions viewed. Lastly, throughout the writing process a Camtasia screen capturing recordings was utilised at different points of the construction process. Whilst this recording data provided important micro data of the screen actions for each child, it only allowed one child to be recorded at any given time and therefore systematic recording across the entire writing process was impossible. Once students began to publish their work, it became difficult to capture this screen data, as most children were working across multiple screens.

Work sample collection during construction of digital literary text

At the conclusion of the digital literary text construction child participants were invited to export their published digital literary text for sharing with the researcher. The exporting process for each child was dependent on the publishing platform used. For example, one student used Keynote (Apple, 2013a) as the publishing platform and chose to use Google Drive (Google, 2013) to export the file to the researcher, as it was too large to send via email. Another student airdropped the file from her iPad to the researcher's computer as this proved the most effective method based on the publishing platform. This process of sharing proved important to the process for individual children as it marked the point where they identified they had completed their text and were ready to share it in a public way.

Artefact collection during the exploration of the classroom context

During the initial stages of the inquiry, artefacts were collected from the teacher participant and the classroom environment to explore the learning context more deeply. Lankshear and Knobel (2004) explain that written data such as artefacts can be categorised according to their relationships to the inquiry. Extant artefacts are those that exist independently of the inquiry. In other words, they would still be produced had there not been a research inquiry. In this inquiry extant artefacts involved classroom photos of past work displayed in the classroom.

These data helped provide the context and background of the case and provided information about previous teaching and learning experiences. Examples of the non extant artefacts collected were generated from the inquiry and included:

- photos of classroom activities that were associated with the teaching of digital literary texts
- examples of lessons plan and unit planners from the classroom literacy program
- screen shots of the children's work from their iPads.

Both types of artefacts were essential background to understanding the collective case. Hodder (2000, p. 157) observes that any texts collected as data need to be analysed in the "contexts of their conditions of production and reading" and it is within the context of the understandings reached through analysis of interviews and observations that relevant artefacts were analysed.

Preparing the data as case records for analysis

During and after data collection, careful consideration of the organisation of data was required. This section describes how the thick sets of data were initially organised into individual case records for each participant.

Data was initially organised according to the individual case records. To begin this process, the initial and post-interview data from the teacher was transcribed and the artefacts collected during initial field visits were collated and chronologically coded. Data from the teacher interviews and classroom artefact collection were combined into one case record to create a verbatim record of data associated with the teacher as participant (see Figure 3.4 for an example of this case record).


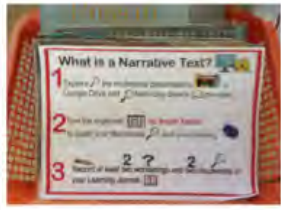
Teacher Case Report	
<p>Participant: Teacher Date: October (various points) Data collected: Initial teacher interview, post observation interview, classroom artifacts</p>	
Interview data	Classroom artifacts
<p><u>Initial interview data (POIT)</u></p> <p>R: Thanks for meeting with me today Maria. I am really excited to be working with you on this project. Because the study is focused on how children use technology to construct digital literary text can we firstly discuss <u>how</u> you have integrated the technology into the literacy program this year?</p> <p>M: oh ok. Umm I've done a lot of publishing, I've done a lot of umm online games like study ladder and things like that. I've umm used Google drive you know where I insert where I download using say maybe YouTube and then I can upload it into Google Drive and then they can access it because we have problems with the internet so that's a good way to access like YouTube clips and they can do a response to it.</p> <p>R: you did that yesterday with the digital texts in immersion M: yeah M: so I have done things that like were I ask them to respond and I pull it apart using some comprehension strategies that I want to focus on or give them a story or short task umm yeah some type of story and ask them to do some writing response to it. Umm certainly there got overdrive where they got their eBooks.</p>	<p><u>Classroom photos of artifacts (CPA)</u></p>  <p>CPA1</p>  <p>CPA2</p>

Figure 3.4: Examples from the case record of the teacher as participant

Next, a case record for each child was organised. This process was more rigorous than the teacher case record as it involved rich data sets that required organisation and segmenting to allow the researcher to collate, analyse and code in the same document multiple data sources. To manage this thick set of data, individual digital folders were firstly set up for each participant, in which data could be stored chronologically according to date and type. The preliminary process involved processing audio-visual data into textual data by transcribing the initial interview data from each child

participant from the audio-visual recordings. Following the transcription of initial interviews, artefacts in the form of student assessment data was added as screen shots to the case record. Next, data from observations of each child as they deconstructed the two digital literary texts was organised to form a screen recording script. Each script included Camtasia recordings from the viewing of the two digital literary texts by each child and their responses to the verbal recall and think-aloud protocols. Transcriptions of the Camtasia recordings provided data of the screen actions and discussions between the child and the researcher whilst viewing each text. Each recording was viewed on one screen while reading actions and discussions were typed into a separate word document. The recording was played from beginning to end and was paused at each successive action. An excerpt from one student's transcribed screen recording script is provided in Figure 3.5. In this way, information gathered from the recording was transformed into a trail of the literacy practices each child utilised during the deconstruction of the two digital literary texts.

Action	Discussion
Clicks on video to play and then enlarges screen using drag function (1.32)	So I would probably watch the thing first and then the things over here (1.28)
Views full movie including credits (1.37)	<i>What do you think?</i> I think the story is about like don't give up in yourself and just keep trying. You can learn from others and what they do (6.21)
Clicks out of movie (6.36)	<i>What are you thinking?</i> I understand like what they are trying to say and now that I have read it I can understand what they say in the story. And I can sort of connect to my own life, when it happens to me and like my parents and friends like help me and that they just aren't going to leave me (7.35)

Figure 3.5: Excerpt of one child's screen recording script

Lastly, data from the observations, interviews and artefacts pertaining to each child as they constructed their own digital literary text was organised. This thick description included field notes, transcribed audio-visual observations, screen shots of children's

work, a transcribed Camtasia screen which capture data, a work sample collection of the final writing product and post-observation interview data by the children. All data for each child participant was then organised in a structure similar to the one used for the teacher case report, ready for data analysis. Figure 3.6 shows how the data was organised in individual case records.

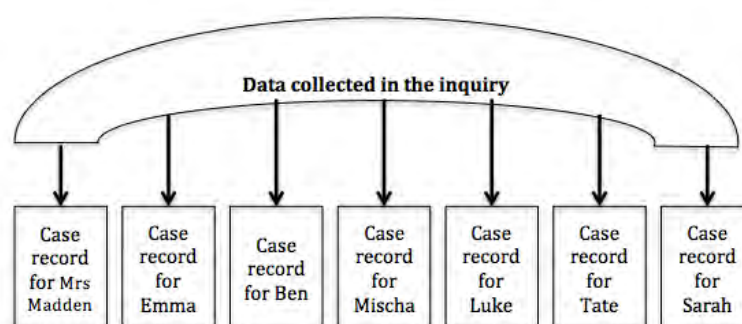


Figure 3.6: Organisation of data as individual case records

Data analysis

Considering the inquiry's theoretical foundations in literacy as a social practice and new literacy theory, the analytical goal was to make sense of the new literacy practices employed by the participants in the social context within which they participated during digital literary text deconstruction and construction. The theoretical framing of social context informed the qualitative analysis.

Social context as a theoretical frame of analysis

Literacy, according to the inquiry's theoretical orientation, is socially constructed and therefore literacy practices are dependent on the context in which they are learnt. For this reason, the social context in which the digital literary texts were constructed was the theoretical frame for data analysis. By analysing the data according to the social context it was observed in makes it possible to consider how the literacy practices enacted by the children as participants connected to the context in which they participated. Together, the literacy practices identified within the particular context of

digital literary text deconstruction and construction offered a framework for examining the practices the six Year 5 children during the literacy events. This theoretical frame of analysis is significant because it shows how the children as participants utilised literacy practices through their social contexts (see Figure 3.7).

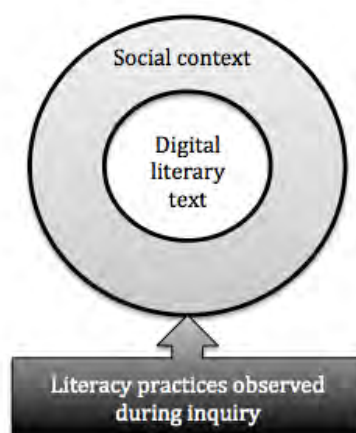


Figure 3.7: Social context as an analytical frame

A three-step process of data analysis

The data analysis involved three processes: segmenting and reducing data into two literacy events, deductively analysing data according to the theoretical frames of the inquiry, and inductively analysing the data according to emerging themes. In this way the patterns can be coded based firstly on the knowledge of the theory and then further developed based on emerging patterns in the data. Each of these analytical processes is explicated below. This hybridised approach complemented the theoretical orientations of the inquiry by allowing the tenets of the two theoretical frames of literacy as a social practice and new literacies theory to be integral to the process of deductive analysis while allowing for themes to emerge directly from the data using inductive coding. By utilising the theoretical orientations of the inquiry in the analysis, the findings from the data analysis are articulated and aligned with the theoretical and analytical frames (Silverman, 2000).

Segmenting and reducing the data of the social context into the two literacy events

Data reduction in this inquiry involved decisions about which data was significant to the research questions of the inquiry (Silverman, 2000). This meant data could be segmented into themes that addressed specific aspects of the research focus (Merriam, 1998). In this inquiry, the process for reducing the data was through the segmentation of the data organised in the case records into the two extended literacy events of the inquiry: deconstruction and construction of digital literary texts (see Table 3.3 for category descriptions of each event).

Table 3.3: Categorising to segment case record data into two extended literacy events

Segmenting category label	Category description
Deconstruction of digital literary text (DT)	This category identifies data pertaining to literacy practices associated with text viewing and deconstruction. For example: <ul style="list-style-type: none">- Types of text and models- Text structures- Purposes and audience of text
Construction of digital literary text (CT)	This category identifies data pertaining to literacy practices associated with text construction. For example: <ul style="list-style-type: none">- Writing processes- Tasks and products related to text construction- Resources used to construct text

Researchers of social theories of literacy, the primary theoretical orientation of this inquiry, often use literacy events as the basic unit of analysis of data (e.g., Barton & Hamilton, 1998; Street and Baker, 2006). As events constitute the discourses and actions that are socio-culturally defined, data analysis can account for the dynamic contributions that the individual participants and groups make during the event (Rogoff, 1995). According to this perspective the children as the primary participants developed literacy practices in situational contexts and therefore examination of these practices should be in a context in which the object of the analysis becomes the literacy event. Thus, this inquiry used the two literacy events of deconstruction and

construction of digital literary texts as the initial unit of analysis. By using two literacy events as the basic units of analysis, the researcher recognised that the literacy practices of each child participant would vary across different contexts and situations and therefore no claims can be made about replication of the findings.

In order to segment the data across the two literacy events of the inquiry the individual case records were read in their entirety and coded according to the literacy event they pertained to. Two scripts were generated for each child that documented the data according to the two literacy events: a deconstruction script (see Appendix M for example) and a construction script (see Appendix N for example). In this way data was organised to provide a rich account of the observed and documented practices and discussions from each of the participants according to each literacy event in the social context (see Figure 3.8). It is important to note that while the construction of a digital literary text formed the primary literacy event in this inquiry, the deconstruction event acted as secondary, providing an additional opportunity to explore the social contexts of the six child participants, including their prior knowledge and the social purposes of digital literary text and their considerations of the structural, digital and linguistic features of this type of text.

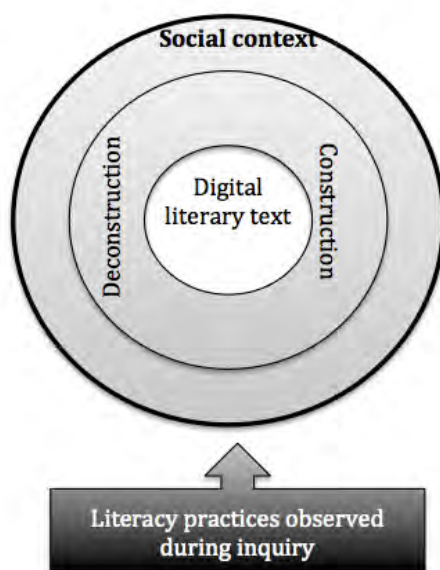


Figure 3.8: Theoretical frame of analysis in association with the two literacy events

Deductive analysis of the two literacy events

Following on from segmenting of case record data into literacy events, deductive analysis was undertaken. Deductive analysis refers to analysis that utilises prior assumptions and theories to analyse data. Yin (1989) explains that qualitative researchers using case study methodology adopt a process where data is compared to established theory in order to support that theory or suggest an alternative interpretation (p.38). In this inquiry the process of deductive analysis involved drawing together three category codes for analysis. The categories emerged from the two theoretical perspectives, literacy as social practice and new literacies theory. The three category codes identified for deductive analysis are WP (writing process), MC (modes for communication) and R (resources). Each acted as a template in the form of a category code that was applied as a means of analysing the data for subsequent inductive interpretation. Through the analysis of the three codes data could be examined to reveal more comprehensive understandings of the literacy practices the six Year 5 students during digital literary text construction. In this process data were further reduced and essential understandings of their experiences emerged (Creswell, 2013, Seidman, 1998).

To complete this deductive analysis, the deconstruction and construction scripts for each participant described in the previous section were read in their entirety and coded against the three category codes previously mentioned. Each of the category codes used in this inquiry are highlighted in Figure 3.9 and explicated below in consideration of the theoretical orientations of the inquiry.

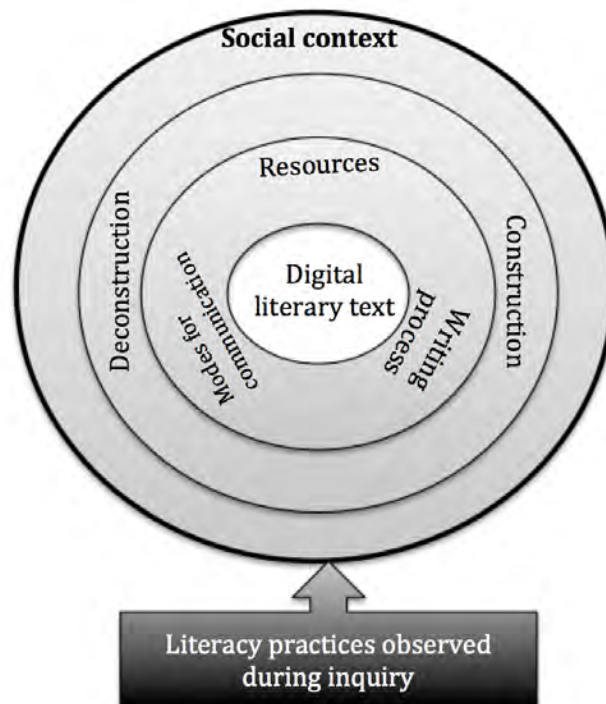


Figure 3.9: Category Codes derived from the theoretical frame and literacy events of the analysis

Writing process

If we accept that literacy practices must be considered within a social context then the writer's position, purpose, audience and knowledge of structural and language features are all being shaped within the act of composing as part of the writing process. Thus, by capturing the writing process, we can not only analyse the contextual elements drawn on in composition, but we can also capture the literacy practices used during composition to reveal how digital text construction works across physical, social and technological contexts. In other words, we are able to document the literacy practices mediated by the digital literary text writing process. This supports an understanding of how such texts are constructed.

Therefore, the analysis of the writing process draws from theoretical work that argues that text construction is a socially constructed process where users and consumers move between nonlinear stages (Calkins, 1983; Graves, 1994; Murray, 1982; Smith, 1983). This movement is based on the aims of their meaning making and the social

factors that they bring to the text. From this perspective, text construction is not only an individual process but also a socially constructed, language-mediated process (Sweet & Snow, 2002).

Modes for communication

Modes for communication refer to how meaning is created and distributed to compose a message, for example, written, oral and visual modes. In this inquiry the modes of written, visual, oral and audio were identified and examined. The oral mode includes voice-overs and the audio mode refers to sound effects and music. New literacies research (e.g., Kalantzis & Cope, 2012; Lankshear & Knobel, 2003; Leu et al., 2013) proposes that meaning in digital texts is constructed across ensembles of modes, and that multiple modes require new literacy practices. The way modes are represented in digital text can look different to paper-based text. As a result these modes shape the meaning that is designed by the author and communicated to an audience. The ways each child utilised the different affordances of the modes is a focus of the deductive analysis of each literacy event of this inquiry.

Resources to create meaning

Writers utilise different resources based on their purpose, audience and knowledge of the text they are constructing. Unlike traditional paper-based texts that typically combine two types of media, written print and two dimensional graphics, digital texts integrate a range of dynamic and multiple media formats including moving images, sound and interactivity (Callow, 2013). New literacies theory therefore assumes that users of digital texts must understand how to construct, design and upload these digital features by understanding the different resources available (Leu et al., 2013). The data analysis in this study therefore considered the multiple resources the six children considered and utilised during the construction of their digital literary texts. This included their iPads, apps, reference materials, and literature.

Figure 3.10 is an excerpt from the deductive analysis process and shows how text segments in a child's construction script were coded according to the three deductive themes.

<i>Construction script for Emma</i>	<i>Deductive codes</i>
E: Um, I think it's going to be from like, Santa and the elves, a bit like a diary, like a regular book, like I think...	WP
R: So from their perspective? Yep, okay. And Luke?	
Luke: How will the story be told, written words or narrator?	MC
E: I think I'm just going to do written words.	MC
R: Sarah?	
Sarah: Will there be any sound effects in your story? If so how?	MC
E: Um, I think there's going to be some, and like, like what Ben's going to do, like record them on an app and when you're doing it, do that. Um, for that I'll use like, Garage Band and stuff and like to yeah do some sound effects.	R
R: Yep, okay. Alright, good, thank you.	

Figure 3.10: Example of deductive coding in Emma's construction script

Inductive analysis

Following the deductive coding, inductive analysis was used to categorise and further develop each of the deductive themes in the deconstruction and construction scripts for each child. Silvermann (2000) explains that coding data according to theoretical frames, such as the deductive process discussed above, should only be used as the initial stage of analysis. Examining more closely the relationships between the data is necessary. Therefore, analytical induction was used to raise the level of abstraction and to trace relationships between concepts (Punch, 2009). Inductive analysis refers to a process where a researcher reads in detail the data to derive concepts and themes through interpretation (Strauss & Corbin, 1988; Thomas, 2006).

In this inquiry the inductive coding process involved reading the coded data from the deductive analysis to determine sub-themes and additional outliers that emerged from

phrases and meanings in the many pages of textual data. After reading the coded data from the deductive analysis of the deconstruction and construction scripts for each child, a range of sub-themes emerged. These sub-themes were expansions of the deductive themes discussed earlier in this section. In Table 3.4, an excerpt of some of the sub-themes determined within the writing process is presented. A full list of the sub-themes for each code is available in Appendix P.

As with most coding and theme generation, an overlap of sub-themes was evident in the category codes (Glaser & Laudel, 2013). This was apparent, for example with image saving a sub theme in both the writing process (WP) and modes of communication (MC). The overlapping of codes highlights the complexity of deductive analysis across multiple artefacts and participants, where multiples sub themes are often generated.

Table 3.4: Excerpt of sub-themes used in deductive analysis

Code	Sub-themes
Writing Process (WP)	Talking about ideas Character development Identify series of events Identifying setting Editing images Placement of text Image saving Conferencing with teacher
Modes for communication (MC)	Extended written text Still images saved from Internet Designed moving image from still images from the Internet (so sound) Designed moving image from still images from the Internet with sound Still image saved from the Internet with additional drawn elements
Resources (R)	Keynote app Hyperlinks of websites Animations embedded in Keynote Explain everything Book Creator iBook Authors

At this point of the analysis, the inductive coding was contained within each of the deconstruction and construction scripts for each individual child as participant. However, as this inquiry utilised collective case study as a methodological approach to understand the literacy practices associated with digital literary text construction using

the six individual texts as cases, it was also necessary to compare the collected data in an effort to establish patterns within, in order to draw conclusions about the phenomena (Yin, 1989). Therefore, a further analysis of the data was undertaken to determine the relationships between these sub-themes across all case studies. In this final analytical process, data commonalities and differences were identified across the six individual cases in order to examine the implications for the data as a collective case. By systematically analysing the scripts of each child, commonalities and differences among the collected data were noted, checked and re-checked to make links between the various parts of the data and the emergent dimensions of the data. This process was repeated many times to ensure congruence between the data and the emerging themes (Burns, 1995). In this way the bounded system (Stake, 1995) of the individual parts became a whole. Table 3.5 is an excerpt from the inductive analysis across the six digital literary texts according to the writing process (WP) shown previously in Table 3.4. It shows the patterns that emerged collectively as the six digital literary texts were planned.

Table 3.5: Example of inductive analysis across case studies within the category code (WP) of the writing process

Writing process (WP)			
Planning			
Planning story design	Planning digital design	Planning across modes	Planning audience and purpose
Talking to peers	Researching apps	Identified image	Identified audience in notebook
Note-taking	Researching	design- still	Talking about audience to peer
Character developing	interactive features	Identified image	Talking about audience with researcher
Setting	Reading example of	design- moving	No audience documented
Series of events	digital text and note-taking ideas	Image searching	Identified purpose in notebook
Main message	Screen shots of digital	Image saving	No identified purpose
Digital design	text designs	Researching apps for audio design	
Text organisation	Identified apps to use	Connecting modes in notebook	
Audience	Identified websites to use		
Purpose	use		
Drafting platform	Talking to peers about tools and resources		
Searching ideas online			
Searching ideas			
Reading			

Parameters of the inquiry

Sample size

Qualitative research designs tend to include smaller numbers of participants than those used in quantitative and mixed methods approaches. In this inquiry, the experiences of six children and one teacher were examined as the children deconstructed and constructed digital literary texts. While the results obtained are not transferable to other contexts, a small sample size offers the opportunity to provide important insights for educators, policy makers and researchers about the demands and potential for digital literary text construction in primary school classrooms. Yin (2003) explains that case study methodology cannot be transferable to populations or universes and instead should aim to create rich theoretical frameworks that could be

useful in analysing similar cases. Furthermore Stake (2006) argues that the contribution to research of collective case studies is the variety of components and constraints found in individual cases that are bounded by the collective case. The outcomes of this collective case study contribute to further developing the theoretical frames of literacy as a social practice and new literacy theory by understanding the literacy practices utilised by six Year 5 children as they constructed their own texts.

Classroom context

The inquiry utilised ethnographic principles in order to understand and interpret the authentic and rich realities of a classroom as a research site. Each classroom is unique and will present its own realities and challenges. In this inquiry, the children had access to current and personal digital equipment that afforded the creation of digital literary texts. The students were experienced in using digital technology as they had engaged with the one-to-one iPads initiative in their classroom daily for three school terms prior to this inquiry. The teacher collaborated with the researcher on the content and process of the research inquiry and ensured the whole class had opportunity to engage with the learning experiences devised for this inquiry.

Extended engagement in the classroom setting was a significant part of the research design. The researcher and teacher often collaborated and shared the activities and work samples of children who were participants and non-participants in the inquiry. Through this sharing, the teacher as participant had opportunities to experience new perspectives on the setting, the people, the events and their experiences within it. This professional dialogue provided important opportunities for member checking, where the teacher as participant had opportunities to review data for accuracy. The inquiry was not an intervention and therefore no claims regarding the achievement of change subsequent to the inquiry can be made. However, the sharing of project findings has documented the complexity of the classroom-based environment and acknowledges the expertise of teachers and children working in the setting.

Ethical considerations

Lankshear and Knobel (2004) identify a set of ethical principles for educational researchers that take into account the sensitive nature of educational research. Some of these ethical considerations are now examined in connection with this inquiry. The inquiry aimed to be ethical by ensuring:

- Valid research design
- Informed consent
- Confidentiality.

Valid research design

The research inquiry was designed around qualitative case study design and ethnographical principles. Methods and procedures were designed to suit the interpretative nature of the inquiry and the theoretical frames considered. Additionally, the design of this inquiry was carefully considered to accommodate the sensitive nature of working with children. According to Kirk (2007), the unequal power relations that exist between children and adults in society are reproduced during research. Children may feel pressured to participate or express their opinions and ideas based on what they believe the adult wants to hear (McCrum & Bernal, 1994). Therefore, careful consideration to the research methodology and the relationship between researcher and participants must be considered. Christensen and James (2008) explain that children, like adults, “can and do participate in structures and unstructured interviews, they fill in questionnaires, they use new media; they are involved in action-research; and, on their own terms, they allow the participant observer to join with them in their daily lives” (p. 2). Adopting this perspective, the inquiry explored the experiences of the selected children by designing methodologies that used language and structures appropriate to the age of the children. The relationship between researcher and child was carefully considered, with the researcher firstly completing fieldwork in the classroom setting before completing any data collection. In this way, the children became familiar with the researcher in a safe and natural environment. Additionally, all research activities were set in a small room

next to the classroom that the children regularly used. The children therefore knew the environment and they could see and access their normal classroom at all times.

Informed consent

To ensure all participants were informed of the aims and the expectations of the inquiry, an information sheet was sent to the school principal, the teacher of the selected students and the parents of each participant. Parents/guardians were asked to sign a statement of informed consent if they agreed to their child being part of the inquiry. The consent forms invited parents/guardians to read the information sheet to each child and requested that the child sign the form alongside the parents. In this way the child participants knew they could choose whether to participate in the inquiry and could withdraw at any time. The congruence between the research-related activities and the classroom-based activities, and the collaboration between researcher and teacher, meant that no child was disadvantaged in their learning regardless of where (or with whom) they worked.

Confidentiality

All data collected remained confidential. Case study data, although not collected anonymously, remained confidential. All names or distinguishing features were replaced with pseudonyms before coding, analysis and dissemination. All documents collected in the case study remained in a locked cabinet in the researcher's office. No distinguishing features of the school, teacher, students or their families were used when reporting of the data collected.

Credibility of inquiry

The credibility of the inquiry was established using three techniques: prolonged engagement, triangulation and documentation using an audit trail.

Prolonged engagement

Erlandson, Harris, Skipper and Allen (1993) and Lincoln and Guba (1985) are among the many researchers who recommend 'prolonged engagement' between the investigator and the participants so that the researcher can gain an adequate understanding of a site and establish a relationship of trust with the participants. This is significant given the ethnographic principles adopted in this inquiry where comprehensive descriptions of the context and participants are imperative. The researcher worked with each child participant for approximately seventeen sessions, depending on the time of text completion. Prior to these sessions, the researcher was also involved in three field visits in order to build relationships with participants and gain informal contextual knowledge of the research site. This engagement between researcher and participants meant that sufficient time was allowed for thick sets of data to be collected.

Triangulation

According to Guba (1981) and Brewer and Hunter (1989), the use of different methods in concert compensates for their individual limitations and exploits their respective benefits. Triangulating multiple sources of data increases the trustworthiness and credibility of the findings. Olson (2003) explains that triangulation also has the capacity to develop beyond a credible tool to also deepen and widen one's understanding of the phenomenon being studied. This is particularly important in consideration of the ethnography and case study methodology adopted in this inquiry, since the lived experiences of the participants contributed significantly to understanding the collective case. Two modes of triangulation were considered in this inquiry: 1) different data collection modes (Guba & Lincoln, 1985), and 2) multiple informants (Evans, 2009).

Different data collection modes

Cohen, Manion and Morrison (2007) argue that a researcher can be confident about the credibility of a qualitative inquiry when evidence is gathered and analysed from multiple data modes. The range of sources from which data is collected provides a different source for information about the same phenomenon. In this inquiry data was

collected using multiple sources, including interviews and observations recorded via an audio-visual camera, screen capturing software and field notes. Secondary data in the form of artefact collection and a close reading also provided a wider context to the primary data.

Multiple Informants

Another form of triangulation is obtained through the use of multiple informants. The use of multiple informants enables individual viewpoints and experiences to be verified against one another. Ultimately, a rich picture of the attitudes, needs or behaviours of those being researched may be constructed based on the contributions of a range of people. In this inquiry, multiple informants were involved in the inquiry. Ongoing collaboration with the classroom teacher before, during and after the inquiry, in association with the six child participants' perspectives, meant that the various perspectives made the findings more powerful (Evans, 2009). The classroom teacher could add additional information and beliefs to the insights and observations from each child.

Audit trail

Creating an audit trail provides a structure for documenting how the inquiry was conducted (Ary et al., 2006). Most importantly, an audit trail provides evidence of the "investigator's mind processes, philosophical position and bases of decisions" made (Lincoln & Guba, 1985, p. 109). In this inquiry the audit trail was developed to code the multiple sets of data collected. Codes are used throughout the inquiry to cite the sources of data reported (see Appendix F).

Chapter conclusion

This chapter has discussed the methodological approaches employed in this qualitative case study. Guided by the two theoretical frameworks discussed in Chapter 2, the inquiry adopted a qualitative case study approach underpinned by ethnographic principles. The inquiry collected data from interviews, observations and work samples, and artefacts from six children and one teacher in order to understand the

phenomenon of digital literacy text construction. The use of an analytical framework which highlighted social context ensured data was analysed according the socially constructed view of literacy, the main theoretical orientation to the inquiry. The three themes derived from the theoretical orientation were discussed in relation to the way they were used to analyse the data of the two literacy events of deconstruction and construction of digital literary texts. The chapter described how inductive analysis was used process to further refine the data analysis and enable the researcher to characterise and compare the underlying themes across the individual case studies. Finally, the chapter outlined various measures that were undertaken to enhance the quality of the research.

CHAPTER 4: FINDINGS

Chapter introduction

This chapter presents the analysis of the data from the qualitative inquiry involving six Year 5 children as they constructed their own digital literary texts. The analysed data is referenced using the codes (for example FN0.1, POIT) from the audit trail (see appendix F). The process of data analysis in consideration of the two theoretical frames of literacy as a social practice and new literacy theory were used to examine the literacy practices they utilised during digital literary text construction. This chapter begins with a discussion about the children's classroom and provided important insights into the beliefs, assumptions and programming of the classroom teacher with regard to technology and literary texts. This enabled the researcher to understand the past literacy and technology experiences of the children as participants.

Following this is the reporting on the portraits of the individual cases. This descriptive data provides a detailed picture of what each child enacted as they constructed their own digital literary text. An introduction to the author of each text begins each case portrait, followed by an overview of the digital literary text they constructed. Subsequently, the process children as authors utilised during their digital literary text construction is explored. This focus on the text makes it possible to investigate the writing process, modes for communication, and resources. Each case portrait concludes with an interpretative summary. Together, these findings provide an understanding of the literacy practices and associated resources used during digital text construction by the Year 5 children who participated in this inquiry.

Figure 4.1 shows the relationship between the theoretical underpinnings and the reporting of data. This relationship is presented schematically by relating the theoretical foundations of the inquiry to the reporting of the data. The data analysis does not aim to describe the entire social learning culture of all the participants. Rather, it focuses on literacy practices involving digital literary text construction in a school context.

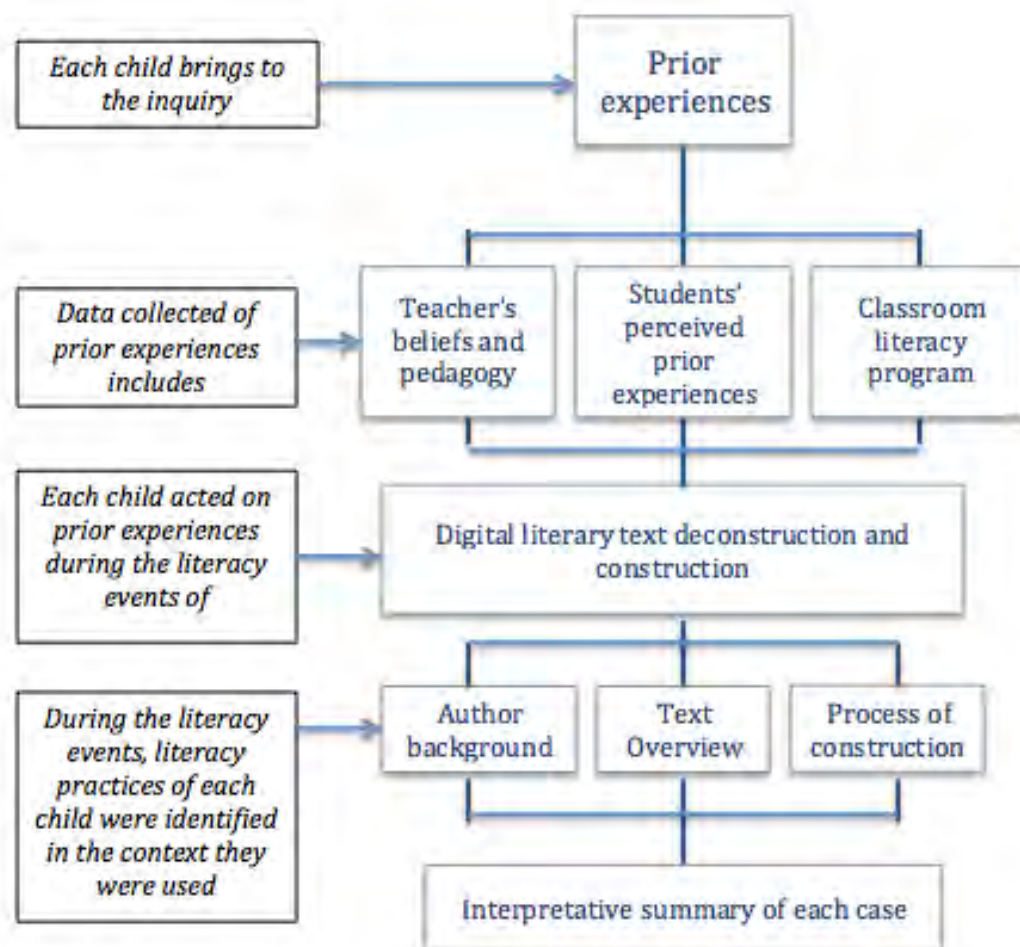


Figure 4.1: Schematic representation of the relationship between the theoretical underpinnings and the reporting of data

Meet the teacher – Mrs Madden

Mrs Madden was the regular Year 5 classroom teacher. At the time of the inquiry she had over twenty years of teaching experience and was into her first year of teaching using iPads as one to one devices integrated into her classroom program (FN0.1, POIT). Field notes, artefact collection and teacher interviews provided insights into Mrs Madden's beliefs, assumptions and programming with regard to technology and literary texts.

Mrs Madden shared that explicit skills and strategies for digital reading and writing were not taught in her classroom (POIT). There appeared to be an assumption that paper-based reading and writing skills are the same as digital skills. For example, she reported, “I don’t think I have spent a lot of time on this (teaching explicit digital reading and writing skills). I hope that I would use the same strategies” (POIT). Furthermore, Mrs Madden shared a belief that the children knew more about technology than she did, and therefore they were often not taught how to use technology explicitly. For example, she said, “sometimes they know more than I do with the app with the creation side of things ... I’ve got to this point now that I just have to say here is the app just go for it”) (POIT).

Additionally, the analysis of data revealed two important considerations related to the focus of the inquiry: children in the inquiry were immersed in literary texts, and technology was integrated into the literacy program, although the construction of texts had not yet been taught.

Integrated use of text in the classroom

Mrs Madden revealed that her literacy teaching and learning program had an extensive focus on text, with children reading and writing text each day. She explained that children regularly had opportunities to read fiction and non-fiction texts through independent reading, small groups and whole-of-class activities. A combination of digital and paper-based texts were used during whole class and independent reading time, while paper-based texts were the focus during most small group reading episodes such as guided readings and literature circles. Mrs Madden explained that factual texts had been a major focus for the children during writing and that she had not, at the time of the inquiry, explicitly focused on the construction of literary texts. She predicted, however, that the use of literary texts during reading experiences would ensure children had a sound understanding of literary texts features such as structure, description, punctuation, images and perspective when writing (POIT).

Integration of technology into the literacy program

Mrs Madden revealed that technology was integrated into the literacy program mainly for the purposes of research, scaffolding and publication. Additionally Mrs Madden discussed her choice and implementation of digital resources.

Research: To support and develop research skills, Mrs Madden taught children skills such as advanced searches and digital citizenship (POIT, CP8).

Scaffolding: To scaffold reading, a variety of apps and online websites were used regularly, for example Wacky Web Tales (Houghton Mifflin, n.d.), Storybuilder (Mobile Education Store LLC, 2010) and Book Creator (Red Jumper Limited, 2012) (FNO.1, FNO.2, POIT). Mrs Madden also explained that the highlighting tool in eBooks was used to scaffold children's meaning-making processes when reading (POIT). She had taught children how to highlight unknown words, for example, as a way of self-regulating their reading processes (POIT).

Publication: To guide children towards appropriate publishing platforms, Mrs Madden introduced a variety of apps for children to use for publishing their written work (POIT, FNO.1, FNO.3). Apps such as Explain Everything (Explain Everything sp. Z o.o, 2011), iMovie (Apple Pty Limited, 2013a) and Book Creator (Red Jumper Limited, 2012) were publishing platforms that children often used (POIT). She explained that she did not value standard software programs such as Keynote (Apple Pty Limited, 2013b) and Pages (Apple Pty Limited, 2013c) as she found them "bland" and that children often used them for special effects, which she believed did not add any value to their construction (POIT). Mrs Madden also explained that digital publication in her classes always adhered to specific criteria set by the teacher, for example, "they will always ask me, What do you want? as in, What's the criteria, what are you looking for?" (POIT).

Choice and implementation of digital resources: Mrs Madden explained that iPads were the predominant technological resource used in the classroom and that children in Year 5 were expected to bring their own iPad to school each day (POIT). Children could also access four desktop computers in the classroom or a portable trolley of laptops that was shared across the school (FNO.1). When discussing selection and use of technology Mrs Madden shared that parents were requested to create Apple ID's for their children using the child's school email address. She explained that while some children knew and had permission by their parents to use the ID and password to purchase apps, most did not. This meant that most apps on the iPads were consistent with school recommendations. The school provided a list to parents of the apps to be used throughout the year. This was sent home at the beginning of the year and occasionally updated as the year progressed. Mrs Madden explained that the apps on this list were selected in consultation with the IT technician and classroom teachers. Occasionally new apps purchases were requested based on ideas presented, for example, at professional development sessions (POIT). Mrs Madden shared that at the beginning of the year she spent considerable time showing children how to use these apps. For example, Explain Everything was used extensively in modelled practice as a way for children to plan and record ideas and research across a range of key learning areas (POIT). Further apps such as GoodNotes, iMovie and PuppetPals were regularly used in class, as was Google Images to search and select images for posters and PowerPoint presentations. There did not appear to be opportunities for children to bring in new ideas for apps from home and it was unclear whether the teaching of the app was focussed on the full affordance of the resource or just the functions aligned to the literacy activity.

Meet the classroom literacy experiences and literacy events

Because most of the literacy experiences of the research project were collaboratively planned in discussions between the classroom teacher and the researcher, Mrs Madden explained that she would engage the children in her classroom in the same

deconstruction and construction process of digital literary text alongside the process of this inquiry. In this way all Year 5 children in her class were involved in similar literacy experiences. For the purposes of the inquiry, the six Year 5 children who were participants in this study worked with the researchers in a room next to the classroom.

As explained in the previous chapter, data collection focused on two extended literacy events. The first was the deconstruction of two digital literary texts. Children initially participated in the deconstruction of two digital literary texts to explore the social contexts in which they were written, their social purposes and their structural, digital and linguistic features. This event provided a scaffolded opportunity for the children to explore a model for the digital literary texts which they would later construct, and it provided observable moments for the researcher to explore the prior knowledge and literacy practices of each of the children. In this inquiry, this literacy event was called a 'secondary' literacy event because data analysed provided secondary data to the subsequent primary literacy event, which focused on the construction of digital literary texts.

The primary literacy event is therefore the construction of digital literary text where each child, over a four-week period, spent time planning, constructing and publishing their own digital literary text. This event aligned specifically to the purpose of the inquiry focussed on exploring the literacy practices associated with digital literary text construction.

Before participating in these two literacy events, the children in Mrs Madden class, including the six participants, engaged in some initial literacy learning experiences designed by Mrs Madden as introductory activities prior to the focus on digital literary texts. During this time field notes and artefacts captured these initial literacy learning experiences. The following section discusses both the initial classroom literacy experience planned by Mrs Madden and the two literacy events the children as participants planned in collaboration with Mrs Madden.

Initial classroom literacy experiences

In the initial week of the inquiry, all children in Mrs Madden classroom, including the six child participants, participated in various literacy learning experiences planned by Mrs Madden and based on literary text deconstruction (CPA2, CPA20, TA1). The researcher, at this stage, worked in the classroom getting to know the children and the teacher. Figure 4.2 is an example of an initial activity where children in groups used a teacher-selected basket of literary texts, in addition to an online folder set up with digital literary texts, and were asked to explore the texts and record the text features identified from the resources on a Google document (see Figure 4.2).

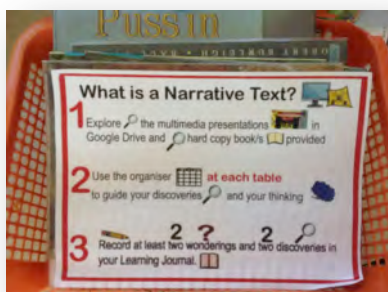


Figure 4.2: Artefact collected of a small group activity focused on text deconstruction

Additionally, Mrs Madden planned a range of literacy activities (TA1, CP3) during this week focused on text deconstruction (see Figure 4.3) where the children and the teacher explored a print and digital literary text with the aim of examining the social context and purpose of the text and the ways the structural and multimodal features were employed to make meaning.

Investigating Multi-Media

Discoveries	Purpose	Target Audience	Message	Feelings evoked	Layout (Page)	Background Colour	Scene (Col)
What do you see?	lots of detailed pictures unusual	Upper Primary Older chn.	Half full or Half empty perspective all diff.	badness loneliness unwanted friendship brightness	1 page 10 pages 1 page text	dark framed on white background	dark tone splash of colour
WHY? (@V Author)	Make you look closer	to understand	it's not always as bad as you think	they can change	unintentional viewing time to read	match feelings	bring out atmosphere
Strengths	strong purpose	match message	changes b-side	variety strong	time to respond	match/build atmosphere	build reality
Weaknesses	not evident to reader	misunderstood too involved	may not engage	may not engage	mess lots of detail	put you off	make reader sad
So what?	have clear intent	match text to audience	cultural or political or social	plan for this	keep consistent	influences story/message	make engaged

Figure 4.3: Example of whole-of-class activity focused on analysing a digital literary text

During these activities both print and digital literary text features were deconstructed with the children. For example, using the digital literary text, *The Red Tree* by Shaun Tan as a YouTube clip, Mrs Madden jointly viewed the text with the children in her classroom, firstly without interruption. She then used it a second time for text deconstruction. She paused the clip at specific points to analyse the focus areas such as targeted audience, type of modes, and use of colour to portray moods. This type of text deconstruction was repeated over the week with other texts such as *Voices in the Park* by Anthony Browne, in addition to a self published text Mrs Madden found on the Internet. While observations and artefacts highlight that the children had some modelled experiences of print and digital literary text, discussions were often limited to the identification of messages, layout and colours used in the visuals. For example, when discussing images used throughout the viewing of *The Red Tree*, the conversation was limited to the predominant colours of “dark tone on white background” followed by brief discussion identifying that this colour was used to “match feelings”. Some brief conversations about the purpose and audience of each text were also observed. Teaching of concepts that would support multimodal and digital construction such as placement, framing and interactivity were not evident (TA1, CP3, FN0.3).

During this week, initial interviews with the children based on their prior experiences and knowledge of digital literacy texts also took place. This data will be discussed in the individual case portraits.

Secondary literacy event: Deconstruction of digital literary text

In the second week of the inquiry Mrs Madden and the researcher engaged the children in further literacy activities through the deconstruction of two digital literary texts. The focus texts were *Dust echoes: the Mimis* (ABC, 2007) and *The Fantastic Flying Books of Mr Morris Lessmore* (Moonbot Studios, 2011). These texts were selected as they were recommended as suggested multimedia texts for children in Year 5 according to the BOS NSW *Suggested text guide* (BOS, 2012). The six child participants worked with the researcher while Mrs Madden completed the same activities with the rest of her class. The purpose of this text deconstruction was slightly different to the activities Mrs Madden conducted the previous week. While Mrs Madden had taken a focus on the structural features of the text through modelled instruction, these experiences aimed to draw on the prior knowledge of each participant. This allowed the researcher to work individually with each child participant to examine the ways they worked with digital literary texts in an effort to understand the existing knowledge and practices they brought to the focus of the inquiry. Therefore, the deconstruction was centred on a joint discussion and analysis between child and researcher so that the child led the deconstruction and the researcher could explore their prior knowledge of digital literary text. To guide the deconstruction, verbal recording was used to prompt the children to verbalise their thoughts on each text. Prompts focussed on features of the text type and the purpose and audience of the text. After viewing the first text, each child was also invited to participate in a think-aloud protocol. This was designed to support the children to reflect on their viewing of the two texts in focus areas such as reading pathway, text construction and connections. The deconstruction, verbal protocol and think-aloud provided the children with an opportunity to connect textual models with possibilities for text construction. The findings of these episodes are discussed in the individual case portraits.

Primary literacy event: construction of digital literary texts

After the initial two weeks of the inquiry Mrs Madden planned for her students to construct their own text over a four-week period. Field observations revealed that children worked independently on their text construction while Mrs Madden responded individually to student needs (FN7, FN8). During this time the six participant children worked with the researcher in a room next to the classroom on their own digital literary text constructions. Over the course of four weeks, the children engaged in fourteen structured and unstructured sessions (with sessions lasting between 0.5 and 1.5 hours). It is important to note that not all children required the fourteen sessions to complete their texts, and further, that some children were also absent during some sessions. This is discussed in more detail in the individual case portraits.

Within the fourteen sessions were six structured teaching sessions aimed at developing specific skills and strategies to support digital text construction. These included: identifying the purpose of the text, understanding the interests and demands of the target audience, exploring digital features and the affordances of the technology, and the structure of the text itself. Further, another structured session afforded reflection and sharing by providing students with the space to share their ideas with their peers and the researcher to receive feedback. The unstructured sessions were designed to provide time for participants to individually construct their text. The timing of these sessions was determined by researcher observations. They were held when it appeared that collectively the children required extended independent time to construct their texts. During these sessions the children did informally collaborate with their peers and the researcher during the writing process. Figure 4.4 provides an overview of the sessions, although as discussed in the individual case portraits, not all children completed the sessions in the anticipated manner. For example, Emma and Louis were the only children who engaged with the IT consultant in session 10, and Mischa was absent from sessions 7 to 10 due to a family holiday. The literacy practices observed during these sessions are presented during the individual case portraits in this chapter.

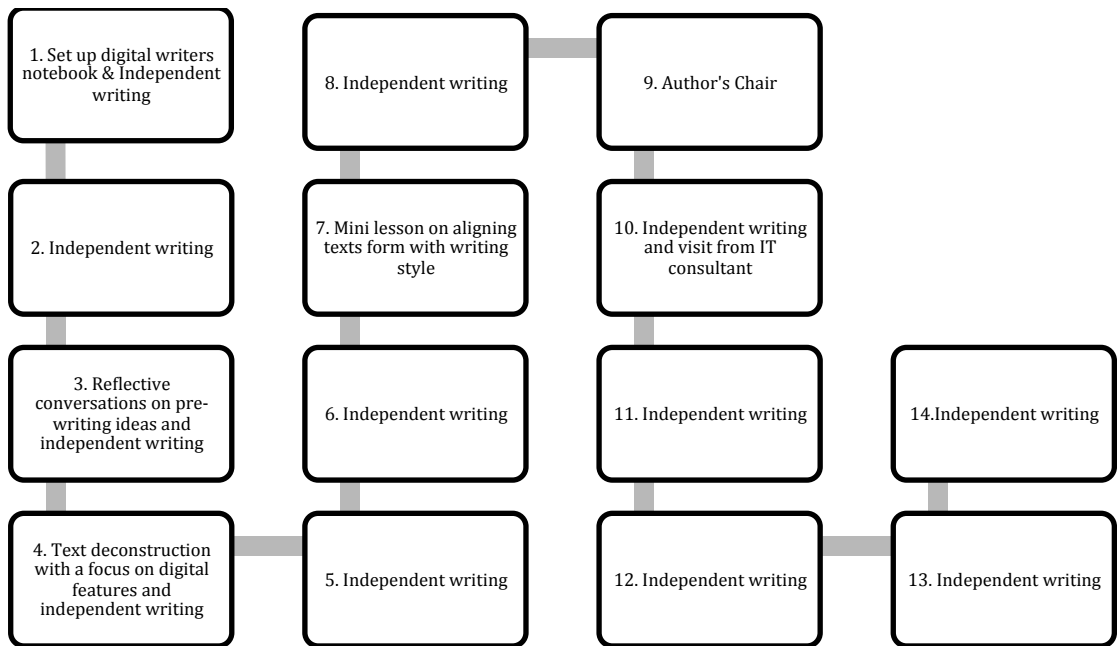


Figure 4.4: Digital literary text writing sessions

This section has described the classroom context in which the child participants engaged. The context description included an outline of the experience and beliefs of the classroom teacher, and of the planned classroom literacy activities of digital literary text deconstruction and construction.

The next section discusses the findings from the analysis of the data from each individual case through case portraits. Each case portrait introduces a child author and provides an overview of the digital literary text each one constructed. Subsequently, the processes children utilised during their digital literary text construction will be described. Each case portrait concludes with an interpretive summary of the individual case study.

Individual case portraits

This section provides a description of five of the six digital literary text constructions completed during this inquiry. The sixth case study of Emma is presented as a published peer reviewed chapter (Lipscombe, Kervin & Mantei, 2015) and is provided in Appendix Q with a full print copy available in Appendix S.

Case portrait 1: *The Bush family by Ben*

Meet the author – Ben

At the time of the inquiry, Ben was 11 years old and in Year 5. He lived with his parents and his older sister who attended high school. Ben had access to a range of technologies at home including his own iPad, a family iPad, family smartphones and his own iPod. Listening to music and playing games on his iPad were favourite home activities. He also often communicated with friends about games, music and other interests via email (POSI_B).

During the field visits, Ben appeared to be a confident student who enthusiastically participated in individual, small group and whole-of-class literacy experiences. He often volunteered to share his thoughts during discussions and confidently answered questions that were asked of him (FN0.1, FN0.2). Ben's teacher described him as "a hard worker. He is a good reader and he can think deeply too" (POTI). Ben's recent school report indicated that he was working at above the minimum expected levels in literacy (SR_B). His recent NAPLAN results showed that he was working above the school and national levels in reading, writing and language conventions (N_B).

At the beginning of the inquiry Ben presented as knowing many features and elements of literary and digital texts. Data analysed from his reading observations, field visits notes and initial interview revealed three important considerations of Ben's prior understandings about digital literary text: Ben had an understanding of common

characteristics of story, he was able to identify and describe some digital features of texts, and he considered the different ways digital features carry messages.

Common characteristics of story

Ben demonstrated an understanding of the common elements of a story. For example, during the deconstruction of the two digital literary texts, Ben identified story characteristics, such as: “it had one main character and it followed him through the story”; an author’s message, “I like that book how it had a message”; and language features, “It was very normal, no technical words” (POSI_B). Furthermore, the following transcript from the initial interview highlights Ben’s response when asked to describe some of the choices he makes when writing stories:

Well you have to think about the ending whether it would have a happy ending or a sad ending. Or what happened to this character. So you have to put yourself into all the characters’ perspectives as the author so you know what they are thinking and what the reader’s going to feel about it (POSI_B).

Ben’s response demonstrates an understanding of typical structures of literary texts and the concept of writing for an audience.

Identify and describe some digital features

Ben’s observations about the features of digital texts revealed an understanding about the ways the different modes conveyed meaning in different ways. His response to *The Fantastic Flying Books of Mr Morris Lessmore* included observations about interaction: “It surprised me how you could interact with it”; and moving image – “I liked how it was like a video like the pictures move. You can sort of imagine you can watch it happen”; and audio – “I liked how it had the music in the background because it matched the story and went through the whole way”; and animation – “They had to draw the pictures and use an app to make it animated”; and navigation- “its cool how the arrow tells you when to turn the page” (SCR_B-Mimis, SCR_B- Lessmore).

Digital features carry messages

Ben showed an awareness of the different ways digital features carry messages. For example when discussing an interactive feature during his viewing of *The Fantastic Flying Books of Mr. Morris Lessmore*, he explained, “I think it [the interactive feature] gets people to more think about the book and imagine what would happen and like connect it to the real world”. Furthermore, he described an example of an interactive feature as a “first person view so you know what he would have thought”, highlighting his understanding that the author had a message to tell (AVR_B- Lessmore). Additionally, during the viewing of *Dust echoes: the Mimis*, Ben explained that moving images help a reader visualise the story, reporting “that I could see the story in my head” (AVR_B-Mimis).

The next section of the case portrait provides an overview of the text Ben constructed during the inquiry, followed by the literacy events enacted during the construction of this digital literary text.

Overview of The Bush family


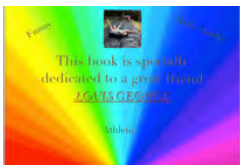
The Bush Family is Ben’s digital multimodal text, which he completed on his iPad and published using the app Keynote. It is about a family who saves their much loved park from being demolished for the construction of a new shopping centre. Ben wrote it for his best friend who is an eleven-year-old boy. The text was intended as an end-of-year Christmas present.

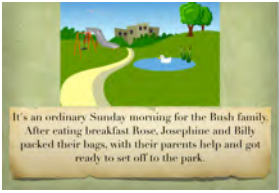



The final publication, thirteen slides in length, was a multimodal ensemble of written and oral language with still images. Eight hundred and sixty two words, 22 still images, and 12 sound files were included in the design. Ben used literary techniques such as asides (e.g., that’s another story), dialogue (e.g., “time to put my wig on and relax”) and similes (e.g., still as statues) throughout his text.

Each slide had a structure similar to what we might see in traditional paper-based stories, with the written text at the bottom of each screen and an accompanying still




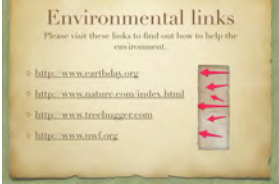
image above. An automatic sound button, hidden from the reader and enacted when a user turned to the next slide, was used to reinforce the written text, communicating the same message as the written words. At the conclusion of the text, Ben used hyperlinks as digital features that linked his text to websites about conservation, a key message within the story. During one writing session Ben explained that he included these hyperlinks so the reader could learn more about the key message of his story (FN12). An overview of each of the screens of Ben’s digital text is presented in Table 4.1. A printed copy of Ben’s text is included as Appendix R.

Table 4.1: Overview of the Bush Family

Screen	Content	Features of the text
<p>1</p> 	<p>Front page: <i>The Bush family</i> by Ben (pseudonym used)</p>	<p>Still image (sun) as background Title and author included 'Sparkle' slide transition animation when screen is clicked</p>
<p>2</p> 	<p>Title page: dedication to friend & chosen audience.</p>	<p>Still image of chosen audience (friend) Colourful background Written dedication to friend Three verbs used to describe friend (funny, maths buddy, athletic) Seven animations: <ol style="list-style-type: none"> 1. 'Confetti' slide transition animation 2. 'Fireworks' build in animation for still image 3. 'Confetti' build in animation for dedication 4. 'Flash bulbs' build in animation for verb describing friend (funny) 5. 'Flash bulbs' build in animation for verb describing friend </p>

		<p>(maths buddy)</p> <p>6. 'Flash bulbs' build in animation for verb describing friend (Athletic)</p> <p>7. 'Confetti 'slide transition animation.</p>
<p>3</p> 	<p>First page of story</p> <p>Exposition: introduction to characters & establishing the setting</p>	<p>Still image (park) from Google Images</p> <p>Written text - 32 words, 2 sentences</p> <p>Automatic sound button (narration) hidden from user</p> <p>'Page flip' slide animation</p>
<p>4</p> 	<p>Second page of story</p> <p>Exposition: introduction to characters and establishing the setting and tone</p>	<p>Still image (suitcase) from Google Images</p> <p>Two additional images (hat and sunglasses) from Google Images that have been cropped and pasted in front of the suitcase</p> <p>Written text – 74 words, 3 sentences</p> <p>Automatic sound button (narration) hidden from user</p> <p>'Page flip' slide animation</p>
<p>5</p> 	<p>Third page of story</p> <p>Exposition: introduction to characters and establishing the setting and tone</p>	<p>Still image (mobile phone) from Google Images</p> <p>Written text: 39 words, 3 sentences</p> <p>Automatic sound button (narration) hidden from user</p> <p>'Page flip' slide animation</p>
<p>6</p> 	<p>Fourth page of story</p> <p>Rising action: setting the scene for the introduction to conflict</p>	<p>Still image (park) from Google Images</p> <p>Three other images from Google Images (love hearts) that have been cropped and pasted in front of the park</p> <p>Written text: 115 words, 7 sentences</p> <p>Automatic sound button (narration)</p>

		hidden from user 'Page flip' slide animation
7 	Fifth page of story Rising action- setting the scene for the introduction to conflict	Still image (family riding bike) from storybird.com Written text: 52 words, 4 sentences Automatic sound button (narration) hidden from user 'Page flip' slide animation
8 	Sixth page of story Rising action	Still image (lady in air) from Google image Written text: 31 words, 4 sentences Automatic sound button (narration) hidden from user 'Page flip' slide animation
9 	Seventh page of story Rising action	Still image (autumn leaves) from Google image Written text: 70 words, 10 sentences Automatic sound button (narration) hidden from user 'Page flip' slide animation
10 	Eighth page of story Rising action	Still image (tree) from Google image Inserted still image (suitcase) from screen 4 in front of tree Written text: 50 words, 5 sentences Sound button (narration) hidden from user 'Page flip' slide animation
11 	Ninth page of story Climax	Still image (2 construction workers) from Google image Written text: 74 words, 6 sentences Automatic sound button (narration) hidden from user 'Page flip' slide animation

<p>12</p>  <p>What did they do when they were angry? They explained that they worked for the government and have been asked to get rid of this park to rebuild a brand new shopping centre. But what about the animals and nature here, what happens to those? The Binkles thought, "Well they go with it" the boss replied. "Now cannot it stay this park?" answered Jenny. "Oh park, what are you?" The bulldozer for hours of the week until it got too close that the girls were scared as they ran away. Then, Jonathan how can I get away from things you know what they say. The bulldozer back. The bulldozer stopped moving forward, scared that he would get in trouble for moving over someone. The bulldozer will still be there, he was scared.</p>	<p>Tenth page of story</p> <p>Climax</p>	<p>Two still images (bulldozer and slide) from Google image</p> <p>Written text: 132 words, 12 sentences</p> <p>Sound button (narration) hidden from user</p> <p>'Page flip' slide animation</p>
<p>13</p>  <p>After hours of waiting for them to move the council workers decided to continue the demolition by heading to the great big tree, their favourite tree. But it was too late the Binkles beat them to it.</p>	<p>Eleventh page of story</p> <p>Falling action</p>	<p>Two still images (bulldozer and tree) from Google image</p> <p>Written text: 37 words, 2 sentences</p> <p>Automatic sound button (narration) hidden from user</p> <p>'Page flip' slide animation</p>
<p>14</p>  <p>After an hour of protesting the council workers eventually gave up and drove away. Victory for the Binkles because they stood up for what they love. The Binkles finally could enjoy their favourite park. "Time to put my wig on and relax" Jenny said while taking a sigh of relief. They all left the scene and enjoyed the rest of their day.</p>	<p>Twelfth page of story</p> <p>Resolution</p>	<p>One still image (family laying on ground) from storybird.com</p> <p>Written text: 62 words, 5 sentences</p> <p>Automatic sound button (narration) hidden from user</p> <p>'Page flip' slide animation</p>
<p>15</p>  <p>Environmental links</p> <p>Please visit these links to find out how to help the environment.</p> <ul style="list-style-type: none"> ➤ http://www.earthday.org ➤ http://www.nature.com/index.html ➤ http://www.treehugger.com ➤ http://www.4m.org 	<p>Environmental links</p> <p>Four hyperlinks to webpages</p>	<p>Title and instructions</p> <p>Four hyperlinks</p> <p>One still image (arrows) from Google Images.</p>

Ben's writing process for the construction of 'The Bush family'

The Bush family was constructed over nine sessions at school with some follow-up work at home. As part of the initial stages of the writing process Ben set up a digital writer's notebook using the app 'Explain Everything' to document his ideas during planning. His ideas were represented in dot point form and were generated from two sources: brainstorming his own ideas, and researching ideas on the Internet (FN1, FN2). He often shifted between typing his own ideas into his digital writer's notebook and researching ideas using the Internet. Websites that Ben searched included Animation Express (miSoftware, 2010) information on Garageband (Apple Pty Limited, 2011), Google Images and Storybird (Storybird Inc, n.d.). The following excerpt from researcher field notes taken in the second writing session shows how Ben used the Internet to generate ideas:

- B is searching images using Storybird website
- Finds an image of a family sitting under a tree and opens his notebook
- Adds 'destroying a favourite family place'. (FN2)

At the completion of the first two writing sessions, Ben had finished adding to his writer's notebook. Figure 4.5 shows an annotated view of the notebook and highlights his pre-writing ideas, including story ideas, presentation ideas and the negotiable and non-negotiable aspects of (see Appendix O for more details) of the digital literary text construction.

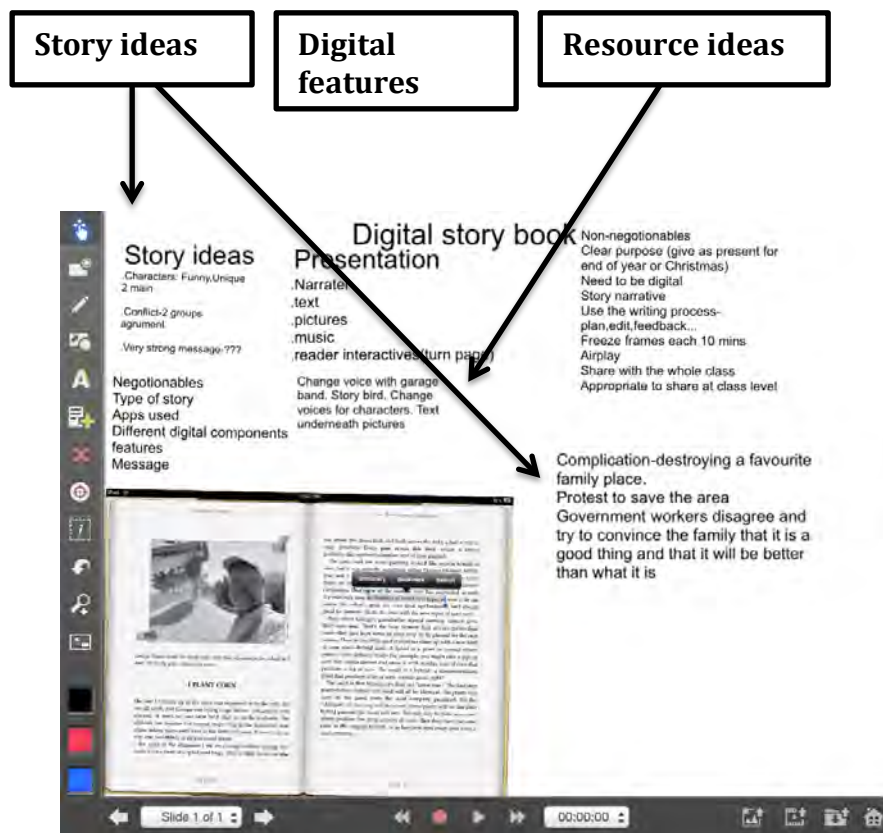


Figure 4.5: Ben’s digital writer’s notebook

This excerpt from Ben’s notebook shows that he has thought about the common elements of story, including conflict and resolution and the author’s message, and that he has made some preliminary decisions about these for his story. The presentation of the text has also been considered, with Ben identifying that he wants to include a narrator, text, pictures, music and page turning interactive features. Additionally he has taken a screen shot of a digital text found on the school electronic book repository as an example of a digital presentation. He has also identified possible resources in the form of an app and website.

During planning, in writing session 3, Ben was invited to share his ideas in a reflective conversation with his peers. It was evident that although Ben had not formally

completed his draft, he had thought deeply about the story plot, multi-modality and digital features of his text, and had perhaps developed the remainder of the draft mentally (AVW3). The following excerpt of the transcript is of Ben sharing his pre writing ideas.

Alright, so my complication in my story is about a family, um, and they always go to this place once a week, um, and then one day, there's like a whole group of construction workers that plan to get rid of it and destroy it. And they keep trying to convince each other to not. And they stand and protest to not get rid of it. So it's going to be a family with five people in it, and then the builders are working for the government, and it's going to be some place in a park and I'm going to write it with, um pictures up the top, sort of like Mr Morris Lessmore. A picture up the top and the narrator button and it still has got the writing on it.


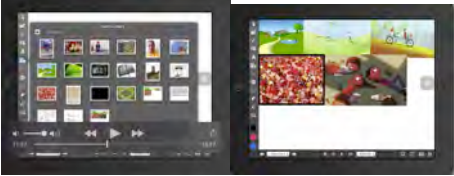
I'm going to put music just in the background. Not loud, but not throughout the whole thing, like when they're in a happy space I'll put music on and when the construction workers come I'll um, stop it. And maybe put in, umm, sound effects of like builders working with their truck coming in. (AVW3)

The excerpt shows his pre-writing ideas of story plot, including characters, setting and the conflict and the layout he was considering. He also was planning the multimodal ensemble of written and oral language and image, taking into consideration the relationship between these modes and the story plot. Additionally, the excerpt shows Ben made a connection to the digital literary text (*The Fantastic Flying Books of Mr Morris Lessmore*) that he viewed at the beginning of the inquiry.

Over the following two sessions Ben drafted his story using the app 'Explain Everything'. From the analysis of the field notes (FN4), screen shots (SC4_B), and Camtasia screen recordings (SCW_B1) it was evident that drafting was a dual process

for Ben; it involved typing his story in written form and searching for still images to accompany his story ideas (see Table 4.2).

Table 4.2: Analysis of Ben’s drafting from multiple data sets

Transcript of field notes	Screen shots	Camtasia screen recordings
<ul style="list-style-type: none"> • Ben is typing his story in EE • Ben re-reads with typing • Ben has spent most of his time typing • Ben searches Storybird for image of main character 		

At this stage, the continuous text had no paragraphs or indications of page structure. Editing of the written text was not a separate writing stage, but was instead completed simultaneously with his draft. He was often observed reading his work and changing words and correcting mistakes (AVW5, FN4).

The still images were either inserted into his draft on ‘Explain Everything’ or saved in his image library on the iPad. Ben had difficulty with still images for two reasons. The first related to the flexibility of the images for use in a range of scenes within his story, and the second related to copyright restrictions. He could not find images that showed the same characters in different scenes. This was evident in his image selection where the same character is represented using three different images (see Figure 4.6).

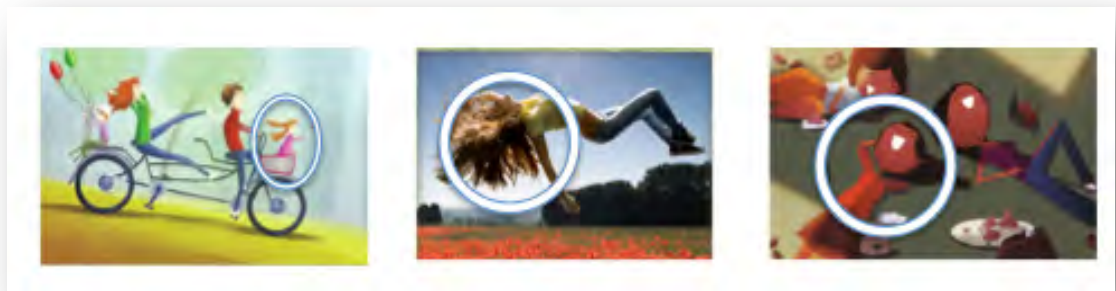


Figure 4.6: Same characters represented in three different ways

Figure 4.6 shows that the main character, Josephine, is represented as a small girl with light brown hair in the first example, as an adult with long brown hair in the second example, and as a girl with dark brown hair in the third example.

Additionally some of Ben's images were from the Storybird.com website, a repository of images for online storytelling. The images on this website are not downloadable or copyright free. Ben took a screen capture of the images he had selected and saved them in his image library on his iPad. It appears from this example that Ben did not understand, or did not feel bound by, the restrictions imposed by copyright laws.

Ben continued to work through the two processes of typing and image collection simultaneously (AVW4, AVW5, FN4, FN5). Figure 4.7 shows a screen shot of his initial drafting processes. The figure highlights two screens in Ben's draft. The first is his incomplete written story with still images and the second is a screen he set up to contain the images he found.



Figure 4.7: Annotated example of Ben’s initial stages of drafting a digital literary text

The figure above also relates to one of Ben’s reflections about the difficulties of drafting digital text – “it’s very hard to be organised as an author” (PPI_B). Whilst drafting he was observed working across various files including his digital writer’s notebook, draft written text, image library on his iPad and image screen in the Explain Everything app (AVW4, AVW5, FN5,).

During session 6, Ben began to consider the publication platform for his text (FN6). It appeared that Ben considered Explain Everything only as a draft platform and was going to use Keynote as the presentation app (FN6, PPIS_B). His chosen publishing platform was one of the resources Mrs Madden shared that she preferred children didn’t use as it was “bland”, with children often using the special effects, which she believed did not add any value to their constructions (POIT). Although his draft was not fully complete, he opened up Keynote on his iPad and began exploring the different affordances it offered. He decided at this stage on a template from the app and began to insert some of the images from the library to different slides. The template closely resembled the aesthetic value of the previously viewed story app, *The Fantastic Flying Books of Mr Morris Lessmore* (see Figure 4.8) in that the image was positioned at the top and written text was placed under the image in a beige text box.

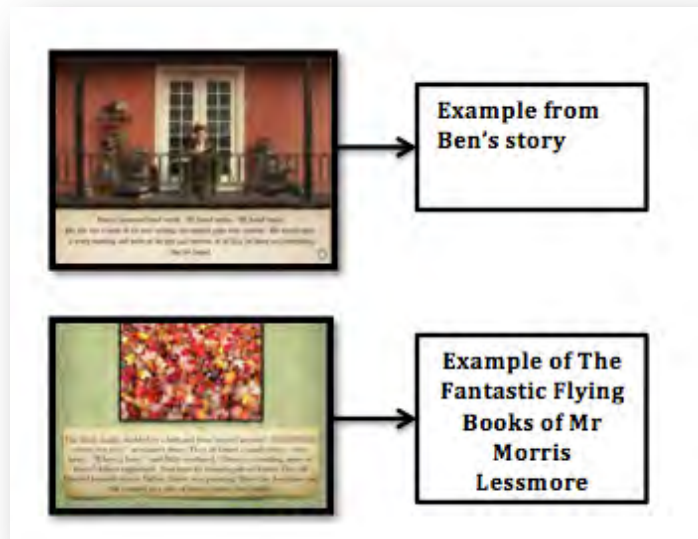


Figure 4.8: Comparison of Ben's visual layout and the layout of *The Fantastic Flying Books of Mr Morris Lessmore*.

During the final interview Ben explained he designed his text in consideration of the example text:

Well, I liked how it didn't really have a video in Mr Morris. There's more, it just had like the characters moving and not an actual movie, 'cause I thought if it was a video it would be hard to put in text as well because I wanted to put in text in mine. So if I put in the text and a movie, the reader would be too busy looking at the movie or reading the text to actually get the message. (PPIS_B)

In this writing session he inserted the images before inserting the written text. Although Ben had not documented in his draft how the images and written text relate, Figure 4.9 suggests that he had given some thought to the relationship between image and story plot because he sequentially inserted them across multiple screens.

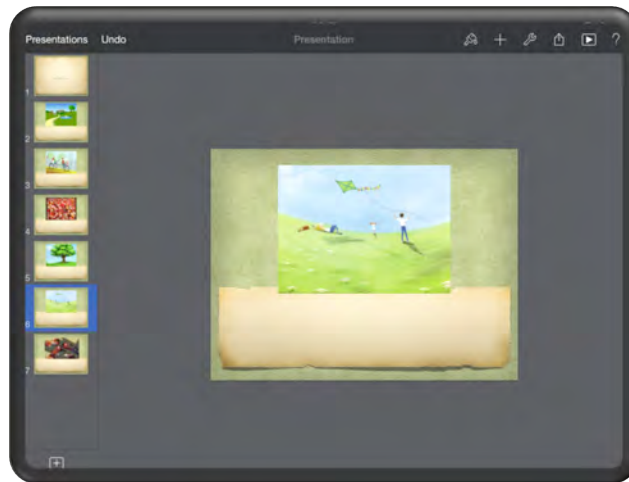


Figure 4.9: Insertion of images in Keynote

Ben was absent from the writing activities for the next two sessions (7 & 8) due to a technical issue with his iPad. Instead, he worked on other literacy activities in his classroom. He returned in session 9 and shared his draft and the initial stages of publication with his peers in an Author's Chair. Ben reported that he had not completed the draft of his book but had begun his publication in Keynote (FN9).

During the next session Ben completed his draft and then began to record his narration using the app Recorder plus HD (Turbokey Studio, 2012) (AVW9, FN9). To complete this narration he worked outside in the school playground, reading and recording his written text in oral form, using a separate sound file for each page. At the end of session 10, Ben decided to complete his recordings at home because the environment was quieter than at school.

Before inserting the written text into Keynote, Ben moved through a conferencing process in session 10 with the researcher to refine, revise and edit the written text. From the field notes (FN10) it was observed that Ben mostly self-edited his work as he typed, instead of editing it in a separate process. In a conference with the researcher it was noted that he had a clear structure for his story that included a beginning, middle and end, and that his story plot was consistent with his planned ideas. He was having some difficulty with punctuating his dialogue, and with the cohesion when moving

between story events and settings. Ben worked with the researcher on these two aspects in the conference. Ben shared during this conference that he was considering using arrow animations similar to what he viewed in *The Fantastic Flying Books of Mr Morris Lessmore*, to help the reader navigate the page but he was unsure how to create these. His final publication did not include this animation.

Once the conference was completed, he cut and pasted the written text straight onto the slides in Keynote, matching the story to the images he had inserted earlier (see Figure 4.10).

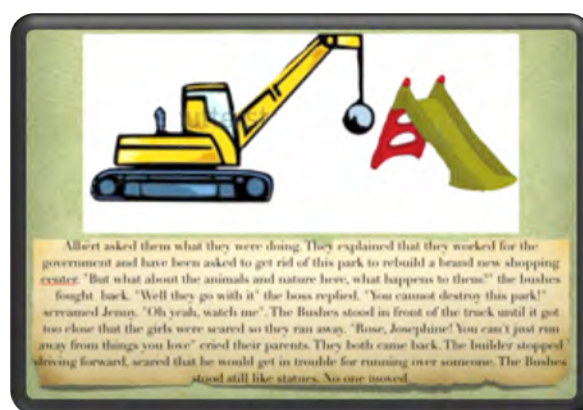


Figure 4.10: Matching of visual and written mode in Keynote

After inserting the text, the sound buttons were added. At this point Ben realised that the sound files he recorded earlier were based on a draft version of his text written prior to the conferencing process. Therefore, some of his oral language recorded as sound buttons did not match the edited written text. He decided to re-record them at home (FN10).

Ben completed his text in the next two sessions (11 and 12). After inserting the new sound files onto his slides, he worked on inserting slide transitions and editing some of the text boxes and images to ensure the page all looked similar in design. He also completed a dedication page to his friend as the chosen audience (AVW11, FN11, AVW12). The final task before publishing was the research on relevant websites and the insertion of four website hyperlinks in the final pages of his story (see Figure 4.11).



Figure 4.11: Four hyperlinks inserted on the final page of Ben’s text

The hyperlinks captured in Figure 4.11 were not part of the pre-writing ideas and based on observations (FN12) they appear to be the direct result of exploring the affordances of the Keynote application. Once his text was complete Ben saved it in Dropbox and invited his friend to view it. Being able to share his text this way enabled easy access to his audience (FN12).

Interpretative summary

The deconstruction of the two digital literary texts played a significant part in the writing process for Ben. From early on, Ben identified that he wanted to create a digital literary text that resembled *The Fantastic Flying Books of Mr Morris Lessmore* and so he used it as a model in both his story plot and structure. The use of a strong social message was something that Ben identified and wanted to emulate in his own story. This was clearly identified during the first planning session and developed as he drafted his text. The multimodal design using written, oral and visual modes in *The Fantastic Flying Books of Mr Morris Lessmore* was also imitated in Ben’s text and was an important consideration from the very beginning of the writing process. This was evident in his digital writer’s notebook and reflective conversations with peers and the researcher. It appeared that a model of digital literary text at the beginning of the literacy event provided Ben with some insights and a scaffold to think about how to create his own digital text.

Planning was also a significant part of the process for Ben. The opportunity to think, talk and take notes at the beginning of the text construction helped him to plan his text holistically, so that the elements of literary text, and digital text were considered and then carried forward from his plan to his published text.

The recording of his oral narration from his written text caused him the most difficulties. Ben found the school environment was too noisy to record narration from his written text, prompting him to complete the narrations at home. It appears the selection of context to create different modes is an important consideration for digital text construction.

Ben experienced additional difficulties identifying an appropriate time to construct the oral mode of his text as a voice over. After completing his written and visual drafting, Ben recorded sound files to complement his written text. However, his oral recordings were based on his written draft, which he had then developed further based on feedback from a conference with the researcher, his peers and also to conform with the structure required by his publishing platform. While the written and visual modes of his text were dynamic and could easily be adapted and edited in response to feedback and publishing structures (for example, text could be edited for spelling and meaning and visual could be edited for size and colour), the oral narrative recorded as a sound button on each page was fixed as a series of individual files. He therefore had to re-record each individual file to ensure that it matched the written text that he had edited. Locating the appropriate place within the writing process to create fixed digital features such as sound buttons proved a time consuming process for Ben

Throughout the process of creating his digital multimodal literary text, Ben mostly selected digital resources he was familiar with. He explored and utilised only one new resource, Recorder plus HD. This was because his publishing platform did not provide the audio function Ben needed to create his planned sound buttons. The selection of

familiar digital resources by Ben raises a significant issue for classroom educators to consider in that resources require careful selection and instruction in the literacy classroom where children are taught to explore the full affordances offered.

Case portrait 2: Escaping the Kidnapper by Mischa

About the author – Mischa

Mischa was 11 years old and in Year 5. She lived with her younger brother, older sister and two parents. At home she had access to a range of technological devices including iPads, iPods and laptops. She explained, during the initial interview that she played games almost daily on her iPad at home (POSI_M).

At school, during the field visits, it was observed that Mischa was a very shy and tentative student who often worked independently and rarely engaged with her peers (FN0.1, FN0.2). She always appeared on task during her literacy lessons but never volunteered to participate during whole-of-class discussions. Her teacher described her as “an avid reader” and a very shy and hard-working student (POIT). This was evident during most of the data collection for this inquiry; Mischa often found it difficult to share her reflections on past experiences or share her ideas with the researcher or her peers (AVW3, POSI_M, PPI_M). During interviews Mischa frequently did not answer questions, often instead replying with “ummm” (POSI_M, PPI_M).

Mischa’s school report (SR_M) indicated that she was working at above expected levels in literacy and her recent NAPLAN report (N_M) confirmed that she was working above the state and national averages in all areas of literacy.

When reflecting on her past and current literacy practices during the initial interviews (POSI_M), Mischa shared that she loved books by Enid Blyton and Jackie French. She explained that she particularly enjoyed reading and writing mysteries and historical texts. Data analysed from her reading observations, field notes and initial interview revealed two important points about Mischa’s prior understanding of digital literacy

texts: she was more confident reading and writing paper-based texts than digital texts and she had some prior knowledge of common literary elements in stories.

Mischa's confidence lay in the construction of paper-based texts

During the initial interview Mischa explained that she preferred to read books rather than digital texts because she enjoyed the feel of the pages (POSI_M). At home and school, her preference was to engage in mystery books in paper form rather than digital. Mischa also shared that she didn't have a great deal of experience creating digital texts, and she preferred writing on paper. She couldn't elaborate on why this was her preference.

During the deconstruction of the two digital literary texts, Mischa was tentative about navigating the texts. In *Dust echoes: the Mimis* she accessed the synopsis of the story and viewed the short animated movie but didn't explore other textual features such as the original story, the quiz or the interactive mash up activity (SCR_M_Mimis). In *The Fantastic Flying Books of Mr Morris Lessmore* she viewed the entire story but did not use many of the interactive features on each screen (SCR_M_Lessmore), and often seemed unsure how to navigate such features. For example on the opening screen of this text there is a faint visual in the form of two arrows (see Figure 4.12) that appears once the narrator has completed the narration. The prompt shown in Figure 4.12 is used to engage the reader with an interactive feature before they turn to the next page.

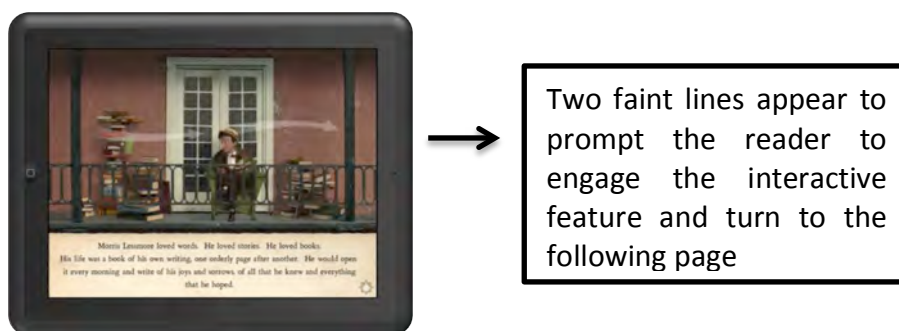


Figure 4.12: Interactive feature in *The Fantastic Flying Books of Mr Morris Lessmore* in which Mischa had difficulties navigating

On this particular screen (Figure 4.12) Mischa was unsure how to turn to the next screen. She tapped the screen a few times, looked at the researcher for help and disregarded the interactive prompt blinking on the page. After 27 seconds the researcher showed her how to swipe the arrows to turn to the next screen (SCR_M_Lessmore).

When asked about her reading pathways during the text deconstructions, Mischa explained that she didn't really know why she accessed some features and not others (TAP_M). She shared that at times she simply didn't see the interactive features. It appeared from the two viewings that interactive digital texts were unfamiliar reading material for Mischa, and therefore, she missed some of their inherent digital elements.

Mischa's prior knowledge of common literary elements in stories

During the initial interview Mischa was asked about ideas she considers when writing her own stories. At this stage she could not recall any specific information replying "umm maybe ... who was gonna like umm ... I don't know". She did, however, during further conversations, show that she knew a range of different authors (e.g. Enid Blyton and Jackie French), a narrative form (e.g. mystery) and some of the common elements of story writing (e.g. plot, main idea, characters, descriptive language and visualisation) (POSI_M).







Overview of Escaping the kidnapper

Mischa constructed *Escaping the kidnapper*, a story about a group of children who go missing. Mischa explained that there was no set audience for her digital literary text.

Escaping the kidnappers is designed over 11 pages, with accompanying written, visual and audio content. The design of the digital text replicates a linear paper-based text layout, with large visuals accompanied by written text. The still images on each page are a combination of images found on the Internet and then edited using the app Art Set (LOFOPI, 2013). Three sound buttons, of recorded sounds, are also embedded in the story although only one works in her final publication. Mischa's literary text

included dialogue (e.g., “They have been hypnotized to do this work”) and was told in a linear chronological form. Some examples of idioms (balling her eyes out) and imagery (e.g., there were police cars parked in the driveway and their mum was bawling her eyes out) were evident. Mischa drafted and published her text using the Explain Everything app. An overview of the each of the screens of Mischa’s digital text is presented in Table 4.3. A printed copy of Mischa’s text is included as Appendix T.

Table 4.3: Overview of Escaping the Kidnapper

Screen	Content	Features of the text
<p>1</p> 	<p>Front page: <i>Escaping the kidnapper</i> Author's name</p>	<p>Title in blue font White background Small black font for author's name</p>
<p>2</p> 	<p>First and second page of story Introduction to setting and main characters Introduction to conflict</p>	<p>Double screen White background and black font Written text: 163 words, 16 sentence Three still images sourced from the Internet. Two images are formatted with additional drawings One sound button of a recorded voice with instructions "click sound button"</p>
<p>3</p> 	<p>Third and fourth page of story Rising action</p>	<p>Double screen White background and black font Written text: 199 words, 19 sentences Three still images sourced from the Internet. Two images are formatted with additional drawings. One image is overlaid on a larger image One sound button of a recorded voice with instructions "click sound button" – does not work.</p>
<p>4</p> 	<p>Fifth and sixth page of story Rising action</p>	<p>Double screen White background and black font Written text: 202 words, 16 sentences Two still images sourced from the Internet. Both images are formatted with additional drawings.</p>
<p>5</p> 	<p>Seventh and eighth page of story Climax</p>	<p>Double screen White background and black font Written text: 318 words, 26 sentences Three still images Two images are sourced from the Internet. One image has been formatted with additionally drawing. One image is digitally drawn.</p>
<p>6</p> 	<p>Ninth and tenth pages of story Falling action</p>	<p>Double screen White background and black font Written text: 296 words, 23 sentences Three still images. Two images are sourced from the Internet. One image has been formatted with additional drawing. One image is digitally drawn.</p>

Mischa's writing process for the construction of 'Escaping the Kidnapper'

Mischa constructed *Escaping the kidnapper* over eight writing sessions because she went on a family holiday during the inquiry and missed four writing sessions. She did, however, work on her draft while on holiday.

In the initial stages of the writing Mischa developed her digital writer's notebook using the Explain Everything app (FN1, FN2). During the first writing session she opened a screen in the Explain Everything app, titled it 'Digital writer's notebook' and quickly identified some of the main events in her story and the characters that she was considering using (see Figure 4.13). Mischa was unsure whom she would write her story for, but identified that it would be suitable for Year 5 students (PPI_M).

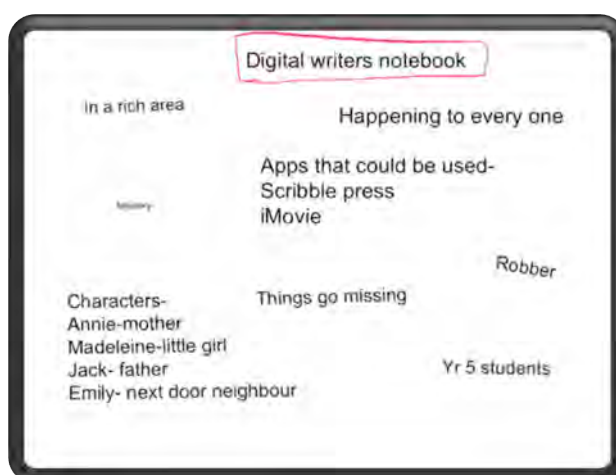


Figure 4.13: Mischa's digital writer's notebook

During the second writing session Mischa developed her ideas further (AVW2). It was obvious that she was considering both the story ideas and the textual features, including the digital resources she could utilise to create her text (FN2). Although she did not spend as much time researching possible digital affordances as many of the other children, she did briefly explore possible publication platforms and apps to develop interactive features. These programs included Garage Band, Scribble Press (Fingerprint, 2012), iMovie and Storybird. These programs were documented in her

digital writer's notebook. Figure 4.14 is the second screen of Mischa's digital writer's notebook developed during writing session 2.



Figure 4.14: Second screen from Mischa's digital writer's notebook

Interestingly, most of the ideas documented in Figure 4.14 are considerations for design and presentation and none of these preliminary thoughts were carried forward to her final publication, with the exception of 'have pages'.

In the reflective conversations in writing session 3 Mischa shared with her peers the main story plot, including the type of story (mystery) and mood (suspense) (AVW3). She gave less detail when explaining digital features. At this point she had not determined her publication platform. The transcription below is an excerpt from the reflective conversations between Mischa (M), the researcher (R) and her peers (P). It highlights Mischa's detail in sharing her story ideas and uncertainty about the digital design.

M: Um well my story's going to be a mystery. And it's about a kidnapper who, um, kidnaps kids to um, make an underground house for him. And when um, he kidnaps them, he hypnotises them so they'd do it. Um, my audience would probably be maybe um, 10 to 12 year olds.

R: And have you got an idea who you're going to give it to? As a present maybe? Who would like it?

M: Umm...

R: Not yet?

M: Not yet.

P: Umm, what is the structure of your story? Um, where would it be setting at the start?

R: So how are you setting up the introduction?

M: In the introduction their friends are coming over for like, umm, the holidays and they're staying for a sleepover there and that.

M: And they, um, they're just like having fun and all that when they realise all these kids had been missing and that.

R: Okay, yep.

P: Um, will there be any interactive features. Also, how would you do this?

M: Umm, I don't think I'll put any interactive ... umm ... I don't know

In the next writing session Mischa began to draft her text (FN4). She used the GoodNotes app (Time Base Technology Limited, 2011) to begin typing her ideas from her plan into a draft (see Figure 4.15). This was a familiar resource often used in class, although Explain Everything, her planning resources afforded the same features as GoodNotes. It was unclear why she choose to change resources.

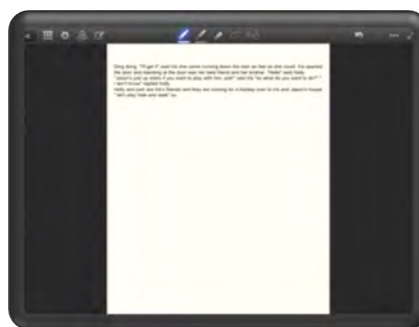


Figure 4.15: Initial stages of Mischa's draft using GoodNotes app

Figure 4.15 shows that for Mischa the initial drafting process focused on written words only. At this stage she had not given any thought to the visual or digital features of her story.

During writing session 5 observed Mischa was beginning to consider the visual and digital design of her text (FN5, SCW_M2). After continuing to type her story in GoodNotes she decided to turn her attention to her images. She opened up the app Art Set and began drawing one of her main characters. After outlining the figure she searched the Internet for images of 'drawings for a 10 year old girl'. She scrolled through some examples on Google Images but didn't appear to find what she was looking for. At this stage she seemed to make a decision to change her drafting platform from GoodNotes to Book Creator. She was observed closing down the Internet, opening up Book Creator and typing in the front cover and initial pages of her story using this app. Figure 4.16 is an example from the Camtasia screen recording of Mischa moving through these practices over a period of 5.31 minutes.

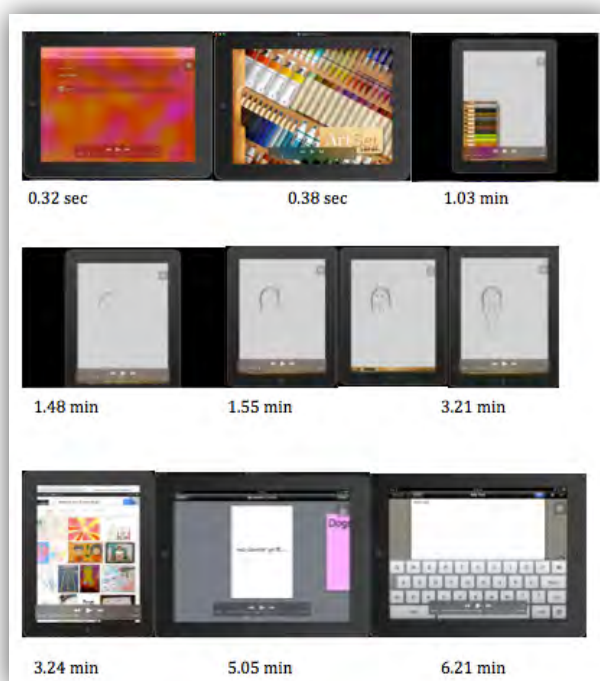


Figure 4.16: Camtasia recording of Mischa moving between different resources

It appeared that as Mischa began to consider and design her visual images she made the decision that Book Creator would be a better platform for her to complete her draft instead of the GoodNotes app she had been using. When asked at the end of the inquiry about her change of drafting platforms she was unable to explain why she made the choice. It is suspected by the researcher that during this session Mischa began to consider what her final publication would look like and realised that GoodNotes would only allow her to draft her written text and not include the visual design she had planned. She therefore decided that instead of creating a draft and then transferring into a publishing platform, she would continue her draft using the same platform she would publish in.

Writing session 6 was the last session before Mischa's four-session absence due to a family holiday. During this session Mischa worked in the app Book Creator to construct her text (FN6). At times she copied and pasted her incomplete draft from GoodNotes to Book Creator. At other times she continued to write the text. As Mischa constructed her text, she considered the placement of the writing on the screen by inserting and moving text boxes to the bottom of the page (Figure 4.17). No images were inserted during this session (SS4_M).



Figure 4.17: Text placement in final text

Mischa returned from her family holiday in time to attend writing session 11. She explained to the researcher that she had worked on her story in her time away (FN11). At this stage Mischa had completed her written draft, had inserted some still images

into her screens, and had begun experimenting with adding drawings to the still images she had saved from the Internet using the app Art Set. Mischa shared that she needed to edit her writing and asked the researcher for some support. Figure 4.18 is an example of a screen from her draft that she completed while on holidays.



Figure 4.18: Example of a draft page Mischa completed on holidays

During this session Mischa worked with the researcher to edit her text (AVW11). She included the main events and characters she had planned for during the planning stages of the writing process and she matched images sourced from the Internet with her written text. She had difficulty with punctuating her text, in particular the dialogue, and together Mischa and the researcher worked through each page to insert appropriate punctuation. After re-reading the text with the researcher, Mischa continued to self-edit her work until the end of the writing session.

The visual images were Mischa's focus during writing session 12 (FN12). While on holidays she had begun experimenting with combining still images sourced from the Internet with her own designs that she created with the app Art Set. None of the other children had this resource suggesting it was a self selected resource from home. Figure 4.19 shows the combination of a still image of a bedroom, which was saved from the Internet, with a drawing of three main characters she designed in Art Set.

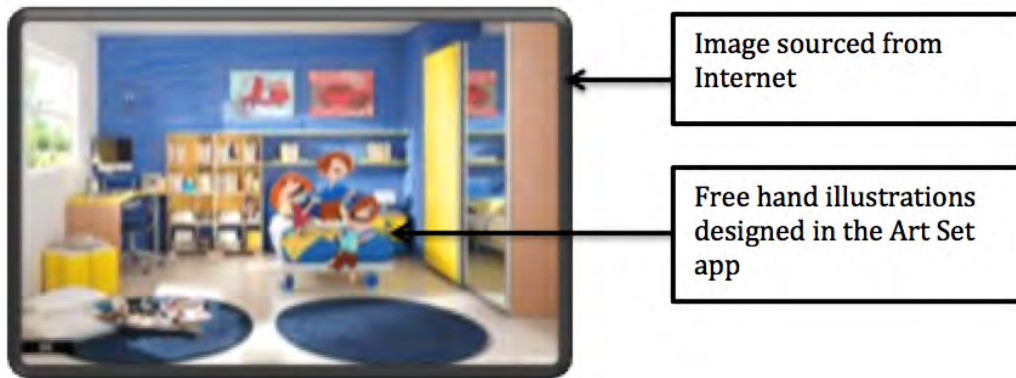


Figure 4.19: Image created by sourcing a picture from the Internet with free drawn illustration

When asked to reflect on the image design in the post-observation interview, she explained that she “wanted it to be modern day” and “wanted to make it my own”. It seemed that inserting free hand drawings into pre-designed images allowed Mischa to create a unique image that suited her story line (PPI_M).

Mischa also used this technique to emphasise lines and change colours of the still images she had saved from the Internet. For example, in Figure 4.20, Mischa used the paint tool in the Art Set app to change the colour of the kitchen cabinetry from brown to white and the colour of the floor from red timber floors to brown.

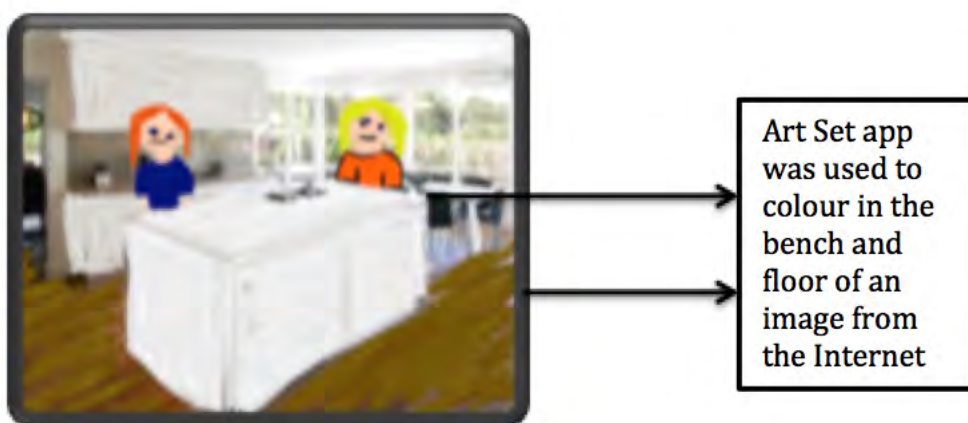


Figure 4.20: Still image sourced from the Internet and edited

In writing session 13 Mischa shared that she had designed three sound buttons at home to insert into her story (FN13). She had recorded the sound effects using the

recording function in Book Creator. Only one of the sound buttons worked. The recording was of her brother counting from 1 to 10. She inserted this into the second page of her story during an event in her story when children were outside playing hide and seek. Figure 4.21 shows the sound button inserted into the screen and a transcript of the written text before and after the sound button.

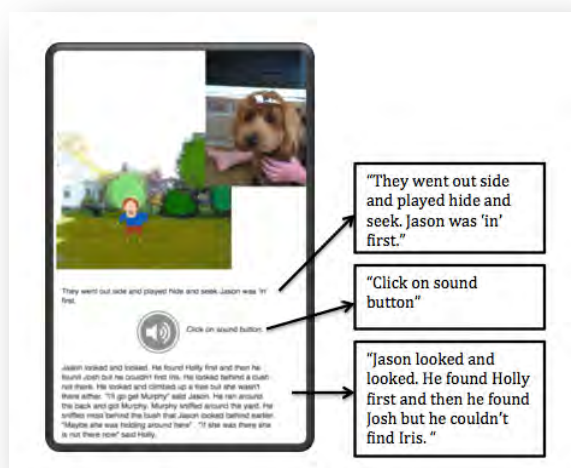


Figure 4.21: Annotated example of sound button placement and directions

Figure 4.21 highlights Mischa’s conceptions of how the audio mode can communicate a different message to the written text as the audio feature adds to the story instead of repeating it. This figure also illustrates that she has considered the reading pathway by inserting the button in between the written text and she has included an instruction for the reader to access the audio feature.

At the end of writing session 13 Mischa saved her story to Google Drive (Google, 2013) and shared with the researcher that she had published her text (FN13). During the post-observation interview Mischa explained that she preferred using technology to write stories because “it does have different options than you have with writing” (PPI_M). This was a different view from the one she had at beginning of the inquiry when she shared that her preference was to create stories on paper. She had showed evidence of her shift in attitude during the course of the inquiry. Table 4.4 compares

Mischa's responses to the interview questions about digital writing in the initial and final stages of the inquiry and highlights her increased confidence and ability to discuss digital text construction.

Table 4.4: Comparison of Mischa's pre- and post-observation interview data about digital writing

Initial interview	Final post-observation interview
R: Do prefer using an iPad or pen and paper when writing?	R: What do you prefer, writing with pen and paper or on the computer?
M: probably pen and paper	M: Maybe on the computer because it does have different options you have with writing the story.
R: How come?	M: Well you can put, insert pictures and interactions on an iPad but in a book you can't really do that. You can't make the images move or anything. And on this you can, like, you can just you don't have to write it down you can like just, like read the story.
M: Don't know	R: What do you mean?
R: Because we are going to actually write a story using the iPad ... what do you think the main difference could be when writing a story using the pen and paper as opposed to using the iPad?	M: Like um, you can narrate it yourself to the reader.
M: Umm ...	R: So why is that different from handwriting?
K: Do you want me to ask the question again?	M: Maybe on the computer because it does have different options you have with writing the story.
M: Yeah	
K: What do you think the main difference might be when writing a story using an iPad as opposed to pen and paper?	
M: On the pen and paper someone may be not able to understand your writing but on the iPad it's clearer.	

Interpretative summary

Mischa's preference for working with print-based text was clear from the outset of the inquiry. Her lack of experience with digital text was evident in her limited metalanguage to describe the structures and processes of the digital texts used for deconstruction. During her construction there was a heavy reliance on written text and still images, typical elements of print-based text.

However, Mischa's experience with digital text construction in the inquiry appeared to have supported both a development of skills and engagement with the creation of digital text features. Her responses during the post-observation interview evidenced this shift when she was able to express her choices and considerations as a digital writer. When asked a similar question at the initial stages of the inquiry she was unable to describe her practices as a digital writer. It seems the digital writing process was empowering for her as a writer of digital text.

Although Mischa's final digital literary text was dominated by print she showed some sophistication in her multimodal design. Her images, sourced from the Internet and edited using the Art Set app, suggest her willingness to incorporate unique images to suit her story ideas. The use of colour and design illustrations represented her own ideas for characters and settings that she could not source from pre-designed images from the Internet. Her visual design process highlights her understanding of the relationship between image and written text and the role image plays in the overall meaning making process for a reader.

Additionally, Mischa showed an understanding of how aural digital features can create more affinity between the reader and writer because the text becomes more real. This was evident in the three sound buttons she created that represented different sounds from characters and events in her text. The recordings were not literal representations of her written text, but instead provided an added dimension to her written and visual design. Voice recordings were an extension of what the characters were saying in the written text and displaying in the visual text. Mischa's skill in developing audio, however, was limited, and as a result most of the buttons could not be activated in the final publication. This example highlights the need for both understanding of multimodal composition and the technical skill to enact it.

Mischa combined a range of digital resources to construct her digital literary text. Interestingly, although she preferred constructing text in paper-based form at the beginning of the inquiry, she only selected and used digital resources to create her text. The interplay of apps allowed Mischa to create unique images that matched her written text and this was something that she could not achieve using only her publishing platform. All resources selected were familiar to Mischa and were used regularly in the classroom.

Case portrait 3: *The missing items* by Luke

About the author – Luke

Luke was 10 years old and in Year 5. He lived with his three older brothers and his two parents. Luke was a keen technology user and had access to iPods, iPads, and computers at home and he used them almost daily. During the initial interviews, Luke explained that he used technology at home to complete homework and conduct research on the Internet and occasionally played games with his brothers (POSI_L).

At school, during the field visits Luke appeared a quiet student, who was attentive to literacy instruction but not overly confident during whole-of-class activities (FNO_1). His teacher explained that, “he loves using the iPads and computers” and “is a capable reader and writer but not really that strong” (POIT). His school report (SR_L) indicated he was working at expected minimum levels in literacy with his recent NAPLAN (N_L) reporting standards well above the national and school averages in reading, below the school average but above the national average in writing, and slightly above both school and national averages in language conventions.

At the beginning of the inquiry and throughout, Luke appeared shy, often responding to questions and prompts minimally (SCR_L_Mimis, SCR_L_Lessmore, AVW3). The following transcript is an exchange between the researcher (R) and Luke (L) during the initial interviews and highlights Luke’s tentative reflections on past experience with story writing.

R: When you have to write a story, ummm what decisions do you make as a writer?

L: Well I have to think of what I'm going to write about it and if it's a necessary idea or yeah and who I'm going to focus the audience on and what type of language I'm going to use.

R: Can you give me an example of some of those choices. Like maybe an idea you have written about recently?

L: No, not really

R: Okay, umm what do you find hard about writing?

L: Coming up with ideas

R: Like deciding what to write about?

L: Yeah

R: How do you decide what to write about?

L: I don't really know.

When reflecting on his own past and current school literacy practices, Luke explained that he enjoyed reading fiction stories that “have lots of emotions. I like finding books and yeah I like sad books as well” (POSI_L). Luke explained that he enjoyed writing stories but couldn't describe a specific story that he had written. Data analysed from his text deconstructions, field visit observation notes and initial interview revealed two important aspects of Luke's prior understandings about digital literary text: He enjoyed technology but wasn't confident using it and he had little experience creating digital texts.

Enjoyed technology but wasn't confident using it

When asked about his digital literacy during his initial interview Luke expressed an interest in using technology but a lack of confidence as a user, reflecting, "I'm a little slow on technology ... I'm not very good with the iPad". When asked to discuss his literacy learning on the iPads at school, Luke shared that he found "learning how to do everything" was difficult even though he was using it daily. Luke also explained that he preferred reading books than iPads because the iPad, "can stuff up". Additionally, Luke shared that he found it difficult to concentrate when reading on the iPad "because there is lots of other stuff to do". These self-reflections were in contrast to the reflections of the teacher who described Luke as a "confident user of technology" (POSI_L).

During the text deconstruction Luke was prompted to discuss the two texts in terms of meaning and structure. Whilst he engaged in conversation about the plot of both texts, he was reluctant to discuss any digital features, often responding "I don't know" (AVR_L_Mimis, AVR_L_Lessmore).

Little experience with constructing digital texts

When prompted to share examples of digital text construction, he discussed activities based on inserting ideas in apps (AT) or word processing. Further when asked if he had constructed a story using technology he replied "umm, not sure. I don't think so". It seems that he had little experience using technology to construct digital texts.

Overview of The missing items

Luke created *The missing items* on an iPad and a computer. It is a story about a group of well-known cartoon characters who go on a treasure hunt to find their lost possessions. He constructed the story for his 11-year-old best friend, a child also participating in the inquiry.

The interactive and multimodal story was eight pages long and told in two chapters.

Literary techniques such as humour (e.g., “Homer was growing out of his clothes. His shirt ripped and his biceps grew and grew until he was naked except for his undies”), and extensive dialogue (see Appendix U) were used throughout his text. Characters (e.g., Homer, Papa Smurf and Sponge Bob) and events (e.g., Homer eating donuts) signified a strong relationship to pop culture with intertextuality an obvious literary element used. Each page was designed across a double screen with still images and accompanying written text. A rotating 3D image and a multiple choice quiz were added as interactive digital features in two of the pages. Luke drafted his text using the app GoodNotes and published it using iBook Authors (Apple Pty Limited, n.d.). Table 4.5 outlines each page of his text. A printed copy of Luke’s text is included as Appendix U.

Table 4.5: Overview of The Missing Items


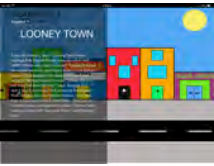




Screen	Content	Features of the text
<p>1</p> 	<p>Front page:</p> <p><i>The missing items</i></p>	<p>Template used from iBook Authors</p> <p>Large title in white font and black outline</p> <p>One still image sourced from Google Images</p>
<p>2</p> 	<p>First page of story</p> <p>Exposition:</p> <p>Introduction to characters and setting</p> <p>Introduction to main conflict</p>	<p>Double screen</p> <p>Image as background (from Google Images)</p> <p>Chapter 1 title in white font</p> <p>Chapter title, "Looney Town" in large white font</p> <p>Written text in white font- 106 words, 8 sentences</p>
<p>3</p> 	<p>Second page of story</p> <p>Rising action</p>	<p>Double screen</p> <p>Image as background (from Google Images)</p> <p>Grey background on one slide and white on the other</p> <p>Chapter 2 title: Homer's Story</p> <p>Written text in white font – 49 words, 6 sentences</p> <p>Interactive quiz question designed and embedded from iBooks Author widgets</p>
<p>4</p> 	<p>Third page of story</p> <p>Rising action</p>	<p>Double screen</p> <p>Image as background (from Google Images)</p> <p>Grey background on one slide and white on the other</p> <p>Chapter title: Mario in large white font</p> <p>Written text in white font – 98 words, 12 sentences</p>
<p>5</p> 	<p>Third page of story</p> <p>Climax of story</p>	<p>Double screen</p> <p>Image as background (from Google Images)</p> <p>Grey background</p> <p>One still image (Papa smurf) sourced from Internet and inserted in foreground</p> <p>Chapter 2 heading: Papa Smurf's hut</p> <p>Written text in white font – 248 words, 27 sentences</p>
<p>6</p> 	<p>Fourth page of story</p> <p>Falling action</p>	<p>Double screen</p> <p>Image as background (from Google Images)</p> <p>Grey background on one slide</p> <p>Heading: What happened?</p> <p>Written text – 280 words, 24 sentences</p> <p>One interactive 3D image (van) sourced from Internet and designed in iBooks Author</p>

Figure 4.22 also shows that he considered his audience by appealing to their interests. Luke explained that he wanted to write a story that innovated on other stories (PPI_L). He was currently reading a fractured fairy-tale in class and developed the idea from that genre (PPI_L).

During writing session 2 Luke spent most of his time researching ideas for images and apps (AVW_2, FN2). He was observed using Google Images to search cartoon characters and saving these in his image library (see Figure 4.23).



Figure 4.23: Image library on Luke's iPad

He also researched 'interactive apps' and 'story apps' on the Internet as a way to explore possible digital platforms for his publication. From these two practices it appears that Luke was thinking about both his visual design and digital publishing platform early in the writing process and had prioritised this before beginning with any written draft.

During the reflective conversations in session 3 Luke shared his ideas based on his digital writer's notebook (AVW3). At this stage he had not begun his draft. His peers asked him some questions about the development of his ideas and some of the digital features. The transcript below is an excerpt from an interaction between his peers (P), the researcher (R) and Luke (L).

P: Um, will there be any sound effects in your story like sounds that the machine makes or ... ?

L: Um, yeah, I'm going, I might do it how XXX is and record it on our iPad and use, yeah.

R: Okay, yep. Other questions?

P: Umm. What types of things will you be thinking about when writing your sentences like, how will you add, like, you say you want it to be funny, how will you add that in your sentences?

L: Umm, not really sure actually.

R: So it's going to be quite humorous. So the mood of your story is going to be funny. Maybe you can be thinking about what stories you've read that are quite funny, and have a look at some of their sentences.

L: Yep.

P: Maybe like the characters

P: Well I have one question.

R: Yes

P: From the top of your head, who do you think should be in it? Like, any name from the top of your head, who should be a character? Anyone?

L: I have no idea.

It is obvious from this conversation that Luke had yet to consider some of the literary elements and was still in the early planning stages of the writing process.

In writing sessions 4, 5, 6 and 7 Luke drafted his text. He was not observed to complete any additional planning. Drafting for Luke was mostly linear and resembled a similar process to paper-based text construction. Most of his time was spent drafting his written text using the GoodNotes app (AVW5, AVW6, FN4, FN7). It was unclear why he chose this resource given that Explain Everything affords the same word processing

functions. He occasionally searched the Internet for additional images and added these to his image library (FN6, FN7). He was observed (FN6) discussing and sharing ideas with the friend for whom he was writing the book, suggesting that he was considering his audience when creating his draft.

While drafting, Luke appeared to pay little attention to visual or audio modes; however, he did use the Internet on various occasions to support his writing. This included looking up synonyms for the word 'said' (AVW6) and searching websites for ideas on interactive features (FN7). Luke also engaged in two tasks that did not appear to support his writing. The first was inserting small images found from the web beside his text (FN6). These images were not used as part of his published story but did take up a considerable amount of time. The second was changing the colour of the font on pages (FN7), which did not become part of his published text. It was unclear why he engaged in these two activities.

In writing session 8 the researcher asked Luke if he had given any thought to his publishing platform (FN8). At the earlier stages of the writing process he had considered using iMovie and Scribble Press to design his visual images but had not decided how he was going to publish his text. The app he was using for his draft, GoodNotes was a note taking app and was not going to support his ideas for images and interaction. Luke was yet to decide which app to use and it was suggested that he might like to talk to an IT educational consultant who was visiting in writing session 10.

In the following writing session Luke engaged in an Author's Chair with his peers. He was very brief in his sharing and explained that he was still typing up his draft, had been searching on the Internet for ways to include interactive features with no outcome, and had not yet decided how to publish his text (AVW9).

The identification of a publication platform that would allow Luke to include interactive features was observed to be an ongoing challenge in the creation process. However, following a meeting with a visiting IT educational consultant, Luke adopted

the app, iBook Authors, as it allows users to create multimodal and interactive digital texts. While he had seen this app before he had no experience or explicit teaching of its functionality. He was shown by the consultant how to copy and paste his text and insert images including interactive 3D images and widgets (FN10).

Luke conferenced with the researcher to edit his written text before transferring it to his publishing platform (AVW11). Written text was the focus of the conference, as Luke had no drafts or structures for his image and interactive features at this stage. There were many mistakes in spelling and grammar. Luke said he was having difficulty with his conclusion. He wanted to make the conclusion less predictable but was unsure how to go about it. His first draft was based on a set of events that revolved around the characters trying to locate the missing items. He was trying to include elements of suspense and humour. However, he wasn't clear on how to finish the story and ended up quickly resolving it within two sentences. Luke and the researcher explored examples of conclusions from stories he knew.

During the rest of the session Luke edited his written text and then began copying and pasting it into his publishing platform (FN11). There was no indication in his draft how the written text would be organised in to the publishing platform. Because the publishing platform had not been determined until the previous session, Luke was unsure how he would present the text and therefore where to insert breaks for new pages. He therefore began inserting sections of text across multiple pages, often re-reading and changing text boxes to suit the spread of pages.

In writing session 12 and 13 Luke completed the final stages of publication (AVW12, AVW13, FN12). Once all his written text was transferred from his draft and edited, he worked on inserting his images from the image library and exploring different sizes and layouts for these images. Luke also spent some time exploring the different widgets and features available on iBook Authors. After some consideration he decided to

include a rotating 3D image and multiple choice quiz as part of this text (see Figure 4.24).



Figure 4.24: Rotating image and interactive quiz

While he had always planned to use some interactive features he had, up to this point, not developed or planned for these features. It appeared from observations and his reflection that the development of the two interactive features was determined by the affordance of the publishing platform instead of pre-planned ideas (FN12, FN13). When reflecting on his inclusion of the rotating 3D image he explained “I thought it was cool that you could actually control the image with your finger” (PPI_L). The difficulty of this feature, however, was that for the reader, the rotating image looks like a still image, as Luke had not included instructions on how to activate it.

Luke explained that he designed the quiz to “make sure that they [the readers] knew what was happening”. He revealed (PPI_L) that he got the idea from *Dust echoes: the Mimis* (ABC, 2007), however there was no indication that this had been considered or planned before he explored the possible interactive features on iBook Authors.

iBook Authors is automatically set up with chapter headings and subheadings. Consequently, Luke adopted this structure for his text. The final product was more of a reflection of the template of this app rather than of his plan, and it was organised in two chapters. The first chapter was one page in length and the second chapter was five pages. Some pages included chapter titles and subheadings whilst others just included subheadings (see Figure 4.25).

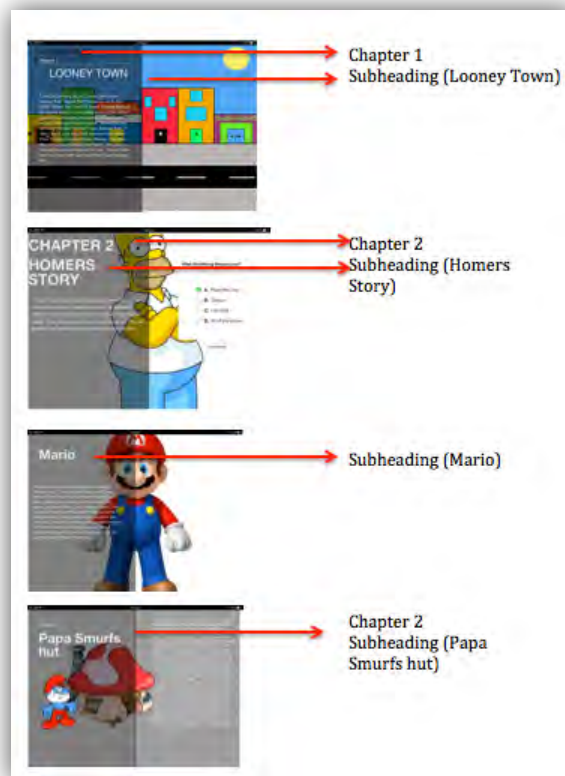


Figure 4.25: Structure of Luke's published text

Luke published his digital literary text in writing session 14 (FN14). He also saved the story to his friend's iPad so that he could take it home. During his post-observation interview Luke shared that he learned a lot about himself as a writer during the digital writing process and that he preferred writing digitally rather than on paper (PPI_L). This reflection showed his confidence in using technology had improved in contrast to his initial reflections based on his concerns about his technological skills.

Interpretative summary

The digital writing process for Luke appeared to be empowering as a digital writer. At the initial stages of the inquiry Luke presented as quite doubtful of his technological abilities. This was obvious in his self-reflection during interviews and his initial sharing sessions with peers. It was also a contrast to the perceptions of his teacher. However, by the completion of his text construction Luke appeared confident in his abilities as a digital writer, explaining that he found the drafting and publication process easy and

preferred using technology to create text because it was “faster” to write and afforded interactive features that could be incorporated into the text. It seemed that from experiencing the digital writing process Luke had developed greater confidence in his own technological abilities as a writer.

Publication was a significant process for Luke in that the late choice of a publishing platform meant his planning and drafting were not a consideration when he decided how his text would be published. This is important in the digital space as the affordance and limitations of the resources can greatly alter the design of the text.

Additionally, for Luke, his digital features appeared to be more a consequence of the templates of his selected publishing resource than a considered design feature contributing to the meaning of his text. The rotating image, for example, did not add any identifiable meaning to his text and the structure of his chapters was a result of the template embedded in the app instead of a decision based on the structure of his text. It seems that the timing of his choice of publishing software, in addition to the selection of digital functions available within this resource, influenced the way meaning was created.

Case portrait 4: *Family secrets* by Sarah

About the author – Sarah

At the time of the inquiry, Sarah was 11 years old and in Year 5. She lived with her older sister who was in Year 7 and her parents. At home Sarah had access to a range of technologies including two computers, three iPads and three iPods. She used technology at home daily, often listening to music or audio books, watching *YouTube* clips and talking to her friends via messaging and FaceTime (Apple Pty Limited, 2010). Sarah also spent a considerable amount of time at home reading and writing paper-based text, enjoying both fiction and non-fiction (POSI_S).

At school, during the field visits Sarah presented as a very interested and competent literacy learner (FN0.1, FN0.2). She was observed to engage in discussions and she demonstrated confidence in her ability by sharing her ideas with her peers and the researcher. Her teacher described her as “very enthusiastic and confident” (POIT), predicting that she would both enjoy and excel at constructing a digital literary text. Sarah’s recent school report (SR_S) indicated that she had achieved above the minimum expected levels in literacy. Her NAPLAN report (N_S) reported below school but above national levels in reading, above school and national levels in writing and below school but above national levels in language conventions.

At the beginning of the inquiry Sarah shared that she enjoyed reading and writing (POSI_S) and it was observed that she was familiar with and interested in both digital and paper-based literary texts, and had experience working in both mediums (FN0.3). Data analysed from the text deconstructions, field notes and initial interviews revealed three important aspects of Sarah’s prior understandings about digital literary text: Sarah enjoyed basing her stories on familiar texts in her writing, her story writing often crossed the boundary between fiction and non-fiction, and she was aware of the visual and design affordances technology could offer to meaning making.

Innovating on familiar texts in writing

Sarah liked to innovate on existing texts. She read widely, and shared that she often drew ideas from what she read for what she wrote. Sarah described herself as an “avid” reader who enjoyed reading a range of different texts (POSI_S). Her particular interests were books based on war and true stories, humorous fantasies such as books by Roald Dahl and adventure stories such as Harry Potter. During the initial interview Sarah explained that she used her reading experiences to create her own stories, for example, “books I have read and putting them all together and making one story”. Her final publication revealed that her ideas for story plots were innovations from a range of texts she had read in the past term (AFT_S).

Blurring the line between fiction and non-fiction

Sarah's interest in historical events and war were often incorporated into the stories she constructed at school. For example during the field visits (FNO_2) Sarah was observed drafting a narrative that incorporated real events. The following excerpt from the initial interview (POIT_S) is a conversation between Sarah (S) and the researcher (R) that highlights Sarah's interest in using real events in her stories.

R: Can you tell me about a story that you have written lately?

S: When the battle begins

R: Okay, tell me about it

S: Umm, it's about this orphan and it's during war times and he has to like he goes out and he's trying to find this friend who got taken and ran away and got taken away by some Nazi and he is like out their trying to find it.

R: Okay, so when did you start writing that?

S: A month ago

S: I like writing stories based on true stories

R: Hmm, and it sounds like your story happened a long time ago

S: Yeah I've been. Yeah it's not modern

R: Was that hard to write about the past when you were not involved in it?

S: Not really, because a lot of my family members have been in war and I have read a lot a books about war and stuff.

It was evident that Sarah's past experiences and connections to text and the world shaped her writing ideas and, although she accessed different types of text, she was interested in using factual ideas to construct fictional stories.

Affordance of technology to meaning making

Sarah's description of her past experiences in creating digital texts showed an understanding that technology could offer affordances that paper-based mediums could not (POSI_S). For example, during the initial interview Sarah discussed her

experiences with image creation using technology. The response in the transcription below shows Sarah's understanding of how multiple modes can be created using digital technology and incorporated in text design.

In your iPad there are different apps that you can draw with your finger or you can get images from Safari or save them to your camera roll from Safari. You can take photos of yourself and you can just put them, download them to you, like whatever app you want to work on and it's really easy to do that when you're reading a book, when you're making a book and all you have to do is print it in colour and there is your book. (POSI_S)


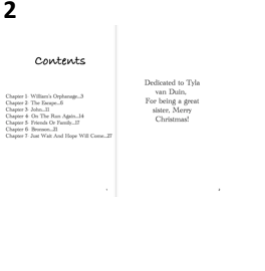

Sarah's understanding of digital affordances was also observed (AVR_S_Mimis). During the viewing of *Dust echoes: the Mimis* at the initial stages of the inquiry Sarah made sophisticated responses when reflecting on her reading pathways and interests when viewing the text, indicating that she had considered how the design of the digital text supported the meaning communicated to her as a reader. For example, when asked to discuss why she viewed the short animated movie of *Dust echoes: the Mimis* before reading the written synopsis, she replied, "I guess because sometimes the words actually spoilt the story". This response suggests Sarah has some awareness of the power of modes other than written language to create multiple meanings.









Overview of Family secrets






Sarah's digital literary text, titled *Family secrets*, is an interactive digital chapter book fully completed on an iPad and published using the app Book Creator. The story is about three siblings who were orphaned and subsequently separated at an early age into three different homes, only to find each other again in later life. The text is dedicated to and written for her older sister in Year 7, and was given to her as a Christmas present.

The final publication is twenty-nine pages and seven chapters in length. Sophisticated literary techniques such as symbolism (e.g., moving image created of a broken house as jigsaw pieces coming together to symbolise a broken family being reunited), onomatopoeia (e.g., SNAP, BANG), imagery (e.g., They fell to a big clump on the forest floor and formed a wall but the police were still right behind them) and high modality in language was expressed (e.g., William was shocked). Each chapter is told using predominantly written language with accompanying still images, moving images and sound buttons throughout. All still images were sourced from the Internet, with some being modified using the Explain Everything app. Three moving images were created and embedded into the text. She utilised a range of apps to format and produce the moving images, including Explain Everything, iMovie and PuppetPals (Polished Play, 2013). Five sound buttons were also produced and embedded in the text. However, none of them worked in her final publication. An overview of each of the screens of Sarah’s digital text is presented in Table 4.6. A printed copy of Sarah’s text is included as Appendix V.

Table 4.6: Overview of Family Secrets

Screen	Content	Features of the text
<p>1</p> 	<p>Front page: <i>Family secrets</i></p>	<p>Template used from the app Book Creator to design front cover Title and author (deleted from this image) are included Red background with white font</p>
<p>2</p> 	<p>Contents page and dedication</p>	<p>Double screen Title in black font Seven chapters with chapter headings and page numbers White background and black font Dedication to sister “Dedicated to For being a great sister, Merry Christmas” Page number on bottom right of each page</p>
<p>3</p> 	<p>Chapter 1: First and second page. Exposition, introduction to characters and setting</p>	<p>Double screen Chapter heading in black font White background Written text: 318 words, 28 sentences Page number on bottom right of each page</p>

<p>4</p> 	<p>Chapter 1: Third page Chapter 2: First page Rising action</p>	<p>Double screen Chapter heading in black font White background Written text: 196 words, 20 sentences One sound button with instructions to play "Press button after you read the paragraph and listen to the words carefully". Did not work. Page number on bottom right of each page</p>
<p>5</p> 	<p>Second page of Chapter 2 Rising action</p>	<p>Double screen White background Written text: 135 words, 19 sentences One still images inserted on one page - sourced from the Internet and edited Page number on bottom right of each page</p>
<p>6</p> 	<p>Third and fourth pages of Chapter 2 New setting in story Climax</p>	<p>Double screen White background Written text: 272 words, 23 sentences One sound button- "Press button after you read first paragraph and listen to the words carefully" One moving image created with images, music and captions (1m. 39s)</p>
<p>7</p> 	<p>First page of Chapter 3 Introduction of new main character</p>	<p>Double screen Chapter title in black font White background Written text: 165 words, 17 sentences One still image sourced from the Internet Page number on bottom right of each page</p>
<p>8</p> 	<p>Second page of Chapter 3 First page of Chapter 4 Rising action</p>	<p>Double screen Chapter title in black font White background Written text: 244 words, 18 sentence Page number on bottom right of each page</p>
<p>9</p> 	<p>Second and third page of Chapter 4 Falling action</p>	<p>Double screen White background Written text: 285 words, 21 sentences One sound button with instructions "Press button after you read the page ". Did not work. Page number on bottom right of each page</p>
<p>10</p> 	<p>First page of Chapter 5 Beginning to resolve main conflict</p>	<p>Double screen Chapter title in black font Page number on bottom right of each page White background Written text: 221 words, 16 sentences One still image sourced from the Internet Page number on bottom right of each page</p>
<p>11</p> 	<p>Third and fourth pages of Chapter 5 Resolution</p>	<p>Double screen White background Written text: 380 words, 27 sentences Page number on bottom right of each page</p>

<p>12</p> 	<p>First and second page of Chapter 6 Resolution</p>	<p>Double screen Chapter title in black font White background Written text: 197 words, 20 sentences One moving image incorporating image and music (0.25s) One sound button with instructions "Press button after you have finished the page". Did not work Page number on bottom right of each page</p>
<p>13</p> 	<p>Third and fourth page of Chapter 6 Resolution</p>	<p>Double screen White background Written text: 311 words, 26 sentences</p>
<p>14</p> 	<p>Fifth page of Chapter 6 Resolution</p>	<p>Double screen White background Written text: 165 words, 13 sentences One still image sourced from Internet and edited One sound button with instructions "Press the button after you have read the pg". Did not work. Page number on bottom right of each page</p>
<p>15</p> 	<p>First and second page of Chapter 7 Story conclusion</p>	<p>Double screen Chapter title in black font White background Written text: 290 words, 25 sentences Page number on bottom right of each page</p>
<p>16</p> 	<p>Symbolism of resolution told as moving image</p>	<p>Double page White background and black font Title: "The END!" One moving image incorporating an edited still image (0.30s) One blank page.</p>

Sarah's writing process for the construction of Family secrets

Family secrets was constructed in 13 writing sessions at school and numerous follow-up sessions at home. Like the other participants, Sarah started planning her digital literary story by recording preliminary ideas in a digital writer's notebook created using the Explain Everything app (AVW1, AVW2, FN1, FN2). During the first writing session Sarah worked sequentially to record her ideas including the heading, audience, characters, story line and setting. She also considered the design of the literary text by making comments on its form (FN1). Figure 4.26 shows an annotated excerpt from the digital writer's notebook Sarah completed during the first writing sessions. It highlights Sarah's clear vision for her text construction (SS2_S, SS3_S).

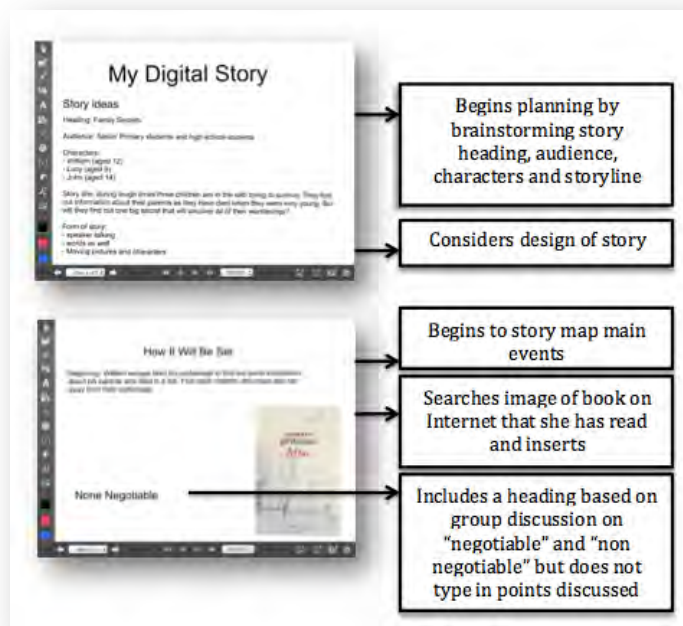


Figure 4.26: Sarah's digital writer's notebook

It is clear from Figure 4.26 that Sarah, while planning her digital literary text, understood the relationship between story and the digital platform and she considered both the story elements and the digital design.

Sarah's digital writer's notebook also indicated that she was considering the characterisation from a text that she had read in Morris Gleitzman's series of novels based on the Holocaust and told through the life of 13-year-old boy. The main male character in her text was of a similar age to the one in her text. In addition, the supporting characters resembled other characters from this text who were orphaned and abandoned children forced to make their own way in life without families (AFT_S).

During writing session 2 Sarah continued to add to her plan in her digital writer's notebook by brainstorming the beginning, middle and end events of her story (AVW2, FN2). She also spent considerable time exploring Google Images for pictures based on

her plan (FN2). She began saving these images in her image library on her iPad. Many of these saved images were never used in her text (SS4_S, SS5_S).

In the reflective conversation during writing session 3 (AVW3) Sarah shared with her peers her ideas, and provided an account of the events in her story.

Umm, during tough times, there's umm a little both called William, aged 12, and he escapes, he runs away from his orphanage. And there's..., he's kind being chased because his teachers don't like him. And so he's running away, and he finds another little girl aged 6 and she's also from a different orphanage. And so they're running, and they, umm, hop onto a train and they go places and then find another little, umm, big boy aged 14, his name's John. And the biggest mystery, like the biggest, the biggest, umm (researcher adds 'event') yeah, was them finding out that they are all related. (AVW3)

During her conversation, some of her peers commented that her story sounded like *Once* by Morris Gleitzman, a book they had read earlier in class. Sarah confirmed that she was innovating on the Morris Gleitzman series. She was then prompted by her peers to elaborate on the story design. She shared that she wanted her text to include both written and oral modes and made a connection to the digital feature of *The Fantastic Flying Books of Mr Morris Lessmore*, which enabled the reader to control whether they read the story with just the written text or in combination with the narration. She explained that she was unsure how to design this feature. Her peers offered her some suggestions on inserting sounds buttons in each screen. Sarah also explained that she would include both still and moving images but did not elaborate on this further.

Interestingly, the planning decisions she shared during writing session 3 were consistent with her final publication but the digital features in her final publication were not consistent with her initial plans (AVW3, AFT_S). Her preliminary notes indicated that she was considering telling her story through narration, written text and moving images. Her final text consisted of written text, still and moving images and sound buttons which linked to music. There was no oral narrated text. When asked at the end of the inquiry about how her planning ideas matched her final publication she explained that she attempted to record a page of her written text and insert it as a narration but didn't like how it sounded. She also commented that she knew her sister, the chosen audience, didn't listen to audio books so she decided not to include narration (PPI_S).

In writing session 4 Sarah began drafting her first chapter using the same app she used for planning, Explain Everything (FN4). She typed directly into the app using her notes from her digital writer's notebook to create the beginning of her story. In writing session 5 it was observed that Sarah cut and pasted her first chapter into a different app, Book Creator and continued to draft her story (FN5). During post-observation interviews she reflected on this choice: "I thought this app [Explain Everything] was more of a planning app, not a draft and book app, so that's why I moved into Book Creator" (PPI_S). She went on to explain that during planning and in the beginning stages of her drafting she had not considered how she was going to publish her story. During writing session 5 she therefore began to explore different book apps and decided to use Book Creator, an app she had on her iPad and had used previously in class (FN5). She explained her reasons in the post-observation interview, stating "you can add music and it's very interactive, you can add interactive stuff" (PPI_S). Interestingly the same interactive features are available in both Explain Everything and Book Creator. It may be that Sarah did not have an understanding of the full affordances of each resource. Sarah's subsequent chapters were completed using Book Creator (AVW6, AVW7, AVW8).

As Sarah continued to draft in writing sessions 6, 7 and 8 it was obvious that she was excited about her ideas and wanted to create her written text before considering additional modes or digital features. During these sessions she would often fully engage in her writing, seeming oblivious to the others working around her (FN7, FN8). Sarah was a thoughtful and careful writer, always re-reading her writing (AVW6, AVW7), talking aloud her ideas (AVW8) and asking for feedback on language choice or the way she had written an event (FN7). It was observed that Sarah was completing her draft both at school and home (FN7). She explained that she had been “researching language” and other information on the Internet at home and that “it helped a lot” (AVW7).

In writing session 9 Sarah shared her incomplete draft with her peers during an Author’s Chair (AVW9). She had completed two out of the seven chapters in her book. They consisted of written text and two still images. She explained that to date she had spent most of her time on her writing and still had a lot of work to do with her images. She shared that her draft was to be her final publication. It was obvious from her writing process and reflection that she did not see drafting and publication as separate processes. Sarah continued to complete her chapters both at home and at school (FN10, FN11). During the tenth session she also began to devote some time to visual design (AVW10). She was keen to develop some moving images to insert into her text. She used Google Images to search for pictures that matched her story and saved them in the image library on her iPad (FN10). At this time she also explored both iMovie and PuppetPals as possible platforms to develop her moving images. She decided that for the moving image she was creating she would use iMovie. Later on in the writing process she also used PuppetPals to create a moving image.

Sarah began to create the moving image at school by inserting the images into the iMovie platform (FN10). At the end of session 10 she had a draft of still images in iMovie and decided to take this home to complete because it was quieter there than at school and so her mum could help her with the editing (FN10).

In writing session 10 Sarah had completed the moving image (AVW10). The 1.39 minute movie was a complex interaction between still images, instrumental music from her iMovie library and inserted captions. Figure 4.27 maps the moving image from beginning to end, outlining the 19 still images Sarah sourced and used from the Internet.

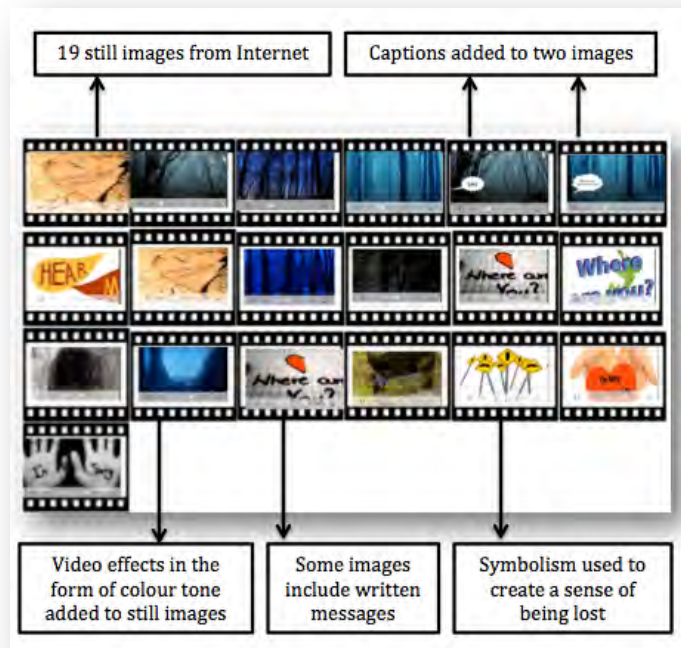


Figure 4.27: Images Sarah used to create a moving image

Figure 4.27 highlights the variety of techniques Sarah used to create the moving image. Nineteen still images were sourced from the Internet. Some images were edited to include captions to connect the image to the written text. Other images included messages that the characters were conveying to one another (e.g. where are you). She sequenced the images to create a story about the main character searching the woods for his sister who had run away. Images of trees, maps, caves and bears created a dramatic and dark effect. Additionally she used symbolism in the form of road signs to show the character was unsure where to turn to find his sister. Video effects were applied to some images to modify their appearance – for example, a day to night

colour. Sarah also considered placement of the images by using 'close ups'. Close ups are a zoom feature enabling an image to be zoomed in or out. This function allowed Sarah to manipulate the still image to become a moving image. For example, Figure 4.28 shows the placement of one still image over three frames (spanning a period of five seconds). While the image only captures a very slight difference in placement, it does highlight how Sarah used the zooming function to create a moving image from a still image.



Figure 4.28: Still images edited to become a moving image

The movie also demonstrates Sarah's understanding of the relationship between visual and written modes. Figure 4.29 is an annotation of a page in which the moving image in Figure 4.28 was inserted, and it shows the interaction between her written text and moving image.

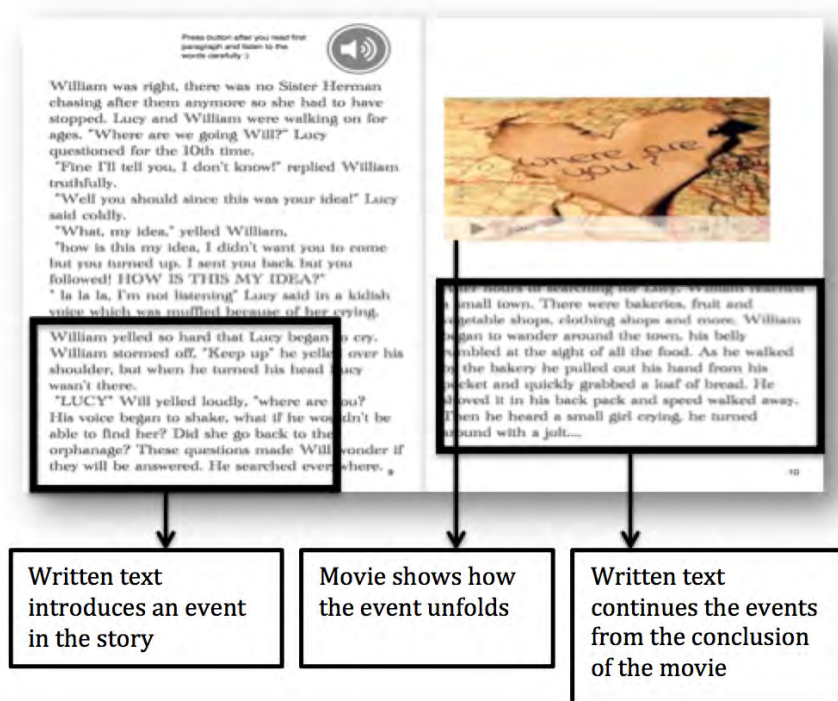


Figure 4.29: Example of the interaction between visual and written modes

Figure 4.29 highlights that the moving image created was used both to complement the written text and to extend it. In this way, the combination of moving image and written text created a richer description of the event in the story. While the written text is dominant in communicating the main events, the moving image communicates the feelings and emotions of an event through dark, moody colours, captions, and messages (e.g., "Where are you, I'm sorry") and the soundtrack, an instrumental piece of music found in iMovie.

During writing session 11, Sarah conferenced with the researcher as a way to share her draft and receive some feedback (AVW11). At this stage, she had completed four and a half chapters of her text (FN11). The draft included four still images and the moving image discussed previously. The difficulties of creating cohesion between settings caused some concern for Sarah as she found it difficult to communicate clearly when the characters moved to a different setting.

Additionally, during the conference Sarah shared that one of the difficulties she had was finding images that matched her setting (FN11). She explained that her story was told from “the olden days” (PPIS_S) and that she wanted the images to represent this time period. She therefore decided to search online using the term ‘olden days boys’ in her Google Image search to find images to match her main character. The breadth of meaning connected with Sarah’s search term generated images from a variety of time periods, many of which were not relevant to her story. Consequently, she chose a coloured image that she considered to be suitable and changed it to a black and white one with the help of her peer. Figure 4.30 is an example of the edited image of her main character.



Figure 4.30: Still image adapted to reflect the time in which her story took place

While the intention of editing out the colour was to shift the time period of the visual, the image still looked modern due to the clothes worn by the character and the background to the image. It seems that saving predesigned images to match developed characters in a text resulted in a disconnect between written and visual modes for Sarah. This may also be a result of Sarah’s limited ability to choose appropriate keywords for conducting online image searches.

During the final two writing sessions Sarah worked both at school and home to complete her text (AVW12, AVW13, AFT_S). This included writing the last two and a half chapters of her text, adding an additional three images and creating two more

moving images. What is interesting with these later selections is that Sarah seemed less concerned about whether they met her criteria for “olden day” images and runaway orphans seeking their family. Two still images she chose were colour (see Figure 4.31) and appeared not to fit the written description of the character as a runaway orphan (whom a reader might expect to look a little less robust) or the description of the main characters as runaways lost in the forest with animals eating grass around them.

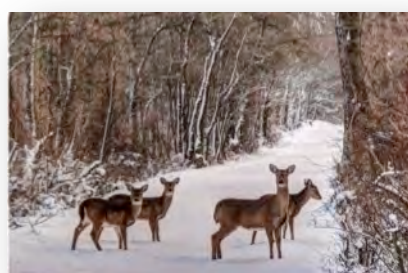


Figure 4.31: Still images that misrepresent the time setting of the text

The third still image, again in colour, was a picture of a burnt piece of paper that she edited with text to look like an old birth certificate (see Figure 4.32)

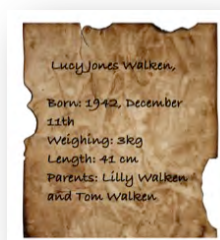


Figure 4.32: Still image created from an image on the Internet and edited with text

Figure 4.32 shows that Sarah was successful at editing a predesigned image found online to match her written text of a burned birth certificate although again the colour was disconnected with the time period.

Sarah also inserted into various pages of her text digital features in the form of five sound buttons of songs she had found on the Internet or had saved on her iPad. She said that her sound selection was based on the mood she was trying to create or lyrics that suited the event told in the story at the time (PPI_S). For example, when two of her main characters ran away from an orphanage, they fought over where to hide. The youngest one Lucy cheekily says to her older brother, “La, la, la. I’m not listening”. At this point Sarah has embedded a song with the lyrics “la, la, la”. The difficulty with this was the actual ‘la, la, la lyrics’ didn’t begin until 30 seconds into the song, by which time, the connection between the sound and words was lost.

Although none of the sound buttons worked in her published text, it was obvious that she had considered the reading pathway and the relationship between written text and audio by inserting captions near each sound button, instructing the reader when to read them (e.g., “Press button after you have finished the page”).

To complete her text Sarah designed and inserted a further two moving images (AFT_S). The first was a silent 29-second movie, created in iMovie using still coloured images of brown dogs sourced from the Internet (see Figure 4.33).



Figure 4.33: Moving image created by edited images from different still images

She used a clever technique of cropping different body parts from various images of different brown dogs and using short and long shots to create a moving image that appeared to be of the same dog but was in fact a combination of images of different dogs. She did this because she wanted to create a moving image of the dog but could not source enough images of the same dog to create a moving image.

Sarah used a different technique and platform to create her final moving image, which was inserted on the last page of her text. She created this in PuppetPals using two still images – one of a house and the other of a dog (see Figure 4.34).



Figure 4.34: Moving image created using the app PuppetPals

To construct this moving image, two images were firstly converted to black and white to suit the setting of the story. She then digitally cut the image of the house into four pieces to look like a jigsaw puzzle. In PuppetPals she moved the four cut up images to represent four pieces of a puzzle coming together. She then added the dog to the front of the picture. Sarah explained that she created the movie to symbolise a broken family being reunited (FN13).

Sarah submitted her final text at the conclusion of writing session 13 via Google Drive (FN13). In the post-observation interview she explained she was very proud of her story and commented that her sister (her intended audience) and her family were also very excited with her creation (PPI_S).

Interpretative summary

Sarah's digital literary text construction was influenced by texts she had read prior to the inquiry. Her story plot and digital presentation ideas were largely influenced by her interest in historical texts and her recent reading of *Once* by Morris Gleitzman. Additionally, Sarah made connections to the digital design of *The Fantastic Flying Books of Mr Morris Lessmore* in her understanding of how the moving images and the audio mode could provide additional meaning within her story. It seems that prior knowledge of text models helped Sarah to innovate on her own text, and to consciously choose ideas and structures when composing her own digital literary text.

Sarah showed a sophisticated understanding of the relationship between visual and written modes. She created moving images and showed an understanding of both design and multimodal composition. This was particularly evident in the movies that extended the meaning of the written text. Their use involved careful consideration of their placement in the text and navigational instructions for a reader to access. However, Sarah did make do with some unsatisfactory images. Notwithstanding her age, it seemed that Sarah's experience using Google for images highlighted the limitations of this search engine, her limited knowledge of key word searches and perhaps her limited problem solving strategies to create the image she wanted.

While written and visual modes predominantly carried the message in Sarah's text composition, she showed an appreciation for the audio mode and oral language and its interpretative possibilities. For example, she decided during planning to include oral language as narration and audio sound effect buttons in her text to complement her written and visual text. Although oral narration was not included in her final

publication, her reasoning for leaving this mode out suggested she understood how sound can affect the mood of a literary text (for example she didn't like the sound of her voice so didn't include narration and her sister, the chosen audience didn't listen to audio books). It appears Sarah's choices were based on a consideration of the effects of audio modes and oral language and of the overall expression of her story.

This understanding of the affordances and effects of the audio mode was not, however, carried forward to her development of sound buttons. Sarah's interpretation of the function of the sound effects was quite literal. Music was chosen based on the lyrical similarities to the written words instead of the interpretation to the mood, expression and tone of her story. Furthermore Sarah's limited technical ability hindered her publication of these sound buttons, with all five sound buttons designed during her draft not being functional in her publication. This example suggests that the important role of audio in constructing digital literary texts needs to be recognised in pedagogical agendas.

While Sarah had difficulties with the technical aspects of some digital features, she did show sophistication in her ability to use multiple resources to construct meaning. This was evident, for example, in her selection of different digital resources to create moving images. iMovie enabled her to embed multiple images, captions and sound effects to create a moving image while PuppetPals provided the additional function of recording the movement of characters through touch devices. Selecting and embedding multiple resources in one text provided Sarah with the ability to create meaning in various ways.

Case portrait 5: *Tales of Peter Wright* by Tate

Meet the author – Tate

Tate was 10 years old and was in Year 5. He lived with his two brothers (one older and one younger) and his two parents. Tate had access to a variety of technologies at home including two iPads, two iPods, a Wii video game console and a computer. At

home Tate used technology to play games and capture images and interactions between him and his brothers (POSI_T).

At school, during the field visits prior to the inquiry, Tate appeared to be a social literacy learner, often spending time talking to his peers and teacher and sharing ideas (FNO_1, FNO_2). During instruction he often found it difficult to concentrate and on many occasions was observed being distracted by his surroundings and not particularly interested in the class lessons. His teacher described him as ‘a thinker’ who often thought differently to other children (POIT). The following transcript outlines Mrs Madden’s predictions for Tate during the initial interview. She highlighted that Tate, although not an avid writer, is creative in thought, often spending time on the aesthetics in his story writing.

Umm Tate, he will give you something really out of the box because he thinks differently. He doesn't write a lot but what he writes about, it can really hit you in the face, it can really make you stop and think. So he thinks differently and deeply. He will spend time on evoking kind of, not just feelings, he will spend time on how will I get the atmosphere right on this text. He will talk about feeling it. The music, he will always put that element in, in whatever he creates. He almost, if it's just a visual creation it's not enough for him. It's almost like the music will make my [Tate's] creation. (POIT)

Tate’s recent school report (SR_T) indicated that he was working slightly below the year level in literacy. His recent NAPLAN report (N_T) highlighted that he had achieved above State and National minimum expected levels in reading, below school but above national levels in writing and above school and national levels in language conventions.

At the beginning of the inquiry Tate presented as being an enthusiastic social technology user but less confident using technology for literacy learning (FNO_1, FNO_3). He indicated he had little experience in reading and writing digital texts

(POSI_T). This was evident when viewing the two digital literary texts at the beginning of the inquiry. Tate was often asked about the various digital and multimodal features of the two texts that were deconstructed as part of the inquiry and he often had no response or simply commented, “it was good” (AVR_T_Lessmore).

Data analysed from the deconstruction observations, field visits observation notes and initial interview revealed two important aspects of Tate’s prior understandings about digital literary text: Characterisation was an important focus for Tate in literary texts and technology was predominantly viewed as a tool for engagement and fun.

Characterisation is an important aspect of literary texts

Tate was able to describe in detail the importance of characterisation in literary texts. When asked about the choices he made when writing his own stories he described character development at length (for example “does the character die?”, “what his life is like?”, “name of the character”, “facial details and complexion”, “how old is he?”) (POSI_T). Additionally, during reflective conversations (AVW3) and the Author’s Chair (AVW9), Tate described his preplanning ideas and draft by discussing the characters of his story (“it’s about a boy who, he grows up in an average family”, “he decides to go on an adventure with some of his poor friends”). During the viewing of the two digital literary texts at the beginning of the inquiry his primary focus when describing the texts were based around the main characters (AVR_T_Mimis, AVR_T_Lessmore).

Technology was predominantly viewed as a tool for engagement and fun

In the initial interview (POSI_T) Tate said that he enjoyed using technology such as iPads because it is easier than paper-based text. For example he said, “It’s easier to do school work because when you use a pencil and you are writing it down it gets a little boring”. He said that he regularly used technology to play games and record things that his family did at home. When asked to describe technology use in reading and writing Tate was less enthusiastic, saying that computers have spell checks and have lights to read words. During the viewing of the two digital literary texts at the initial

stages of the inquiry Tate often discussed the engagement factors associated with the texts. For example when recalling the reading pathway he utilised to view *Dust echoes: the Mimis* he explained that the movie caught his initial interest because it didn't require him to read: "you don't have to read it. You can just stare right at it" (AVR_T_Mimis). When discussing *The Fantastic Flying Books of Mr Morris Lessmore* he explained that his favourite elements were the games that were embedded in the text (AVR_T_Lessmore).






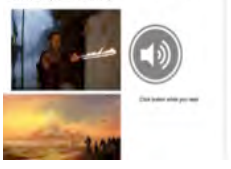
Overview of Tales of Peter Wright

Tate wrote *Tales of Peter Wright*, a medieval story about a boy who lived in the corrupt land of Fantasia and eventually escaped to live a happy life. He constructed his story for his younger brother who was in Year 2 at the time of the inquiry.

Tales of Peter Wright is told over 10 pages using written text and 19 still images sourced from the Internet. Also included are sound buttons linking to recorded music stored on his iPad. Some common literary techniques were evident, such as dialogue (e.g., "Peter," said Freda in a whisper), and imagery (e.g., spent days in their cell cold and hungry). He initially drafted his text using the app Explain Everything and during this process decided to publish using the app Book Creator.

Tales of Peter Wright is the not the original story Tate had planned during the initial writing sessions in the inquiry. Initially he wrote the *Tales of Fantasia* (see Appendix X). However, this story had a complex plot based on a multi-user computer mediaeval adventure game and so, throughout the planning and drafting process, he experienced considerable difficulty articulating the plot clearly. Further, the violent nature of the game, and therefore the plot, created further challenges in making a story that was appropriate for his audience, his eight-year-old brother. After consultation with his teacher he reluctantly repeated the construction process as he reconceptualised a new text called *Tales of Peter Wright*. An overview of Tate's incomplete original text is presented as Appendix X. Table 4.7 outlines his final published text, *Tales of Peter Wright*. A printed copy of Tate's text is included as Appendix W.

Table 4.7: Overview of Tales of Peter Wright

Screen	Content	Features of the text
<p>1</p> 	<p>Front page:</p> <p><i>Tale of Peter Wright</i></p>	<p>Template used from the app Book Creator to create front cover</p> <p>Title included</p> <p>Red background and black font</p>
<p>2</p> 	<p>First and second page of story</p> <p>Exposition:</p> <p>Introduction to characters and setting</p>	<p>Double screen</p> <p>Written text in black font: 100 words, 7 sentences</p> <p>White background</p> <p>Five still images from the Internet. 3 images are displayed in frame templates</p> <p>Two sound buttons with instructions "click button while you read" – did not work</p>
<p>3</p> 	<p>Third and fourth pages of story</p> <p>Climax: main complication in story</p>	<p>Double screen</p> <p>Written text in black font: 128 words, 13 sentences</p> <p>White background</p> <p>Four still images sourced from the Internet (2 images are the same. One is a replica from the previous page)</p> <p>Two sound buttons with instructions "click button while you read" – did not work</p>
<p>4</p> 	<p>Fifth and sixth pages of story</p> <p>Falling action: beginning to resolve climax</p>	<p>Double screen</p> <p>Written text in black font: 82 words, 9 sentences</p> <p>White background</p> <p>Three still images sourced from the Internet</p> <p>Two sound buttons with instructions "click button while you read" – did not work</p>
<p>5</p> 	<p>Seventh and eighth pages of story</p> <p>Resolution</p>	<p>Double screen</p> <p>Written text in black font: 59 words, 4 sentences</p> <p>White background</p> <p>Five still images sourced from the Internet (2 have been used previously)</p> <p>Two sound buttons with instructions "click button while you read" – did not work</p>
<p>6</p> 	<p>Last page of story</p> <p>Resolution</p>	<p>Double screen</p> <p>Written text in black font: 28 words, 1 sentence</p> <p>White background</p> <p>Two still images sourced from the Internet</p> <p>One sound button with instructions "click button while you read" – did not work</p>

Tate's writing process for the construction of Tales of Peter Wright

Tales of Peter Wright was constructed over 12 sessions. This included the drafting of his original text *Tales of Fantasia* and his final published story. In the beginning stages of the writing process Tate set up a digital writer's notebook using the Explain Everything app (FN1, FN2).

His digital writer's notebook included many ideas, including images of cartoon characters inserted from Google Images, personal statements (such as "you can make a story just make it anyone can be in it"), and character names under the heading 'cast' (see Figure 4.35) (SS2_T, SS3_T).

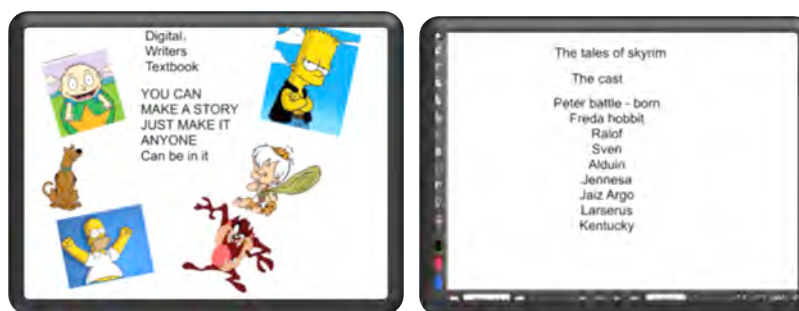


Figure 4.35: Tate's digital writer's notebook

Although the cartoon characters and the statement did not appear in his text, some of the character names did eventually become the main characters in *Tales of Peter Wright* (AFT_T).

During writing session 2 Tate spent a significant amount of time searching for images (often unsuccessfully) and talking to himself and others (AVW2). Additionally much of his time was spent exploring the Internet and apps on his iPad without a particular focus. He was often observed clicking on his history menu on his iPad for no obvious reason, and looking through Google Images and opening and closing a range of apps on his iPad. At the conclusion of the second writing session, Tate was well behind his peers in documenting his planning ideas and had not begun to draft his story (FN2).

In writing session 3 Tate was invited to share his planned ideas with his peers (AVW3). While his documented ideas had not developed beyond what is shown in Figure 4.35 and lacked a clear structure, he did, in detail, share his story ideas including the main events of the story from beginning to end. The following transcript is an excerpt of an interaction between Tate (T) and the researcher (R) during the reflective sharing session with peers in writing session 3.

T: Well my story starts off in the olden days, way way back, to medieval times. Well, it's about a boy who, he grows up in an average family who is very poor and he gets framed for committing a crime. Committing a crime against his kingdom, like he actually didn't do it. So he was going, he went, he was about to be executed and then a dragon flew right next to the executioner. Gone, executioner is dead. Then everyone starts, the prisoners start to run off, like headless chickens.

R: Run off like headless chickens. Yes.

T: Ran off like little cockroaches. And they ran from the keep. And one of the guards decides to help Peter and he just stayed alive until he makes it back to Riverwood. Riverwood. Because he's very lonely and poor and stuff, so he decides to go on an adventure with some of his poor friends, Jennifer, Sven and Ralolf. When they, they were going to make a rebellion of taking out the, it's pretty complicated.

R: Okay, okay. That's alright.

T: They started taking out, they decided to join an army ...

R: Yep.

T: And they want to take out the dragon for taking out Riverwood, and his family were destroyed and yeah. And he's on his way up to fame and stuff.

R: Yes.

T: And yeah, he just becomes a hero in the end.

In comparison to his documented planning ideas in Figure 4.35, the transcript reveals a definite plot for his story along with key elements including exposition, conflict and events. However, his comment “it’s pretty complicated” and his unfinished plot suggested he had not fully considered the extent or complexity of his story ideas. During this session Tate was enthusiastic about his ideas, although given the uncertainty of his plot, particularly his inability to explain it to its conclusion, perhaps these ideas were formulated whilst Tate was talking (AVW3). When asked by his peers to discuss details such as climax and conclusion Tate became confused about his ideas, often responding with events that did not seem to fit his original description.

When asked about the structure and technological features he was considering, Tate seemed unsure of how to design his text. The excerpt below is of an interaction between Tate (T), the researcher(R) and his peers (P).

P: How will the story be told, like with words or narration?

T: Narration. Narration or I’ll just write it down and I’ll just read it. Read it or narration. I’d probably just say reading it.

R: Okay, so you’re thinking that it will be ...

T: I’ll make it like a story

R: So when you think about putting it together though ...

T: Yeah

R: ... will it be a typed up story? How do you think it’s going to look?

T: Um, more like written down on a piece of paper

P: So will it be like a novel where you’re reading the words?

T: Yep

R: Yep, and are you going to have any sound in there at all?

T: Um, yeah, sound effects. I'm going to get iButtons.

This example draws attention to Tate's difficulty when considering how his text was going to be designed and published in a digital medium. Tate appeared to be confused about digital features such as narration and it seemed he had not given thought to the way he would communicate his text to his audience. While Tate wanted his story to be narrated without written text he found it difficult to find the metalanguage to communicate this.

In the next writing session the researcher spent time with Tate in an attempt to support him to find a way to document his planned ideas (AV4). Together, they explored how others had used their digital writer's notebooks to brainstorm (using dot points and headings to organise thoughts). The researcher shared a paper-based and digital story map with Tate as a way to help him structure his ideas and consider the story elements, digital features and multimodality. After working with the researcher, Tate visited the website 'Storyboard That' (Clever Prototypes, 2013) and spent considerable time exploring it. By the end of the writing sessions Tate had created a comic using the Storyboard website that was unrelated to his original ideas.

During the fifth and sixth writing sessions Tate used the app Book Creator to begin drafting his text (FN5, FN6). While it is not fully clear of his purpose of using Book Creator as a resource, he did comment that Book Creator "could include sounds" (FN6). However, Explain Everything, his planning app also records sounds. Perhaps Tate was unaware of this affordance.

Since his planning ideas were minimal Tate appeared to formulate his ideas as he wrote. When reflecting on his drafting process Tate explained that he drafted his story by, "writing what was inside my head" (PPI_T). At times during these two sessions Tate appeared consumed by his story and was occasionally observed talking to himself and

laughing at his ideas (FN5). He also was observed regularly sharing his activities and his thinking with his peers throughout the sessions (AVW6, FN6). However, Tate was often easily distracted, especially when moving across platforms from his draft to the Internet (FN6). Although his initial actions on the Internet were focused on searching for images for his story, on many occasions he became distracted and clicked on images and links that had no obvious connection to his ideas. Figure 4.36 is an annotation of the Camtasia screen recording (SCW_T2) of Tate during part of this writing session. This figure shows 2.00 minutes of footage where Tate is observed interacting with many features on his iPad but not actually creating or adding to his text. This example is indicative of many of Tate's writing experiences during the inquiry.

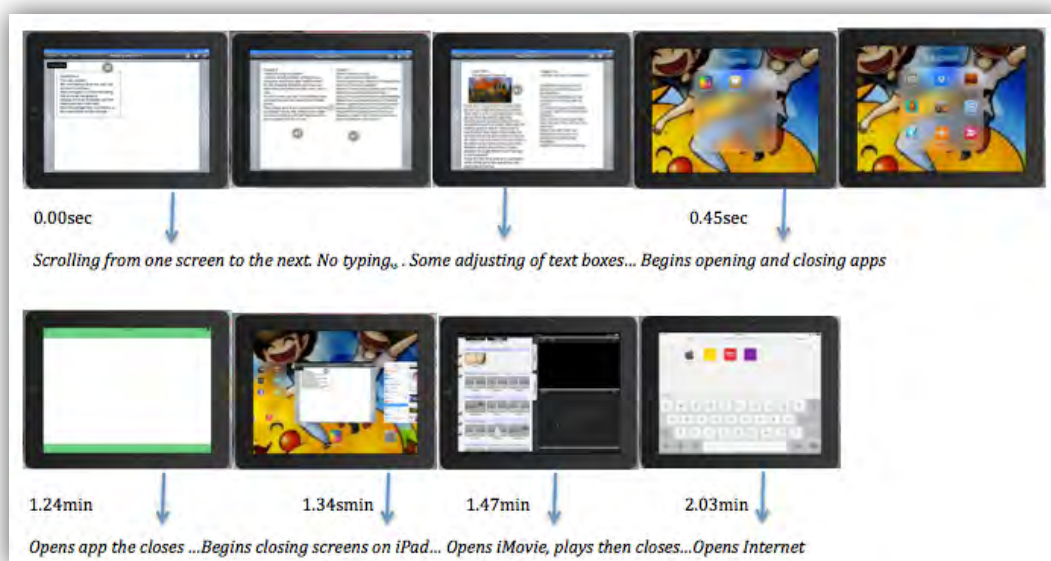


Figure 4.36: Screen recording of Tate's writing practices during an independent writing session

Tate completed four pages of drafting during the next two writing sessions (see annotated Figure 4.37) (SS8, SS9). It became obvious that although the initial stages of drafting were difficult for Tate, once he had a clear vision of the story he was engaged in creating it.

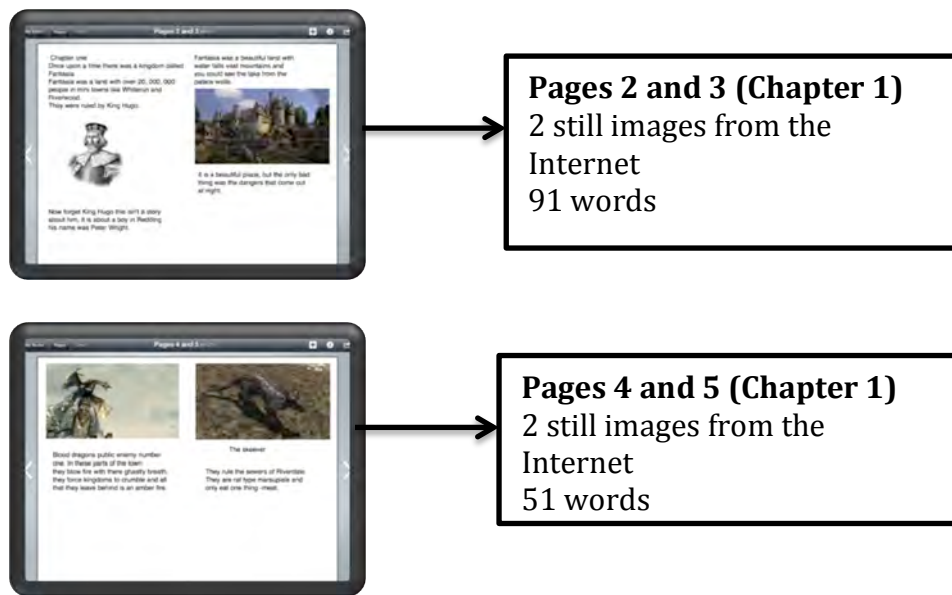


Figure 4.37: Tate's drafting progress over two writing sessions

By the ninth session Tate was ready to share the incomplete draft of his original text *Tales of Fantasia* during an Author's Chair with his peers (AVW9). At the peer meeting, observations revealed extensive progress from the previous session. That is, between writing sessions 8 and 9 he had completed nine pages of his text. Tate attributed his considerable progress to the work he undertook at home until "10 o'clock at night" (AVW9). Although this is only a speculation, it appeared that Tate was keen to show his peers that he had a draft to share and therefore completed much of it the night before the sharing session.

During the Author's Chair, Tate shared with his peers that his draft consisted of written text, images and sound buttons. This was different from his original plan shared in writing session 3 in which he said he planned to design a story told through narration instead of written text. Tate said that he had made some changes to his plot while drafting. The interaction below between the researcher (R) and Tate (T) highlights the complexity of Tate's story ideas with his recounting more like a medieval film or video game, similar to that of the single player role playing game. 'The Elder Scrolls V: Skyrim'.

R: And you said that you've changed your story line a lot?

T: Yeah, a lot.

R: In what way?

T: Well, this picture isn't actually in the thing. This is actually to a child William Wallace and stuff, so this is how big Ralof Jefferson would be. Yeah, I've changed it a lot because I've done the execution, when people were hung, beheaded and stoned ...

R: Yeah? Okay. So you're still keeping the same plot, so what changes have you made then to your original plan?

T: Uh, the guard doesn't see him. Ralof cuts himself free. Like by just going up and down, up and down with his tied arms. He gets, he's free, grabs Peter and he just, they just run off to the keep. And they just try, they escape to, um, the Riverdale and they get, they have to have some people to ... of men and elves.

Additionally, during the Author's Chair, Tate also shared that he had created one sound effect in the form of a sound button using a song from Phil Collins. He explained his choice of song was based on the mood of the story. Tate attempted to play the sound button, however, it did not work.

Between writing sessions 9 and 10 Tate's teacher, Mrs Madden, who reviewed the children's' drafts, became concerned with the content and appropriateness of Tate's text (FN9). Many events in his story were focused on killing, with particularly gory details included. The example below (unedited) is a description of an execution written on page nine of his draft (SS10).

Ralof and I watched as 9 criminals were hanged stone or behead Until they shouted my name I was put to beheading I said my prayers I had a stone in my throat until a loud roar because a blood dragon was right on

the roof of the pub and it flew down on the executioner and cut off his head.

Mrs Madden discussed her concerns with the researcher, worried that the content would be offensive to anyone who read it. Mrs Madden decided it was not appropriate to send home to his eight-year-old brother. Collaboratively, Mrs Madden and the researcher decided to suggest to Tate that he adapt his text to suit his young audience. The teacher communicated this to Tate before he attended the tenth writing session (FN9).

At the beginning of session 10 Tate's body language conveyed frustration as he was asked by his teacher to alter his original text (FN10). After discussing with the researcher how he could respond to the teacher's request, he decided he would keep the story plot but create it as a story book instead of a chapter book and simplify the content to make it more appropriate for his younger audience. Consequently, Tate opened a new file using Book Creator but explained that he didn't know how to begin to change his story. The researcher worked with Tate on the first page to rewrite his story as a way to scaffold how to adapt the text for a younger audience using his ideas. Figure 4.38 shows the first page of Tate's original draft and the new version completed with the researcher. After rewriting the first page Tate worked independently to insert the image to his first page (FN10)

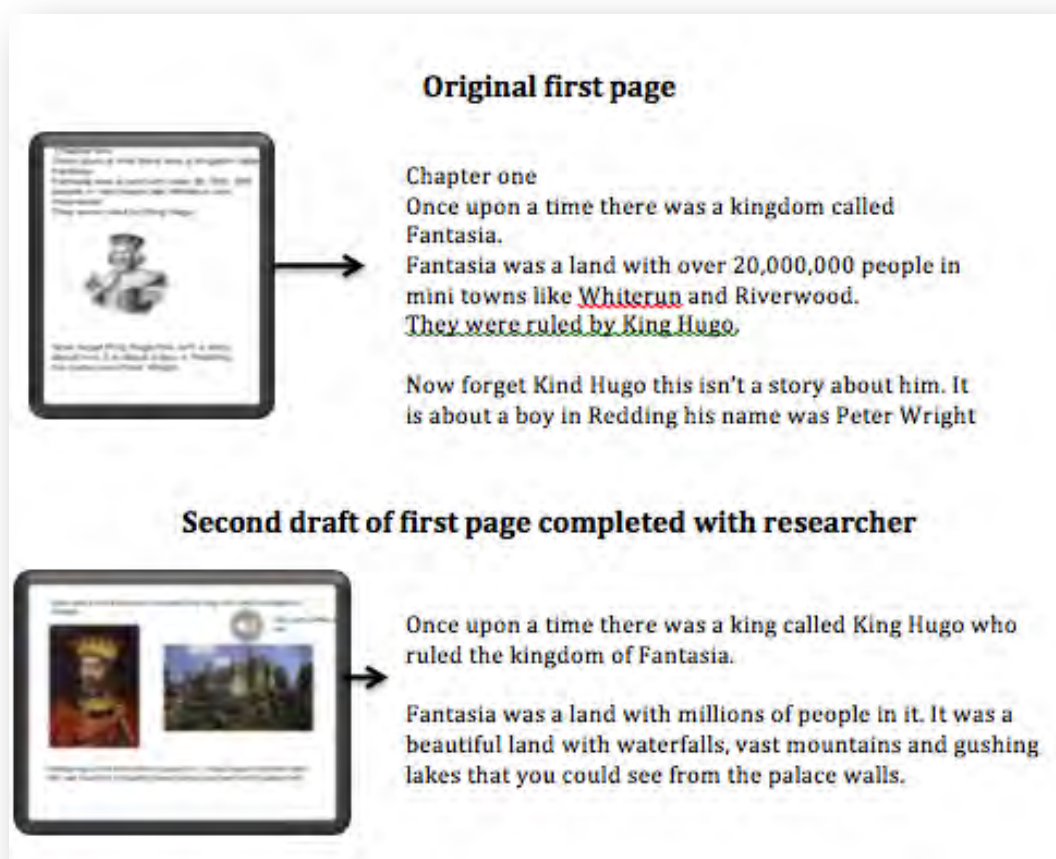


Figure 4.38: First and second draft of Tate's text

During writing session 10 and 11 Tate completed all pages of the new text. He focused predominantly on the written mode of language and at the bottom of each page he inserted images saved in his iPad. He did not search online for any further images in his reconceptualised text but instead used the images he had saved from his first text. It was noted in observation data (AVW10, FN11) there was a lack of interest and enthusiasm for the new text in comparison with his approach to the first draft.

At the conclusion of writing session 11 Tate asked the researcher to read over his second draft (FN11).

His draft was nine pages long and included written text and still images on each page. Tate was not interested in editing his text on the screen, and instead he talked to his peers around him and simply answered questions with shrugs (FN11). The researcher

instead printed out a hard copy of his story in the hope of co-editing with him the written component and visual design in paper form. The reason for this was twofold. It allowed Tate to see a visual annotation of his text instead of relying on verbal feedback between himself and the researcher, and also encouraged him to take the handwritten edits and self-correct them in electronic form. While Tate did engage more actively in this process, many of the suggested edits were not attended to in his final published text.

A further focus for editing was the use and sequence of images. It appeared that some of his images did not match the associated text. They were also replicated from page to page. This was particularly evident in the case of one of the main characters, Ronan. This character was described as “a skinny dark figure hunched in the corner of his cell”. However, the picture of Ronan showed a young man in black hooded jumper, clean and confident with a slight smile on his face. This image was used three times in his story, although the setting and emotion of the character had changed (See Figure 4.39).



Figure 4.39: Three images of the one character used across multiple settings and emotions

Figure 4.39 shows the image of Ronan that Tate used and includes annotation that highlights the change of setting or emotion. Although Tate and the researcher

discussed the mismatch between the image and the written text Tate did not attend to this in his final publication.

In Tate's final writing session (12) he inserted some sound buttons of saved music files from his iPad. Tate explained that these sound buttons allowed the viewer to play music while reading his text. Tate further explained that he enjoyed listening to music while he read (PPI_T). Additionally, Tate inserted captions ("click button while you read") alongside each sound button. While none of the sound buttons worked, the captions showed that Tate had shown consideration for the reader by including captions to explain how to access the sound.

At the time of the last reflection, Tate had not shared his text with his brother. When asked how his brother would access the story from Tate's iPad he replied "I will just show it to him" (PPI_T).

Interpretative summary

Of the six children in this inquiry, Tate had the most difficulty planning and constructing a digital literary text. He struggled with responding to the demands of text construction – both the literary and digital aspects of digital literary text.

Tate's understanding of literary text appeared limited. During text deconstruction the focus of discussions was on the digital features such as the movie, and, apart from characterisation, Tate elaborated on no other literary elements. This limited view of literary text was also evident in his planning and peer conversations, in which details were not firmly identified, developed and discussed. His published text was heavily scaffolded as a result of a rewrite at the teacher's request and lacked a developed plot, characters and theme.

The digital features of the text also proved challenging for Tate. Although, during the initial stages of the inquiry he presented as an avid technology user with an abundance of resources and frequent social use at home, his ability to use it for the creation of text during the inquiry was limited. It seemed that the abstract nature of working on a

screen proved difficult. He was often distracted by apps and the online environment and found it difficult to create visual and audio modes.

Further, Tate experimented with integrating multiple modes but found it difficult to integrate the multiple modes in a cohesive and organised structure for publication. The relationship between written and visual material was often disconnected, with images not matching the meaning presented in the written text. The audio mode, which was designed based on Tate's preference for listening to music while reading, did not appear to add any meaning to the text and there was no obvious congruence between the audio and the written and visual material.

Tate also struggled with a sense of audience. His teacher, due to the violent nature of his plot deemed the text to be inappropriate for his chosen audience, his younger brother. Tate's reluctance to change his story indicated that his judgment on appropriateness differed from his teacher's. Further, his lack of interest in editing the text with appropriate conventions, and the lack of time devoted to placement and publication suggests that audience was not a strong consideration in his text construction.

It appeared that Tate spent a considerable amount of time searching for resources both online and on his iPad to create his text, but in the end he used two apps used regularly in class, with the addition of images sourced online to create his digital literary text. This could be a result of his limited experience creating text, his difficulty in conceptualising his text during planning, or his lack of enthusiasm in the reconceptualisation of his new text. While the reasons are unclear, it does highlight the challenges of children as authors using time effectively to select and use resources in digital text construction.

Chapter conclusion

In this chapter, data from interviews, observations, artefacts and work samples were presented, discussed and interpreted. Using a case study approach, a thick description of the classroom environment and literacy event are presented. Following this contextual data, an explication of each child’s final text production was used to develop case portraits for each child participant. Lastly, at the conclusion of each individual case portrait, an interpretive summary of the data was shared. Hence, for each participating child, a description of what could be seen or heard was explored, and then an interpretation of what this meant and why it was significant for the inquiry was discussed. To conclude this chapter a table summarising the main findings of each child participant is used to highlight the patterns of the collective case to support the discussion in the final chapter.

Table 4.8: Summary of case study findings

Text and author	The Bush Family by Ben	A Different Christmas by Emma	Escaping the kidnapper by Mischa	The Missing Items by Luke	Family Secrets by Sarah	Tales of Peter Wright by Tate
Home technology	iPads, iPhones iPods	Computer Laptops iPads	Computer, iPad iPod	Computer, iPod Laptops, iPad	iPads iPods iPhones Computer	iPad iPods, Wii Computer
Initial perceptions of children by the researcher using interview and observation data	Experienced technology user Confident literacy learner Knowledge of literary and digital text features	Experienced technology user Confident literacy learner Confident navigator of digital text Knowledge of common literary features	Plays online games but prefers print reading Shy Avid reader Knowledge of common literary features	Enjoys technology but lacks confidence using it Quiet student Little experience with digital text	Experienced technology user Confident literacy learner Enjoys text innovation Experienced reader of digital text	Experienced social technology user Often distracted in class Creative but doesn’t enjoy literacy

Technology resources used to construct digital literary text	Explain Everything app Keynote app Google Images Storybird Recorded plus HD app Reflector Dropbox	Explain Everything app iMovie app iBooks Author Google drive Reflector	Explain Everything app GoodNotes app Google Images Book Creator app Art Set app Google Drive Reflector	Explain Everything app GoodNotes app Google Images iBook Authors Reflector	Explain Everything app Book Creator app PuppetPals iMovie app Google Images Google Drive Reflector	Explain Everything app Book Creator app Google Images Google Drive Reflector
Final perceptions of the researcher after publication of digital literacy text construction	Written and visual modes used Inter-textual connections to familiar digital texts used Considerate planning Consideration to digital features in design Difficulties designing audio mode Used multiple familiar resources in publication	Strong message presented in text Strong sense of audience Considerate planner Written, visual and audio modes used Interactivity designed and used Engaged with family to support construction Use of technology to enhance multiple perspectives Difficulties with publishing platform	Written, visual and audio modes used Emphasis on written text Edited images to create unique visuals Difficulties with audio mode Use of multiple familiar resources in publication Was empowered using technology in writing process	Written and visual modes used Some unplanned interactive features used as a result of app templates Use of pop culture Difficulties choosing publication platform Was empowered using technology in writing process	Written, visual and audio modes used Complex designed interactivity used Inter-textual connections to print & digital based literary text Difficulties with audio mode Use of literary devices such as symbolism	Written, visual & audio modes used Audio mode did not work Difficulties with writing process- both in plot and digital design Difficulties with sense of audience Used familiar resources

CHAPTER 5: DISCUSSION AND CONCLUSION

Chapter introduction

This inquiry reports a qualitative case study that explored the literacy practices of six Year 5 children as they constructed their own digital literary texts. In doing so it responded to the following research questions:

- What writing practices do six Year 5 children enact during digital literary text construction?
- How do these six Year 5 children select and utilise resources during digital literary text construction?

This final chapter will discuss the two research questions through the inquiry's findings and the review of the literature. The implications of these findings for literacy theory, policy and classroom practice will be discussed.

The thesis has critiqued research literature on both paper-based text construction (e.g., Butler & Turbill, 1984; Calkins, 1983; Graves, 1994; Murray, 1982) and digital text construction (e.g., Callow, 2013; Edwards-Groves, 2011; Kervin & Mantei, 2016). Highlighted in this literature is the complexity of the act of writing (or text construction) and the significance of children as authors. The complexity and dynamic nature of writing in digital environments is particularly notable as writers negotiate the shifts in textual practices that technology often demands (e.g., Edwards-Groves, 2011). While digital writing research in the field of education is establishing some important insights, much of it is related to adolescents (e.g., Callahan & King, 2011; Martin & Lambert, 2015), with fewer studies focusing on younger children. Given that AC:E policies require primary school children as young as kindergarten age use software for text construction (ACARA, 2015) the need for in-depth, contextually based research exploring the digital writing practices of children is clear (Merchant, 2007; Peterson & McClay, 2012). In response to this need, this inquiry investigated the literacy practices enacted by six Year 5 children as they constructed their own digital literary texts. The focus on literary texts is significant in the Australian context given its prominence in AC:E.

The previous chapter presented the findings of the qualitative analysis by firstly

discussing the classroom and the literacy events to explore the context within which the children authored their texts. This was followed by an examination of the individual digital literary texts constructed by each child. The data, analysed through the lens of social context, revealed each child's writing practices and resources throughout the process of digital literary text construction. By exploring the literacy practices within the identified literacy events, the cases explored the ways children drew upon their knowledge of text construction and available resources to construct digital literary texts (see Table 4.8 for a summary of the findings for each case study).

This final chapter responds to the research questions of this inquiry by discussing the analysed data collectively so that it provides insight into the literacy practices of digital literary construction across the six individual cases. Specific discussion about the processes the children engaged with, the ways the children enacted the modes, and their decisions regarding the selection and use of resources, contributes to knowledge in the areas of theory, policy and practice.

What writing practices do six Year 5 children enact during digital literary text construction?

Others have examined writing practices and technology for primary aged children (e.g., Edwards-Groves, 2011; Merchant, 2005; Walsh, 2010). Such research, although embryonic due to the 'newness' of technology integration in literacy education, revealed a general understanding that technology is no longer positioned merely as a tool for word processing. Rather, it is considered an important mechanism for creating and communicating meaning by extending the practices available to writers as they construct texts (e.g., Bogard & McMackin, 2012; Grabill & Hicks, 2005). While researchers (e.g., Edwards-Groves, 2011, 2012; Merchant, 2007) have begun to explore the ways in which children in a digital environment construct text, an understanding of these practices is still emerging.

From this inquiry, three main insights are offered in response to the nature of writing practices during digital literary text construction:

- Digital literary text construction is hybridised and recursive
- Constructing literary text features extends print based writing practices
- Operationalising the modes in digital literary texts requires systematic teaching of process and skills

As each of these insights is explicated through the data, potential implications for classroom practice are identified.

Digital literary text construction is hybridised and recursive

The non-linearity and often recursive nature of digital text construction has been examined (e.g., Edwards-Groves, 2011; Lipscombe et al., 2015), revealing the complexity of the writing practices within the demands of the composition of digital literary text. The findings of this inquiry support such research and suggest that although the writing process of digital literary text is not fixed, the pervasive presence of technology in textual practices has changed the processes used to construct texts.

In this inquiry, the children typically followed a sequential process of text construction when they began with the written mode in their construction. Ideas were recorded then turned into drafts and publications in a similar fashion to what is advocated for in traditional writing process literature (Calkins, 1994; Graves, 2003; Murray, 1982; Nichols, 1996). While the time each child spent planning, drafting and redrafting varied, the practice of using written text to represent these stages was common. Practices such as re-reading and thinking aloud were commonly observed during written text construction. While the children did include multiple modes (i.e. visual and audio mode), written text was the predominate mode.

To plan their digital literary texts all children began by typing their ideas into a digital writer's notebook. Ideas were representative of what might be typically evident in print based plans with dot points used to plan the text with consideration of audience and purpose (Duke & Hall, 2006; Smith 1983). Technology use supported planning in various ways. For example, Ben, Sarah, Tate and Emma used screen shots and Google Images to document ideas for characters, settings and presentation styles. Tate was

the only one not to incorporate these images within the final publication. It could be surmised that the images he captured didn't have any obvious connection to his planned ideas, suggesting that the technology use at this point may have been a distraction for him.

Whilst drafting their written text, the children moved between this and searching for and organising images. It appeared that the children mostly considered the relationship between written and visual modes. For Ben, Mischa, Emma and Sarah, the search for images was mostly aligned with the written content they were drafting. However, Luke and Tate were observed searching the Internet for images that had no obvious relationship to the written text and instead seemed distracted from the meaning they were trying to communicate in their written draft.

Identifying specific writing practices associated with the drafting of digital text elements was difficult. Buckingham (2007) suggests digital writing and media production is often a hybridisation of textual practices, and as such, is often difficult to capture. In this inquiry media such as moving images, sound effects and interactive elements were constructed in a somewhat fragmented process. The creation of interactive elements appeared a deviation from the composition of written text. For example, Sarah identified and constructed complex moving images during the drafting of her written text. Emma designed digital diaries in the form of moving images after the editing of her written text. For Mischa, the creation of sound buttons was enacted during the final processes of publication. Such examples highlight that writing practices associated with digital text elements can become fragmented (Edwards-Groves, 2011; Kist, 2013; Walsh, 2010). Typically, in this inquiry, the inclusion of visual and audio modes and digital elements were 'added' to the written text at different stages of construction as the children identified appropriate spaces.

During the drafting phases, some children changed their digital platform mid-way through their creation of the written text. For example, Ben changed from Explain Everything app to Keynote, Mischa changed from GoodNotes to Book Creator and Sarah changed from Explain Everything to Book Creator. While the reason for these

changes was often not articulated, the children did appear to respond to the importance of the platform in helping them respond to their vision for their text. Given drafting and publishing can be simultaneous processes when creating text with digital technology, such changes seem logical. This is quite different to paper based text construction where the publication process is often a separate rewrite of the draft (Graves, 1984) and the drafting of several paper and pencil drafts is common before moving into publication (Jones & Hafner, 2012).

The often rapid and unpredictable editing practices used throughout different spaces in the writing process were difficult to identify in the data analysis. While some 'polishing' of writing is expected during print based construction (Calkins, 1980), it was observed to be more recursive in a digital environment. For example editing was occasionally observed as a simultaneous process to the drafting of written text with Ben and Sarah observed re-reading and editing their written text while typing. Spelling and grammar checks during word processing often prompted this simultaneous editing. Burn (2009) argues that editing software allows for "real drafting, reconsidering, continual remaking, experimentation, shaping, polishing" (p. 49). However, editing additional modes such as visual and audio was challenging. As found in other studies (e.g., Matthewman and Triggs, 2004), some children, such as Sarah and Ben attended to some editing of visual modes during final publication. However, Luke, Tate and Mischa did not. As a result there were some tensions with cohesion of font sizes, text box layouts and visual images in their final publications. Further, for Ben, editing the audio mode caused considerable challenges, as he attempted to record all his oral narration before editing his written mode and as a consequence had to rerecord his audio. Additionally, Tate, Mischa and Sarah all had difficulties with the audio mode, suggesting that editing of this mode was not attended to before publication. Editing practices were therefore less linear than print based text composition with attention to visual and audio modes causing significant challenges to these young writers.

The children were consistently observed to turn their planned written ideas into drafts and publications in a similar fashion to what is advocated for in traditional writing

process literature (Calkins, 1994; Graves, 2003; Murray, 1982; Nichols, 1996). However, once they began to work with multiple modes and digital elements, their practices were observed to be more recursive and unpredictable. While many of these examples were collected via screen recordings and observations, the full scope of writing practices was difficult to capture given the rapid and unpredictable compositional sequences. What was captured represented a hybridised version of the writing processes for print and the digital writing practices for digital literary text construction.

Given that literacy practices are socially constructed and historically developed (Barton & Hamilton, 1998; Street, 2003), past and present pedagogical considerations are important to consider in connection with the digital writing process. In the six case studies, while the writing process for digital literary text was observed as unpredictable and recursive, nonetheless, progress of the written text was steadily made from planning through to publication. Prior teacher directions and scaffolds in connection to the writing processes of paper-based construction in previous classroom experiences were evident and supportive of text construction. For children, such as Sarah and Emma who were working above expected levels in literacy and showed greater confidence and experience in digital text, the writing process seemed more successful for their publication. Their final texts showed cohesion between modes and digital elements and greater sophistication in text construction.

Studies (e.g., Edwards- Groves, 2011, Kervin & Mantei, 2016) suggest that children require both traditional and new forms of pedagogical support to negotiate the increased multimodal and digital texts they are expected to construct. This was evident in this inquiry as children were observed enacting print based writing practices alongside new practices with increased recursive processes in relation to composition of audio and visual modes observed. Therefore, instead of attempting to set up a dichotomy between digital and print based compositions, as often occurs in multimodal research and practice (Bazalgette & Buckingham, 2013), considerations to a hybridised approach to text composition that recognises past writing experiences in consideration to new writing practices (Merchant, 2007) as a result of technology must be considered.

Constructing literary text features extends print based writing practices

As argued, the children in this inquiry predominately used print based practices as the starting point in their construction of digital literary texts. The technology enabled the children to move from their known (print-based text) to the less familiar (digital) as they created text. Writing practices associated with text structure and literary techniques were extended as children experimented with the construction of these text features using technology. In some cases technology provided opportunities for the children to experiment with meaning making to reconstruct print based literary text features in different ways in a digital space. However, for most children, print based literary practices were privileged. This argument is supported by other research in digital writing (e.g., Grabill & Hicks, 2005; Kervin & Mantei, 2016; Merchant, 2005; Woods et al., 2015).

The children had access to a range of digital literary texts during text deconstruction opportunities that highlighted the often non-linear, visual and interactive text organisation of digital literary texts. *Dust Echoes: The Mimis* showcased visual animation as the primary form of communication with hyperlinks and text surrounding the visual mode. Evident in the stories within this resource was the telling of digital literary text told primarily through moving image and music. As a result some children experimented with moving image and interactivity as a text feature in their digital literary text. For example, Sarah and Emma created moving images to support their written text and Emma, Ben and Luke used hyperlinks and widgets as an interactive feature. While these examples highlight ways writers can construct text features using technology, the final publications by all children showed that the overall presentation style of the digital literary text was organised around print based text structures.

All texts were organised predominately in a linear sequence, with content structured sequentially from page to page. There were no examples of text being organised using

visual or non-sequential interactive ways. This linear text structure where text is represented in pages replicates that of a typical print based literary text, and is also indicative of the model texts available. While creators of digital literary text use, for example, icons and interactivity to support users to navigate the text from screen to screen, this is still linear in format. During text deconstruction the children viewed an example of this in *The Fantastic Flying Books of Mr Morris Lessmore*, where a flashing arrow was used to aid a reader to navigate the text. Mischa had difficulties accessing this text feature during text deconstruction and therefore couldn't turn to the next screen of the story without assistance. For Ben, this text feature was considered as an inspiration for his own digital literary text although his technical knowledge limited him from creating it. There were no examples within the case study texts that supported a user to navigate from screen to screen. The texts created by the children seemed to mirror the linear nature of western narratives as they used pages to progress the text.

Similarly, common literary techniques such as dialogue, onomatopoeia and similes (Goldstone, 2004) were enacted predominately in print based elements of the written text. For example Sarah used the word "Crack" to describe the sound of a broken stick and dialogue was communicated extensively in the texts through the written mode. There were, however, some examples of literary techniques being constructed using technology and multiple modes. Ben, Emma and Mischa used audio to create dialogue in different character voices. Sarah experimented with symbolism as a literary technique, using a complex combination of edited visual and audio modes to create a moving image, symbolic of a family being united. Emma also used an ensemble of modes to create the complex literary technique of perspective, where one character's story was told through a digital orally narrated diary whilst the other one was told in written text. These digital practices have generated the need, as Callahan and King (2011) suggest, for a greater focus on what now defines text features in a digital environment and subsequently what new practices are required for construction. What counts as literacy in a classroom often depends on what texts are produced, interpreted and taught (Comber & Cormack, 1997; Goodman, 1986). It then becomes

essential that these new forms and features of digital literary text be incorporated within classroom writing experiences.

Digital texts do not replace what we know about print based text features. Rather, classroom writing practices need to account for new textual features and the authoring opportunities they present. While it has been debated that writing is profoundly different with the introduction of digital tools (e.g., Edwards-Groves, 2011; Mackenzie, 2014; Merchant, 2007), this inquiry found that the digital literary texts initially used and then somewhat extended on paper based characteristics and literary elements in the creation of new texts. The findings of this inquiry highlight that children, while still beginning with written presentation styles and literary techniques, are beginning to experiment with other elements when using technology. Consequently, to support digital literary text construction, classroom writing pedagogies need to also include focus on new ways literary texts are created in a digital environment and how print based literary text characteristics can be reconstructed using image, audio and visual modes.

Operationalising the modes in digital literary texts requires systematic teaching of process and skills

The pedagogical practices of the teacher are critical in supporting children to construct digital literary texts. Digital texts provide new and dynamic ways for authors to combine multiple modalities to communicate meaning. Some are print-based (such as written text), while others, such as audio and movement, are afforded to digital text construction (Kalantzis & Cope, 2012; Wyatt-Smith & Kimber, 2009). The ability to create and communicate meaning using different modes is particularly relevant to digital literary texts. In these texts, aesthetic textual elements are prevalent and rely on an author's ability to communicate meaning creatively to appeal to the emotions of their audience. Moreover, the digital environment broadens the number of ways writers can design and communicate this meaning (Bezemer & Kress, 2008; Cope & Kalantzis, 2009; Rowsell & Walsh, 2011). These new combinations challenge writers'

traditional print-based writing practices by demanding new understandings about how meaning can be created and shared using the different modes enabled by a digital environment (Bogard & McMackin, 2012; Edwards-Groves, 2012; Kervin & Mantei, 2016). Subsequently, these new meaning making combinations require an understanding of multimodal composition and technical knowledge and skill (Leu, Slomp, Zawilinski, & Corrigan, 2014) that are developed through careful literacy teaching.

Deconstruction of examples of digital literary text was a critical pedagogical practice. Opportunities to explore and learn about the multiple modes used to create and share meaning served as powerful models for these children. Print-based forms such as picture storybooks and novels coupled with digital texts such as short films, animated moving images, and interactive story apps provided important stimulus for text construction. This allowed the children to examine the use of modes as they considered how text could be designed and meaning communicated through each mode (Cope & Kalantzis, 2000).

It was evident that access to examples of digital literary texts provided the children with important resources for multimodal and digital literacy learning. For example Ben used the visual, written and audio presentation style of *The Fantastic Flying Books of Mr Morris Lessmore* as a scaffold for his own text. Luke constructed a short quiz in his text similar to the quiz created in *Dust Echoes: The Mimis*. Lessons with a focus on deconstructing these texts were powerful as they showcased the affordances of the multimodal design in a digital environment and provided a means of examining models of texts, which students might refer to when writing independently (Derewianka, 1991). For Ben, Emma and Sarah, discussions during the text deconstructions showed an awareness of multiple modes. For example, Ben commented “I liked how it had the music in the background because it matched the story and went through the whole way”. However, this understanding was not evident in the data collected from Luke, Mischa and Tate with minimal discussions during text deconstruction focussed on individual or multiple modes of meaning.

It therefore becomes important, that deconstruction of digital literary texts becomes an essential and ongoing classroom experience. While there is some provision for the inclusion of multiple modes within syllabus documents, paper-based reading and writing skills appear to have more currency in many classrooms. While this may be a result of what Kalantzis and colleagues (2010) suggest is an overreliance on familiar print based teaching strategies in classrooms, it also emphasises the important role of systematic teaching that focuses on the multiple ways meaning is created and combined is required to support multimodal digital literary text construction (e.g., Dezuanni et al., 2015; Edwards-Groves, 2011). This extends beyond simply identifying some structures and components of text, to instead explicit teaching that focuses on the unique and often complex practices of digital and multimodal text construction.

Further, opportunities for modelled and explicit text construction need to be incorporated within classroom writing pedagogies. Most of the children in this study were inexperienced writers of digital literary text. Creating digital multimodal texts requires text construction practices focussed on new literacies such as design, production and presentation of multiple modes (Edwards-Groves, 2011; Leu et al., 2013). For children in this inquiry, opportunities to work with a more proficient writer supported them with their own construction; however modelled text constructions as part of the classroom literacy instruction were not evident.

Additionally, explicit teaching relating to the technical aspect of multimodal design was important. In their digital literary text constructions, the children were clearly motivated to create multimodal designs but were often restricted by their technical skills. Mischa, Sarah, Ben and Tate all had difficulties turning their planned audio and visual ideas into a publishable form. While some received support from the teacher, family members and an IT educational consultant, others did not and as a result their final publication included modes that were inactive. Studies in new literacies have found that learning experiences in classrooms are dependent on the ability of educators to facilitate social literacy learning opportunities between children, communities and teachers (Kiili et al., 2012). Clearly, as researchers such as Leu and colleagues (2014) suggest, explicit teaching in the technical knowledge and skill in

associated with the how meaning across multiple modes is created in a digital environment will enable children to successfully design and combine multiple modes of meaning in digital spaces.

The findings of this inquiry help to understand the pedagogical focus areas and strategies required to support the digital writing of literary text. Researchers such as Jewitt (2005; 2008) and Kress and van Leeuwen (2006) have argued that literacy pedagogy must focus on how meaning is conveyed using a combination of modes. The findings from this inquiry highlight that operationalising modes of meaning in digital literary text construction demands pedagogical practices that incorporate both modelled text deconstruction and construction and explicit teaching. Such pedagogical experiences require explicit focus on areas of the unique design of modes in a digital environment, such as moving image and how multiple modes can be combined to convey new and alternative meanings to written text, with opportunity for discussion and exploration.

How did these six Year 5 children select and utilise resources during digital literary text construction?

Willmettt and Curwood (2014) argue that the availability of resources has always mediated writing construction because it is the resources, “from quill pens to touch screens” (p. 243) that shape both the production and distribution of meaning. Recognising the resources children access, and what they do with them, is central to understanding the writing practices children enact during digital literary text construction. This inquiry defines resources as the material tools, such as apps, screens, paper, texts and software, available to authors.

Through this inquiry into the resources that the six Year 5 students utilised as they constructed digital literary texts, two insights are offered:

- Multiple resources were required to construct the texts

- Meaning making is influenced by the affordances and constraints of the resource selection

As each of these themes is explicated through the data, their implications for classroom practice are also discussed.

Multiple resources were required to construct the texts

The rapid development and accessibility of resources is an important part of understanding digital literary text construction when considering how meaning is created and shared. Proficient digital text users engage with multiple resources to design, manipulate and upload their own contributions. This is typically taken for granted in print-based writing as authors manage resources such as pen, paper, reference guides and textual models to aid construction. However, Kervin and Mantei (2016) observe that technology has “broadened the volume and diversity of resources available for writers” (p. 4). This is certainly the case for children using iPads as their writing platforms because numerous apps, coupled with affordances of the device (such as voice recognition and video recording), provide many resources for text construction. The children in this inquiry utilised multiple resources to create and publish their texts that provided them opportunities to create and share meaning in more diverse ways than relying on only one resource to construct the multi-levels of meaning common of literary text (Goldsmith, 2004).

Researchers, such as Walsh (2010), have found children often begin digital text construction using paper resources, with technological resources utilised predominantly during publication. This could be that these are the resources that are offered to the children in this first instance. In this inquiry all children utilised only digital resources to construct their texts. These children all had access to both technology and paper resources. This insight is interesting considering the overall print focus of the final digital literary texts and also the vast experiences and access the children had to paper-based resources such as graphic organisers, reference material such as dictionaries and thesauruses, drawing materials and paper. It seemed that the delivery of the final product influenced the choice of resources used to create the text.

New Literacies theory posits that proficient digital users rely on multiple tools to construct meaning (Leu et al., 2013). This was evident in this inquiry. All children used different digital resources for planning, drafting and publishing. While it is not fully clear why this was the case, data analysis suggests that past experiences and complex text features of literary text contributed to multiple resource selection.

The children had knowledge of different apps that were used within the classroom. For example, the teacher shared in the initial teacher interview that the app Explain Everything was used extensively in the classroom to record ideas. During the writing process in this study, this app was used to record planned ideas and the children then looked to other resources to draft and publish their final text. In the most, the children stayed with resources that were already on their iPad, suggesting that these were the ones they were familiar with. Keynote, Book Creator, Dropbox, Google Drive and Reflector were all used commonly in class. The exception was Recorded plus HD app that Ben used to create his audio mode.

These findings emphasise the relationship between resource selection and past values and experiences. As argued, children's text composition is often framed by ideologies regarding what is valued and taught in schools (Schultz, 2006). This inquiry demonstrates that, for digital literacy text construction, the multiple resources selected were, on part, a result of previous experiences and values of past literacy teaching and learning.

Further, in consideration of the complex multimodal and digital elements of digital literary text, multiple resources were required to construct multiple features. The convergence of literary text features such as literary techniques, series of events and emotional appeal (ACARA, 2015; Derewianka, 1991; Goldstone, 2004; Short et al., 2015), with multiple modes (Unsworth, 2006) and digital elements (Serafini, 2015) meant that a single resource often limited the ability to construct all features. For example, Ben could not record his audio mode using his selected publishing resource and therefore sourced an audio recording resource that could be embedded into his publishing platform. Mischa could not edit her still images using her drafting or

publishing resource resulting in her utilising the ArtSet app to fulfil this task. In order to select multiple resources to suit their purposes, the children required time to play and experiment with associated affordances and constraints of the resource. This was an important element of the writing process and allowed each child to carefully consider the functionality of each resource before selecting it. In the instances where children did not spend time exploring the affordances of a resource, text construction was affected. This was the case for Emma who selected what she believed to be a suitable publishing app, only to discover once her draft was completed that the app would not enable the interactive moving images she had produced. Instead, she required the support of an IT educational consultant to help her identify a resource that would allow her to enact her planned ideas.

The organisation of these multiple resources also proved challenging for many of the children as they contended with the challenges of saving images, sound effects and movies in different places, only to have to reconstruct them within their final publications. Ben explained during his final interview that the organisation of content from multiple resources was a challenge he had not anticipated. This appeared to also be the case for Sarah, Emma and Tate who had searched and saved many images that were never used.

The selection, convergence and organisation of multiple resources for digital literary text construction poses considerations for classroom based writing practices. While studies have focused on the affordance and constraints of many single resources (Bogard & McMackin, 2012; Boling et al., 2008; Lorenz, Green, & Brown, 2009; McGrail & Davis, 2011; Woo et al., 2011) the reality is that digital text construction is multilayered, often requiring multiple tools for construction. This highlights the need for structures to support children to carefully consider the complicated features of digital texts (Stephens & Ballast, 2011), the relationship between multiple modes (Kress & van Leeuwen, 2001) and the multiple resources available (Kervin & Mantei, 2016) during digital literary text construction. Perhaps most importantly, regardless of what tool is selected, children must be supported with time to explore coupled with careful guidance and scaffolds (Stewart, 2014). This will support children with the

selection of various resources for digital text construction and the functions that will support them, but also in ways resources can work together to create the one text. This inquiry showed the power of the teacher, families and consultant in providing knowledge and expertise to enable effective use of resources.

Meaning making is influenced by the affordances and constraints of resource selection

Bezemer and Kress (2008) observe that writing practices are always connected to the resources at hand and to their constraints and affordances. Resources associated with the digital environment are incorporated into the writing process and as a result require users to have an understanding of the profound ways resources help shape how meaning is distributed (Kervin & Derewianka, 2011). Each resource offers different affordances for text construction as well as constraints (Blommaert, 2013). It is not the intention of this inquiry to evaluate various resources; instead, this discussion will focus on insights regarding the ways resources can both enable and constrain digital literary text construction.

Researchers have argued that multiple resources provide different affordances for digital text construction (Bogard & McMackin, 2012; McGrail & Davis, 2011; Woo et al., 2011). In this inquiry the modelling of resources, in built resource design, and collaboration helped shape the children's writing. With respect to modelling, the deconstruction and modelling of multiple examples of digital literary text provided opportunities to consider the ways authors create and communicate meaning. These examples, and the discussions surrounding them, provided the children with opportunities to explore the congruence between literary elements and the digital space. The understandings they gained from this process were then transferred to their own text construction. For example Luke, Ben and Sarah all used elements of the story app *The Fantastic Flying Books of Mr Morris Lessmore* in their own texts. While this insight is not significant given that immersion and deconstruction of text has a long association with text construction (Derewianka, 1991), it serves as a reminder of the importance of deconstructing models of the texts we want learners to create.

Additionally, the self-selected resources children utilised provided them with opportunities to explore various templates and built-in design features that prompted new ideas for creation. The resources acted as a scaffold for writing (Johnson & Smagorinsky, 2013; Jocius, 2013) and influenced the ways the children constructed their text. For example, Luke's exploration of the widgets available in iBook Authors guided his decision to create an interactive quiz as a way for his reader to interact with the content. Mischa's exploration of Book Creator revealed she could record audio, a feature she utilised to create a certain mood in her text. Such examples highlight the use of digital resource as a scaffold to text construction, often inspiring children to consider multiple and sometimes new ways to create and communicate meaning.

Digital resources have been found to afford collaborative practices in writing (Jenkins, 2009; Knobel & Lankshear, 2014; Sabatino, 2014). The resources available to the children in this inquiry facilitated collaboration by enabling them to view, provide feedback and share ideas easily and simultaneously. For example, Google Drive meant that children could upload their drafts during reflective discussions and the Author's Chairs so text was accessible to all as a way to read and provide feedback. Airdrop and email allowed children to instantly share images with one another. For instance, Sarah emailed Emma an image and asked her to edit it using an app she had on her iPad. Ben airdropped the researcher a sound file to share what he had achieved. The accessibility and convenience of many of these resources encouraged collaboration amongst children and the researcher as they went about constructing their digital literary texts.

Furthermore, the resources extended collaboration to the home environment, where knowledge was developed and shared outside of the classroom (Castek et al., 2008; Gutierrez, Baquedano-Lopez, & Tejeda, 1999). The portability of their iPads meant that children could construct their text at home when the school environment was not suitable, or when they required additional support from an expert at home. For example, Ben produced his audio elements at home because the background noise at school caused disruptions to their recordings. Sarah worked with family members at home to complete some of the technical components of the moving images she was

finding difficult at school. Mischa engaged the support of her brother to create sound files in a voice that matched her characters. These examples highlight the dependence of the social practices of new literacies to distribute knowledge between school and home (Leu et al., 2013). In this inquiry the digital resources extended collaboration by making the text transferable across multiple contexts and people.

Evident in this research are the opportunities that resources can provide to support children in the construction of digital text. However, the full affordances of resources were not realised by some children and resulted in them spending time searching for new resources. For example, Sarah and Tate shifted from using Explain Everything to Book Creator because they believed that Book Creator offered greater affordances with audio and image. Interestingly the same features are available in both Explain Everything and Book Creator, however they appeared unaware of the audio and visual functions and as a result spent considerable time transferring content from one resource to another. Hutchinson and Reinking (2010) found that often digital resources were not being taught or used to their full potential, pointing to the need for learners to have extended opportunities to explore the functionality of an app with input, to support their text construction.

While the resources provided clear affordances for text construction, certain constraints of the resources selected were evident. Given that digital text encompasses more complex multimodal ensembles (Kalantzis & Cope, 2012; Wyatt-Smith & Kimber, 2009), writers must learn about the important relationship between, for example, written and visual modes (Jewitt, 2005; 2008). While, as previously discussed, some children considered this relationship closely with complementary and reinforcing relationships (Kress & van Leeuwen, 2006) between these two modes, it was evident that when images were selected from predesigned resource depositories (such as Google Images), meaning was compromised. For Ben, Emma, Tate and Sarah their image selections resulted in tensions between written and visual modes. For example, achieving cohesion between different visual representations of a character was difficult for Ben, with three very different character images being sourced from the Internet and used to represent the one character in his story. For Emma the

sourcing of images from the Internet caused her to change her written representation of a female main character to a male main character because she could not find an image that matched her written ideas. Tate's images were often reused from page to page because he could not find different images that represented the same character in a different scene. And for Sarah, images selected disrupted the time period and mood represented in her written text. The selection of images, in contrast to the creation of images, impacted on the relationship between visual and written modes, ultimately affecting the meaning of the text.

Effective writers write with a sense of audience (Duke & Hall, 2006; Smith, 1983) and technology has been found to increase access to distribution to an audience (Knobel & Lankshear, 2014). However, the expectation that the text be constructed for a specific person meant that the children had to consider which resources could be used to export their digital literary texts in a form accessible to that person. As all of the texts included dynamic and interactive design features, the final publication could not be exported in a common static file type such as a PDF. Additionally, most files sizes were above the limits for emailing. The children were therefore required to consider early on in the writing process how they would design their text to be shared with their audience. For example, Luke and Emma realised that the resource with which they had drafted their texts could not support an export that retained the dynamic elements of the text. Consequently, they were forced to spend considerable time using a new resource to reconstruct parts of their written and visual texts in order to achieve their aims. In these cases, the types of resources, and the late stage in the construction process, impacted on the construction of the digital literary texts.

Writers of digital literary text need access to multiple resources and time to explore them if they are to proliferate the possibilities that technology offers to text construction. As technology evolves (Leu et al., 2013) and resources continue to be developed (Kervin & Mantei, 2016), so too must pedagogical practices to support children to thoughtfully select, combine and enact the multitude of resources available to them. This section has highlighted the strengths and challenges resources provide for children as writers of digital literary text. The next section will consider these

findings and offer a model to guide resource selection and use.

A model to guide resources for digital literary text construction

The findings of this inquiry highlight the importance of resource access, of having time for exploration and play, and of understanding how digital resources can work together in the writing practices of digital literary text construction (see Figure 5.1).

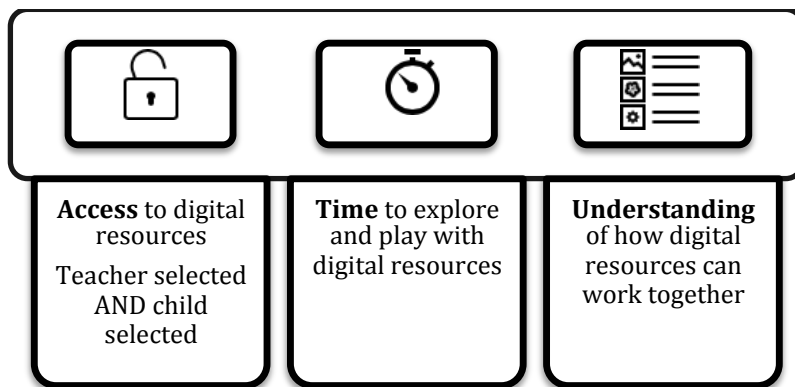


Figure 5.1: A model to guide resources for digital literary text construction

Access to digital resources

The children's writing practices associated with resource selection revealed some important implications for practice related to the availability of resources. Merchant (2007) explains that while much has been written about the use of digital resources for educational purposes, there is little research to help educators make decisions about appropriate resources for young writers. Children use the resources and the environment as well as skill and knowledge to engage in their own literacy practices (Neuman & Roskos, 1997), making it important to understand what resources are made available to them for text construction. Providing access to resources in a digital environment creates some unique challenges for educators. In this inquiry, questions about what digital resources to provide, how they are to be accessed, and protocols for managing them were raised.

For text construction the iPad was the dominant technological device the children used. As a consequence, resources such as apps and the iPad's digital affordances served as significant resources for text construction. The resources that the children

accessed were predominately teacher-selected resources used in class, in addition to a couple of examples of child managed resources.

Resources and associated scaffolds need to be carefully considered to ensure they provide children with access to formats, functionality and templates that match the demands of textual construction. In this inquiry while some resources acted as a scaffold for writing (Johnson and Smagorinsky, 2013; Jocius, 2013), others restricted children's ability to advance their planned ideas. It is important therefore that children are guided in their understanding of the affordances of resources. Educators need guidance to identify appropriate resources for digital text construction that support writing practices (Stewart, 2014) while remaining faithful to their knowledge, beliefs and ideals for the construction of digital literary texts.

Moreover, the findings revealed that children required opportunities to learn about the full affordances of the resources available to them to support their text constructions. It is unreasonable to conceive that teachers would have this extensive knowledge of every app that is used. However, in reconceptualising the role of the teacher who uses technology, to a facilitator of learning, it is reasonable to propose that the teacher would use their networks to advance their own understanding and that of the children they teach. In this inquiry, families, consultants and other children played important roles in advancing understanding. While this did not always eventuate to resources being used to their full possibilities, it does indicate the expertise that exists to ensure the quality of their final publications was not limited by their ability to use the resources.

While only limited examples were evident, some children did self-select resources that were not previously introduced by the classroom teacher. Ben used Recorder plus HD to record his audio, Tate and Emma used iBooks Author to support participatory animation with the support of a visiting IT educational consultant and Mischa used the ArtSet app to aid in visual editing. These resources offered new possibilities for meaning making with functions such as embedded widgets providing affordances for the creation of digital elements that the teacher selected resources did not.

Furthermore, they provided opportunities for these children to assume the role of 'expert' as they share their knowledge of the resource with others.

Further, all the children were observed researching possible resources on the Internet using searches such as 'interactive apps' requiring the researcher to spend much time monitoring the appropriateness of the searches and offering guidance and support. At times, children, such as Tate and Luke were observed becoming distracted by these searches, taking up much of their writing time.

While the freedom of choice gave children the opportunity to choose resources to suit their ideas (Kervin & Mantei, 2016), they did require extended time to explore and experiment with the vast number of resources available. Without a clear criteria for what constituted an app that would be supportive for the digital literary text construction they were planning to create, this became a frustrating process at times throughout the inquiry. In addition, parental consent was needed to access new resources, as most iPads were configured with parent passwords to access new apps. Thus, there is a tension between the desire to limit access to apps chosen by the teacher and the desire to provide and manage open-ended choices.

The data in this inquiry suggest that if resources are limited to those the teacher selects, then the risk of restraining possible ways of creating and distributing meaning may become apparent. This was apparent for children who required additional resources to what they knew to fully realise their planned ideas for their digital literary text. Utilising only teacher-selected resources also increases the educator's responsibility to be knowledgeable about the available resources for digital text design and the technical skills required to teach the full affordance of each resource. On the other hand, giving children the opportunity to choose their own resources in an environment where the staggering number of apps, websites and software programs is growing by the day (Kervin, 2016) is overwhelming and unrealistic. This was evident when the children in this study spent copious amounts of time researching resources that were never used, and at times, becoming distracted by the Internet in which they were searching on.

It seems feasible; therefore, to suggest that access of resources for digital literary text construction must take into account both teacher and child select resource so that children can successfully generate dynamic and multimodal literary texts. In some ways this insight is aligned to past writing pedagogies associated with opportunities for self expression (Walshe, 1981) where the author is encouraged to take control of the writing process (Calkins, 1983; Graves, 1994) with choice around topic, audience, and resource. In this way, children's ability to choose resources to match the audiences and topics they write to is necessary to ensure alignment between meaning making of the text and distribution to an audience. However, to learn about the new possibilities for meaning making in digital literary texts and therefore the resources that are required to create them, this inquiry showed that modelling and opportunities for deconstruction of both resources and texts was needed. Contemporary writing pedagogies reflect this focus (Emmitt et al., 2015; Ljungdahl & March, 2010) where children are encouraged to write to make increased choices in the authoring process by firstly participating in and experiencing in modelled and guided instruction. However, research into the importance of resource selection and use for the construction of digital texts, such as digital literary text, is still emerging. This inquiry has shown that traditional writing pedagogies offer important insights for the way children use resources in digital literary text construction, however, retheorising writing in new times demands new writing practices (Edwards-Groves, 2011) and pedagogical focuses.

While not focussed specifically on writing in a digital environment, Leu and colleagues (2013) offer a useful conceptual frame associated with new literacies as a possible guiding principle. Their work in new literacies asserts that as a result of a rapidly changing digital environment, it will be common for some children to be more technologically literate than their teachers. As a result, teachers will increasingly become "orchestrators of learning contexts rather than dispensers of literacy skills" (p. 11). Applying this thinking to decisions about access to resources for digital literary text construction is useful.

For teachers, supporting children to self select resources for digital literary text construction means ensuring the online environment is safe, that skills and strategies to access and critique available resources are taught, and ongoing opportunities for collaboration amongst students to share resources is available. In this way, teachers both provide a model of instruction focussed on skill and knowledge building associated with effective resource selection coupled with social literacy practices where children work together to share and learn about the available resources from one another.

Time to explore and play

Writers require time to explore the affordances of available resources and to play with the ways meaning can be created and distributed. The provision of time for children to explore and play with resources in pedagogical interactions encourages problem solving (Marsh & Hallett, 2009), collaboration (Siraj-Blatchford, 2009) and the exploration of real world connections (Kervin, 2016). In consideration of digital literary text construction problem-solving ways to incorporate multiple modes supports children to consider how meaning can be produced within selected resources and also assembled in one text. The time for problem solving was supportive for children in this inquiry, for example Ben, who required extended time to consider how audio could be integrated into a resource with limited functions for sound. Time for collaboration, both at home and at school means children can engage with peers and family members to learn and teach one another about available resources; together becoming experts on the affordances and constraints of resources. In this inquiry time for Sarah to collaborate with her family supported the development of sophisticated moving images. Further, time to explore resources that connect to the real world offers children opportunities to broaden, for example, topic and audience choices. In this inquiry Ben spent time exploring online resources of his text topic (conservation) that could be incorporated as hyperlinks to provide factual information to the reader. Time to explore what publishing resources could be shared electronically to real audiences was a consideration for all children.

Awareness of the need for exploration and play in the digital space is gaining momentum as researchers stress the importance of examining the role of digital play

in the lives of children (Kervin, 2016; Salonijs-Pasternak & Gelfond, 2005). This inquiry found that having the opportunity to explore and play with available resources meant that new forms of meaning creation and distribution were learnt. For example, Mischa's opportunity to experiment with images from Google Images and edit them using the Art Set app meant that she could create unique images that aligned written and visual meanings. In addition, for some children greater opportunities to play and explore resources would have supported their writing processes as they were observed restructuring and reworking their digital literary texts because their original resource selection did not support their ideas.

Moreover, because digital resources are configured in remarkably different ways to paper-based resources, having time to play and explore resources in schools and other contexts provides important opportunities for educators to learn about the ways children engage with technology as they read, listen and communicate (Kervin, 2016).

Understanding how digital resources can work together

Because digital literary text construction provides opportunities for writers to use multiple resources to produce and share meaning, it creates new possibilities for the ways authors might manage and organise the multiplicity of resources to create text. The possibilities include the exploration of ways to map resources with story content, and of ways to build a workflow to save and integrate the multiple resources used for text construction. What is critical, though, is the need to know about the best ways to organise multiple resources in digital spaces to maximise the benefits of using new technologies for writing.

The findings from this inquiry showed that mapping and organising multiple resources in a digital environment proved difficult for children as they contemplated which resources would afford the production of different features, and how they could integrate these resources into a single text. Given all of the children used multiple resources and were observed shifting across multiple platforms seeking new images and digital elements, there was no evidence of a planned alignment that mapped out the relationship between literary text characteristics, multiple modes, digital elements and available resources for construction. For Sarah, Emma and Tate, many still images

saved from the Internet were never used in their final text. Given Sarah and Tate's image choice at times did not match the written text, this suggests that careful consideration to the images required to match their written mode and the resources used to find these images be given careful consideration in classroom experiences. This finding also highlights the complexity of selecting and organising resources to support image selection for literary text. Because elements of character, setting and theme (Short et al., 2015) are important aspects of literary text, cohesion between these elements in the visual mode is necessary. For Tate, this resulted in him using the same character image for each page although the event and characters emotion changed throughout the story. This therefore caused some disconnect between image and text. For Ben, he considered that the image of character needed to change according to the event, however, he couldn't find an appropriate resource that included the same character in different events and emotions. He therefore used different character images for the same character, resulting in the same character being represented three very different ways. This is quite different to factual texts where different images of the same topic, for example an animal or a country is appropriate.

These examples highlight the challenges of working across multiple resources during the construction of digital literary text. It is important to guide children to consider a workflow where literary text characteristics and digital and multimodal elements are matched to the available resources in consideration of the final publication. In doing this, as Kress (2013) suggests, texts would be designed with intent, by choosing specific environments in relation to a specific purpose and audience. In this way, the process of developing digital literary texts becomes more organised where the reciprocity of the resources to the one created text becomes evident.

Implications for theory, policy and practice

The literacy practices associated with digital literary text construction enacted by the children in this inquiry have important implications for theoretical perspectives of literacy and research, AC:E policy and classroom practice.

Theory

In respect to theory, the view of literacy as social practice conceptualises literacy practices as grounded in the contexts in which they are learned and practised (Barton et al., 2000). Furthermore, the different social contexts within which literacy events and practices are enacted demand the use of certain texts in particular ways (Comber & Cormack, 1997). This inquiry takes the view that the context in which children learn about what counts as literacy in the classroom is important, and that teachers must choose from many possibilities when deciding what to teach students (Comber & Cormack, 1997; Baker & Freebody, 1993). Findings from the analysis demonstrate how the context of the classroom invited particular forms of literate practices from the children, and show that these practices were widely drawn upon during digital literary text construction. Opportunities to analyse example texts, participate in the modelling of new texts and experimenting with the creation of new texts are critical classroom practices. Children as writers should be proficient users of both print and digital writing practices (Bearne, 2009; Jewitt, 2005; Kress, 2010; Kress & van Leeuwen, 2001). If children are expected to engage in new textual forms and practices, attention must be given to the relationship between print and digital text forms and practices in classroom experiences. While print-based writing practices are transferable to a digital space, dynamic and digital text construction broadens the possibilities of creation and distribution of meaning. An alternative perspective, therefore, may be the one captured in part by the term 'new literacies', in that print-based practices are no longer sufficient given new textual designs. This perspective recognises that research plays an important part in exploring the new literacy practices required, and that classrooms play an important role in broadening children's textual practices. This perspective is certainly central to new curriculum policies in Australia.

Policy

The writing practices that these children enacted during digital literary text construction may serve as an encouragement to cautiously consider the expectations of the AC:E regarding classroom practices.

Promoting familiarity with literary, digital and multimodal texts is viewed as an

important goal in current AC:E policies. According to this policy, from the foundational year of schooling children are required to engage with and create a variety of literary texts and use software to support text creation (ACARA, 2015). Augmentative and alternative forms of communication, such as spoken text are encouraged in all schooling years, with the inclusion of the terms 'create' and 'compose' referencing the significance of spoken, written and multimodal texts in print or digital form. This integration of technology and literacy has received support from established researchers such as the New Literacies team (Leu et al., 2013) who recognise AC:E as an important step towards changing the nature of literacy in a technologically mediated world.

However, a close examination of this policy reveals some important insights into the role of print as a dominant form of digital text construction. For example, when considering the content descriptors in English in relation to the construction of digital texts in Year 5, there appears to be a subtle expectation that while children are asked to create digital texts by communicating meaning in written, visual and audio forms, the design of visual and audio modes is limited to selecting, editing and placing, not constructing:

Use a range of software including word processing programs with fluency to construct, edit and publish written text, and select, edit and place visual, print and audio elements (ACELY1707)(ACARA, 2015)

This implies that although curriculum policy accounts for the shift in textual practices that technology demands by recognising visual and audio modes in communicating meaning, when it comes to construction, written text is privileged. In the present inquiry there was evidence to suggest that this is concerning. Children in this inquiry who selected, edited and placed visual and audio modes within written text, instead of constructing these modes, often compromised the meaning of their texts. For example the selection of images from Google Image and websites such as Storybird.com resulted in a lack of cohesion between characters and settings, with written and visual modes often not aligning. Additionally, audio modes such as sound tracks that were selected, edited and placed, often did not match the meaning of the story. In

comparison, children who attended more closely to the design of visual and audio modes by constructing their own moving images and sound effects achieved a more cohesive and integrated relationship between print and digital elements. In these instances, writing practices such as recording, narrating and manipulating were utilised to convey meaning across various digital elements. It appears that although skill in using digital forms of communication is viewed as an important goal of current educational agendas (ACARA, 2015) in reality much is still to be explored to ensure digital construction, not just communication, is given primacy in policy and practice.

Practice

Findings from the inquiry also offer new possibilities for classroom practices, as teachers consider what 'counts' as text and writing pedagogy in their classrooms. Findings from the analysis of the data from this inquiry indicate that the ways children defined text and writing influenced the ways they constructed their digital literary texts. This is not surprising given findings from past research that a writer's perception of himself or herself influences what he or she writes (Woo, et al., 2011). However, it does bring to attention the need for educators to broaden children's perceptions of text and new possibilities for meaning making.

While children in this inquiry experimented with the discrete role that digital writing practices and elements can contribute to the overall meaning of text (Jewitt, 2008), print dominated the practice and textual elements. While this isn't necessarily a concern, it does highlight the tendency for classroom practices associated with digital writing to be embedded in print-based models. For example, children may always begin text construction by writing down ideas. Instead, perhaps, they could use audio recorders to document ideas, or engage with images to develop these early plans. Additionally, children may always associate the concept of text with print, and only consider digital features and practices as secondary sources of meaning for engagement purposes or interactivity instead of a main form of communication.

Further, in consideration of the selection and use of resources, the construction of text is not simply a matter of the random selection of resources. Rather, it involves focused

and logical relationships between components (Kervin & Mantei, 2016). Therefore an understanding of what resources the children in this inquiry used in their text construction, and how they used them, offers important insights for classroom practice.

Teachers need to work with children to teach them the affordances of available resources, while also enhancing their literacy skills and their ability to research, select and experiment with the available resources found on digital platforms. Such an approach will enable children to learn explicitly about teacher-selected resources. It will also give them the opportunity to learn how to select their own resources appropriately.

Rich opportunities such as digital literary text deconstruction and construction focussed on meaning making practices and technical skills associated with literary text and the digital environment is needed. As too are opportunities for children to play, share, collaborate, problem solve and create text with the complex and new practices associated with digital literary text construction.

Conclusion

An awareness of calls for further research highlighted in the literature review, in addition to new curriculum expectations in the AC:E culminated in the researcher raising two questions for investigation:

- What writing practices do six Year 5 children enact during digital literary text construction?
- How do these six Year 5 children select and utilise resources during digital literary text construction?

The current inquiry found a complex relationship between the practices and resources associated with digital literary text. The six case portraits presented in this inquiry demonstrate that the new terrain of digital literary text construction reflects, extends and diversifies what we already know about writing construction. They also confirm we have much to learn about how to incorporate the construction of digital literary texts in to classroom experiences. Conforming to the modes whilst simultaneously considering the affordances of technology created some powerful and often dynamic opportunities of meaning making for these children, with decisions around text construction being a result of the context in which the children learned and their past experiences with text.

Furthermore, the resources the six children selected and utilised enabled them to create meaning in multiple and unique ways in comparison with print-based construction. The discussion of the resources used highlighted the importance of resource access, the need to provide time for exploration and play, and the significance of understanding how digital resources can work together in consideration of the practices of digital literary text construction.

In sharing the experiences of six children and their teacher, a deeper understanding of the writing practices and associated resources has emerged, one that is chiefly informed by literacy as social practice and new literacies theoretical orientations, based on a recognition that literacy varies according to circumstances and context, including the evolving digital environment.

REFERENCE LIST

- Abraham, L. (2008). Computer-mediated glosses in second language reading comprehension and vocabulary learning: A meta-analysis. *Computer Assisted Language Learning, 21*(3), 199-226
- Adelman, C., Jenkins, D., & Kemmis. S. (1976). Rethinking case study: notes from the second Cambridge conference. *Cambridge Journal of Education, 6*(3), 139-150.
- Afflerbach, P.A, & Cho, B. (2008). Identifying and describing constructively responsive comprehension strategies in new and traditional forms of reading. In S. Israel & G. Duffy (Eds). *Handbook of reading comprehension research* (pp. 69-90), Mahwah, NJ: Erlbaum.
- Allen, G. (2000). *Intertextuality*. New York: Routledge.
- Anderson, J. R. (1980). *Cognitive psychology and its implications*. San Francisco: W. H. Freeman.
- Anderson, J., Purcell-Gates, V., Gagne, M., & Jang, K. (2009). Implementing an intergenerational literacy program with authentic literacy instruction: Challenges, responses, and results. *Paper presented at Literacy Research Association Annual Conference, Albuquerque, NM*. Retrieved <http://cpls.educ.ubc.ca/content/pdfs/NRCPaperILP.pdf>
- Apple Pty Limited. (2011). *Garageband* [software]. Retrieved from <http://www.apple.com/au/mac/garageband/>
- Apple Pty Limited. (2013a). *iMovie* [software]. Retrieved from <http://www.apple.com/au/mac/imovie/>
- Apple Pty Limited. (2013b). *Keynote* [software]. Retrieved from <http://www.apple.com/au/mac/keynote/>
- Apple Pty Limited. (2013c). *Pages* [software]. Retrieved from <http://www.apple.com/au/mac/pages/>
- Apple Pty Limited. (n.d.). *iBook Authors* [mobile application software]. Retrieved from <http://itunes.apple.com>

- Apple Pty Limited. (2010). *FaceTime* [software]. Retrieved from <http://itunes.apple.com>
- Askehave, I., & Ellerup, I., & Nielsen, A. (2005). Digital genres: A challenge to traditional genre theory. *Information Technology & People*, 18(2), 120–141.
- Atwell, N. (1998). *In the middle: New understandings about writing, reading, and learning* (2nd ed.). Portsmouth, NH: Boynton/Cook.
- Australian Broadcasting Commission (ABC). (2007). *Dust echoes: the Mimis*. Retrieved from <http://www.abc.net.au/dustechoes/dustEchoesFlash.htm>
- Australian Bureau of Statistics (ABS). (2016). *Households with Internet access at home. 2014-2015* (Catalogue No. 8146.0). Retrieved from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8146.0Main+Features12014-15?OpenDocument>
- Australian Curriculum and Reporting Authority (ACARA). (2012). *Australian Curriculum: English*. (Version 7.5). Retrieved from <http://v7-5.australiancurriculum.edu.au/english/curriculum/f-10?layout=1>
- Australian Curriculum and Reporting Authority (ACARA). (2015). *Australian Curriculum: English*. (Version 8.2). Retrieved from <http://www.australiancurriculum.edu.au/english/curriculum/f-10?layout=1>
- Baker, C. D., & Freebody, P. (1993). The crediting of literate competence in classroom talk. *Australian Journal of Language and Literacy*, 16(4), 279- 284.
- Barton, D., & Hamilton, M. (1998). *Local literacies: reading and writing in one community*. United States: Taylor & Francis.
- Barton, D., & Hamilton, M. (2000). Literacy practices. In D Barton, M Hamilton & R Ivancic (Eds). *Situated literacies: Reading and writing in context* (pp. 7-15). London: Routledge.
- Barton, D., Hamilton, M., & Ivancic, R. (2000). *Situated literacies: Reading and writing in context*. London: Routledge.
- Bazalgette, C., & Buckingham, D. (2013). Literacy, media and multimodality: A critical response. *Literacy*, 47(2), 95-102
- Baynham, M. (1995). *Literacy practices: investigating literacy in social contexts*. London: Longman.

- Bear, D., Invernizzi, M., Templeton, S., & Johnston, F. (2000). *Words their way: Word study for phonics, vocabulary, and spelling instruction* (2nd ed.). Upper Saddle River, NJ: Prentice-Hall.
- Bearne, E. (2009). Assessing multimodal texts. In A. Burke & R. Hammett (Eds.), *Assessing new literacies: Perspectives from the classroom* (pp. 15-33). New NY: Peter Lang Publishing.
- Beavis, C., & O'Mara, J. (2010). Computer games – pushing at the boundaries of literacy. *Australian Journal of Language and Literacy*, 33(1), 65-76
- Bezemer, J., & Kress, G. (2008). Writing in multimodal texts: A social semiotic account of designs for learning. *Written Communication*, 25(2), 166–195.
- Blommaert, J. (2008). Artefactual ideologies and the textual production of African languages. *Language and Communication*, 28(4), 291–307.
- Blommaert, J. (2013). *Ethnography, superdiversity and linguistic landscapes: chronicles of complexity*. Bristol: Multilingual Matters.
- Bloome, D., & Egan-Robertson, A. (1993). The social construction of intertextuality in classroom reading and writing lessons. *Reading Research Quarterly*, 28(4), 305-333.
- Board of Studies (BOS). (2012). *Suggested texts for the English K-10 syllabus*. Retrieved from <http://syllabus.bos.nsw.edu.au/assets/global/files/english-k10-suggested-texts.pdf>
- Bogard, J., & McMackin, M. (2012). Combining traditional and new literacies in a 21st century writing workshop. *The Reading Teacher*, 65(5), 313-323.
- Bogdan, R. C., & Biklen, S. K. (1992). *Qualitative research for education. An introduction to theory and methods*. Boston, MA: Allyn & Bacon.
- Boling, E., Castek, J., Zawilinski, L., Barton, K., & Nierlich, T. (2008). Collaborative literacy: Blogs and Internet projects. *The Reading Teacher*, 61(6), 504-506.
- Brandt, D., & Clinton, K. (2002). Limits of the local: Expanding perspectives on literacy as a social practice. *Journal of Literacy Research*, 34(3), 337–356.
- Brewer, J. D. (2000). *Ethnography*. Buckingham: Open University Press.

- Brewer, J., & Hunter, A. (1989). *Multimethod research: a synthesis of styles*. Newbury Park: SAGE Publications.
- Brooker, L. (2002). Five on the first of December: What can we learn from case studies of early childhood literacy? *Journal of Early Childhood Literacy*, 2(3), 291-312.
- Bruner, J. (1986). *Actual Minds, Possible Worlds*. Cambridge, MA: Harvard University Press.
- Buckingham, D. (2007). *Beyond technology: children's learning in the age of digital culture*. Cambridge: Polity Press
- Bull, G., & Anstey, M. (2010). *Evolving pedagogies: Reading and writing in a multimodal world*. Victoria, Australia: Curriculum Press.
- Burn, A. (2008). The case of rebellion: researching multimodal texts. In J. Coiro, M. Knobel, C. Lankshear & D. Leu (Eds.), *Handbook of research on new literacies* (pp. 151-178). New York: Lawrence Erlbaum Associates.
- Burn, A. (2009). *Making new media: Creative production and digital literacies*. New York: Peter Lang.
- Burn, A., & Durrant, C. (2007). *Media teaching*. Norwood, SA: Wakefield Press.
- Burns, R. B. (1995). *Introduction to research methods*. Melbourne: Longman.
- Burnett, C., Merchant, G., Pahl, K. & Rowsell, J. (2014). The (im)materiality of literacy: the significance of subjectivity to new literacies research. *Discourse: Studies in the Cultural Politics of Education*, 35(1), 90-103.
- Burnett, C., & Merchant, G. (2015). The challenge of 21st century literacies. *Journal of Adolescent & Adult Literacy*, 59(3), 271-274
- Butler, A., & Turbill, J. (1984). *Towards a reading-writing classroom*. Rozelle, Australia: Primary English Teaching Association.
- Calkins, L.M. (1980). Children's rewriting strategies. *Research in the Teaching of English*, 14(4), 331-341
- Calkins, L.M. (1983). *Lessons from a child: On the teaching and learning of writing*. Portsmouth, NH: Heinemann.
- Calkins, L.M. (1994). *The art of teaching writing*. Portsmouth, NH: Heinemann.

- Callahan, M., & King, J. (2011). Classroom remix: patterns of pedagogy in a technoliteracies poetry unit. *Journal of Adolescent and Adult Literacy*, 5(2), 134-144.
- Callow, J. (2013). *The shape of text to come: How image and text work*. Newtown, Australia: Primary English Teaching Association of Australia.
- Carrington, V., & Robinson, M. (eds.) (2009) *Digital literacies: Social learning and classroom practices*. Los Angeles: SAGE Publications.
- Castek, J., Leu, Jr., D. J., Coiro, J., Gort, M., Henry, L. A., & Lima, C. O. (2008). Developing new literacies among multilingual learners in the elementary grades. In L. L. Parker (ed.), *Technology-mediated learning environments for young english learners: connections in and out of school* (pp. 111–154). New York, NY: Lawrence Erlbaum Associates.
- Ceric, V. (2013). Digital Text: Interactivity and intertextuality. *Online Journal of Art and Design*, 1(1), 17-31
- Christensen, P., & James, A (eds.). (2008) *Research with children: Perspectives and practices* (2nd ed.), New York: Routledge
- Christie, F. (1996). The role of a functional grammar in development of a critical literacy. In G. Bull & M. Anstey (Eds.), *The Literacy Lexicon* (pp. 46–57). Sydney: Prentice-Hall.
- Chung, D. (2008). Interactive features of online newspapers: identifying patterns and predicting use of engaged readers. *Journal of Computer-Mediated Communication*, 13(3), 658-679
- Clarke, L., & Besnoy, K. (2010). Connecting the Old to the New: What Technology-Crazed Adolescents tell us about Teaching Content Area Literacy. *Journal of Media Literacy Education*, 2(1), 47-56
- Clever Prototypes. (2013). *Storyboard that*. Retrieved from <http://www.storyboardthat.com>
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. London: Routledge/ Falmer
- Coiro, J. (2003). Reading comprehension on the Internet: expanding our understanding of reading comprehension to encompass new literacies. *The Reading Teacher*, 56(5), 458-464.

- Coiro, J., & Dobler, E. (2007). Exploring the online comprehension strategies used by sixth-grade skilled readers to search for and locate information on the Internet. *Reading Research Quarterly, 42*(2), 214-257
- Coiro, J., & Fogleman, J. (2001). Capitalizing on Internet resources for content-area teaching and learning. *Educational Leadership, 68*(5), 34-38
- Coiro, J., Knobel, M., Lankshear, C., & Leu, D. (2008). Central issues in new literacies and new literacies research. In J. Coiro, M. Knobel, C. Lankshear & D. Leu (Eds.), *Handbook of research on new literacies* (pp. 1-21). New York: Lawrence Erlbaum Associates.
- Comber, B. (2011). Changing literacies, changing populations, changing places – English teachers’ work in an age of rampant standardisation. *English Teaching: Practice and Critique, 10*(4), 5–22.
- Comber, B., & Cormack, P. (1997). Looking beyond ‘skills’ and ‘processes’: Literacy as social and cultural practices in classrooms’, *Literacy, 31*(3), 22–29.
- Commonwealth of Australia. (2009). *National English curriculum: framing paper*. Retrieved from http://www.acara.edu.au/resources/FramingEnglishFINAL_300109.pdf
- Cook-Gumperz, J. (ed.). (2006). *The social construction of literacy* (2nd ed). Cambridge, U.K.: Cambridge University Press.
- Cope, B., & Kalantzis, M. (eds.). (2000). *Multiliteracies: Literacy learning and the design of social futures*. London: Routledge.
- Cope, B., & Kalantzis, M. (2009). Multiliteracies: new literacies, new learning. *Pedagogies: An International Journal, 4*(3), 164-195.
- Cover, R. (2006). Audience inter/active: Interactive media, narrative control and reconceiving audience history. *New Media & Society, 8*(1), 139-158.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, California: SAGE Publications.
- Cresswell, J.W. (2013). *Qualitative inquiry and research design: Choosing among five traditions* (3rd ed.) Thousand Oaks, California: SAGE Publications.

- Dalton, B., & Proctor, C.P. (2008). The changing landscape of text and comprehension in the age of new literacies. In J. Coiro, M. Knobel, C. Lankshear, & D. Leu (Eds.), *Handbook of research on new literacies* (pp. 297-324). New York: Routledge.
- Dalton, B., Proctor, C., Uccelli, P., Mo, E., & Snow, C. E. (2011). Designing for diversity: The role of reading strategies in interactive vocabulary in a digital reading environment for fifth-grade monolingual English and bilingual students. *Journal of Adolescent and Adult Literacy*, 43(1), 68-100.
- DEEWR (Australian Government, Department of Education, Employment and Workplace Relations). (2008). Digital education revolution: National secondary school computer fund overview. Retrieved from <https://www.anao.gov.au/work/performance-audit/digital-education-revolution-program-national-secondary-schools-computer-fund>
- Derewianka, B. (1991). *Exploring how texts work*. Rozelle, N.S.W.: Primary English Teaching Association.
- DeVoss, D., & Rosati, A. (2002). It wasn't me, was it? Plagiarism and the web. *Computers and Composition: An International Journal for Teachers of Writing*, 19(2), 191-203.
- Dezuanni, M., Dooley, K., Gattenhof, S., & Knight, L. (2015). *iPads in the Early Years: Developing literacy and creativity*. London: Routledge.
- Doolittle, P. & Hicks, D. (2003). Constructivism as a theoretical foundation for the use of technology in social studies. *Theory and Research in Social Education*, 31(1), 72-104.
- Downes, T., & Zammit, K. (2001). New literacies for connected learning in global classrooms: A framework for the future. In P. Hogenbirk, & H. Taylor (Eds.), *The bookmark of the school of the future* (pp. 113–128). Boston, MA: Kluwer Academic Publishers.
- Duke, N.K., & Hall, L.A. (2006) Authentic literacy activities for developing comprehension and writing. *The Reading Teacher*, 60(4), 344-55.
- Edwards-Groves, C. (2011). The multimodal writing process: Changing practices in contemporary classrooms. *Language and Education*, 25(1), 49–64.
- Edwards-Groves, C. (2012). Interactive creative technologies: Changing learning practices and pedagogies in the writing classroom. *Australian Journal of Language and Literacy*, 35(1), 99-114.

- Emmitt, M., Zbarcki, M., Komesaroff, L. & Pollock, J. (2015). *Language and learning: An introduction to teaching (6th ed.)*. South Melbourne: Oxford.
- Ericsson K A., & Simon, H. A. (1993). *Protocol analysis: verbal reports as data*. Cambridge, MA: MIT Press
- Erlandson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (1993). *Doing naturalistic inquiry: a guide to methods*. Newbury Park, CA: SAGE Publications.
- Evans, M. (2009). Reliability and validity in qualitative research by teacher researchers. In E. Wilson (Ed), *School- based research: a guide for education students*. London: SAGE Publications.
- Ewing, R., Miller, C., & Saxton, J. (2008). Spaces and places to play: Using drama with picture books in the middle years. In M. Anderson, J. Hughes & J. Manuel (Eds). *Drama teaching in English: Action, Engagement and Imagination*. London: Oxford University Press.
- Explain Everything sp. Z o.o. (2011). *Explain Everything* (Version 1.40) [mobile application software]. Retrieved from <https://itunes.apple.com/app/id1020339980?mt=8&&referrer=click%3D980a49f0-fa2a-426a-88c0-c9c1124d77c8>
- Fairclough, N. (2003). *Analysing discourse*. Routledge: London
- Fetterman, D. M. (1998). *Ethnography* (2nd ed.). California: SAGE Publications.
- Fingerprint. (2012). *Scribble press* (Version 1.2) [mobile application software]. Retrieved from <https://itunes.apple.com/au/app/scribble-press-creative-book/id999929385?mt=8>
- Flanagin, A.J., & Metzger, M.J. (2010). *An empirical examination of youth, digital media use, and information credibility*. Cambridge, MA: MIT Press
- Flick, U. (2006). *An introduction to qualitative research*. London: SAGE Publications.
- Flint, A., Kitson, L., Lowe, K., & Shaw, K. (2014). *Literacy in Australia. Pedagogies for Engagement*. Milton QLD: John Wiley & Sons

- Freebody, P., Luke, A., & Gilbert, P. (1991). Reading positions and practices in the classroom. *Curriculum Inquiry*, 21(4), 435- 457.
- Gee, J.P. (1991). A linguistic approach to narrative. *Journal of Narrative and Life History*, 1(1), 15-39.
- Gee, J. P. (2007). *Social linguistics and literacies: ideology in discourses* (3rd ed.). United Kingdom: Taylor & Francis.
- Gibson, R., & Ewing, R. (2011). *Transforming the Curriculum through the Arts*. Victoria, Australian: Palgrave MacMillian.
- Glasser, J., & Laudel, G. (2013). Life with and without coding: Two methods for Early Stage Analysis in Qualitative Research Aiming at Casual Explanation. *Forum: Qualitative Social Research*, 14(2).
- Goldsmith, K. (2011). *Uncreative writing: managing language in the digital Age*. New York: Columbia University.
- Goldstone, B. (2004). The postmodern picture book: A new subgenre. *Language Arts*, 81(3), 196-204.
- Goodman, K.S. (1986). *What's whole in whole language?* Portsmouth, NH: Heinemann
- Google. (2013). *Google Drive* [cloud storage]. Retrieved from <https://www.google.com/drive/>
- Grabill, J. T., & Hicks, T. (2005). Multiliteracies meet methods: The case for digital writing in English education. *English Education*, 37(4), 301-311.
- Graves, D. (1983). *Writing: Teachers and children at work*. London: Heinemann
- Graves, D. (1994). *A fresh look at writing*. Portsmouth, NH : Heinemann.
- Graves, D., Tuyay, S., & Green. J. (2004). What I've learned from teachers of writing, *Language Arts*, 82(2), 88-94.
- Grenfell, M., Bloome D., Hardy, C., Pahl, K., Rowsell, J. & Street, B. V. (2012). *Language, ethnography and education: Bridging new literacy studies and Bourdieu*. London: Routledge.
- Groff, B. & Fecich, S. (2012). Mendeley and higher education. In T. Amiel & B. Wilson (Eds.), *Proceedings of EdMedia: world conference on educational media and*

- technology 2012* (pp. 2134-2135). Association for the Advancement of Computing in Education (AACE).
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology Journal*, 29(2), 75- 91.
- Guba, E.G., & Lincoln, Y.S. (1989). *Fourth generation evaluation*. Newbury Park, CA: SAGE Publications .
- Gutierrez, K.D., Baquedano-Lopez, P., & Tejeda, C. (1999). Rethinking diversity: Hybridity and hybrid language practices in the third space. *Mind, Culture, and Activity*, 6(4), 286-303
- Halliday, M. A. K. (2003). Introduction: On the ‘architecture’ of human language. In J. J. Webster (ed.) *On linguistics and language. Volume 3 in Collected Works of M. A. K. Halliday*, 1–29. London and New York: Continuum.
- Hamilton, M. (2010). Literacy in social context. In N. Hughes and I Schwab (eds) *Teaching adult literacy: principles and practice* (pp. 7-28) . Milton Keynes, Open University Press.
- Harris, M. (1968). *The rise of anthropological theory: A history of theories of culture*. New York: T. Y. Crowell.
- Harris, P., McKenzie, B., Fitzsimmons, P., & Turnbull, J. (2003). *Writing in the primary schools years*. Tuggerah, Australia: Social Science Press
- Harris, J., Mishra, P., & Koehler, M. (2009). Teachers’ technological pedagogical content knowledge and learning activity types: Curriculum-based technology integration reframed. *Journal of Research on Technology in Education*, 41(4), 393–416.
- Harman, R. (2013). Intertextuality in genre based pedagogies: Building lexical cohesion in fifth grade L2 writing. *Journal of Second Language Writing*, 22(2), 125-140
- Hartman, D.K., Morsink, P.M., & Zheng, J. (2010). From print to pixels: The evolution of cognitive conceptions of reading comprehension. In E. A. Baker (Eds). *The new literacies: Multiple perspectives on research and practice* (pp131-164), New York: Guilford
- Heath, S.B. (1983). *Ways with words: language, life, and work in communities and classrooms*. Cambridge: Cambridge University Press.

- Henry, L. (2006). SEARCHing for an answer: The critical role of new literacies while reading on the Internet. *The Reading Teacher*, 59(7), 614-627
- Hodder, I. (2000). The interpretation of documents and material culture. In N.K. Denzin and Y.S. Lincoln (Eds.), *The handbook of qualitative research* (2nd ed.) (pp. 155-175). California, USA: SAGE Publications.
- Houghton Mifflin. (n.d.). Wacky web tales. Retrieved from <https://www.eduplace.com/tales/>
- Hutchison, A., & Reinking, D. (2010). A national survey of barriers to integrating information and communication technologies into literacy instruction. In R. Jimenez, V. Risko, M. Hundley, & D. Rowe (Eds.), *Fifty-ninth yearbook of the national reading conference* (pp.-230-243). National Reading Conference. Milwaukee, WI.
- Hutchinson, A., Beschorner, B., & Schmidt-Crawford, D. (2012). Exploring the Use of the iPad for Literacy Learning. *The Reading Teacher*, 66(1), 15-23
- Janks, H. (2010). *Literacy and power*. New York: Routledge.
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York: New York University Press.
- Jenkins, H. (2009). *Confronting the challenges of participatory culture: Media Education for the 21st Century*. Cambridge, Massachusetts: MIT Press.
- Jewitt, C. (2005). Multimodality, "reading", and "writing" for the 21st century. *Discourse: studies in the cultural politics of education*, 26(3), 315- 331
- Jewitt, C. (2006). *Technology, literacy and learning – a multimodal approach*. Oxon, UK: Routledge.
- Jewitt, C. (2008). Multimodality and literacy in school classrooms. *Review of Research in Education*, 32(1), 241–267.
- Jewitt, C., & Kress, G. (2003). *Multimodal literacy*. New York: Peter Lang
- Jocius, R. (2013). Exploring adolescents' multimodal responses to *The Kite Runner*: understanding how students use digital media for academic purposes. *The Journal of Media Literacy Education*, 5(1), 310-325
- Johnson, L. L., & Smagorinsky, P. (2013). Writing remixed: Mapping the multimodal

- composition of one pre-service English education teacher. In K. Pytash & R. Ferdig (Eds.), *Exploring multimodal composition and digital writing* (pp. 262-280). Hershey, PA: IGI Global.
- Jones, R., & Hafner, C. (2012). *Understanding digital literacies: A practical introduction*. New York: Routledge.
- Kalantzis, M., & Cope, B. (2012). New learning: A charter for change in education 1. *Critical Studies in Education*, 53(1), 83–94.
- Kalantzis, M., Cope, B., & Cloonan, A. (2010). A multiliteracies perspective on the new literacies. In E.A. Baker (ed.), *The new literacies: multiple perspectives on research and practice* (pp. 61-87). New York: Guildford.
- Kervin, L. (2016) . Powerful and playful literacy learning with digital technologies. *Australian Journal of Language and Literacy*, 39(1), 64-73
- Kervin, L. & Derewianka, B. (2011). New technologies to support language learning. In B. Tomlinson (Eds.), *Materials development in language teaching* (pp. 328-351). Cambridge, UK: Cambridge University Press.
- Kervin, L. & Mantei, J. (2016). Digital writing practices: A close look at one Grade Three author. *Literacy*. Early views, 00, (00) xxxx.
- Kervin, L., Mantei, J., & Lipscombe, K. (in press). *The intricacies of classroom-based ethnography*. London: Wakefield Press
- Kiili, C., Laurinen, L., Marttunen, M., & Leu, D. J. (2012). Working on understanding during collaborative online reading. *Journal of Literacy Research*, 44 (4), 448-483.
- Kirk, S. (2007). Methodological and ethical issues in conducting qualitative research with children and young people: a literature review. *International Journal of Nursing Studies*, 44(7), 1250-1260
- Kist, W. (2013). The writing process and multimodal composition. In R. Ferdig & K. Pytash (Eds), *Exploring multimodal composition and digital writing* (pp. 69-83). Hershey, USA: IGA Global
- Knobel, M., & Lankshear, C. (2014). Studying new literacies. *Journal of Adolescent & Adult Literacy*, 58(2), 97–101.
- Kress, G. (2003). *Literacy in the new media age*. New York: Routledge

- Kress, G. (2010). *Multimodality – A social semiotic approach to contemporary communication*. Oxon, UK: Routledge.
- Kress, G. (2013). Recognizing learning: a perspective from a social semiotic theory of multimodality. In de Saint Georges, I. & Weber, J. (Eds.) *Multilingualism and multimodality. current challenges for educational studies* (pp. 119-132). Rotterdam: Sense Publications.
- Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. New York: Oxford University Press.
- Kress, G., & van Leeuwen, T. (2006). *Reading Images*. London: Routledge.
- Lankshear, C., & Knobel, M. (2003). New technologies in early childhood literacy research: A review of research. *Journal of Early Childhood Literacy*, 3(1), 59–82.
- Lankshear, C., & Knobel, M. (2004). *A handbook for teacher research: from design to implementation*. Maidenhead, UK: Open University Press.
- Lankshear, C., & Knobel, M. (2006). *New literacies* (2nd ed.). Maidenhead, UK: Open University Press.
- Lankshear, C., & Knobel, M. (2011). *New literacies: Everyday practices and classroom learning* (3rd ed.). Maidenhead: Open University Press.
- Lankshear, C., & Snyder, I. (2000). *Teachers and technoliteracy*. Sydney Australia: Allen & Unwin.
- Larson, L. (2010). Digital Readers: The next chapter in e-book reading and response, *The Reading Teacher*, 64(1), 15-22.
- Leander, K. (2009). Composing with old and new media: Toward parallel pedagogy. In V. Carrington, & M. Robinson (Eds.), *Digital literacies: Social learning and classroom practices* (pp. 147–164). London: SAGE Publications.
- Leu, D.J., Kinzer, C.K., Coiro, J., & Cammack, D. (2004). Toward a theory of new literacies emerging from the Internet and other information and communication technologies. In R.B. Ruddell & N.J. Unrau (Eds), *Theoretical models and processes of reading* (5th ed, pp. 1570-1613). Newark, DE: International Reading Association.

- Leu, D.J., Kinzer, C.K., Coiro, J., Castek, J., & Henry, L.A. (2013). New literacies: A dual level theory of the changing nature of literacy, instruction, and assessment. In D.E. Alvermann, N.J. Unrau & R.B. Ruddell (Eds.), *Theoretical models and processes of reading* (6th ed., pp. 1150–1181). Newark, DE: International Reading Association.
- Leu, D. J., Slomp, D., Zawilinski, L., & Corrigan, J. (2014). Writing from a new literacy lens. In C.A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (2nd ed.). New York, NY: Guilford.
- Levinson, P. (1999). *Digital McLuhan: A guide to the information millennium*. London: Routledge.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: SAGE Publications.
- Lipscombe, K., Kervin, L., & Mantei, J. (2015). The writing process in a digital environment. In J. Turbill., C. Brock & G. Barton (Eds.), *Looking back to look forward* (pp. 281-299). Adelaide, Australia: Wakefield Press.
- Ljungdahl, L. & Marsh, P. (2010). Writing. In G. Winch, R.R. Johnston, P. March, L. Ljungdahl & M. Holliday (Eds.), *Literacy: Reading, writing and children's literature*. (4th ed., pp. 247-290). South Melbourne: Oxford.
- LOFOPI. (2012). *Art set* (version 1.11) [mobile application software]. Retrieved from <https://itunes.apple.com/app/art-set-pro-edition/id728530673?ls=1&mt=8>
- Lorenz, B., Green, T., & Brown, A. (2009). Using multimedia graphic organizer software in the prewriting activities of primary school students: What are the benefits? *Computers in the Schools*, 26, 115-129.
- Lowther, D.L., Ross, S.M. & Morrison, G.M. (2003). When each one has one: The influence on teaching strategies and student achievement of using laptops in the classroom. *Educational Technology Research and Development*, 51(23), 23-42
- Mackenzie, N.M. (2014) Teaching early writers: Teachers' responses to a young child's writing sample, *Australian Journal of Language and Literacy*, 37(3), 182-191.
- Madej, K. (2008). Enculturation: Loss of story content and experience in the move from print to digital. Paper presented at Fifth Anniversary Conference: Media, Communication and Humanity London School of Economics, Department of Media and Communication, September 21 – 23. Retrieved <https://www.researchgate.net/publication/236018299> Enculturation Loss of s

tory content and experience in the move from print to digital

- Manovich, L. (2002). *The language of new media*. Cambridge, MA: MIT Press.
- Marsh, J., Brooks, G., Hughes, J., Ritchie, L., Roberts., S & Wright, K. (2005). *Digital Beginnings: Young Children's Use of Popular Culture, Media and New Technologies*. Sheffield: University of Sheffield.
- Marsh, J., & Bishop, J.C. (2014). *Changing play: play, media and commercial culture from the 1950s to the present day*. Maidenhead: Open University Press.
- Marsh, J., & Hallet, E. (2009). *Desirable literacies: approaches to literacy and language in the early years*. London: SAGE Publications.
- Marsh, J., Hannon, P., Lewis, M., & Ritchie. (2015). Young children's initiation into family literacy practices in the digital age. *Journal of Early Childhood Research*, 1-14.
- Martin, N., & Lambert, C. (2015). Differentiating digital writing instruction. *Journal of Adolescent & Adult Literacy*, 5 (2), 217-227.
- Matthewman, S., & Triggs, P. (2004). Obsessive compulsory font disorder: the challenge of supporting writing with computers. *Computers and Education*. 43(12), 125-135.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: SAGE Publications
- May, T. (1997). *Social research: issues, methods and process*. Buckingham: Open University Press.
- Mayer, R. (2009). *Multimedia learning*. Cambridge: Cambridge University Press
- McCrum, S., & Bernal, P. (1994). *Interviewing children: A training pack for journalists in children's voices*. Devon: Buckfastleigh.
- McGrail, E., & Davis, A. (2011). The influence of classroom blogging on elementary student writing. *Journal of Research in Childhood Education*, 25(4), 415-437.
- McKeon, C. (2001). E-mail as a motivating literacy event for one struggling reader: Donna's case. *Literacy Research and Instruction*, 40(3), 185-202

- Merchant, G. (2005). Digikids: cool dudes and the new writing. *E-Learning*, 2(1), 50-60.
- Merchant, G. (2007). Digital writing in the early years. In J. Coiro, M. Knobel, C Lanskear & L. Leu (Eds.), *Handbook of Research on New Literacies* (pp 751-774). New York, Laurence Erlbaum.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. California: Jossey-Bass Inc.
- Mertens, D. (1998). *Research methods in education and psychology: Integrating diversity with quantitative methods and qualitative approaches*. Thousand Oaks, California: SAGE Publications.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). California: SAGE Publications.
- Mills. D., & Morton. M. (2013). *Ethnography in education*. London: SAGE Publication.
- miSoftware. (2010). *Animation Express* (Version 1.1.1) [mobile application software]. Retrieved from <https://itunes.apple.com/au/app/animation-express/id407067423?mt=8>
- Mobile Education Store LLC. (2010). *StoryBuilder* (Version 1.6) [mobile application software], Retrieved from <https://itunes.apple.com/au/app/storybuilder-for-ipad/id377631532?mt=8>
- Moonbot Studios. (2011). *The fantastic flying books of Mr. Morris Lessmore* (Version 1.4) [Mobile application software]. Retrieved from <https://itunes.apple.com/au/app/fantastic-flying-books-mr./id438052647?mt=8>
- Murphy, P., & Graham, S. (2012). Word processing programs and weaker writers/readers: a meta analysis of research findings. *Reading and Writing*, 25(3), 641-678.
- Murray, D.M. (1982). *Learning by teaching: Selected articles on writing and teaching*. New Jersey: Boynton/Cook Publishers.
- National Early Literacy Panel. (2008). *Developing early literacy: Report of the National Early Literacy Panel*. Washington, DC: National Institute for Literacy. Retrieved from <http://lincs.ed.gov/publications/pdf/NELPReport09.pdf>

- National Institute of Child Health & Human Development. (2000). *Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Retrieved from <https://www.nichd.nih.gov/publications/pubs/nrp/documents/report.pdf>
- Neuman, S.B., & Roskos, K. (1997). Literacy knowledge in practice: Contexts of participation for Young Writers and readers. *Reading Research Quarterly*, 32(1), pp. 10–32.
- New London Group. (2000). A pedagogy of multiliteracies: Designing social futures. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 9-38). South Yarra, Australia: Macmillan.
- Nichols, L. (1996). Pencil and paper versus word processing: A comparative study of creative writing in the elementary school. *Journal of Research on Computing in Education*, 29(2), 159-166.
- Olson, M. (2003). Implicit measures in social cognition research: Their meaning and use. *Annual Review of Psychology*, 54(1), 297-327
- Owston, R.D., Murphy, S., & Wideman, H. (1992). The effects of word processing on students' writing quality and revision strategies. *Research in the Teaching of English*, 26(3), 249-276.
- Pahl, K., & Rowsell, J. (2010). *Artifactual literacies: every object tells a story*. New York: Teacher College Press.
- Pantaleo, S. (2009). Exploring Grade 1 Students' Textual Connections. *Journal of Research in Childhood Education*, 18(3), 211-225
- Paris, S.G. (2005). Reinterpreting the development of reading skills. *Reading Research Quarterly*, 40(2), 184–202.
- Pea, R., & Lemke, J. (2007). Sharing and reporting video work. In S. J. Derry (Ed.), *Guidelines for video research in education: Recommendations from an expert panel* (pp. 39-46). Prepared for the National Science Foundation, Interagency Education Research Initiative, and the Data Research and Development Center. Arlington, VA: National Science Foundation. Retrieved from <http://drdc.uchicago.edu/what/video-research-guidelines.pdf>
- Pecorari, D. (2003). Good and Original: Plagiarism and patchwriting in academic second–language writing, *Journal of second language writing*. 12(4), 317-345

- Peterson, S., & McClay, J. (2012). Assumptions and practices in using digital technologies to teach writing in middle-level classroom across Canada. *Literacy, 46*(3), 140-146.
- Polished Play. (2013). *PuppetPals* (Version 1.6) [mobile application software]. Retrieved from <https://itunes.apple.com/au/app/puppet-pals-hd/id342076546?mt=8>
- Prawat, R. S., & Floden, R. E. (1994). Philosophical perspectives on constructivist views of learning. *Educational Psychologist, 29*(1), 37-48.
- Pressley, M., & Afflerbach, P. (1995). *Verbal protocols in reading: The nature of constructively responsive reading*. Hillsdale, NJ: Erlbaum.
- Puentedura, R. (2013). SAMR: An EdTech Quintet Perspective. Retrieved from <http://www.hippasus.com/rrpweblog/archives/2013/07/29/SAMRAnETQPerspective.pdf>
- Punch, K. (2009). *Introduction to research methods in education*. London: SAGE Publications
- Ranker, J. (2007). Designing meaning with multiple media sources: A case study of an eight-year-old student's writing processes. *Research in the Teaching of English, 41*(4), 402-434.
- Red Jumper Limited. (2012). *Book Creator* (Version 3.0) [Mobile application software]. Retrieved from <https://itunes.apple.com/au/app/book-creator-for-ipad-create/id442378070?mt=8>
- Reinking, D. (1998). Introduction: Synthesizing technological transformations of literacy in a post-typographic world. In D. Reinking, M. C. McKenna, L. D. Labbo & R. D. Kieffer (eds.), *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. xi-xxx). Jersey, USA: Lawrence Erlbaum Associates.
- Rice, Jeff. (2007). *The rhetoric of cool*. Composition studies and New Media. Carbondale, IL: Southern Illinois University Press.
- Rogoff, B. (1995). Observing sociocultural activity on three planes: Participatory appropriation, guided participation, and apprenticeship. In J.V. Wertsch, P. del Rio, & A. Alvarez (eds.), *Sociocultural studies of mind* (pp. 139-164). Cambridge, UK: Cambridge University Press.

- Rossbridge, J., & Rushton, K. (2014). The critical conversation about text: Joint construction. *PETAA PAPER 196* (p- 1-12). Australia: Primary English Teaching Association Australia.
- Rowell, J., & Walsh, M. (2011). Rethinking literacy education, *Brock Education*, 21(1), 53-62
- Rowell, J. (2014). Toward a phenomenology of contemporary reading. *Australian Journal of Language and Literacy*, 37(2), 117– 27.
- Rouet, J.F., Ros, C., Gounfi, A., Macedo-Rouet, M., & Dinet, J. (2011). The influence of surface and deep cues on primary and secondary students' assessment of relevance in Web menus. *Learning and Instruction*, 21(2), 205-219
- Ryan, M.L. (2002). Beyond myth and metaphor: Narrative in digital media. *Poetics Today*, 23(4), 581-609
- Sabatino, L. (2014). Improving Writing Literacies through Digital Gaming Literacies: Facebook Gaming in the Composition Classroom. *Computers and composition*, 32, 41-53
- Salonius- Pasternak, D. E., & Gelfond, H. S. (2005). The next level of research on electronic play: Potential benefits and contextual influences for children and adolescents. *Human Technology*, 1(1), 5-22.
- Schaenen, I. (2013). Hand-I coordination: interpreting student writings and drawings as expressions of identity. *The Qualitative Report*, 18(24), 1-22.
- Schmar-Dobler, E. (2003). Reading on the Internet: the link between literacy and technology. *Journal of Adolescent & Literacy*, 47(1), 80-85.
- Schultz, K. (2006). Qualitative research on writing. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 357–373). New York, NY: Guilford Press.
- Scribner, S., & Cole, M. (1981). *The psychology of literacy*. Cambridge: Harvard University Press
- Seidman, I. (1998). *Interviewing as qualitative research*. New York: Teacher's College Press.

- Serafini, F. (2015). *Reading workshop 2.0: Supporting readers in the digital age*. Portsmouth, NH: Heinemann
- Serafini, F., Kachorsky, D., & Aguilera, E. (2015). Picturebooks 2.0: transmedial features across narrative platforms. *Journal of Children's Literature*, 41(2), 16-24
- Short, K., Lynch-Brown., & Tomlinson. C. (2015). *Essentials of young adult literature* (8th ed.). United States of America: Pearson
- Silverman, D. (1993). *Beginning research. Interpreting qualitative data. Methods for analysing talk, text and interaction*. London: SAGE Publications.
- Silverman, D. (2000). *Doing qualitative research: A practical handbook*. Thousand Oaks, CA: SAGE Publications
- Siraj-Blatchford, I. (2009). Conceptualising progression in the pedagogy of play and sustained shared thinking in early childhood education: a Vygotskian perspective. *Education and Child Psychology*, 26(2), 77-89
- Smith, F. (1983). Reading like a writer. *Language Arts*, 60 (5), 558–570.
- Snyder, I. (1993). Writing with computers: A research overview. *Educational Research* 35(1), 49-68.
- Snyder, I., & Prinsloo, M. (2007). Young people's engagement with digital Literacies in marginal contexts in a Globalised world. *Language and Education*, 21(3), 171–179.
- Spires, R.J., & Estes, T.H. (2002). Reading in Web-based learning environments. In C.C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 115–125). New York: Guilford.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: SAGE Publications.
- Stake, R. (2000). Case studies. In Norman K. Denzin & Yvonna S. Lincoln (Eds.), *Handbook of qualitative research* (pp.435-453). Thousand Oaks: SAGE Publications.
- Stake, R.E. (2006). *Multiple case study analysis*. New York: Guilford Press.
- Stephens, L., & Ballast, K. (2011). *Using technology to improve adolescent writing: digital make-overs for writing lessons*. Boston, MA: Pearson:

- Stewart, T. (2014). A Historical Overview of Writing and Technology: Seeking the Right Instructional Tools for the Job. In R.S. Anderson & C. Mims (Eds.), *Handbook of research on digital tools for writing instruction in K-12 settings*, (pp. 329- 336). Hershey: IGI Global.
- Storybird Inc (n.d) Storybird.com. Retrieved from <https://storybird.com>
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: SAGE Publications.
- Street, B .(1984). *Literacy in theory and practice*. Cambridge: Cambridge University Press.
- Street, B. (1993). Literacy and nationalism. *History of European Ideas*, 16(1-3), 225–228.
- Street, B. (2003). What's new in new literacy studies? *Current Issues in Comparative Education*, 5(2), 1-14.
- Street, B. (2012). New Literacy Studies. In M. Grenfell, D. Bloome, C. Hardy, K. Pahl, J. Rowsell, J. & B. Street . *Language, ethnography and education: Bridging new literacy studies and Bourdieu*. London: Routledge.
- Street, B., & Baker, D. (2006). So, what about multimodal numeracies? In J Roswell and K Pahl, (Eds), *Travel notes from the new literacy studies* (pp219-233). Clevedon: Multilingual Matters Ltd.
- Sweet, A. P., & Snow, C. (2002). Reconceptualizing reading comprehension. In C. C. Block, L. B. Gambrell, & M. Pressley (Eds.), *Improving comprehension instruction* (pp.17–53). San Francisco, CA: Wiley.
- Tao, L., & Reinking, D. (2000). Issues in technology: E-mail and literacy education. *Reading and Writing Quarterly*, 16, 169–74.
- TechSmith. (2011). Camtasia. [software]. Retrieved from http://discover.techsmith.com/try-camtasia/?gclid=Cj0KEQjw0MW9BRDxtYTn2_S699MBEiQAw33y41J9XIBSpSxDMNmQIMdK4_hlL2FkXXp7BflrDINVmY0aAjaF8P8HAQ
- Thomas, D. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237-246

- Tierney, R.J. (2009). Agency and artistry of meaning makers within and across digital spaces. In S. Israel & G. Duffy (Eds.). *Handbook of research on reading comprehension*, (pp. 261-288) Erlbaum Associates/Routledge.
- Time Base Technology Limited. (2011). GoodNotes (Version 3.10.2) [mobile application software]. Retrieved from <https://itunes.apple.com/au/app/goodnotes-4-notes-pdf/id778658393?mt=8>
- Turbokey Studio. (2012). *Recorded Plus HD*. (Version 2.1.1) [mobile application software]. Retrieved from <https://itunes.apple.com/au/app/recorder-plus-hd-voice-record/id499490287?mt=8>
- Unsworth, L. (2006). *E-literature for children: enhancing digital literacy learning*. New York: Routledge.
- Unsworth, L. (2008). Multiliteracies and metalanguage: Describing image/text relations as a resource for negotiating multimodal texts. In J. Coiro, M. Knobel, C. Lankshear, & D.J. Leu (Eds.), *Handbook of research on new literacies* (pp. 377–405). Mahwah, NJ: Erlbaum.
- van Someren, M. W., Barnard, Y., & Sandberg, J. (1994). *The think aloud method: a practical guide to modeling cognitive processes*. London: Academic Press.
- Vasudevan, L. (2006). Making known differently: Engaging visual modalities as spaces to author new selves. *E-Learning and Digital Media*, 3(2), 207-216
- Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. (1986). *Thought and language* (A. Kozulin, Trans.). Cambridge, MA: MIT Press. (Original work published 1934)
- Walsh, M. (2010). Multimodal Literacy: What does it mean for classroom practice? *Australian Journal of Language and Literacy*, 33(3), 211-239
- Walshe, R.D. (1981). *Every child can write! Learning and teaching written expression in the 1980s*. Rozelle, Sydney: Primary English Teaching Association.
- Wiersma, W. (1995). *Research methods in education: An introduction* (Sixth edition). Boston: Allyn and Bacon.
- Willmetts, G., & Curwood, J. (2014). iLiterate: Exploring iPads, multimodality, and writing pedagogy in secondary English. In R.S. Anderson & C. Mims (Eds.), *Handbook of research on digital tools for writing instruction in K-12 settings*, (pp.

243- 258). Hershey: IGI Global.

Windschitl, M., & Sahl, K. (2002). Tracing teachers' use of technology in a laptop computer school: The interplay of teacher beliefs, social dynamics, and institutional culture. *American Educational Research Journal*, 39, 165-205.

Wing Jan, L. (2009). *Write Ways. Modelling Writing Forms* (3rd ed.). Australia: Oxford University Press.

Wolcott, H.F. (2008) *Ethnography: A way of seeing* (2nd ed.). United States: AltaMira Press,U.S.

Woo, M., Chu, S., Ho, A., & Li, X. (2011). Using a Wiki to scaffold primary-school students' collaborative writing. *Educational Technology & Society*, 14 (1), 43–54.

Woods, A., Comber, B., & Kervin, L. *Learning to write: A socio-material analysis of text production*. ARC Discovery DP150101240

Worton, M. and Still, J. (eds.) (1990). *Intertextuality: Theories and Practices*, New York: Manchester University Press.

Wyatt- Smith, C., & Kimber, K. (2009). Working multimodally: Challenges for assessment. *English Teaching: Practice and Critique*. 8(3), 70-90

Yin, R. K. (1989). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: SAGE Publications .

Yin, R.K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: SAGE Publications

Yokota, J., & Teale, W.H. (2014). Picture books and the digital world: Educators making informed choices. *The Reading Teacher*, 67(8), 577–585.

APPENDIX A: GLOSSARY OF KEY TERMS

Modes: In this thesis the term modes refers to the semiotic resources used for meaning making (Kress, 2003) such as written, visual and audio modes that are associated with communicative processes of reading, viewing, writing, creating, talking and listening (ACARA, 2015).

Multimodal: The valuing, knowing and utilising (Edwards-Groves, 2011) of combinations of two or more (ACARA, 2015) modes for meaning making (Kress, 2003).

Multimedia: Materials used in a combination of visual and spoken form (Mayer, 2009) that are usually communicated to an audience (ACARA, 2015).

New Literacy Studies: New Literacy Studies (NLS) is a research area that emerged in the 1980's-1990's (Gee, 1991; Street 1996) representing literacy not as an acquisition of skills but instead as a social practice. NLS recognises that multiple literacies vary in time, space and power relations (Street, 2012). In consideration of the paradigmatic shift 'new' defines a shift from an existing orthodoxy of technical and psychological development to multiple literacies that vary according to context.

New literacies: This term is used to describe the continuum between ongoing changes and literacy paradigms (Lankshear & Knobel, 2011) that continue to emerge as a result of dynamic changes to the context in which they are used. In this inquiry, technology is the predominant contextual change.

APPENDIX B: UNIVERSITY OF WOLLONGONG ETHICS APPROVAL



In reply please quote: HE13/336

13 September 2013

Ms Kylie Lipscombe
3 Coryule Place
KIAMA NSW 2533
klipscom@uow.edu.au

Dear Ms Lipscombe

Thank you for your response dated 2 September 2013 to the HREC review of the application detailed below. I am pleased to advise that the application has been approved.

Ethics Number: HE13/336
Project Title: An exploration of five (5) year five learners' reading and writing practices of digital literary texts.
Researchers: Ms Kylie Lipscombe, A/Professor Lisa Kervin, Dr Jessica Mantei
Approval Date: 12 September 2013
Expiry Date: 11 September 2014

The University of Wollongong/Illawarra Shoalhaven Local Health District Social Sciences HREC is constituted and functions in accordance with the NHMRC *National Statement on Ethical Conduct in Human Research*. The HREC has reviewed the research proposal for compliance with the *National Statement* and approval of this project is conditional upon your continuing compliance with this document.

A condition of approval by the HREC is the submission of a progress report annually and a final report on completion of your project. The progress report template is available at <http://www.uow.edu.au/research/rso/ethics/UOW009385.html>. This report must be completed, signed by the appropriate Head of School, and returned to the Research Services Office prior to the expiry date.

As evidence of continuing compliance, the Human Research Ethics Committee also requires that researchers immediately report:

- proposed changes to the protocol including changes to investigators involved
- serious or unexpected adverse effects on participants
- unforeseen events that might affect continued ethical acceptability of the project.

Please note that approvals are granted for a twelve month period. Further extension will be considered on receipt of a progress report prior to expiry date.

APPENDIX C: PRINCIPAL CONSENT FORM

Research Project: An exploration of Year five learners' reading and writing practices of digital literary text.

Researcher: Kylie Lipscombe
Research Supervisors: A/Prof Lisa Kervin and Dr Jessica Mantei

This information sheet gives details about a research project that a PhD student from the University of Wollongong, Mrs Kylie Lipscombe would like to carry out in a Year five classroom at your school during Term 4. Kylie is a trained primary teacher and former assistant principal who has worked in the education system for 15 years. She is currently a Literacy and Language lecturer at the University of Wollongong and is completing her PhD. Kylie intends to explore the ways that Year 5 children use iPads to read and create digital stories.

Who is involved?

One Year 5 teacher and five (5) Year 5 students are invited to participate in this research study. The study is interested in exploring the literacy practices of Year 5 students who are competent readers and writers and confident users of technology. Classroom literacy assessment data and teacher recommendations would inform the selection of children.

What will the participants do?

The Year 5 teacher will be invited to participate in a semi-structured interview at the beginning of the study. Questions will focus on the teacher's pedagogical practices in reading and writing digital texts over the past 10 months. The teacher will also be invited to view two selected texts that have been recommended by the Board of Studies for Year 5 students and asked to provide any insights and predictions that these two texts will provide for the five selected student participants. Examples of the questions/prompts the teacher may be asked include:

- Can you tell me about the way you have integrated iPads into the literacy program this year?
- How do the students in your class participate in digital reading and writing?
- What are your thoughts about the level of text and the participants ability to read them?

Following, six (5) Year 5 children will be interviewed about their experiences and interests of reading and writing using the iPad and other associated technologies. During the normal reading time in the classroom the five selected children will then be invited to work with the researcher to read two digital stories independently that have been recommended as suitable texts for Year 5 students by the NSW Board of Studies. Whilst reading, students can share their thoughts about the text with the researcher. After reading the two stories, children will also be invited to answer some further questions about the text. Examples of the questions/prompts the students may be asked include:

- Tell me a little about the stories you read.
- Can you tell me a little about the iPads you use in school?
- Do you prefer to read stories using your iPad or in a book?
- What do you think the story was about?
- How do you think the story was created?

Next children will be invited to create their own digital literary text using their iPad. It is anticipated that these digital writing experiences will take place during the normal writing time in the classroom, or a time determine by the teacher. After completion, students will have the opportunity to share and celebrate their digital literary text with the rest of the class. The children's stories will be recorded and taken home to share with parents.

What will the researcher do?

The researcher will meet with the teacher for two 15 minute interviews, one at the beginning and one at the end of the data collection period at a time appropriate for the teacher. The researcher will also work with the six selected student participants for a period of approximately 15 sessions each. It is anticipated that the duration of each session will be approx. 20-40 minutes during the normal literacy learning time. While working with the student participants, there are no expectations on the classroom teacher other than

to have the researcher work in or near the classroom. The researcher will collect the following information (data) from the participants:

- Results from the interviews with the teacher
- Results from the interviews with students before and after the reading
- Recordings of conversations that the students have as they read and write the digital stories
- A recording of a sharing session in the classroom. The researchers will listen to this interview at a later date as part of their analysis
- A copy of the students' final stories and associated work samples

The data will be analysed and the findings reported in journal and conference proceedings (with care taken to protect the identity of the participants and school throughout this process though pseudonyms).

How will the participants' rights be respected?

The research is conducted under the auspices of the University of Wollongong and as such will adhere to strict ethical guidelines. For example, when reporting the findings about the ways that children read and write digital literary stories, no participants will be identified and data kept strictly confidential. Further, privacy issues will be addressed by:

- The researcher will store all data collected.
- Hard copy data will be kept in a locked filing cabinet at the University.
- Any computer files or images will be stored on a computer at the University under password protection (known only to the researcher)
- At the conclusion of the research, images, recordings and field notes will remain stored in a locked filing cabinet at the University.
- No school, student or teacher names will accompany any data used. Pseudonyms will be used during reporting and publication.

What are the benefits of participating in this study?

Having the knowledge, skills and processes to read and write digital literary text will play a significant role in our students' literary achievements in a digital age. In Australia, primary school students at every year level are expected to engage with and create digital literary text. It is critical that the education system learn about the practices that they must use to be successful users and producers of these types of text if we seek to adequately prepare our students for the reading and writing demands in a technologically progressive environment. This study seeks to break new ground in an area where there is a lack of both theory and practice of the reading and writing practices of digital literary text.

The nature of this study means that the students, the classroom teacher and the school can benefit from the research study. The students will have the opportunity to participate in digital literary reading and writing experiences that they may not have had the opportunity to do before. They may be identified as class experts in this area and will have the opportunity to share this knowledge with their peers in future classroom experiences. The teacher will be given the text analysis of the two recommended digital literary texts by the BOS, that students will be invited to read. This may inform future literacy teaching in the classroom. The school will also be given, free of charge, the iPad applications for The Fantastic Flying Books of Mr Morris Lessmore on five class iPads, the texts selected for the research.

Participation in this research is voluntary; all participants are free to withdraw from the research at any time. Refusal to participate or withdrawal of consent will not affect any relationship with the University of Wollongong. If you have any concerns about the study or would like to withdraw, you should talk to Kylie Lipscombe (02 4221 3895) or her Principal Supervisor Lisa Kervin (02 4221 3968). Concerns with the conducting of the research can be addressed to the Complaints Officer, Human Research Ethics Committee, University of Wollongong on 02 4221 4457 or via email at RSO-Ethics@uow.edu.au.

Thank you for your support in this study. I hope that you will find your school's involvement to be worthwhile and valuable as you continue your journey with the integration of Literacy and technology in your school.

Yours Sincerely

Kylie Lipscombe

PRINCIPAL CONSENT FORM

Research Project: An exploration of Year 5 learners' reading and writing practices of digital literary text.

Researcher: Kylie Lipscombe

Research Supervisors: A/Prof Lisa Kervin and Dr Jessica Mantei

PRINCIPAL CONSENT:

- I have been provided with information about this study. I know I can discuss it with the researcher and ask questions about the research and the schools participation.
- I understand the focus of the research is on the ways six Year 5 students read and write digital literary text using an iPad.
- I understand that the selected Year 5 teacher will be asked some brief questions in the form of an interview at the beginning and end of the study. They will also be invited to view the two digital literary texts that the students will be reading.
- I understand that six students from one Year 5 classroom will be involved in approximately 15 observations each. Each student will be completing two digital literary text readings and one creation of their own digital story using their iPads. Each student will be asked to think aloud and answer some questions about their digital reading and writing experiences.
- I understand that each of the six student participants in the Year 5 classroom will be invited to share their digital stories with the rest of the children in that class at the conclusion of the study.
- I understand that participation in this research is voluntary; all participants are free to withdraw in the research at any time. Refusal to participate or withdrawal of consent will not affect any relationship with the University of Wollongong.
- I understand that if I have any enquiries about the research I can contact Kylie Lipscombe (02 4221 3895) or her Principal Supervisor Lisa Kervin (02 4221 3968). If I have any complaints regarding the manner in which the research is or has been conducted, I can contact the Complaints Officer, Human Ethics Committee, University of Wollongong on 02 4221 4457.

By signing below I am indicating my consent for one Year 5 teacher and six Year 5 students to participate in the research project conducted by Kylie Lipscombe as it has been described to me. I understand that the data collected for this study will be used to describe, categorise and disseminate findings regarding the ways children read and write digital literary text.

Principals name (please print):

Principals Signature:

Date:

Faculty of Social Sciences

School of Education

University of Wollongong NSW 2522 Australia

Telephone +61 2 4221 3961 Facsimile +61 2 4221 4657

@uow.edu.au www.uow.edu.au/educ CRICOS PROVIDER No. 00102E

APPENDIX D: PARENT/STUDENT CONSENT FORM

PARENT/GUARDIAN PARTICIPANT INFORMATION SHEET

Research Project: An exploration of Year five learners' reading and writing practices of digital literary text.

Researcher: Kylie Lipscombe
Research Supervisors: A/Prof Lisa Kervin and Dr Jessica Mantei

Dear

This information sheet gives details about a research project that a PhD student from the University of Wollongong, Mrs Kylie Lipscombe would like to carry out in your child's classroom during Term 4. Kylie is a trained primary teacher and former assistant principal who has worked in the education system for 15 years. She is currently a Literacy and Language lecturer at the University of Wollongong and is completing her PhD. Kylie intends to explore the ways that Year 5 children use iPads to read and create digital stories.

Who is involved?

All of the students in XXX classroom will be involved in learning about digital stories this term. However, XXX and a small group of children from her class will only be involved in the data collection of this project. Your child is one of a group of students that XXX has chosen from her class because Patrick is one of the students in the classroom who is a capable reader and writer and is confident using technology.

What will the children do?

The researcher, Kylie Lipscombe will invite XXX to answer some questions about his experiences and interests of reading and writing using the iPad. This will be a non-threatening and casual interview that will take place in the classroom. Examples of the questions/prompts your child may be asked include:

- Tell me a little about the stories you read.
- Can you tell me a little about the iPads you use in school?
- Do you prefer to read stories using your iPad or in a book?

During the normal literacy teaching your child will then be invited to read two digital stories using their iPad. The NSW Board of Studies has recommended these digital stories as suitable texts for Year 5 students. Whilst reading, XXX will be invited to share thoughts about the text with the researcher, Kylie Lipscombe. After reading the two stories, XXX will also be invited to answer some further questions about the text. Examples of the questions your child may be asked include

1. What do you think the story was about?
2. How do you think the story was created?

All students in the class will then be invited to create a digital literary story using the iPad. During the construction of the digital story XXX may be asked to share the processes he has used with the researcher Kylie Lipscombe. Once the digital story is complete all students will be invited to share and celebrate their digital literary stories with the rest of the class. The children's stories will be recorded and brought home to share with parents/guardians.

What will the researcher do?

Kylie Lipscombe will work with the selected children one on one for approximately 15 short sessions. She will collect the following information (data) from the children:

- Results from the interview before and after the reading. This interview will be audio recorded.
- Recordings of conversations that the children have as they read and write the digital stories. This will be video recorded. The researchers will listen to this interview at a later date as part of their analysis.
- A video recording of a sharing session in the classroom. The researchers will listen to this interview at a later date as part of their analysis
- A copy of their final stories and any related work samples

All information collected will be kept confidential. The data will be analysed and the findings reported in journal and conference proceedings (with care taken to protect each child's identity throughout this process using pseudonyms).

What will the parents/guardians do?

Your consent is required before your child can participate in this study. This means you are asked to fill in the consent form and return it to XXX at the school by Thursday 10th October. There are no other expectations for parents in this study.

How will the children's rights be respected?

The research is conducted under the auspices of the University of Wollongong and as such will adhere to strict ethical guidelines. For example, when reporting the findings about the ways that children read and write digital stories, no child will be identified, participants' interests are respected and data kept strictly confidential. Further, privacy issues will be addressed by:

- The researcher will store all data collected.
- Hard copy data will be kept in a locked filing cabinet at the University.
- Any computer files or images will be stored on a computer at the University under password protection (known only to the researcher)
- At the conclusion of the research, images, recordings and field notes will remain stored in a locked filing cabinet at the University.
- No school, student or teacher names will accompany any data used.

How will this study benefit my child?

Having the knowledge and skills to read and write digital stories play a significant role in our students' literary achievements in a digital age. In Australia, primary school students at every year level as expected to read and write digital stories. This study seeks to identify what skills and knowledge students must use to achieve this.

As XXX is part of a classroom that incorporates iPads into the normal literacy instruction, there are many benefits of participating in the digital activities outlined above. Patrick will have the opportunity to extend his digital reading and writing skills one on one with a qualified teacher. XXX will also be able to publish a digital story to share with the class and take home to share with parents/guardians. XXX may learn more about himself/herself as a digital user through the reflection and observation activities. XXX will also receive a free iPad app (valued at \$5.50), which has been suggested by the Board of Studies for Year 5 students.

What you should know:

- Nothing that your child writes or shares will affect their relationship with XXX, nor will it impact their progress in Year 5.
- Your child's identity will remain confidential. In both the data analysis and when reporting the findings of the study, your child will not be individually identified.
- As noted on the Consent Form you are free to withhold consent or withdraw consent for your child to participate at any time without disadvantage.
- Participation in this research is voluntary; all participants are free to withdraw from the research at any time. Refusal to participate or withdrawal of consent will not affect any relationship with the University of Wollongong. If you have any concerns about the study or

would like to withdraw, you should talk to Kylie Lipscombe (02 4221 3895) or her Principal Supervisor Lisa Kervin (02 4221 3968). Concerns with the conducting of the research can be addressed to the Complaints Officer, Human Research Ethics Committee, University of Wollongong on 02 4221 4457 or via email at RSO-Ethics@uow.edu.au.

Thank you for taking the time to read this information sheet. Please complete the attached consent form and return to XXX by **Thursday October 10th**. I hope that you will find your child's involvement to be worthwhile and valuable as they prepare to begin for their last year of primary school.

Yours Sincerely
Kylie Lipscombe

Faculty of Social Sciences
School of Education
University of Wollongong NSW 2522 Australia
Telephone +61 2 4221 3961 Facsimile +61 2 4221 4657
@uow.edu.au www.uow.edu.au/educ CRICOS PROVIDER No. 00102E

PARENT/ GUARDIAN PARTICIPANT CONSENT FORM

Research Project: An exploration of Year five learners' reading and writing practices of digital literary text.

Researcher: Kylie Lipscombe

Research Supervisors: A/Prof Lisa Kervin and Dr Jessica Mantei

PARTICIPANT CONSENT:

- I have been provided with information about this study. I know I can discuss it with the researchers and the classroom teacher, Mrs Turner and to ask questions about the research and my child's participation.
- I understand the focus of the research is on the ways my child reads and write digital stories.
- I understand my child will participate in two brief (15 minute) interviews about their digital reading and writing practices. The researcher will conduct this interview, and it will be recorded and the researchers will listen to it as part of their data analysis.
- I understand that my child will take part in independent digital reading and writing literacy learning activities and data are collected during these activities. Included in these data will be audio-visual recordings. The researchers will listen to this recording as part of the data analysis.
- I understand that my child will produce a digital story that will be shared and published with the class. The digital stories will also be sent home.
- I understand my child's participation in this research is voluntary; I am free to withdraw my child's inclusion in the research at any time. My refusal to participate or withdrawal of consent will not affect my child's relationship with my child's teacher, the school, the researcher or the University of Wollongong.
- I understand that if I have any enquiries about the research I can contact Kylie Lipscombe (02 4221 3895). If I have any complaints regarding the manner in which the research is or has been conducted, I can contact the Complaints Officer, Human Ethics Committee, University of Wollongong on 02 4221 4457.
- I have read through the information and consent form with my child. Patrick has agreed to be part of this study. Please invite your child to sign below.

By signing below I am indicating my consent for my child to participate in the research project conducted by Kylie Lipscombe as it has been described to me. I understand that the data collected for this study will be used to describe, categorise and disseminate findings regarding the ways children read and write digital stories.

Child's name:

Child's signature:

Parent/Guardian's name (please print):

Parent/Guardian's Signature:

Date:

APPENDIX E: TEACHER CONSENT FORM

TEACHER INFORMATION SHEET

Research Project: An exploration of Year 5 learners' reading and writing practices of digital literary text.

Researcher: Kylie Lipscombe

Research Supervisors: A/Prof Lisa Kervin and Dr Jessica Mantei

This information sheet gives details about a research project that a PhD student from the University of Wollongong, Mrs Kylie Lipscombe would like to carry out in your Year 5 classroom during Term 4. Kylie is a trained primary teacher and former assistant principal who has worked in the education system for 15 years. She is currently a Literacy and Language lecturer at the University of Wollongong and is completing her PhD. Kylie intends to explore the ways that Year 5 children in this classroom use iPads to read and create digital literary text.

Who is involved?

One Year 5 teacher and six (6) Year 5 students are invited to participate in this research study. The study is interested in exploring the literacy practices of Year 5 students who are competent readers and writers and confident users of technology. Classroom literacy assessment data and teacher recommendations would inform the selection of children.

What will the participants do?

As the Year five teacher, you will be invited to participate in a semi-structured interview at the beginning of the study. Questions will focus on your pedagogical practices in reading and writing digital texts over the year. You will also be invited to view two selected texts recommended by the Board of Studies for Year 5 students and asked to provide any insights and predictions that these two texts will provide for the five selected student participants. The answers from the interview will be used to provide background information into the observations of the six student participants in your classroom. You will also be invited to identify these six students using classroom literacy assessment data to determine students who are working at or above Stage 3 Literacy outcomes. Examples of the questions/prompts you may be asked include:

- Can you tell me about the way you have integrated iPads into the literacy program this year?
- How do the students in your class participate in digital reading and writing?
- What are your thoughts about the level of text and the participants ability to read them?

Following, six (6) Year 5 children in your class will be interviewed about their experiences and interests of reading and writing using the iPad. During the normal reading time in the classroom the five selected children will then be invited to work with the researcher to read two digital stories independently that have been recommended as suitable texts for Year 5 students by the NSW Board of Studies. Whilst reading, students can share their thoughts about the text with the researcher. After reading the two stories, children will also be invited to answer some further questions about the text. Examples of the questions/prompts the students may be asked include:

- Tell me a little about the stories you read.
- Can you tell me a little about the iPads you use in school?
- Do you prefer to read stories using your iPad or in a book?
- What do you think the story was about?
- How do you think the story was created?

Next children will be invited to create their own digital literary story using their iPad. These digital writing experiences will take place during the normal literacy teaching and learning time in the classroom, or at a time deemed more appropriate by you. After completion, students will have the opportunity to share and celebrate their digital stories with the rest of the class, at time deemed appropriate by you. The children's stories will be recorded and taken home to share with parents.

What will the researchers do?

The researcher will work with you for two sessions. This will include two 15 minutes interviews at the beginning and conclusion of the study, at a time that is appropriate for you. The researcher will also work with the five selected student participants for approximately 15 sessions each. It is anticipated that the duration of each session will be approx. 20-40 minutes during the normal literacy learning time. While working with the student participants, there are no expectations on the classroom teacher other than to have the researcher work in or near the classroom. The researcher will collect the following information (data) from the participants:

- Results from the interviews with you
- Results from the interviews with students before and after the reading
- Recordings of conversations that the students have as they read and write the digital stories
- A recording of a sharing session in the classroom. The researchers will listen to this interview at a later date as part of their analysis
- A copy of the students' final stories and associated work samples

The data will be analysed and the findings reported in journal and conference proceedings (with care taken to protect each participants and the schools identity throughout this process using pseudonyms).

How will the participants rights be respected?

The research is conducted under the auspices of the University of Wollongong and as such will adhere to strict ethical guidelines. For example, when reporting the findings about the ways that children read and write digital stories, no participants will be identified, participants' interests are respected and data kept strictly confidential. Further, privacy issues will be addressed by:

- The researcher will store all data collected.
- Hard copy data will be kept in a locked filing cabinet at the University.
- Any computer files or images will be stored on a computer at the University under password protection (known only to the researcher)
- At the conclusion of the research, images, recordings and field notes will remain stored in a locked filing cabinet at the University.
- No school, student or teacher names will accompany any data used.

What are the benefits of participating in this study?

Having the knowledge, skills and processes to read and write digital literary text will play a significant role in our students' literary achievements in a digital age. In Australia, primary school students at every year level are expected to engage with and create digital literary text. It is critical that the education system learn about the practices that they must use to be successful users and producers of these types of text if we seek to adequately prepare our students for the reading and writing demands in a technologically progressive environment. This study seeks to break new ground in an area where there is a lack of both theory and practice of the reading and writing practices of digital literary text.

The nature of this study means that the students, the classroom teacher and the school can benefit from the research study. The students will have the opportunity to participate in digital literary reading and writing experiences that they may not have had the opportunity to do before. They may be identified as class experts in this particular area and will have the opportunity to share this knowledge with their peers in future classroom experiences. You, as the classroom teacher will be given the text analysis of the two recommended digital literary texts by the BOS, that students will be invited to read. This may inform future literacy teaching in your classroom. The school will also be given, free of charge, the iPad applications for The Fantastic Flying Books of Mr Morris Lessmore on five class iPads, the texts selected for the research.

Participation in this research is voluntary; all participants are free to withdraw from the research at any time. Refusal to participate or withdrawal of consent will not affect any relationship with the University of Wollongong. If you have any concerns about the study or would like to withdraw, you should talk to Kylie Lipscombe (02 4221 3895) or her Principal Supervisor Lisa Kerwin (02 4221 3968). Concerns with

the conducting of the research can be addressed to the Complaints Officer, Human Research Ethics Committee, University of Wollongong on 02 4221 4457 or via email at RSO-Ethics@uow.edu.au.

Thank you for your support in this study. I hope that you will find your school's involvement to be worthwhile and valuable as you continue your journey with the integration of Literacy and technology in your school.

Yours Sincerely
Kylie Lipscombe

Faculty of Social Sciences
School of Education
University of Wollongong NSW 2522 Australia
Telephone +61 2 4221 3961 Facsimile +61 2 4221 4657
@uow.edu.au www.uow.edu.au/educ CRICOS PROVIDER No. 00102E

TEACHER PARTICIPANT CONSENT FORM

Research Project: An exploration of Year five learners' reading and writing practices of digital literary text.

Researcher: Kylie Lipscombe

Research Supervisors: A/Prof Lisa Kervin and Dr Jessica Mantei

PARTICIPANT CONSENT:

- I have been provided with information about this study. I know I can discuss it with the researcher and ask questions about the research and my participation.
- I understand the focus of the research is on the ways six Year 5 students read and write digital literary text using an iPad.
- I understand that I will be asked some brief questions in the form of an interview at the beginning and end of the student observations. I will also be invited to view the two digital literary texts that the students will be reading.
- I understand that I will be asked to use class assessment data and teacher judgements to determine six (6) competent readers, writers and digital technology users in my classroom. The parents/guardians of the five selected participants will be sent home an information letter and consent form.
- I understand that six students from my classroom will be involved in approximately 15 observations each. Each student will be completing two digital literary text readings and one creation of their own digital story using their iPads. Each student will be asked to think aloud and answer some questions about their digital reading and writing experiences.
- I understand that each of the six student participants in my classroom will be invited to share their digital stories with the rest of the children in my class at the conclusion of the study.
- I understand my participation in this research is voluntary; I am free to withdraw in the research at any time. My refusal to participate or withdrawal of consent will not affect any relationship with the University of Wollongong.
- I understand that if I have any enquiries about the research I can contact Kylie Lipscombe (02 4221 3895) or her Principal Supervisor Lisa Kervin (02 4221 3968). If I have any complaints regarding the manner in which the research is or has been conducted, I can contact the Complaints Officer, Human Ethics Committee, University of Wollongong on 02 4221 4457.

By signing below I am indicating my consenting to participate in the research project conducted by Kylie Lipscombe as it has been described to me. I understand that the data collected for this study will be used to describe, categorise and disseminate findings regarding the ways children read and write digital stories.

Teachers name (please print):

Teachers Signature

APPENDIX F: AUDIT TRAIL

AUDIT TRAIL CODES								
	Researcher	Teacher	Emma	Tate	Sarah	Luke	Ben	Mischa
Artefact collection & Initial field notes	CPA1, CP2, CP3, CP4, CP5, CP6, CP7, CP8, CP9, CP10, CP11, CP12, CP13, CP14, CP15, CP16, CP17, CP18, CP19, CP20 FNO.1, FNO.2 FNO.3	TA1						
Initial interviews		POIT_Oct8	WS_E POSI_E	WS_T POSI_T	WS_S POSI_S	WA_L POSI-L	WS_B POSI_B	WS_M POSI_M
Deconstruction of digital literary text			SCR_E-Mimis AVR_E_Mimis TAP_E_Mimis SCR_E- Lessmore AVR_ E_Lessmore	SCR_T-Mimis AVR_T_Mimis TAP_T_Mimis SCR_T- Lessmore AVR_ T_Lessmore	SCR_S-Mimis AVR_S_Mimis TAP_S_Mimis SCR_S- Lessmore AVR_ S_Lessmore	SCR_L-Mimis AVR_L_Mimis TAP_L_Mimis SCR_L- Lessmore AVR_ L_Lessmore	SCR_B-Mimis AVR_B_Mimis TAP_B_Mimis SCR_B- Lessmore AVR_ B_Lessmore	SCR_M-Mimis AVR_M_Mimis TAP_M_Mimis SCR_M- Lessmore AVR_ M_Lessmore
Construction of digital literary text	AVW1, AVW2 AVW3, AVW4 AVW5, AVW6 AVW7, AVW8 AVW9, AVW10 AVW11, AVW12 AVW13, AVW14 FN1, FN2, FN3 FN4, FN5, FN6 FN7, FN8, FN9 FN10, FN11, FN12, FN12, FN14	ATI	AC_E SS1_E, SS2_E, SS3_E, SS4_E, SS5_E, SS6_E, SS7_E, SS8_E, SS9_E, SS10_E, SS11_E, SS12_E, SS13_E, SS14_E, SS15_E, ASI_E WS_E	AC_T SS1_T, SS2_T, SS3_T, SS4_T, SS5_T, SS6_T, SS7_T, SS8_T, SS9_T, SS10_T, SS11_T, SS12_T, SS13_T, SS14_T, ASI_T WS_T	AC_S SS1_S, SS2_S, SS3_S, SS4_S, SS5_S, SS6_S, SS7_S, SS8_S, ASI_S WS_S	AC_L SS1_L, SS2_L, SS3_L, SS4_L, SS5_L, SS6_L, SS7_L, SS8_L, SS9_L, SS10_L, SS11_L, SS12_L, SS13_L, SS14_L, ASI_L, WS_L	AC_B SS1_B, SS2_B, SS3_B, SS4_B, SS5_B, SS6_B, SS7_B, SS8_B, SS9_B, SS10_B, SS11_B, SS12_B, SS13_B, SS14_B, SS15_B, SS16_B ASI_B, WS_B	AC_M SS1_M, SS2_M, SS3_M, SS4_M, SS5_M, SS6_M, SS7_M, SS8_M, SS9_M, SS10_M, SS11_M, SS12_M, SS13_M, ASI_M, WS_M
Post interviews		PPIT	PPIS_E	PPIS_T	PPIS_S	PPIS_L	PPIS_B	PPIS_M

KEY			
Code	Activity	Code	Activity
CPA	Classroom photo artefact	FN	Field notes
POIT	Initial teacher semi-structured Interview	SS	Screen shots sent from students writing
POSI	Initial student semi-structured interview	TAP	Think aloud protocol responses
PPIT	Post observation teacher semi-structured interview	AFT-	Final text artefact
WS	Work sample collected during inquiry	SCR	Camtasia screen capturing software observation of students deconstruction
TA	Teacher program artefact	SCW	Camtasia screen capturing software observation of students construction
SR	School report artefact	AVR	Audio-visual recording of Reading
N	NAPLAN report artefact	AVW	Audio-visual recording of writing
PPIS	Post observation student semi-structured interview		

APPENDIX G: INTERVIEW SCHEDULE

Research sequence	Participants' names (pseudonym)	Information collected during interview	Interview dates
Exploring the classroom context	Mrs Madden	Initial teacher interview- collects background information about each child participants' prior learning with digital literary text.	October 4
Exploring the past literacy experiences of the six child participants	Ben	Initial child interview- captures each child participants' perceptions of themselves as viewers and authors of digital literary text as well as their preferences and attitudes to technology and literacy.	October 10
	Emma		October 10
	Luke		October 11
	Mischa		October 11
	Sarah		October 10
	Tate		October 10
Reflecting on digital literary text construction: child perspective	Ben	Final child (Post observation) interview- reflect on their experiences as they viewed and created digital literary text and add any additional insights to their reading and writing practices of digital literary text.	November 27
	Emma		November 26
	Luke		November 27
	Mischa		November 27
	Sarah		November 27
	Tate		November 27
Reflecting on digital literary text: teacher perspective	Mrs. Madden	Final teacher (Post observation) interview- reflect on the reading and writing practices of the child participants.	November 29

APPENDIX H: TEACHER INITIAL OBSERVATION INTERVIEW

Initial semi-structured interview with teacher

Following are the types of questions that were asked in the semi-structured interview with the teacher.

Script: Thank you for agreeing to be part of this research project. I am really excited to be working with you and your students. Before I begin working with the five students, I would like to ask you some questions about the students digital reading and writing practices in your classroom this year. Is that ok with you? Please remember that anything you say is confidential. Your identity will not be publicised during or after this study. Do you mind if I record our conversation so I can listen back to it later for analysis? If consent, turn on the recorder, if not, start taking notes.

1. Can you tell me about the way you have integrated iPads into the literacy program this year?
 - a. What have you found particularly effective?
 - b. What have you found challenging?
2. How do the students in your class participate in digital reading?
 - a. What types of digital text have they read?
 - b. What specific digital *literary* texts have they read?
 - c. How do they read the digital literary text? i.e. independent, small group, whole class
 - d. What specific skills and strategies have you taught them about digital reading?
3. How do the students in your class participate in digital writing or creating?
 - a. What types of digital literary writing experiences have they participated in?
 - b. What specific skills and strategies have you taught them about digital literary writing?
4. What have you noticed about the differences and similarities between print based reading and digital reading of literary text?
 - a. What about digital and print based literary writing?
5. When considering the five selected student participants for this study, what do you predict they will know about digital literary reading?
 - a. What do you think they will know about digital literary writing?
 - b. Do you predict any challenges they may have?
6. Can you tell me anything specific about each of the participants reading and writing practices of literary texts that you have observed or identified in the classroom?

Script: I have chosen two digital literary texts that I am going to invite the five participants to read. I would like to show you both of the texts and ask for any predictions or insights you may have in regards to how the participants may respond to them.

7. What are your thoughts about the level of text and the participants ability to read them?
 - a. What do you predict may be easy for the students?
 - b. What do you predict may prove challenging for the students?

APPENDIX I: TEACHER POST-OBSERVATION INTERVIEW

Post-observation semi-structured interview with teacher

Following are the types of questions that were asked of the teacher after the student observations.

Script: Thank you for allowing me to work in your classroom over the past few weeks. It has been a pleasure to work with you and your students. To conclude this project I would like to ask you a few questions about the students digital reading and writing practices throughout the project. Is that ok?

1. After listening to the students share their reading reflections and digital literary texts, what did you notice about the digital literary reading and writing practices?
 - a. Where there any surprises?
2. Did the digital literary texts that the students produced match your expectations of them as writers?
 - a. Do they reading reflections match your expectations of them as readers?
3. Was there any information that the students reflected on that you believe is inaccurate?
 - a. If so, why do you think that is?
4. Is there anything that you observed throughout this study that has helped you as a teacher use digital literary text in the classroom?
5. What do you believe are the greatest challenges of reading and writing digital literary texts for Year 5 students?
 - a. What do you believe are the greatest challenges of reading and writing digital literary texts when teaching Year 5 students?
6. What advice would you offer primary teachers when planning and programming for the inclusion of digital reading and writing of literary texts in their own classrooms?

APPENDIX J: INITIAL INTERVIEW WITH CHILD

Initial semi-structured Interview with children

Following are the types of questions that will be used in the semi-structured interview before students have read and viewed their own reading via video recording in observations 1 & 2.

Script: I am a primary teacher just like your teacher _____. I work at the University of Wollongong. At the moment I am working on finding out more about how year five students are reading and writing digital stories.

Your teacher thought that you would be a good person to show me what you know about digital reading and writing. Would you be interested in helping me out?

Please remember that anything you say is confidential, which means I won't tell anyone else that it was you who said something unless the information has a direct impact on your safety. Do you understand what I mean?

I have a few questions to ask you first. Do I have your permission to record our conversation so I can listen to it later, please?

1. Tell me a little about the stories you read.
 - a. What types of stories are you interested in
 - b. What do you find hard about reading
 - c. What do you find easy about reading
 2. How about writing and creating. Tell me about a story you have made lately
 - a. What choices did you have to make when writing it?
 - b. What did you need to consider when making decision about the words? Images?
 - c. What was hard about it?
 - d. What was easy?
 3. Can you tell me a little about the iPads you use in school?
 - a. How often do you use the iPad at school?
 - b. What do you enjoy doing most with it?
 - c. What do you find challenging with the iPad?
 4. What is your favourite story that you have read using the iPad?
 - a. What do you know about reading using an iPad?
 - b. What do you find easy when reading stories using an iPad?
 - c. What do you find difficult when reading a story using an iPad?
 5. Do you prefer to read stories using your iPad or in a book?
 - a. How do you think your reading changes when using an iPad?
 6. Do you write stories using your iPad?
 - a. If so, can you tell me about one that you created?:)
 - b. What programs do you use to write your stories using the iPad?
 - c. Do you prefer to write stories using an iPad or paper? Why
 7. What do you think are the main differences when writing a story using an iPad compared to handwriting a story on paper?
 8. Do you have an iPad or computer at home?
 - a. How often do you use the computer or iPad outside of school?
- What do you do on your iPad or computer out of school?

APPENDIX K: CHILD POST-OBSERVATION INTERVIEW

Post-observation semi-structured interview with children

Following are the types of questions that were used in the semi-structured interview after students read and viewed their own reading via video recording

1. What do you think the story was about?
 - a. How did you work that out?
 - b. Did you know anything about the topic of this story?
 - c. What do you think the author's intent of telling this story was?
2. Was there anything that surprised you about the story?
 - d. Was there anything that confused you about the story?
 - e. Did you do anything to work this out?
3. Do you think that this was a good story?
 - f. What did you think about the language used in the story?
 - g. What did you think about the structure of the story?
 - h. What did you think about the pictures in the story?
 - i. What did you think about the sounds in the story?
 - j. What did you think about the games in the story?
4. How do you think the story was created?
 - k. What process do you think the author may have gone through?
5. This story was told as a film. Do you believe viewing a film is reading? Why, why not?
 - l. If the same story were told in a printed book, would you have read it differently? How?
6. Do you think what you know about reading is important to understanding this text? Why?
7. When reading *The Fantastic Flying Books of Mr Morris Lessmore*, did you notice that you read it in a similar way to *Dust echoes*?
 - m. Did you notice some differences?

APPENDIX L: THINK ALOUD PROTOCOL

Think Aloud with children

Following are examples of the types of prompts that will be used in the THINK ALOUD.

Thank you for sharing with me your reading. I'm now going to play back the movie of you reading the text. As we watch it together I might ask you some questions about your reading. Is that ok?

- Tell me about what you were thinking when you first viewed the story?
- Why did you choose to start reading at _____
- I noticed that you chose to read section _____ first and then continued to _____. Why did you make that decision?
- Tell me what you were thinking when you _____
- I noticed that you _____. Why do you think you made that decision?
- Tell me more about how you decided to select _____
- How did you decide to _____
- I noticed that you interacted with the _____. Why did you choose to do that?
- I noticed that you were unsure of _____. What helped you to _____.

APPENDIX M: EXAMPLE FROM DECONSTRUCTION SCRIPT_ CHILD PARTICIPANT

Data Type
<p>EMMA</p> <p>Initial interview transcript- Child</p> <p>R: So tell me a little bit about the stories that you read and that's print based or on your computer or iPad.</p> <p>E: Umm they usually sort of longer and have.. normally narratives that I enjoy. I sometimes have factual texts like a true story about a life but I prefer a narrative that has a bit more..... interesting.. that's a bit more unrealistic</p> <p>R: Yeah I am a bit that same. I like narratives. What do you find hard about reading</p> <p>E: Sometimes there is words that are longer and they don't seem to make sense of the sentence or umm or even if you try to sound them out you cant get them or sometimes when you haven't read the book for a little while you forget where you are up to and what its about.</p> <p>R: I sometimes do that when I read more than one more I forget which one is which. Do you ever do that?</p> <p>E: (nods)</p> <p>R: What do find easy about reading?</p> <p>E: That you can do it practically anywhere at anytime and its just relaxing like one place you don't have to worry about the rest of whats going on.</p> <p>R: What about reading using the iPad do you ever read stories using the iPad</p> <p>E: um yes but sometime it gets confusing because with overdrive it doesn't tell you the page you are up to it just tells you the chapter s sometime I prefer to read a hard copy book</p> <p>R: what do you know about reading using an iPad. What's different, what's the same</p> <p>E: when you use your iPad like it takes a little more time to get onto it like you have to go on the app and you have to change it and like you can change the size of the writing so its easier for you and you can change like sometimes at night if you prefer it darker you can change like a moonlight setting</p> <p>R: so what do you find easy when reading stories using the iPad?</p> <p>E: that you can change the size so it will fit your eyes like if your eyes are hurting you can make it a bit bigger</p> <p>R: what do you find difficult?</p> <p>E: umm like sometimes when you get up to where you are and it goes a couple of pages forward and you cant remember where you are up to.</p> <p>R: So putting the bookmark in and knowing where you are up to can be tricky</p> <p>R: Do you prefer reading stories using the iPad or book?</p> <p>E: In a book because it's a bit easier to keep where you are up to (7.45)</p> <p>R: ok this is the last question do you have an iPad or computer at home as well?</p> <p>E: Yeah we have a computer, a laptop umm a family iPad and my parents have an iPad for work.</p>

R: You have a whole apple shop at home

R: How often do you use all your technology at home?

E: Well we use it well I use my iPad for like homework and and reading and then we use the other iPad or my brother does for games and for the Internet like umm and my parents use theirs because it has all their school stuff. Its got like their rolls

R: Are they school teachers are they?

E: yeah

R: So you would use technology every day

E: yeah

R: what do you use the iPad the most for out of school?

E: probably like if there is an app I like I would probably spend time using it.

R: Do you have any questions for me?

E: No

R: Thanks for your time.

Dust Echoes- The Mimis

Camtasia recording (A: Action, D: Dialogue by child)

D: So I would probably watch the thing first and then the things over here (1.28)

A- Clicks on video to play and then enlarges screen using drag function (1.32)

A: Views full movie including credits (1.37)

D: *What do you think?* I think the story is about like don't give up in yourself and just keep trying. You can learn from others and what they do (6.21)

A: Clicks out of movie (6.36)

A: Silently reads 'What this story means' (6.42)

D: *What are you thinking?* I understand like what they are trying to say and now that I have read it I can understand what they say in the story. And I can sort of connect to my own life, when it happens to me and like my parents and friends like help me and that they just aren't going to leave me (7.35)

A: Clicks on original story (7.51)

D: I'd look at the original story to make sure its not made up and make sure that its true and sort of see how the relationship in the original story and like how they make it different or make it easier to be understood.

A: Read original story silently and uses the scroll button the read in its entirety (9.55)

D: I think with the original story they umm it's a lot like the story they showed. The stories a bit more shorter and a bit of less detail. And like the original story goes into all the detail and all issues that happen but the movie didn't show all the series of events like it skipped one or two (10.35)

D: I might look at where the story comes from (10.05). Umm like to see if its from Australia and umm explore the people obviously before that .

A: Clicks on title 'where the story comes from'. Reads and scrolls through content. Reads map silently. Tries to continue to scroll down then releases it doesn't. Scrolls back up and appears unsure what to do next (silence) (12.05)

D: It seems like quite a large area and whether there a lot of people there is doesn't really say that. That's probably all I'll look at. (12.20)

D: Thank you. Can I just ask you a couple of questions and then we will finish up? What do you think the story was about?

Umm I think it was about umm it could be like a son and a father and the father is trying to teach some skills but the son isn't as good as the father is so the father is getting a bit umm annoyed and the son can sort of see that so the son wants to get better but he's struggling so he gets stressed. Then the mimis try to help him. So that's like the friends are trying to help him or his father is trying to help him like to see what we can do like and not like leave him in the world stranded.

D: Is there anything that surprised you in the story? Umm I was surprised like how the mimis world was upside down. Like when you went to the mimis world is was like turned around. Like it sort of meant to me that you have to look at things like the other way around. So they are looking at it the other way but then the son sees it a different way.

D: Umm anything that confused you? It confused me how the hills were moving and how the sons like umm no like the fathers hair grew.

D: And do you think it was a good story? I think it has a good message and the message can be carried to something else.

What did you think about the language in the story? I think the words were fairly strong like words that can inspire.

D: And the structure? Umm I think the structure was fairly well set out because it sort of had issues and events like a usual setting like what happened.

D: What about the pictures and images? I think sometimes the pictures were a little bit hard to understand. Because it was mainly like dark and moving really quickly and you didn't really have that much time to focus.

D: What about the sounds in the story? I think the sounds were related to what was happening. So the sounds were different. Sort of like dreamtime like what the story is.

D: And how do you think the story was created? Umm I think, like they based it on a true story. Umm I think they like sort of would have tried to umm add like more like add interest and that some of the things are a bit unrealistic. *What about the movie?* Umm I think like they probably, like some movie like are animated. I think they might have used the same sort of process but changed it up.

D: This story was told as a film. Do you think viewing a film is reading? Umm yes and no. Yes because its sort of, like sometimes it has talking so its reading but then no because its more like a movie likes it like people acting it out like than just reading a book with words.

D: So if you think about what you have learnt with reading, does what you know about reading a paper text help you read a digital text? Sometimes it does if it has words. Umm it still might like because reading teaches you to connect so if you are watching something then you connect still even though its not reading anything. You are still looking at something and connecting.

D: I told you the other day that you are going to make your own digital literary text. Are there any ideas you could use from this? Umm I could use like how it had strong message, like how it had strong message. Umm and maybe I could use like how it may not be exactly true but I could maybe base it but maybe change it up to add interest.

Think aloud responses

R: Thanks for working with me today. I wanted to play you back some of the recording of when you read The Mimis to talk to you about some of the decisions you made when reading the digital literary text. I'm interested to learn about how you read it. Is that ok?

E: Yeah

R: Now when you started the story can you remember what the first thing you did was?

E: Umm I watched the movie of it

R: Yeah the first thing you did was watch the movie. Why do you think that you made that decision?

E: Umm so then I can sort of get a feeling for what it is about and like and the I can see what they think it is about and I can interpret it my way and like get a basic outline of like what the story is like

R: Hmm ok. Next you went you went to what the story means, what do you think you did that?

E: Umm because I had my interpretation of what the story means and I wanted to see what the story means to them.

T: And what did you find out?

E: Umm I found out that what my interpretation of it was similar to what they thought of it

K: Can you remember if you found out any differences?

E: umm there's was a bit like umm it was sort of like based on a true story and it like had like some of the different features that I had.

K: oh ok great. And then you went to the original story and you skimmed over it. You told me you were looking for some key words. What do you think you did that?

E: Umm because it seemed like a lot of writing and it would a lot to take in. I thought it would be easier to just take in the key words and then try to get a basic one instead of the whole thing, trying to learn the whole thing

K: hmmm. SO what you actually did was that you watched the movie, you went to what the story means and then you went to the original story. Do you have any ideas why you read it in that order?

E: Umm I did it in the order like I watched the movie so I could see the basic outline I then read the story because I could umm like I it sort of in that order on the screen like they are trying to say that this is what I want you to see.

K: ok and that's what we do with a book don't we. We start form top to bottom and left to right.

E: yeah

K: and that's what you did here. You started at the top and then you went across form left to right. Ok the creator of this put some other thing son here that you may not have seen. First of all it had a synopsis, which gives us some information about the story. It's a little bit like a blurb in a normal book. You can download a study guided which I can imagine you could do, or a teacher. You can download some wallpaper for the computer and you have a glossary. It says what is a coroberree, find out more in the glossary. And then you have to go up here (point to glossary) to find the glossary. It tells you were the story comes from and down here also you can take a quiz or you have 'mash it up' which means you can create your own story and you also have got some information here so you can find out how the story was created. What do you think that the creator put all this information here.

E: umm because if you wanted to created a story like it you could get some ideas umm and like you could add to your knowledge about it and if like about the movie, the animation credits you could find out who did it and how they did it.

K: If you had to teach another year 5 students about the story and how to read it what do you think they need to know?

E: umm I think they need to know that they should look at what the story means umm so they can interpretive it like they can have two different ideas about it and umm they need to look at like all the things so their knowledge, like so they have all the knowledge. Maybe they should take the quiz so they can really test what they learnt and how much they remembered.

K: Ok great. That's all I really need to ask you about *Dust echoes*.

APPENDIX N: EXAMPLE FROM A CONSTRUCTION SCRIPT_ CHILD PARTICIPANT

Construction Trail

Student: Emma

Initial interview transcript- Teacher

T: Emma will work really hard at. She is a great writer. A perfectionist with her writing. It has to look right. If I said that I want six sentences it will be six sentences. So if I want, you know, a true narrative, it will be a true narrative. It will be perfect in that sense. And she will be very careful with colouring images to support it.

Audio-visual recordings and field notes during construction

AVW1- Absent

FN1- Absent

AVW2

R: Glossary. Do you usually have a glossary in a digital story?

T: No, only dictionaries.

E: No, only in a...

R: Or is it usually an information report?

E: Yeah.

R: Yeah, it's usually when it's factual. You can –

E: One of the books I read, it's, don't laugh, it's called The Day My Bum Went Psycho, but –

Tate: Yeah, I have it.

E: But it's got, um, it has a glossary at the end because it made up different words and stuff.

...

R: It doesn't matter, you exactly right, and I'm going to show you an example of one in a minute. So you can have basic drawings, yep, what else? More ideas from people? Emma?

E: You can make, you could research like, and get some basic sounds that add to, like, your story.

...

R: Yeah, the problem of the story. And why do we have a problem in a story?

E: To make it interesting.

R: yeah, to make it interesting.

...

R: What sorts of decisions do we have to make with characters?

E: What they look like.

Screen shots



SS1_E



SS2_E



FN2

Searching Storybird

Looking up images from Google to capture mood of story

AVW3

Ben sharing his planned story...

Emma (asks Ben): You said about the characters but how are they going to act and like, what are they going to look like?

R: And how are you going to make the characters?

Ben: Um, I saw a picture off story bird that's got five people sitting under a tree, and I'm probably going to use them.

R: So I'm wondering if you've got five, with this story bird if you've got an image, I wonder if you can think of an app where you can actually cut out each of the characters, because there will be times –

E: Explain everything or puppet pals

Tate sharing his planned story

E: How will the story be told, like with words or narration?

Sarah sharing her story

R: Yeah. Some programs I think you can have a sound button and you can click it on and you can start reading, and click it off.

E: There's sometimes in settings there's music switches and you can have it on or off.

R: Yep, other questions?

E: Um, who's perspective do you need to think about when writing the story?

R: Okay, so that's why he's getting bullied at the start. Alright, I'll stop you there. Thank you. Alright, who's going next?

E: I will.

Emma sharing her story...

R: Alright. And to... Emma. Go for it, Emma.

...

SS3_E



SS4_E

APPENDIX O: OVERVIEW OF STRUCTURED OBSERVATIONS

Structured writing observations	Description of mini lesson
Introduction to the writing task	<p>Purpose: Introduce the writing task for the digital literary text</p> <p>Activity: Together the researcher and six children discussed the task of creating a digital literary text. A list of negotiable and non-negotiable tasks was developed.</p> <p><i>Non-negotiable</i></p> <ul style="list-style-type: none"> • Mode of delivery is to be digital • Type of text is to be literary • Screen shots will be recorded and sent to researcher during the writing process • Purpose- text to be given to someone for an end of year present <p><i>Negotiable</i></p> <ul style="list-style-type: none"> • Topic/theme • Resources and tools used to create the digital text • Structure of text (film, eBook etc.) • Audience • Length <p>Following, a discussion took place on the writing process. The researcher facilitated a discussion based on the writing process where the children were asked about their experiences constructing texts. Children identified phases of planning, drafting, editing and publishing. It was decided together that the children would each create a digital writing journal initially to jot down their pre writing ideas. Children were able to choose what program they would use to do this and could choose how to utilise the writing process as they create their digital literary text.</p>
Reflective conversations on pre-writing ideas	<p>Purpose: For each child to share their pre-writing ideas with peers and identify any possible challenges so far</p> <p>Activity: Prior to the reflective conversations each child was asked to save their draft to Google Drive so they could all view the pre-writing ideas as each child shared their plans. During discussions, each child was invited to share their plans, ask for feedback or collectively problem solve on any issues.</p>
Text deconstruction with a focus on digital features	<p>Purpose: To deconstruct known digital literary texts to identify the digital features and resources required to create such features</p> <p>Activity: The researcher designed a set of images based on a range of digital literary texts that the children had viewed as part of the inquiry and in their normal classroom. Together the researcher and the students responded to two questions:</p> <ol style="list-style-type: none"> 1. What types of digital features are included in this text? <p>What resources could be used to create this digital feature</p>
Mini lesson on aligning texts form with writing style	<p>Purpose: Identify the relationship between text type (literary), audience, purpose and digital format</p>

	<p>Activity: The researcher designed a short mini lesson based around four key terms: Text type, audience, purpose and format. Using the example of <i>The Fantastic Flying Books of Mr Morris Lessmore</i>, the children identified the text type (literary), audience (children and adults), purpose (entertain) and format (interactive story app). Children discussed the relationship between each of these categories and the deliberate decisions the author may have made when creating the digital literary text.</p>
Authors Chair with peers	<p>Purpose: To share and receive feedback on writing from researcher and peers</p> <p>Activity: As children began to complete their drafts they were invited to participate in an Author's Chair. Each child saved their draft to Google drive so all children could access each-other drafts. Each child then proceeded to share a summary of their draft to peers discussing story ideas and planned digital resources.</p>
Visiting IT consultant	<p>Purpose: To provide technical support to children during the publishing stage of the writing process</p> <p>Activity: During independent writing time the researcher identified that some children were finding it difficult to choose a digital platform to publish their text. An IT education consultant was invited to work with any child who requested support.</p>

APPENDIX P: CODING SCHEME

CODE	SUB-THEMES		
Writing Process (WP)	Talking about ideas Character development Identify series of events Identifying setting Editing images Placement of text Imaging searching on Google Image saving Re-reading Conferencing with teacher Recording audio Researching examples of digital text online Researching resources to use to create text online Searching for templates as text format Scrolling through affordances of chosen software Fixing up spelling mistakes	Rewriting sentences Deleting words and sentences Reading aloud to peers Asking for feedback from peers Asking for help from researcher Re-reading planning ideas in notebook Inserting images Working on text at home Conferencing with researcher Uploading to publishing platform Fixing up suggestions from conference Designing headings Modifying/editing images Cutting and pasting draft to publishing platform Retyping draft into publishing platform Talking aloud ideas	Designing moving image by inserting and editing still images Using 'video effects' to design movie Searching songs on the Internet Searching songs in playlist on iPad Searching apps on iPad Giving feedback to peers Inserting captions under images Designing interactive features from software template Designing acknowledgments Conferring with IT consultant Exploring font sizes and colour Inserting punctuation Drawing images on iPad
Modes for communication (MC)	Extended written text Still images saved from Internet Designed moving image from still images from the Internet (so sound) Designed moving image from still images from the Internet with sound Still image saved from the Internet with additional drawn elements	Sound button of oral narration Sound button of music saved from Internet Sound button of music saved from iPad Cropped still images saved from Internet Close ups used in moving images Oral language used to reinforce written text Oral language used to add additional meaning to written text	Sound button of sound effect recorded Still image saved from Internet and edited for size Still image saved from the Internet and edited for colour Directions added as caption for reading pathway Visual used to reinforce written text Visual used to add additional meaning to written text
Resources (R)	Keynote app Hyperlinks of websites Animations embedded in Keynote Explain everything Book Creator iBook Author	Art Set app Reflector Google Drive Dropbox PuppetPals app iMovie app	Recorder plus HD Good Notes app Storybird website Google image

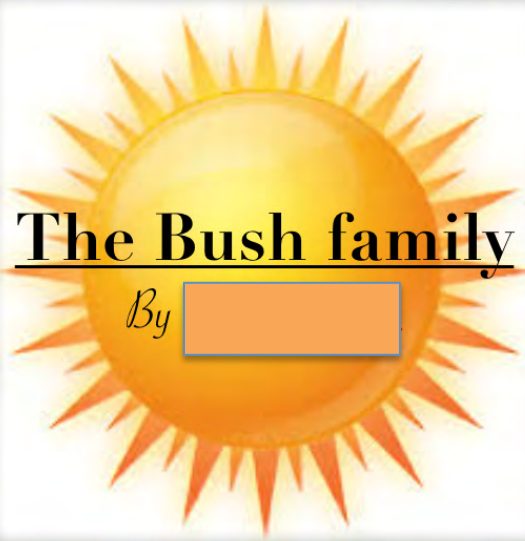
APPENDIX Q: EMMA'S CASE AS A PUBLISHED ARTICLE

Articles below removed for copyright reasons, please refer to the citation:

Lipscombe, K., Kervin, L. & Mantei, J. (2015). Examining the writing process for digital literary text construction. In J. Turbill, G. Barton & C. Brock (Eds.), Teaching Writing in Today's Classrooms: Looking back to looking forward (pp. 281-300). Norwood, Australia: Australian Literary Educators' Association.

The Bush family

By



Funny



Maths buddy!

This book is specially
dedicated to a great friend



Athletic



It's an ordinary Sunday morning for the Bush family. After eating breakfast Rose, Josephine and Billy packed their bags, with their parents help and got ready to set off to the park.



Jenny packed lunch and a spare wig. Albert packed his sun glasses and a hat, which he always wears since he thinks he's so cool. Billy secretly packed his emergency tomato sauce and bread, a soccer ball and his special purple teddy bear which had a trip out the window one morning when Billy was a bit over excited, but that's another story. Anyway the bears head is still attached so it is okay.



Josephine packed her phone in her pocket (sneaky bugger) and lastly Rose Bush packed nothing besides herself. Literally she packed herself in a bag. This may seem weird to you but it is just the Bush families daily routine.



The park is a special place for all the Bush family. Rose loves the parks name because she thinks that it's a place where she belongs. Josephine believes it's a place to chase butterflies and to find animals. Billy loves the park because one day he found a boy sitting in a tree, stealing their picnic food with a fishing rod! He roared like Katy Perry in her smash hit song "ROAR" because he stole his favourite food-the special sausage sandwich. They are now best friends and have an imaginary tree house. Mum and Dad (Jenny and Albert) love sitting under a tree which is where the Bush family has their picnic every Sunday.



It was time to head off. Jenny shouted out "time to go!" They all hurried to the car but then Albert said "no kids, today we are taking the bike". "Oh no Dad not the bike" Billy said disappointingly. But the girls liked the idea so of course they had to go.



Down the hill pedal, pedal, pedal they went. Uh oh Josephine fell off". "JOSEPHINE " screamed Jenny. "Stop pedalling everyone" Albert ordered". But Dad you just said to start pedalling!" yelled Billy.



The bush family skidded to a halt and then turned around. "JOSEPHINE where are you?" screamed Jenny. They all heard a small noise. "Over here". "Where's here?" said Billy confused. "There is a rustling noise of there" Albert explained. And then he found a pile of leaves. They all headed towards where Father Albert was pointing. There lay Josephine on the ground in a pile of leaves. Injury free luckily.



On the journey went the Bush family. "Only 5 minutes away guys" Albert said. Everyone pedalled twice as fast as they were until they reached the famous Bushington Park. They jumped off the bike then unpacked their things. Out flew lunch, wigs, clothing accessories, soccer balls, teddy bears and Rose!



They all headed towards the massive swing until they recognised it was GONE!! "WHAT" Rose said. "Look over there" Billy shouted. "There is heaps of demolition trucks!!!". They all hurriedly looked over and saw the trucks demolish the swings and then their favourite slide they used to always play on as little babies. They all tried to put the workers to a stop. They ran over to the group of men wearing reflector jackets.



Albert asked them what they were doing. They explained that they worked for the government and have been asked to get rid of this park to rebuild a brand new shopping center. "But what about the animals and nature here, what happens to them?" the bushes fought back. "Well they go with it" the boss replied. "You cannot destroy this park!" screamed Jenny. "Oh yeah, watch me". The Bushes stood in front of the truck until it got too close that the girls were scared so they ran away. "Rose, Josephine! You can't just run away from things you love" cried their parents. They both came back. The builder stopped driving forward, scared that he would get in trouble for running over someone. The Bushes stood still like statues. No one moved.



After hours of waiting for them to move the council workers decided to continue the demolition by heading to the great big tree, their favourite tree. But it was too late the Bushes beat them to it.



After an hour of protesting the council workers eventually gave up and drove away. Victory for the Bushes because they stood up for what they love. The Bushes finally could enjoy their favourite park. "Time to put my wig on and relax" Jenny said while taking a sigh of relief. They all left the scene and enjoyed the rest of their day.

Environmental links

Please visit these links to find out how to help the environment.

- <http://www.earthday.org>
- <http://www.nature.com/index.html>
- <http://www.treehugger.com>
- <http://www.nwf.org>



APPENDIX S: PRINTED COPY OF A DIFFERENT CHRISTMAS- BY EMMA

A Different Christmas



No SIM 2:50 pm 70%

SECTION 1

Introduction

Every Christmas story is different including this one. This one starts in an average family, it might be just like yours. One child and two parents. But this one child is different unlike your households. Noah Pains is the nicest kid in the town of Dorahy and unlike your family this never happens... A warning.

Rotate the tree to see the decorations



There once was a boy called Noah Pains. He is only 7 years. Noah has many friends and his parents love him.

Click on Santas Diary to hear from Santa about his day and what he thinks of Noah.



Just under a week before Christmas Noah is getting ready for his favourite time of the year. "Mum" shouted Noah, "I need to write my Christmas list, may I please?" "Ok, do you need any help?" asked mum. "Yes please, can you help me now mum?" "Ok, I will be down there in a minute, Noah."

Slide the pictures across to see different pictures of Noah preparing for Christmas



Going to get the Christmas tree.



Later that evening Noah was getting excited. "Five days to Christmas, la, la, la, la" sang Noah as he got ready for bed.



As Noah happily slept, Santa was busily getting ready for Christmas at the North Pole. The workshop was completely full, with Santa and all the short elves working to finish the presents. Noises of banging, crashing and yelling. Some classic Christmas music was playing in the background and all the elves were singing along as loud and proud as possible. You could hear the sounds of the North Pole from Australia! Santa felt like he was in Christmas Heaven! Everything was going well and everyone was having a great time getting ready for Christmas this year.

All of a sudden Chuck the head elf yelled "Christmas is coming closer guys! Let's hurry with the presents elves." As Chuck hurried over to check the machines he noticed that something wasn't working. "Ah!" screamed Chuck, "the quickest toy machine has broken down." "Oh, don't worry Chuck," yelled Santa, "there is only a few more presents to be made and we have heaps of time."

Click on Sanat's Diary to find out what Santa thought of today.



Back at Noah's house, it was Monday night also known as Christmas Eve. Noah was more excited than ever! He happily skipped around while he set out his stocking and a cookie for Santa as well as a glass of milk and a couple of carrots for the reindeer. Noah snuggled quietly with his teddy and fell asleep.



Meanwhile Santa and his elves finished packing the sleigh and were just about ready to head off to deliver the presents to all the boys and girls. "HO HO HO!" chuckled Santa before the sleigh had left. All of a sudden a scream was heard. "Ah! There are 2387 good kids on the list, but there are only 2386 presents labeled for the good kids, we are missing one!" screamed Chuck. "Where is it?" Santa demanded calmly "find out which present is missing". Chuck rushed quickly through the presents. "OH NO!" yelled Chuck, "the present missing is Noah Pains the nicest kid in Dorahy.



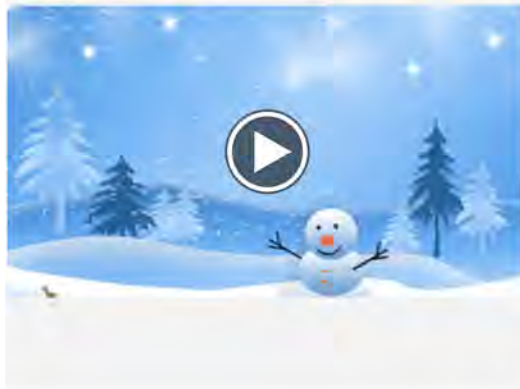
"I can't handle this any more!" shouted Chuck, "I am out, and so are the other elves!" "Wait, why" wondered Santa. "Every year a different problem happens on Christmas Eve, I am sick of it! Last night I was talking to the other elves and they agree with me. Santa pleaded for the elves to stay. finally they agreed that if everything turns out well this time then we will come back the following year.



Santa asked himself repetitively what am I going to do. He then decided to just deliver the other presents first. He rushed onto the sleigh and off he went into the night sky.

All the presents were delivered except the lost one. Santa rushed back to find the quickest machine, then remembered it had blew up. He didn't hesitate as he snatched his tools from the bench. The machine was fixed and the toys were made, wrapped and thrown in the sleigh (protective stuff were around the fragile presents) and off Santa went again.

Click on the movie and watch to see the reindeer flying.



It was Christmas morning back at Noah's house. "It's Christmas! Mum, dad wake up, it's Christmas!" chanted Noah as he danced into his parents room. As a family they sleepily stepped down the stairs interested to see what Santa gave Noah. When Noah reached his stocking he was amazed and surprised and a little bit confused. THERE WAS NOTHING IN HIS STOCKING! His parents were the same and could not work out why the nicest kid in Dorahy did not get a present.

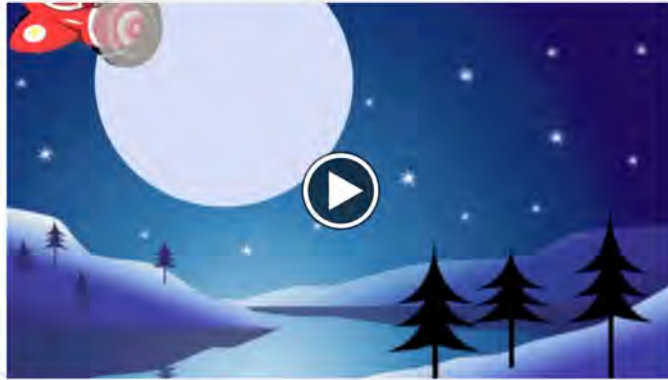


That day Noah still enjoyed being with his family but felt like he had done something wrong to get on the 'bad list'. He was truly devastated. He wasn't his usual, happy, active self this Christmas. He was trying to stay away from his cousins and friends when they were playing with their presents.

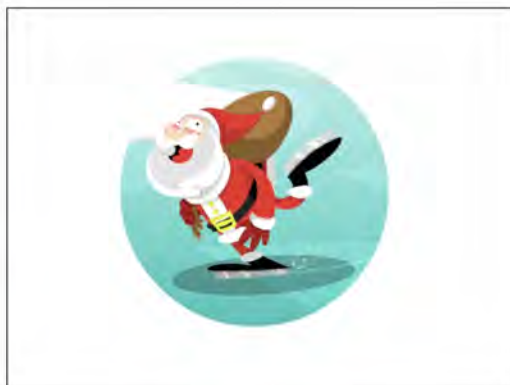


While Noah spent time with his family on Christmas Day Santa was busily trying to get the lost presents to Noah. "Ah!" Santa screamed, he was flying down a mountain and over ice with Noah's present. He realised it was too late to deliver the presents on Christmas so his next aim was the eve of Boxing Day. He left the sleigh and grabbed his flying car. He was flying 1000 kilometres per hour. Some of the presents nearly fell out.

Click on the play button to see him flying across the sky.

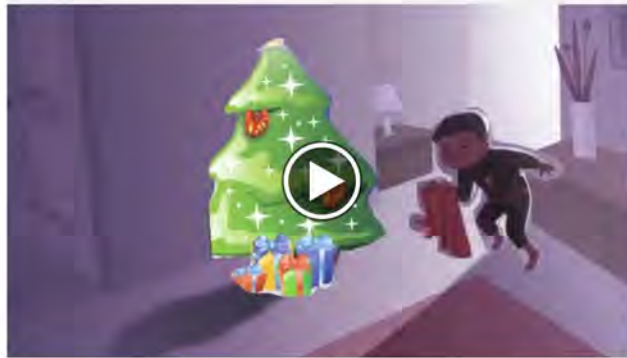


Santa was ice skating towards Noah's street and it was getting dark. He dropped his flying car at the end of the street. He was going out of control, heading straight towards the front yard of Noah's house. It was not looking good for Santa!



Inside Noah's house his mum was coaxing him to bed. "Noah, it's time to go to sleep, forget about Santa" suggested Noah's mum. Noah slowly stepped up the stairs and into his warm bed. He stayed up thinking for a while, then fell asleep. Everything was quiet..... BANG!!! Noah suddenly awoke from his restless sleep. He quietly got out of bed and snuck down stairs. What was there?

Click on the play button to see what Noah did when he heard the BANG!



As Noah reached the lounge room he was astonished to see... Santa Claus. "What, why are you here?" asked Noah. Santa replied "delivering your presents. I'm sorry they are so late". Noah was so excited to see the real Santa. After a long interesting chat (about what happened to Santa) Noah thanks Santa for the presents and in particular for never giving up. Santa gave Noah a hug and quietly snuck out of the house. Noah went back to bed and finally fell into a restful sleep.



Never Give

Up!

No SIM

3:15 pm

62%

There are links below to do with Christmas activities.

<http://www.merry-christmas.com/games/frostys-challenge>

<http://www.merry-christmas.com/santas-blog>

You can explore the web link below which is what the two above come from.

<http://www.merry-christmas.com/>

APPENDIX T: PRINTED COPY OF ESCAPING THE KIDNIPPER BY MISCHA

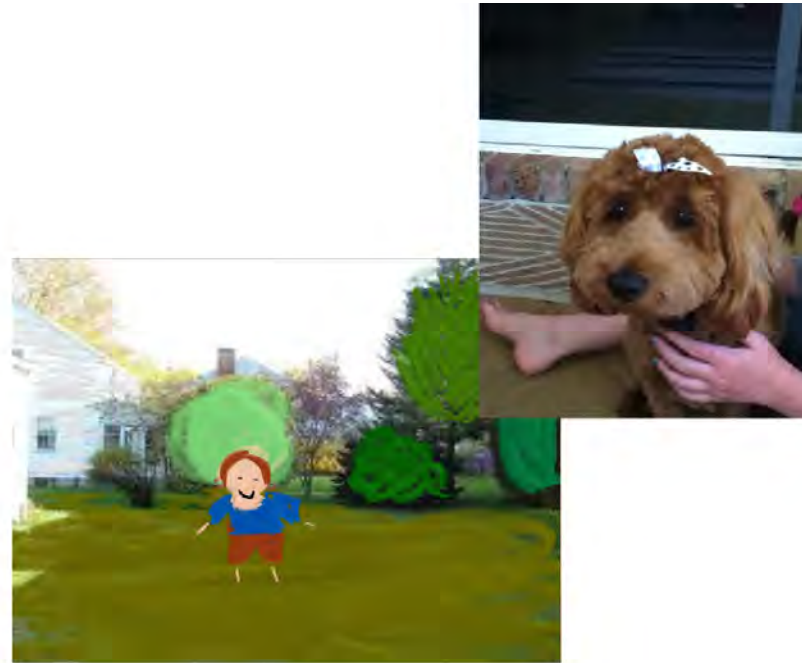
*Escaping the
kidnapper*



Ding dong, "I'll get it" said Iris to her brother Jason. She came running down the stairs as fast as she could. Iris opened the door and standing at the door was her best friend Holly and her brother Josh.

Holly and Josh are Iris's friends and they are coming for a holiday over to Iris and Jason's house.

" Let's play hide and seek" suggested Jason.



They went out side and played hide and seek Jason was 'in' first.



Click on sound button.

Jason looked and looked. He found Holly first and then he found Josh but he couldn't find Iris. He looked behind a bush not there. He looked and climbed up a tree but she wasn't there either. "I'll go get Murphy" said Jason. He ran around the back and got Murphy. Murphy sniffed around the yard. He sniffed most behind the bush that Jason looked behind earlier. "Maybe she was hiding around here" . "If she was there she is not there now" said Holly.



The three of them raced in to the house to tell their parents. They were in the kitchen talking about the fires that were happening about a month ago. "Mum, mum!" Jason yelled "we were playing hide and seek and we can't find Iris". "Have you looked everywhere?" Mum asked. "Yes" answered Jason. "Well i'll have a look myself" said mum. Jason, Holly, Josh and their parents went outside. Everyone split up to look, they even started yelling out Iris's name

Click sound button



Holly yelled with tears in her eyes. Mum started getting worried. "I will call the police" she said after an hour of looking and went inside.



While they were waiting for the police. Holly, Josh and Jason took Murphy for a walk. " It'll be okay " Josh said trembling. They knocked on the neighbours house. "Hello, it's nice to see you here. Where's Iris?" said a women named Anne. "Ohh, we were playing hide and seek and she was the last one to find but we couldn't find her so mums ringing the police. All of a sudden Anne looked worried, she had been looking after her grand daughter Emily and was frantically looking for her. It seemed she had gone missing too.



Holly, Josh and Jason went home but decided not to tell their mother that Emily was missing too because she would be very worried. They went into Jason's bedroom and sat silently for a while. "So, what are we going to do?" said Holly " We will knock on other peoples doors that we know and see if their children are missing as well" said Jason. As they walked out there were police cars parked in the drive way and their mum was bawling her eyes out. "It's going to be okay mum" said Jason. The three of them walked off and knocked on all of the neighbours that they knew. Some of their children were missing too. "Maybe they were kidnapped"suggested Holly. They went back home to discuss it together.



After they had discussed it, they all decided that they would look around for anything suspicious. "Hey, what's that over there?" asked Josh whilst pointing outside. "I have no idea" said Holly very puzzled. "Let's go over and see" said Jason. They all went over to see what it was. "It's a big hole leading to something" said Josh, "Let's go into it" said Holly and she started to climb down.



Inside was a dark room, with passages leading to other rooms and there were heaps of children inside "Hey, there's Iris" said Holly excitedly. The three of them ran over to Iris. "Hey Iris," said Jason " what ARE you doing?". Iris turned around with her eyes wide open and stared into Jason's eyes. "She looks angry" Jason whispered to Holly and Josh. The three of them backed away "she looks like she is building something" said Josh to the others. "There's Emily our next door neighbours grandchild" said Jason pointing at her "She looks like she is building something too". "Listen, I here a noise. Let's hind" said Holly. A man came down the hole with a sack. Inside made a moaning noise like what ever was in there had been gagged. "Ohh just shoosh" said the man. He then opened the sack and out came another child. Then the man pulled out a necklace, which had a gold circle on the end. He held the child tight and swung the necklace around in front of the child. "It looks like he is hypnotizing the child" said Jason.



The child then walked over and picked up an axe to start working. "That's why Iris looked a little strange" said Holly. "Hey guys, I think I know what he is doing" said Jason "he is hypnotizing children to make an underground house!". "Well how are we going to snap them out on the trance?" asked Holly " Shoosh he's coming" "Stupid children they have know idea how to work" he muttered to himself "Work faster, chop chop" he then walked into another room, there was nothing there again. "How about we clap in her face" They went over and clapped in her face but I didn't work. "How about we look around, maybe he has a way to stop the trance written down somewhere" said Jason. They then had a look around into all of the rooms. But there was nothing there.

Ten ways
to
unhypnotize
people



Inside had a cupboard. Holly opened one of the doors and inside was a book titled *10 ways to unhypnotise people*. "I think I have hit the jackpot" said Holly. The others walked over to have a look. "Yes you have Holly, well done" Josh exclaimed. Holly looked really proud. "Hey guys I think I know what to do!" said Jason. "We should get the kidnappers attention and hopefully he will chase us and try to kidnap us. and he come running after us. The police are still out the front right, so we will run out there and then he will be caught!" "That's a great idea Jason and after he has been caught by the police we can then unhypnotise all the children!" explained Josh.



They went into the room that the man went in to before. The kidnapper was sitting at a desk reading a book. Josh whistled and said "come and get us!" The man was surprised but jumped up and came running after them. "Come on guys, up the hole" said Jason. The three of them climbed up the hole with the man following. They ducked in and around the trees and down the street as their house came into view. The police were still out the front and saw the man. But the man was too focused on getting the children to realise that it was a trap. "Police, police we have found the kidnapper!" said Holly panting. As the man came nearer and nearer to the police he realised that it was a trap and that he couldn't escape because now the police knew what he looked like. "Are you sure this is him?" said one of the police officers. "Yes" said Jason. "Come and see" said Holly.



They walked back to the underground house with the man safely in the the polices arms. They climbed down the hole to see the children still working away.

Click sound button



"They have been hypnotized to do this work" said Josh to the police officer "and we know how to unhypnotize them" . They walked curiously into the room and got the book out of the cupboard. "Wow, I am impressed" said the police officer! "Now all we have to do is unhypnotize them" said Jason



After they had unhypnotized all of the children, they went home to have dinner, and the police had dinner with them too! "Because you are so great I think I will let you play in the underground house" said the police officers to the children." Yay!" they all said at once. "Thank you" said Holly "it is also great to have Iris back! And the four of them (not three!) had a group hug!

APPENDIX U: PRINTED COPY OF THE MISSING ITEMS- BY LUKE

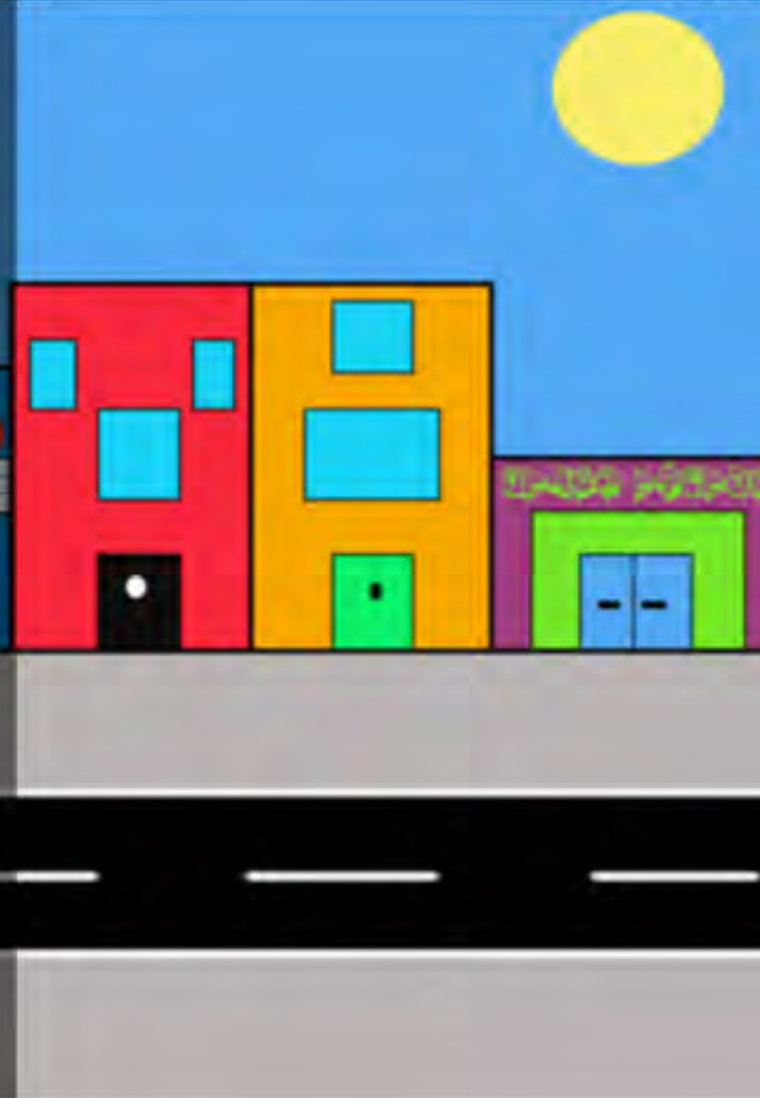


MEDIAVILLE LOONEY TOWN

Chapter 1

LOONEY TOWN

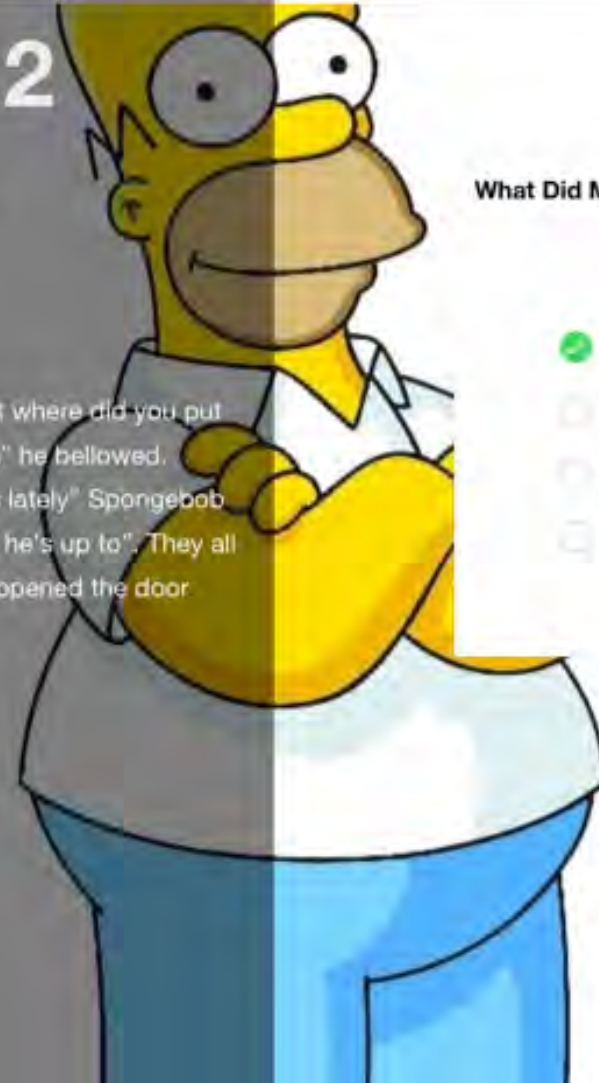
It was an ordinary day in Looney Town when Sponge Bob Square Pants woke up not to find GARY. Where was Gary the snail? Sponge Bob put his square pants on and raced down to the bottom layer of his pineapple. He opened his door and raced to Mickey Mouse's house. "Where did you put Gary the snail Mickey?" says Sponge Bob. "I didn't touch your snail. But someone kidnapped Pluto the dog too said Mickey Mouse. How dare they. It must be HOMER SIMPSON". They ran to Homers house and opened the door. "Homer what have you done with Gary and Pluto" said Sponge Bob.



CHAPTER 2

HOMERS STORY

"I haven't gone near your silly pets but where did you put my delicious donuts. I need my donuts" he bellowed. "Mario's been looking quite suspicious lately" Spongebob added. "How about we go check what he's up to". They all stormed over to Mario's house. Mario opened the door



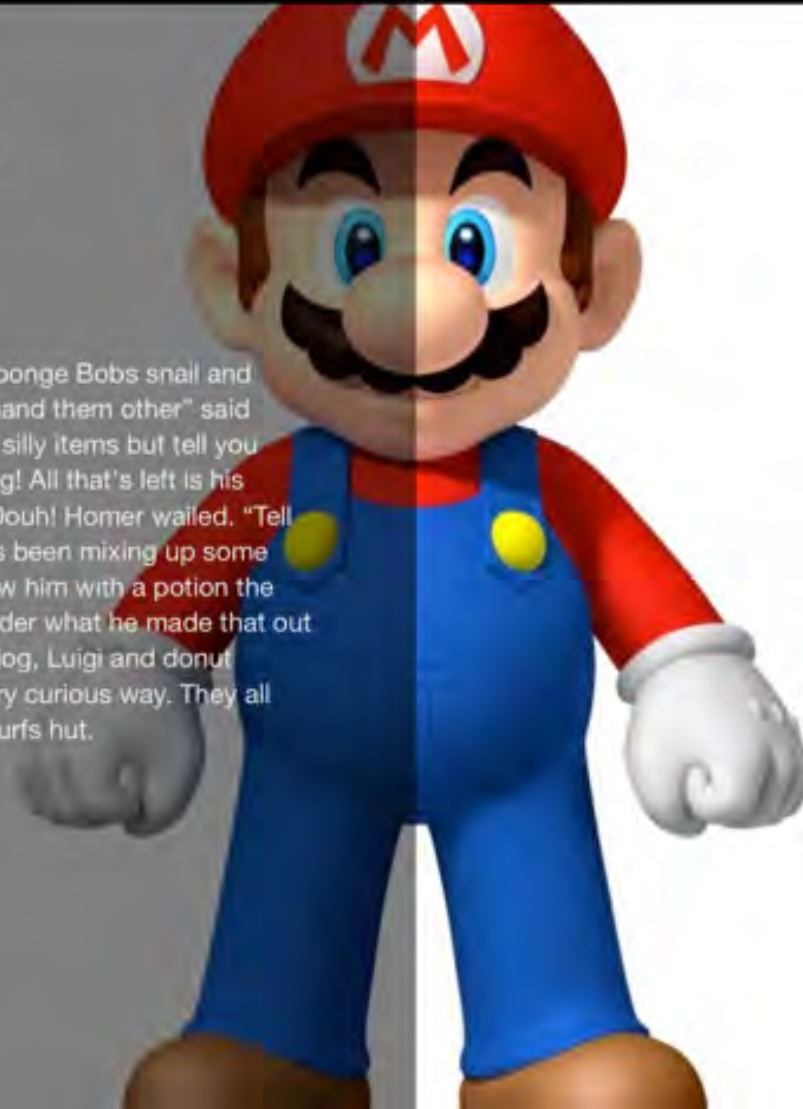
What Did Mickey Mouse Lose?

- A. Pluto the Dog
- B. Donuts
- C. His Snail
- D. All of the above

Clear Answer

Mario

"Now return my donuts Sponge Bobs snail and Mickeys dog". Come on hand them other" said Homer. "I don't have your silly items but tell you what, LUIGIS gone missing! All that's left is his shoes" explained Mario, Douh! Homer wailed. "Tell you what, Papa Smurf has been mixing up some weird potions. I mean I saw him with a potion the other day. Seriously I wonder what he made that out of. Maybe it was a snail, dog, Luigi and donut potion" Mario said in a very curious way. They all stormed over to Papa Smurfs hut.

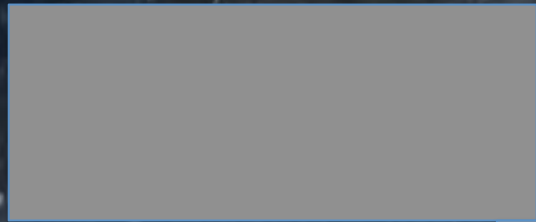


What Happened?



He lifted another bottle towards his mouth but Papa Smurf snatched the potion and layed it back on the floor. Homer was growing out of his clothes. His shirt ripped and his biceps grew and grew until he was naked except for his undies. The potion had given him super strength. He ran around the crowd shouting "I GOT SUPER POWERS"! They heard another noise from down the street. It was getting closer and closer. Then they all looked up and saw their friends Louis and Blake driving past drinking potions.

Papa Smurf thought aloud " could it be that Louis and Blake stole all our things to make these magic potions?" They all looked at each-other in astonishment. Louis and Blake are the nicest people in Looney Town. They couldn't believe it could be them. They made their way to Louis and Blake's house and scrambled through the door. They all snuck around the house looking for evidence that Blake and Louis had stolen the things to make a potion. Sponge Bob found his snail under their bed. All of a sudden Blake and Louis barged through the door. They looked at each other in confusion. After being accused of stealing the lost items, they explained that they didn't do it, they were set up. "It had to be Bowser" they said. "We saw him with the potion making machine. He must have put the snail under the bed to set us up". By now everyone was in the room and listening. No one has ever dared go to Bowsers castle. They decided that they would get a good night sleep and go there first thing in the morning.



This book is dedicated to a great friend called [redacted]
Thank you [redacted] for being a great friend from when we first
met to now. When we are a lot older you still give me great
support and friendship.

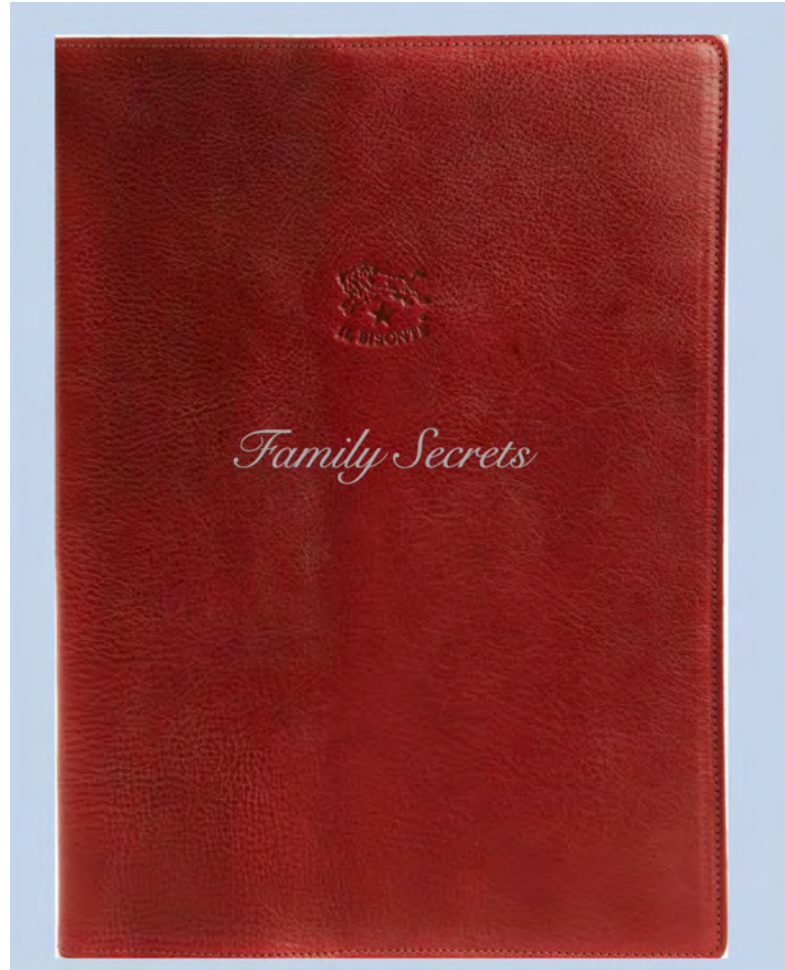
FUNNY

KIND

FRIENDLY

COOL DUDE

APPENDIX V: PRINTED COPY OF FAMILY SECRETS BY SARAH



Contents

Chapter 1- William's Orphanage...3
Chapter 2- The Escape...6
Chapter 3- John...11
Chapter 4- On The Run Again...14
Chapter 5- Friends Or Family...17
Chapter 6- Bronson...21
Chapter 7- Just Wait And Hope Will Come...27

Dedicated to
,
For being a great
sister, Merry
Christmas!

Chapter 1- William's Orphanage

SPLASH! William's head dumped in the toilet.
"Ha, moron" said Tim.

Luke, Mark and Bill sniggered. William forced his head out of the toilet and gasped for air. Mark and Luke pushed him over to the hooks and lifted him up. William looked around. He was up high on one of the toilet hooks, hanging by his underpants on the rack closest the toilet door. He sighed. Then the toilet door opened and a little girl aged 6 called Lucy ran in. "Would you like me to get you down?" she asked.

"NO" replied Will fiercely.

He squirmed but fell back to the wall. "Ok" said Lucy with a grin and she headed for the door. "Wait," said William, "can you help me".

Lucy ran back and helped him down. "Thanks" he said smiling and they walked off to dinner.

Clank! William put down his spoon and left the hall where every one was having their dinner. William always left early so Luke, Bill, Mark and Tim wouldn't catch up with him on the way back to the dormitory. William put down his glasses and pulled up his covers. He lay there for a few minutes thinking about what happened that day. Then he wondered why he always gets bullied. Is it because of his hair style, his glasses that he only wears when he is reading or because of how skinny he is? He began to get tired and rolled over thinking about his parents.

Williams parents died in a fire. He was only 6 when the accident happened. He could only remember his dad rushing him out and his mother running back inside the house to get his brother and sister. His dad put him in the car and ran back in to get them. William also remembered waiting and waiting for his family to come back and drive away but they never did.

The days past and it was now Thursday the 15th of August. William had been locked in a closet, had dirt all in his bed, had his head dumped in a toilet, hung by his underpants in the boys toilet and had just recently had his porridge poured over his head. He was fed up with it. But what was he to do. The nuns would not help and he had no friends. So he decided to do something he had never done before...



Press button after you read the paragraph and listen to the words carefully :)

Chapter 2- The Escape

It was 7:43pm. William packed his bags and headed toward the door. He glanced back to his bed and scanned for things he might have left behind. Nothing! So he set off.

He tiptoed toward the front gate leading out to the dark, windy woods. He heard a stick snap behind him, CRACK. William froze, he slowly turned to see who it was. Lucy stood there shivering. "What are you doing here?" he whispered.

"I saw you creeping out of the corridor and followed, are you running away?" Lucy questioned. "None of your business" Will replied coldly?

"Fine but I'm coming with you!" she demanded. William sighed, "fine but keep quiet".



Lucy froze all of a sudden. "What is it?" asked William with a slight shake in his voice.

"Shhhhhh!" Lucy proclaimed.

In the middle of the woods were two children standing still, listening. "This is weird" thought Will. "Shhhh" she said again but this time more loudly.

William sighed. Then something came sprinting from Williams left. Sister Norac and Sister Herman were running towards them. "Run!" Lucy yelled.

They were running for about 5 minutes. William stopped to catch his breath. "Come on!" yelled Lucy.

SNAP, BANG! "Never look back" William said, but Lucy did.

"Sister Norac tripped and knocked herself out" she announced when they finally stopped,

"Should we help her?" she queried.

"Are you crazy?" Will replied,

"Sister Herman would have stopped to help her".

"True" Lucy replied but she wasn't convinced.

Press button after you read first paragraph and listen to the words carefully :)



William was right, there was no Sister Herman chasing after them anymore so she had to have stopped. Lucy and William were walking on for ages. "Where are we going Will?" Lucy questioned for the 10th time.

"Fine I'll tell you, I don't know!" replied William truthfully.

"Well you should since this was your idea!" Lucy said coldly.

"What, my idea," yelled William, "how is this my idea, I didn't want you to come but you turned up. I sent you back but you followed! HOW IS THIS MY IDEA?" "la la la, I'm not listening" Lucy said in a childish voice which was muffled because of her crying.

William yelled so hard that Lucy began to cry. William stormed off, "Keep up" he yelled over his shoulder, but when he turned his head Lucy wasn't there.

"LUCY" Will yelled loudly, "where are you? His voice began to shake, what if he wouldn't be able to find her? Did she go back to the orphanage? These questions made Will wonder if they will be answered. He searched everywhere. 9



After hours of searching for Lucy, William reached a small town. There were bakeries, fruit and vegetable shops, clothing shops and more. William began to wander around the town, his belly rumbled at the sight of all the food. As he walked by the bakery he pulled out his hand from his pocket and quickly grabbed a loaf of bread. He shoved it in his back pack and speed walked away. Then he heard a small girl crying, he turned around with a jolt....

Chapter 3-John

"Lucy" William cried with relief.

But who was she crying into? Who was the teenager settling her down? Lucy slowly turned to face Will but looked back at the strange teenager. William ran over to her, "Im sorry Lucy," he told her softly,

"I was cold and hungry and got mad at you for no reason!"

Lucy got up and hugged him. William was startled, "So your ok now?".

Lucy nodded. Will was surprised with how fast she forgave him but was still wondering who this stranger was with Lucy. "Who are you?" He asked.

"My name is John and i am 15. I am an orphan because my parents died in a fire!"

Will looked down at his shoes. "My parents died in a fire too and I am William age 11."

Lucy glanced at John with wonder, "Isn't this weird, all our parents died in a fire?" she proclaimed.

"Lucy, fires are very common these days!" replied John but William thought what Lucy said was very strange now that he thought about it.



William pulled out the stolen loaf of bread and divided it into three. "Where did you get that from?" asked Lucy amazed.

"I stole it from the Pete's bakery" replied Will. John grinned "I've been doing that for years and they have only caught me once. They really need security!".

"Maybe we should stay here for a while." suggested William and they all agreed.

Chapter 4- On The Run Again

The sun went down below the trees as the day ended. John happened to have a stolen blanket which they used to keep warm in. It was the start of winter, christmas was coming fast. Lucy shivered and John put his arms around her as all three of them huddled in a concrete, sheltered corner. William snored late that night so Lucy had to make John sleep in the middle of them so she could get away from the noise. Eventually she drifted off into an unsettled sleep.

The sun rose and the morning dew dried leaving a toasty day for the children. William was the first to awake, he looked down at Lucy and noticed the frost in her hair and wiped it away. Lucy jumped which lead to John opening his eyes sleepily. A few minutes past from the three kids awaking. "Im hungry" Lucy quickly sobbed.

William got up and wiped his pants, he walked over to the bakery and quickly grabbed three jam tarts. "That kid stole three tarts" yelled a customer to Wills right.

"What... No I didn't" he lied.
"Go through his pockets!" said the angry customer ignoring him.
Unfortunately two police officers were near by and heard the commotion. "Run!" yelled John.
Lucy, John and William bolted out of the Main Street. John quickly grabbed loafs of bread from the bakery and meat from the butcher on the way, stuffing them into his bag and coat.

They past the bakery, butcher, fruit and vegetable shop and the town hall which lead to the edge of the town. Lucy glanced back, the police had doubled and the trees where thickening. "How far into the forest were they?" she thought.

John got out his pocket knife and cut a bunch of vines. They fell to a big clump on the forest floor and formed a wall but the police were still right behind them. William tripped and fell. "Get up, quick Will" John panted.

"I cant," Will said weakly, "I cut my leg".
John ran over and picked him up.

Lucy stopped and shouted "I can hear water ahead".

John started running with a William still in his arms. Will's leg brushed past a pine tree, he made a small cry of pain. Lucy stopped running with a jolt, she had come to a small cliff edge with a blue waterfall leading to a giant lake. The police were still running behind them, some clutching their legs from being cut by forn bushes and sharp vines.

One of the police collapsed to the ground but they were catching up. Lucy started questioning John on what to do next. "We will have to jump," he replied quietly. "Three...Two...One".....

Press button after you read the page :)



Chapter 5- Friends Or Family

SPLASH! Lucy hit the bottom of the lake and bolted up and out of the water for air. They made it. The police were looking down at them in awe. "So where next" Will asked grinning.

They swam around in the water till it started to get dark. "I'm cold" wined Lucy.

"We will have to sleep here, there are no towns anywhere" replied John maturely.

He got out some apples and gave them to Will and Lucy. All of their clothes were still wet so they hung them on a tree next to the smokey fire. They told stories the whole night and although frightened they enjoyed each-others company with laughter and happiness filling the forest?

The sun rose early the next morning behind thick, snowy clouds. It snowed late that night and there were animals all around them eating what was left of the grass.



John was already up, he was cooking sausages from the butcher on the fire. Lucy was already awake too and she was collecting wood and twigs. William got up slowly and trotted over to John. "Sausages for breakfast" John said smiling, he seemed to be in a good mood.

"Yes please" Will replied sleepily.

He sat down on a log and pulled out a picture of his parents.

John stopped suddenly and stared. "They look an awful lot like my parents" he said and he pulled out his own photo.

William moved his one next to John's and stared. "Blimey" he said with confusion.

William looked up at John, "Did you have any brothers or sisters when your parents died?" he asked slowly.

"I had a little brother and a little sister" John replied.

"I had a little sister and a big brother" William proclaimed.

John stopped and thought for a few seconds. "If William definitely is my little brother, he looks very different from when our parents died"

William got up and ran over to Lucy, "Do you happen to have any photos of your family?" he questioned.

"Yeah...why?" Lucy said as she pulled out an old photo of two healthy parents.

William was shocked. "John, come have a look at this" he called.

He came running over and asked "What is it?".

When Will stopped talking John pulled out his picture and put the other two next to his. They all matched! They were all speechless, until Lucy said "wow, you two are my long lost brothers".

She smiled cheerfully. William explained everything, including when Lucy mentioned in Carton Town how strange it was that all of their parents had died in a fire.

"I think it is time we move on from here, we have been here a while" John said after a few minutes of silence.

Lucy nodded while William was still speechless while holding his photo next to the others. Lucy picked up the food backpack and headed off. John put out the fire and handed Lucy and William a sausage. He picked up the backpack with the blanket and other supplies inside it and called "William, you coming or are you just gonna stand there until the frost bite gets you".

He grinned and walked off. William trotted behind them but then he stopped and listened. Something was running behind them, it sounded like paws sinking in the white, thick snow....

Chapter 6- Bronson

John turned around "keep up little bro".
"I thought I heard something" Will replied confused. Lucy was to Wills left and she also stopped.
"I heard it too John" she said.
"It must have been a rabbit or a squirrel" John said impatiently.
"I don't know John, it sounded pretty big" William replied slowly.
"Just keep walking and if you hear it again we will look around" John argued.
Lucy and William caught up to John and kept their ears wide open. Then the sound of sinking paws appeared again. "I can hear it again and what ever it is, it is following us" Will said annoyed.
"Fine, go look for it then" John sighed.
Lucy and Will looked behind trees and in holes.

Press button after you have finished the page :)



"Oh goody" shrieked Lucy from behind a bush,
"It's a dog. Can we keep it pleeeeaasse" she pleaded.
William looked at John who was staring at the dog with disgust. "Come on John, it's the only thing that will keep her happy" William whispered to him.
He sighed, "Fine but I'm not taking care of it", and he walked off. William was left with Lucy hugging the cute dog. He smiled.



William grabbed Lucy's hand and whistled for the dog to follow, it did. "What should we call him?"

Lucy asked excitedly.

"How about... Bronson" William replied thoughtfully.

"I like it" said Lucy.

"Keep up" yelled John from way ahead.

"He's in a bad mood" whined Will.

"I know" replied Lucy sulkily.

Bronson trotted behind them happily, with his tongue hanging out of his jaw.

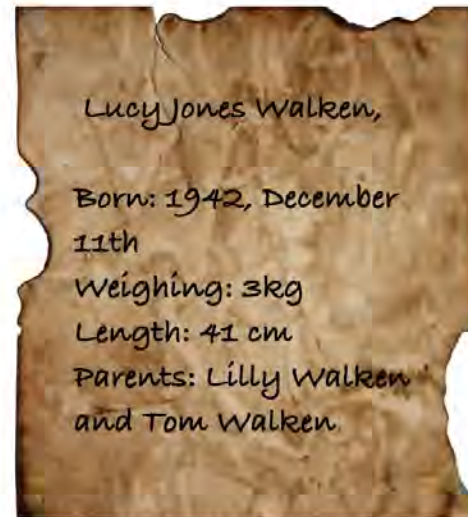
Finally the kids reached another town. "This place looks familiar" said John slowly. The town was fairly big and had lots of small cottages. Lucy bent down and picked up a penny. She shouted to John and Will "I found a penny, let's buy something special".

John nodded and they walked over to a corner shop and bought three ice creams, Bronson ate the rest of John's.

An old man walked over to them. "You look very familiar, what are your parent's names?" the old man asked the kids. "Umm.. Lilly and Tom Walkens" replied John. "I am so sorry about your loss 5 years ago, I was your neighbour" the man said softly. Lucy had tears down her face. "Can you take us to our old house?" she asked. The old man nodded and they walked off down the road.

They reached a small lane with old cottages. The man stopped and said "I'll wait out here". The kids walked to the house that their parents and themselves use to live in. They walked through the burned, black frames of the house. William bent down and picked up something covered in ash and he hugged it tight in his arms. It was a wool teddy. It had an eye hanging from his head from a single thread of string and had a leg missing from its left side.

"It was my teddy when I was 6. I dropped it when dad brought me to the car" he said. His voice went all croaky and shaky and he had a tear running down his cheek. Lucy walked over to him and put her arms around him. John was looking at something else. He was staring at a small room, the frame of the room was broken and was covered in ash. John strolled over and said softly "I was in here asleep and mum ran in and grabbed me. I ran out of the house with Lucy but the hallway cupboard fell on her and" He fell silent for a few seconds and then went into his old bedroom. SNAP! John stopped and looked down at his feet. He had stepped on a glass box which now had a big hole in the top of it. Inside was a piece of paper which had writing on it. John picked it up and read it...



Press the button after you have read the pg :)



Chapter 7 - Just Wait And Hope Will Come

William walked out of the house and off into the forest. "Where are you going Will?" John yelled. "I'm getting wood to build us a house" William yelled back.

Lucy bent down and picked up a plank of wood. She picked up another one and started a pile, so John joined in.

After about three hours William stopped collecting wood and clapped his hands together. "That'll be enough won't it?" he said.

"Yeah I think so" John replied tiredly.

Lucy strolled over. "We should start building now" she excitedly.

John groaned. William got up and walked a few steps from the burnt house and towards the forest.

"We should build here" he suggested.

John nodded and strolled over.

Over the next few weeks, Will started to build, starting with the framing and then the walls. John helped by nailing the wood together. The old man even lent them a box of nails to help because he was too old to join in with all the lifting and bending involved.

One day when it started getting dark John finally started filling in the cracks on the roof. William brought everything inside the finished house including the box that John stepped on with Lucy's birth certificate inside. Bronson strolled over to the hut and lay down on the front porch. He looked like he made the house himself because of how tired he looked.

At 8:53pm John hopped down from the roof and went inside. Lucy was already asleep but William seemed to be waiting for him. "Do you remember our old house?" He asked sleepily.

John nodded and bent down to kiss Lucy goodnight. William sat back down and thought about how awesome his future would be with John, Lucy and Bronson.

THE END!



APPENDIX W: PRINTED COPY OF TALES OF PETER WRIGHT BY TATE



Tales of Peter Wright

Once upon a time there was a king called King Hugo who ruled the kingdom of Fantasia.



Click button while you read

Fantasia was a land with millions of people in it. It was a beautiful land with water falls, vast mountains and gushing lakes that you could see from the palace walls.



Click button while you read

Long ago a boy named Peter lived in Fantasia with his younger sister Freda and their dog Tumnus. One day as Peter, Freda and Tumnus were eating their breakfast the guards came to their house and smashed down the door. "Thief" the chief guard roared and took Peter away. Tumnus and Freda were left at the house not knowing what to do.

Peter was taken to the prison. "Let go of me" he screamed. "I'm innocent." The guards laughed and walked off. From the back of the corner Peter heard a faint voice. "They won't come back lad". Peter turned to the voice and was taken back by a skinny dark figure hunched in the corner of his cell. "Who are you?" Peter asked. My name is Ronan Jefferson.



Click button while you read



Click button while you read

Ronan and Peter spent the following days cold and hungry in their cell. They soon realised that the guards of King Hugo were corrupt with more and more village people being brought into the prison for crimes they didn't commit. "What will we do" asked Ronan to Peter. I don't know Said Peter and he rolled over and went to sleep

Then all of a sudden there was a scratching sound outside of their cell. Peter was asleep but Ronan was awake until Peter heard the sound too. It sounded like a pickaxe. "Peter" said Freda in a whisper. "What are you doing here" said Peter. "Who is this" said Ronan curiously. Tumnus barked loudly until one last blow of the pickaxe. Peter and Ronan were free.



Click button while you read

The next morning the guards were confused. "How did they escape" they shrugged and walked away.



Click button while you read

Peter, Ronan, Freda and Tumnus ran as far as their legs could carry them. Eventually they found a beautiful village near the mountain side and a new kingdom called Erablour. They decided they would be happy there.



Click button while you read

A few weeks later Ronan became a ranger, Freda became a baker and Tumnus became a guard dog for the village.



Click button while you read

Peter became a hero by freeing all of the people that were captured and brought to prison in Fantasia and they all lived to end of their days.



Click button while you read




APPENDIX X: TATE'S ORIGINAL TEXT

iPad 9:28 am 93%


My Books Pages Undo Pages 2 and 3 (of 21)

Chapter one
Once upon a time there was a kingdom called Fantasia.
Fantasia was a land with over 20, 000, 000 people in mini towns like Whiterun and Riverwood.
They were ruled by King Hugo.



Now forget King Hugo this isn't a story about him, it is about a boy in Redding his name was Peter Wright.

Fantasia was a beautiful land with water falls vast mountains and you could see the lake from the palace walls.



It is a beautiful place, but the only bad thing was the dangers that come out at night.



Blood dragons public enemy number one. In these parts of the town they blow fire with there ghastly breath, they force kingdoms to crumble and all that they leave behind is an amber fire.



The skeever

They rule the sewers of Riverdale. They are rat type marsupials and only eat one thing -meat.



So let's get on with the story. Long ago there was a boy named Peter he lived with his younger sister Freda and their dog Tumnus until The guards smashed down our door and the chief guard said THIEF what I'm no thief some one gave us enough evidence you're coming with me PETER Screamed freda



Tumnus bit one of the guards he said get off Me you mutt



CHAPTER TWO THE TRIAL

Let go of me said peter
 "Get in there thieving scum"said the guard general
 "I didn't I'm innocent"
 "They won't come lad" who are you i said
 Ralof Jefferson how bout you he said
 Peter wright from redding
 Redding eh picotia what is your crime I don't know
 Peter wright and Ralof Jefferson come to receive your trial



Ralof Jefferson I heard that you were
taken in to court by stealing to pigs
and a
20 precious bits of cloth how do you
pled not guilty said Ralof
I hide behind Ralof next prisoner
Peter wright
Your majesty I didn't commit any
crime how about that potato you
stole from the
Gardener what are you talking about
sentence for both of you death no
who will take care of my sister

Now one said the king he chuckled
in an evil way Let go of me

CHAPTER THREE the execution

Ralof and I watched as 9 criminals
were hanged stoned or behead
Until they shouted my name I was
put to beheading
I said my prayers I had a stone in my
throat until a loud roar because a
blood dragon was right on the roof of
the pub and it flew down on the
executioner and he was gone Ralof
was cutting himself free until he did
and he grabbed me and war bolted
to the keep we were safe until the
dragon attacked it quickly lad get
some weapons and supplies I took
some wine pheasant beef and some
Venison and a sword and a axe to
protect myself let's get out of here.
There is a tunnel under the city the
closest town is Riverdale so let's go I
said cautiously before the building
crumbles on us



CHAPTER 4

The escape to Riverdale



Freda and Tumnus what's lad said Ralof
the are my family what about ya parents
They died in a fire I said sadly how long to
we get there be patience get down
Imperial guards probably looking for the
escaped prisoners who goes there said the
imperial guard to late for hiding time for
plan B what's that attack Ralof pulled out
his bow and hit the guard with out a sound
we made it lad now were free what is that in
the distance soul stone chose your stone
Assassin wizar warrior hmm I chose
assassin let go get Malvern and Peter get
to the blacksmith
Trade him this thing what is it a gemstone
worth 20000 pents Get new armour the
best is eleven armour

Chapter five

The first man for our brotherhood

Okay Ralof were now we are
going to malvern's house and
persuade him
To join our brotherhood of men
and elves 10 mintues later we
made it
To malvern's house knock knock
go away I don't want anymore tax
collectors
How bout old friends said Ralof
bless me soul Ralof Jefferson

