

**ADOLESCENT LITERACIES, MULTIMODAL
TEXTUAL REPERTOIRES, AND DIGITAL MEDIA:
EXPLORING SITES OF DIGITAL LITERACY
PRACTICES AND LEARNING
INSIDE AND OUTSIDE SCHOOL**

Lee Wee Lynde TAN

**B.A. (with Dip. Ed.) (Nanyang Technological University, Singapore)
M.A. (English Studies) (National University of Singapore, Singapore)**

This thesis is submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

**December 2010
Lancaster University**

ProQuest Number: 11003502

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 11003502

Published by ProQuest LLC (2018). Copyright of the Dissertation is held by the Author.

All rights reserved.

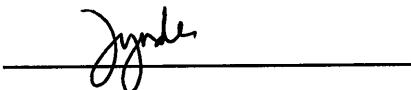
This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

DECLARATION

This thesis is my own work and has not been submitted in substantially the same form for the award of a higher degree elsewhere.

Signed by



Lee Wee Lynde Tan

*To Emmanuel whose grace abounds
in all my insufficiency*

ACKNOWLEDGEMENTS

Writing a PhD thesis is about displaying what I know, what I have done, how I have come to know what I do and why my work is different. It is never about the product but the journey and who I have become at the end of it. I have been blessed with not one but many people who have shared this journey with me.

The first group of important people I would like to thank is my supervisors whose academic works have offered me deep intellectual stimulation and inspiration. I owe them each sincere thanks. I extend my gratitude to Emeritus Professor Roz Ivanič who had guided me in ways that I needed when I was designing my research study. My deepest thanks to Dr Uta Papen who never failed to believe in me when I had much doubt about my own abilities. In the first year of my study, I had gained much by heeding her advice to think like an academic and not as a practitioner. I had learnt to question my own intuition and initial responses. Throughout my study, she challenged my thinking, sharpened my ideas, and gave me prompt and critical feedback to the drafts of drafts and the first discernible draft of my thesis. Her constructive feedback and encouragement fed my soul and enabled me to pursue my study with passion. I am indeed grateful to Uta for her confidence in my ability to put together all my ideas and arguments and had them reified into a thesis. I am indebted to Professor David Barton who saw me through the final stage of writing my thesis. It is my privilege to have his incisive reviews of my writing. From all three of them, I have learnt to write simply but not think simplistically.

Lancaster is a small but great place to think big thoughts. I have benefited from the work by the Lancaster Literacy Research Centre. On a personal basis, my thinking had undergone a conceptual change. When I was a primary school teacher and Educational Technology Officer working for the Singapore Education Ministry, I used to think of literacy as skills only. This viewpoint prevailed when I became a teacher educator in 2006.

My initial understanding of literacy was first challenged when I heard Barton and Hamilton present their paper entitled “Outside Practices: A Social Practice View of Literacy, Learners, and Educational Policies and Practices in England and the United States” at the 2007 American Educational Research Association in Chicago. I started to accept the social practice viewpoint of literacy during my brief but intensive PhD Residential in Lancaster University where I got to know more about the work by the Lancaster Literacy Research Centre. Specifically, my knowledge of their work has compelled me to reposition myself with respect to understanding literacy.

I am also thankful to Dr Jane Sunderland who had spurred the doctoral students along in ways we appreciated. I will always remember her first thought-provoking question to my cohort of doctoral students i.e. if you do not have an answer, what is your question? Many thanks to Jane for all her support.

Much gratitude is acknowledged to all the ten adolescents in my study who generously opened up their lives to me. This thesis would not have been possible without their experiences and perspectives which provided the data

for this study. I appreciate the trust that they had shown me during my study. I am also glad that the end of my study did not mark the end of our friendship.

This thesis would not have been completed without the love and support from my family. I am thankful to my husband, Samuel, who had defended me on numerous occasions when my desire to pursue a doctoral study as a working mother had raised a few eyebrows. I am grateful for his unremitting patience with me as the hours at the computer became longer and the need for solitary moments became more intensified. My children, Ryan and Shayna, had offered me blissful “distraction” away from my writing. I had been blessed by their timely hugs and bedtime prayers for “mommy to do well in her study”. In the final year of writing my thesis, the several short family getaways helped to bring enjoyment and enabled me to find the inner strength needed for completing the thesis. I am also indebted to my extended family for helping to care for my children when I had to be in Lancaster. This includes my sister, Clara, who also attended to my calls for technical help whenever needed.

It made all the difference in the world to have colleagues who understood the travail of writing a PhD thesis. I am thankful for the encouragement I received from Anitha, Beaumie, Choon Lang, Jeanne, Jennifer, Judy, Wei Ying, Wing and many others at my workplace. I am also thankful for my usual lunch group that insisted on getting me out of my office for a short but joyful departure from my writing. Additionally, I need to thank the friends I have made in Lancaster - Lydia, Pamela, Rachele and Ruby - for their friendship and the personal touch they had added to my stay in Lancaster. My acknowledgement would not be complete without

thank my best friend who came back from New York in time to cheer me on in the last lap of my PhD journey.

Finally, I would like to thank the Learning Sciences Laboratory, National Institute of Education, for providing me with the opportunity to participate in the research project “Developing Multiliteracies in the Language Arts Curriculum” (Project: R59801120) from which part of the data for this thesis was drawn. I am grateful to Associate Professor Tan Seng Chee, the Head of the Learning Sciences and Technologies Academic Group, who had supported my sponsorship application for the PhD.

ABSTRACT

Adolescent Literacies, Multimodal Textual Repertoires, and Digital Media: Exploring Sites of Digital Literacy Practices and Learning Inside and Outside School

BY

Lee Wee Lynde TAN

B.A. (with Dip. Ed.), (Nanyang Technological University, Singapore)

M.A. (English Studies), (National University of Singapore, Singapore)

Thesis submitted for the degree of Doctor of Philosophy, December 2010

Department of Linguistics and English Language, Lancaster University

In this thesis, I have argued that only when literacy is understood as a social practice and the repertoires of the students who use it considered, can a spirit of learner-centeredness be enacted in Singapore's schools. It argues that adolescents engage in multimodal textual repertoires, in and out of school, which comprise the collective assembly, production on the go, multitasking and fun. These findings lead to an important understanding that literacy practices may be best understood as a complex configuration of school and home practices which cannot be easily disaggregated into separable school and home practices. This thesis also suggests that literacy and learning are

inseparable in social practice, regardless of the sites of their occurrences. Rather than framing school and outside school as two clearly-bounded domains of literacy practices, this thesis contends that the connection between them is captured by the relationship amongst literacy demands, practices and technology affordances.

Although this thesis shows that adolescents emphasise the social affordances of digital media in their out-of-school literacy practices, it argues that their participation in these practices have enabled them to meet the demands of their school work and thus sheds light on their ways of learning, namely learning by doing and social learning. Contrary to the widely-cited view that multiliteracies are paramount in this digital age, this thesis highlights the tension in adolescents' identities in learning and suggests that traditional print-based literacy in language learning remains key to their social futures.

Drawing on the theoretical underpinnings of New Literacy Studies, this thesis adopted an ethnographic perspective to study ten 14-year-old Chinese adolescents' literacy practices in Singapore. Data for this thesis were collected over a period of eight months from participant observations, with video-and-audio recordings, conducted in a school in Singapore, semi-structured and in-depth text-elicited group and individual interviews, the adolescents' research diaries, and their artefacts from school and out-of-school literacy practices.

TABLE OF CONTENTS

DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
ABSTRACT	vii
TABLE OF CONTENTS	ix
LIST OF FIGURES	xiv
LIST OF TABLES	xvi

CHAPTER ONE: BACKGROUND AND CONTEXT OF THE LITERACY STUDY

1.1	Introduction	1
1.2	Language and Literacy Education in 21 st Century Singapore	6
1.3	The Study and the Research Questions	13
1.4	The Research Context	20
1.4.1	The Research Site	21
1.4.2	The School Multiliteracies Curriculum	22
1.4.2.1	<i>Creating Flash multimedia presentations.</i>	23
1.4.2.2	<i>Creating MediaStage productions.</i>	25
1.4.3	The Research Participants	26
1.5	Overview of the Thesis	28

PART I: WAYS OF SEEING: RESEARCHING ADOLESCENT LITERACIES

CHAPTER TWO: THEORETICAL ORIENTATION

2.1	Introduction: Theorising Adolescent Literacies in the Digital Age	31
2.2	The “New” in the New Literacy Studies (NLS)	37
2.2.1	NLS on “Shifting Ground” in the Digital Age	39
2.2.2	NLS and Learning	43
2.3	Literacy as Social Practice	47
2.4	School and Out-of-School Literacies	50

2.4.1	School Literacy Practices	51
2.4.2	Out-of-School Literacy Practices	53
2.5	Multimodal Textual Repertoires	55
2.5.1	Multimodality and Multimediality in Adolescents' Literacy Practices	58
2.5.2	Texts, Productions, and D/discourses in the Textually-Mediated World	61
2.5.3	Literacy as a Repertoire of Changing Practices	65
2.6	Digital Media and their Affordances	68
2.7	Summary	76

CHAPTER THREE:

THE QUALITATIVE INQUIRY

3.1	Introduction: The Constructivist Epistemic Stance	77
3.2	The Ethnographic Perspective of Adolescent Literacies	78
3.3	Data Collection and Selection	81
3.3.1	Participant Observations	84
3.3.2	In-Depth and Semi-Structured Interviews	88
3.3.3	The Research Participants' Artefacts	92
3.4	Analysing the Ethnographic Data	101
3.4.1	Transcription	101
3.4.2	Coding and Memo-Writing	104
3.4.3	Validity and Trustworthiness of the Study	110
3.5	Research Ethics	111
3.6	Methodological Challenges	113
3.6.1	My Shifting Position	113
3.6.2	The Researcher-and-Research Participant Relationships	116
3.6.3	The Use of Technology for Data Collection	118
3.6.4	Mitigating the Differentiation of Power	122
3.7	Summary	123

PART II: 124

THE LITERACY PRACTICE-AND-LEARNING CONNECTION

CHAPTER FOUR: THE COLLECTIVE ASSEMBLY

4.1	Introduction	125
4.2	Production in School Literacy Practices	126
4.3	Collective Assembly as Shared Authorship	133
4.3.1	Coordination of Roles in Shared Authorship	135
4.3.2	Evolving Roles in Shared Authorship	141
4.3.3	Shared Authorship as a Crunch-Time Behaviour	143
4.3.4	Shared Knowledge of Members' Capabilities in Shared Authorship	148
4.3.5	Shared Authorship Outside School	150
4.4	Collective Assembly as Remix	153
4.4.1	Remix to 'Cool Down' the Media	154
4.4.2	Remix as an Out-of-School Literacy Practice	165
4.5	Summary	168

CHAPTER FIVE: PRODUCTION ON THE GO

5.1	Introduction	169
5.2	Storyboarding: A Retrospective and Redundant Literacy Activity	170
5.2.1	Experimentation with Digital Media: An Indispensable Way of Participating in Text Production	176
5.2.2	Production Shaped by Technical Affordances	180
5.2.2.1	<i>Digital editing affords production-on-the-go practice.</i>	180
5.2.2.2	<i>Transductive work necessitated production-on-the-go practice.</i>	183
5.3	Production on the Go as an Out-of-School Literacy Practice	188
5.3.1	Writing Fan Fiction	189
5.3.2	Producing Blogs, Blog Skins and Photographs	193
5.4	Design vis-à-vis Production in Production-on-the-Go Practice	196
5.5	Summary	202

CHAPTER SIX: MULTITASKING

6.1	Introduction	204
6.2	Multitasking In and Out of School	204
6.3	Summary	214

CHAPTER SEVEN: HAVING FUN IN TEXT PRODUCTION

7.1	Introduction	216
7.2	Engagement in Off-Task Playful Talk	217
7.3	Engagement in On-Task Playful Talk	220
7.4	Fun as the Impetus for Participation in Out-of-School Literacy Practices	227
7.5	Summary	230

CHAPTER EIGHT: THE RELATIONSHIPS BETWEEN SCHOOL AND OUT-OF-SCHOOL LITERACY PRACTICES

8.1	Introduction	231
8.2	Drawing on Cultural Knowledge from School and Everyday Practices: The Experiences and Knowledge Gained through Family and Community Membership	232
8.3	Drawing on Cultural Knowledge from School and Everyday Practices: The Adolescents' Media Experiences	239
8.4	Competences from Out-of-School Literacy Practices for Schoolwork	242
8.5	The Relationship amongst School Literacy Demands, Everyday Practices and Technology Affordances in a Nexus of Practices	251
8.6	Summary	266

CHAPTER NINE: LEARNING IN LITERACY PRACTICES

9.1	Introduction	267
9.2	Learning by Doing	268
9.3	Social Learning	272
9.4	Identity and Learning	280

9.5	Emergence of a Personal Pedagogy	295
9.6	Summary	297
 CHAPTER TEN:		
CONCLUSION		
10.1	Introduction	298
10.2	The Enlightened Eye: Key Findings of the Study	299
10.3	Significance of the Study: Contribution to Theory and Practice	301
10.3.1	What does It Mean for Literacy Research?	301
10.3.2	What does It Mean for Practitioners?	302
10.4	Critique of the Study: Limitations and Possible Future Research	305
10.5	Conclusion	310
 BIBLIOGRAPHY		
APPENDIX 1		

LIST OF FIGURES

Figure 1.1	Themes for MediaStage Production	26
Figure 3.1	Types of Data Collected and Analysed	84
Figure 3.2	Participant Observations of Literacy Events	86
Figure 3.3a	Literacy Round the Clock: Mapping Out Literacy Events According to Time	95
Figure 3.3b	The 'Captain of my Life' Activity: Mapping Out Literacy Events According to Roles	96
Figure 3.3c	Pseudo Venn Diagram Representations of Students' Literacy Practices	98
Figure 3.3d	School Floor Plan Annotation	99
Figure 4.1	The Setting for School Productions	127
Figure 4.2	A Screen Capture of a Flash Multimedia Presentation	128
Figure 4.3	A Screen Capture of a MediaStage Production	129
Figure 4.4	A Screen Capture of the Storyboard for the Flash Presentation	130
Figure 4.5	A Screen Capture of the MediaStage Planning Sheet Template	131
Figure 4.6	Storyboarding Section on the MediaStage Planning Sheet Template	132
Figure 4.7	Report Requirements for the Productions	133
Figure 4.8	Drawing on School Literacy Practices for Production Choices in Remix Practice	156
Figure 4.9	'Cooling Down' the Media with Dialogues	158
Figure 4.10	'Cooling Down' the Media for Seeking Attention	159
Figure 4.11	'Cooling Down' the Media with Action Buttons	160
Figure 4.12	Remix as Plagiarism	162
Figure 4.13	Group 8's Storyboard Ideas for 'Cooling Down' the Media	163
Figure 4.14	'Cooling Down' Jay's blog	167

Figure 5.1	Similarities between the Storyboard (Left-Hand Side) and Three Screens in Group 7's Flash Presentation (Right-Hand Side)	172
Figure 5.2	Group 1's Storyboard Based on Amanda's Outline	174
Figure 5.3	Extract from Amanda's diary on Fan Fiction	189
Figure 5.4	Amanda's Notes to her Fan Fiction Readers	191
Figure 5.5	Designing Group 6's Flash Presentation	199
Figure 6.1	Multitasking using Two Computers	205
Figure 6.2	Multitasking on Brian's Computer	207
Figure 7.1	Tiffany's Blog Skins	228
Figure 8.1	Drawing on Parents' Reading/Viewing Practices	236
Figure 8.2	Drawing on Teenagers' Reading/Viewing Practices	239
Figure 8.3	Reviews of Amanda's Fan Fiction	243
Figure 8.4	Reviews from Devil Anarchist	244
Figure 9.1	Being a Futuristic School	282
Figure 9.2	Being a Successful School	282
Figure 9.3	Being a Nurturing School	283
Figure 9.4	Being High Achievers	284
Figure 9.5	Pamela's Blog should be Purple	287
Figure 9.6	Self as a Member of a Community	289

LIST OF TABLES

Table 3.1	Transcription convention for audio analysis in my thesis (Adapted from Freebody, 2003)	103
-----------	--	-----

CHAPTER ONE

BACKGROUND AND CONTEXT

OF THE LITERACY STUDY

And wherever social and economic factors are involved we know that culture is implicated; that acts as a constant reminder that while global forces are at work, local factors will also be in often equal measure
(Kress, 2007, p. 19)

1.1 Introduction

In this thesis, I repudiate the assumption that *literacy* is confined solely to the ability to acquire decontextualised, measurable cognitive skills such as reading and writing page-bound texts and that literacy learning is restricted to formal education. This was the previous stance of literacy that I upheld and am now reacting against in my study. The question of what counts as literacy and learning for adolescents drives the direction of my research within the context of language education in Singapore. Taking into account that adolescents' lives are saturated with technology, this thesis examines Singaporean Chinese students' participation in using technology in school and their everyday lives.

To inform current debates over the appropriate literacy pedagogy for the 21st century, I provide ethnographic accounts of the adolescents' ways of participating in text productions using different technologies inside and outside

school for various purposes. Insight into the multiple ways they learn while participating in these text productions are also made visible in this thesis. My work follows the lead of scholars who are keen to understand what people do with literacy in everyday lives and specifically, how adolescents negotiate the relationships between the dominant notion of literacy and learning in school and those they are developing outside school (e.g. Alvermann, 2002; Bulfin & North, 2007; Carrington & Robinson, 2009; Erstad, Gilje, Sefton-Green, & Vasbo, 2009; Gee, 2000b; Hull, 2003; Hull & Schultz, 2001; Ito et al., 2008; Lankshear & Knobel, 2003; Leander & Lewis, 2008; Rowsell, 2009; Sefton-Green, 2006).

By way of introduction, I begin by first identifying my professional and personal experience as well as theoretical perspectives to situate myself within my study. For the past fourteen years as an educator in Singapore, my work has centred on the exploration and integration of technology into classroom pedagogical practices. My work experience has led me to institute inquiries about pedagogical issues pertinent to the use of technology for literacy development. My research interests for this PhD study are a result of the confluence of my work as an educator and post-graduate student in English Studies in Singapore.

In my former study undertaken for my master's degree, I was interested in the generic structure of an electronic page as a multimodal text and how it influenced the way learners interacted with it. Baldry (2000) explains that multimodal texts are texts that "combine and integrate diverse semiotic modalities" (p. 21) and potential meanings are created when there is interplay of various semiotic modes. Based on the research for my master's degree, I

discovered the potential of a multimodal approach in offering me a vantage point from which the issues I raised could be examined. However, while it appears to me that a multimodal approach is appropriate in explicating the nature of the interaction of the semiotic modes that influence a learner's understanding of multimodal texts and the ideologies that they embody, by itself this fails to help me understand the situated nature of learning, which Kress and Jewitt in many of their works (e.g. Kress & Jewitt, 2003) advocate is multimodal in nature. While much is written about the need to recognise how the interaction of the semiotic modes on a multimodal text represent and shape knowledge, research in the field of applied linguistics (related to multimodality) remains dominated by methods of multisemiotic discourse analysis (e.g. Baldry, 2000; Royce & Bowcher, 2007). As Mills (2009) aptly points out, more work is needed to translate the theory of multimodality into literacy pedagogy for classroom instruction.

Focusing on the multiple ways of making meaning with various semiotic modes, there has been a substantial growth of research studies that seek to broaden the notion of literacy and define it in relation to semiotic modes of representation and communication beyond language (e.g. Bearne, 2003; Jewitt, 2005; Kalantzis & Cope, 2008; Kress, 2003; Lemke, 2006; Unsworth, 2001). Kress' (2003) argument is of particular note. In his book entitled "Literacy in the New Media Age," he calls for a shift away from "literacy (or 'language') as the sole, the main, let alone the major means for representation and communication" and emphasises that "[o]ther modes are there as well, and in many environments where writing occurs these other modes may be more prominent and more significant" (Kress, 2003, p. 35).

Kress and other academics from Australia, Britain and America met in New London, New Hampshire in 1994 to advocate a new approach to literacy teaching in response to the rapidly changing world. The New London Group, as they called themselves, recognises that there are multiple literacies or *multiliteracies* and their notion of multiliteracies is anchored in two central arguments:

- (a) Literacy is associated with multiple modes of representation and meaning making beyond language (such as the visual, the audio, the spatial, and the gestural modes) which they term *Design elements*.
- (b) Literacy is bound to the diverse linguistic and cultural backgrounds. (Cope & Kalantzis, 2000).

Calling for attention to be placed on the social outcomes of language and literacy learning, the New London Group (Cope & Kalantzis, 2000) proposes *the pedagogy of multiliteracies* that they claim can produce workers, citizens and community members who are able to respond to the rapidly changing working, public and private lives in a technological and globalised world. The New London Group (Cope & Kalantzis, 2000) defines the pedagogy of multiliteracies as a literacy pedagogy with four salient components which do not occur linearly or hierarchically (see Section 2.5.2 in Chapter 2 for the definitions of *Designs of meaning*):

- (a) Situated Practice: Immersion in experience and the utilisation of available Designs of meaning, including those from the students'

lifeworlds and simulations of the relationships to be found in workplaces and public spaces;

- (b) Overt Instruction: Systematic, analytic, and conscious understanding of Designs of meaning and Design processes. In the case of Multiliteracies, this requires the introduction of explicit metalanguages, which describe and interpret the Design elements of different modes of meaning;
- (c) Critical Framing: Interpreting the social and cultural context of particular Designs of meaning. This involves the students' standing back from what they are studying and viewing it critically in relation to its context;
- (d) Transformed Practice: Transfer in meaning-making practice, which puts the transformed meaning (the Redesigned) to work in other contexts or cultural sites. (p. 35)

In short, the New London Group (Cope & Kalantzis, 2000) attempts to address the cultural and linguistic diversity in various social and cultural contexts through literacy pedagogy. Gee, Hull and Lankshear (1996) emphasise that response to the changing demands of the 21st century must be dealt with by situating language, literacy and learning in the new times (a social formation that is characterised by technology and globalisation) and the local social and cultural settings where literacy is located. This means that in terms of literacy research, what counts as literacy and what literacy counts have to be answered in relation to the social, economic, political and cultural

environment it is part of (Kress, 2007; B. Street, 2003b; van Enk, Dagenais, & Toohey, 2005).

The extensive debate on the changing notions of literacy has personally created a cognitive dissonance for me and compelled me to broaden my notion of literacy which I had previously understood as a monolithic term. This repositioning requires me to critically examine the dominant ideologies of language and literacy in my own social and cultural context in Singapore which has given rise to my previous stance of literacy. In the next section, I shall present my review of the language and literacy education in Singapore to situate the notion of literacy in the context of the debates over the literacy pedagogy that is appropriate for the 21st century Singapore.

1.2 Language and Literacy Education in 21st Century Singapore

The New London Group (Cope & Kalantzis, 2000) contends that the mission of education “is to ensure that all students benefit from learning in ways that allow them to participate fully in public, community, and economic life” (p. 9). According to this view, schools are believed to be the site for designing social futures through their curriculum and literacy pedagogy. In line with this philosophy, the Singapore Ministry of Education constantly reviews its educational system and literacy pedagogies with the goal of preparing the learners for a better future. In this section, I discuss the tenor of the debates

related to language and literacy education in Singapore that are relevant to my study.

First, the Singapore Ministry of Education is keen to identify the factors that have contributed to educational success and outcomes in the literacy education enacted in Singapore's schools. Since 2002, they have called for evidence-based classroom research to inform educational policy and reform (A. Luke, Freebody, Lau, & Gopinathan, 2005a). A review of the baseline qualitative and quantitative research from 2005 to 2007 shows that the research interests have centred on student outcomes and teachers' pedagogical practices in the classrooms (Hogan et al., 2006; A. Luke et al., 2005b; McInerney & Liem, 2007). Key findings from the corpus analysis of 400 observed English lessons in 70 primary and secondary classrooms indicate that English lessons have been predominantly print-based, teacher-centred, monologic, with students' work displaying high levels of factual and procedural knowledge (ibid). While such ways of teaching and learning have been preparing the learners well for national and international examinations, there are lingering doubts that teachers have equipped their students with the knowledge or skills that their students need when they leave school (Centre of Research in Pedagogy and Practice, 2006).

Second, there is also the concern on how technology can be used in conjunction with innovative pedagogies to transform learning (Koh, Lee, & Foo, 2009; Looi, Hung, Bopry, & Koh, 2004; Ministry of Education, 2008a, 2008b; Ng, 2008). In the introductory chapter of their book, Koh and Lee (2008) reported that the Singapore government invested S\$2 billion (equivalent to £1 billion at the point of writing this chapter) in the first

masterplan and S\$470 million (equivalent to £235 million at the point of writing this chapter) in the second masterplan to integrate technology in schools with the goal of providing both teachers and students with the necessary computer and 21st century skills that engage students in their learning. The Singapore Ministry of Education is currently implementing its third masterplan with the goal of gearing students towards self-directed and collaborative learning, posited as 21st century skills, using technology (Ministry of Education, 2008c). These masterplans provide the core direction for integrating technology into various content subjects in school curriculum. In addition, baseline standards have also been set for school leaders, teachers and students to measure competency in using technology amongst these users.

Based on the provision from the Singapore Ministry of Education, the belief in using technology to enhance teaching and learning is apparently strong. Nonetheless, baseline research conducted in 51 primary and secondary schools as well as junior colleges to study the relationships amongst teachers' beliefs about knowledge and learning, their pedagogical practices, their uses of technology for teaching and learning and the school environment has suggested a gap between policies and implementation (Jacobson et al., 2010). Despite the various provisions by the Singapore Ministry of Education to promote more innovative and student-centred pedagogies using technology, the research study has reported that students' use of the computers in school was no more than twice a week (Jacobson, So, & Teo, 2007). Although teachers believed in the potential of technology in inculcating higher-order thinking skills in more authentic learning (such as analysing data collected from real world contexts), technology was

predominantly used to reinforce content-based or didactic instruction which teachers deemed more appropriate for preparing their students for the national examinations (Jacobson et al., 2007; Jacobson et al., 2010). Similarly, teachers' preference for didactic instruction was also reported by Lim (2006) in his study of technology integration in Singapore's schools.

While these two studies seem to suggest that the potentials of technology in supporting new pedagogical approaches have not been extensively harnessed by teachers, a body of learning sciences research in Singapore has reported the uses of technology in reforming pedagogies in the special issue of Educational Technology (e.g. Anderson & Chua, 2010). Although there are studies on the potentials of using technology to facilitate students' learning, the impact of technology on Singapore students' academic achievement remains unknown in a broad review of literature related to technology and literacy in Singapore.

The relationship between language, learning and the global economy has been reviewed by the Singapore Ministry of Education since 2005 in tandem with its six-year cycle of curriculum review (Ministry of Education, 2006b, 2009a, 2010c). Specifically, the Singapore Ministry of Education has placed emphasis on the need to build Singaporean students' foundational language and communicational skills, particularly oral and written communication. Alongside the review of the English curriculum, the role of technology in redefining literacy and language learning has also received the Ministry's attention (Iswaran, 2009, 2010).

While oral and written communication skills remain important and necessary, these skills are no longer sufficient; the skill of 'viewing' is now added to the traditional four language skills of reading, listening, speaking and writing in the new national English syllabus for Singapore primary and secondary schools (Ministry of Education, 2010b). In the same syllabus from the Ministry of Education (2010b), media and visual literacy are also added with the former defined as "[t]he ability to access, analyse, evaluate and create information in a variety of forms and media" (p. 128) and the latter as "[t]he ability to construct meaning from symbols and images, and to communicate through visual means" (p. 31). For the junior college students, a new syllabus is introduced in 2010 that includes the use of multimodal texts for written tasks that focus on analysing language use (e.g. students are asked to analyse a text for its lexical and syntactic features); the impact of technology on the use of the English language is also now included as a relevant area amongst many essay topics in the Advanced Level General Certificate of Education (A-Level) (Ministry of Education, 2010a).

A cross-cutting theme that has been repeatedly stressed by the Singapore Ministry of Education is the importance of gearing up the learners for the future by making sure they have the knowledge and skills necessary to uphold Singapore's competitiveness in the global economy. It can be argued that education is instrumental for producing educated and technologically skilled citizenry and a workforce that can contribute to the knowledge economy in Singapore (Gopinathan, 2007; A. Luke, et al., 2005a; Sharpe & Gopinathan, 2002). This is not surprising as Singapore is only 700 square

kilometres in land area and her people are the only key resource she relies on.

The development of literacy through English is paramount in Singapore schooling. In the national English Language Syllabus for the primary and secondary schools (Ministry of Education, 2010b), it is stated:

Singapore's transformation into a knowledge-based economy, the rapid developments in technology, the generational shift in home language and an increasing competitive international environment are some factors that make proficiency in English necessary for pupils. A proficient command of the language will enable pupils to access, process and keep abreast of information, and to engage with the wider and more diverse communities outside of Singapore. (p. 6)

English remains as the most important language in Singapore schooling. Its status as a global lingua franca makes it a form of capital, necessary if one is to gain competence in the economic and social fields (Gupta, 2008; A. Luke, 2004; Pakir, 2008). Its hegemonic force on Singaporean students is so great that it has been claimed to have the power to "alter lives, to extend and shape their dreams, to think with the language" (Gopinathan, as cited in Cheah, 2002, p. 77).

As a result of being a former British Crown Colony, Singapore today has an immigrant population consisting of 77% Chinese, 14% Malay and 7% Indian (Pakir, 2008). Although the four official languages in Singapore are English, Chinese, Malay and Tamil, English is the language of government and the official medium for instruction. This has been argued by some as the

language that “deliberately marginalises the vernacular language backgrounds and identities of the majority of its students” (Chua, as cited in Kramer-Dahl, 2008, p. 86). English is taught as the first language in the multicultural classrooms in Singapore and positioned as a compulsory subject in Singapore’s schools (Sripathy, 2007). It has also become the “link language between the ethnic communities” (Pakir, 2008, p. 192).

While I do not agree that literacy is universal, neutral and concerns itself about the acquisition of decontextualised skills, I argue that the public debate on language and literacy in Singapore strongly suggests that the residing view of literacy invoked by the Singapore Ministry of Education is predominantly based on the *autonomous model of literacy* (B. Street & Lefstein, 2007, p. 97). B. Street and Lefstein (2007) explain that this is a term first coined by B. Street in 1984 and literacy is understood as discrete and measurable skills which are independent of their social and cultural context, according to this literacy model. From this perspective, literacy is learnt and taught as a form of individual development along a carefully charted and predictable trajectory.

It is defensible to understand the literacy model in Singapore in this way because Singapore operates in an ability-driven education system (Sharpe & Gopinathan, 2002) and a premium on knowledge and skills continues to be the focal point in education policy debates. The autonomous literacy model is visible in the way literacy is enacted in Singapore’s schools. Literacy in Singapore is known as “back-to-basics and literacy-as-lock-stepped-processes ways of reasoning” (Kramer-Dahl, 2008, p. 94). A. Luke et al. (2005a) have reported that secondary teachers view literacy learning as a

linear straightforward process and return to teaching of basic skills to remediate what students do not master in their earlier years of instruction. Literacy in Singapore is also known to be restricted to formal school education with the sole aim of preparing students for the national examinations (Sharpe & Gopinathan, 2002). Literacy tasks are therefore commonly designed without making reference to cultural resources the students can draw upon (Botzakis & Malloy, 2005; Kramer-Dahl, 2008; Sripathy, 2007).

In summary, the baseline literacy research conducted in Singapore has pointed to a unifying argument that literacy in Singapore has no connection with literacy that takes place outside school (Kramer-Dahl, 2008; Sripathy, 2007). When Singapore teachers understand literacy as skills only, they are ignoring that literacy is more often than not “almost always fully integrated with, interwoven into and part of, the very texture of wider practices that involve talk, interaction, values and beliefs” (Gee, 2008, p. 45). Although the new syllabus implemented in 2010 has paid attention to values that are embodied in multimodal texts and the use of language in social contexts, there has not been any reported research on how literacy is enacted based on the implementation of the new syllabus in the classrooms to date.

1.3 The Study and the Research Questions

I have argued that the autonomous model of literacy is the dominant viewpoint of literacy invoked in Singapore curriculum. In this section, I present my arguments against this model of literacy. In addition, I present the research

questions for my study in response to the gaps identified in literature and the critique I raise.

In Singapore, there is a dearth of literacy studies that shifts away from the autonomous model of literacy. However of late, there are some exceptions such as studies by Anderson and Wales (in review), Anderson and Chua (2010), Kramer-Dahl, Teo, Chia and Churchill (2006), and Teo (2008). These studies perceive *literacy* as *social practice*. By this, I mean that its forms, uses, purposes and outcomes vary according to social and cultural groups (Barton & Hamilton, 2000; Gee, 2008; B. Street & Lefstein, 2007). This definition of literacy stresses the social nature of reading and writing texts in *literacy practices* (Barton, 2001, 2007; Gee, 2000a; Lankshear & Knobel, 2006; Papen, 2005; B. Street, 2003b). Papen lists the ways in which this term is used:

- (a) the social activities as part of which we read and write;
- (b) the social and institutional contexts within which reading and writing takes place;
- (c) the cultural conventions and the social rules that govern our behaviour in a *literacy event*;
- (d) the people who read and write, and the meanings and intentions they bring to this event. (2005, p. 31)

I shall elaborate the key concepts of literacy as social practice, literacy practices and literacy events in Section 2.3 of Chapter 2.

Taking the social view of literacy means that my study, without seeking to understand how literacy takes place in the students' out-of-school world, will be incomplete. In my study, I share the view with Jewitt (2006) and Kress (2007) that the rearrangement in the constellation of representation modes from print to computer screen has profound consequences for meaning-making and hence for learning. While much is written about the need to recognise how the semiotic modes represent and shape knowledge, more needs to be known about how pedagogy can pay attention to the modes of meaning making and how such a pedagogy can draw upon students' out-of-school multimodal literacy practices (Gee, 2003; Leander, 2009; Leander & Lewis, 2008; Millard, 2003; Pahl & Rowsell, 2006).

While I am interested in studying the relationship between literacy and technology in adolescents' school and everyday lives, I do not associate my research with established work in Singapore that focuses on the use of technology as a cognitive tool for skill development (e.g. Ho, Rappa, & Chee, 2009; Jamaludin, Chee, & Ho, 2009). Rather, I draw upon literature that attends to technology as a cultural medium used in students' everyday literacy practices for presentation of self, social alliance and many more purposes (e.g. Black, 2009b; Buckingham, 2008b; B. Guzzetti & Gamboa, 2005; Marsh & Singleton, 2009; Sefton-Green, 2006). Specifically, I attend to adolescents' uses of *digital media* that is characterised by the range of authoring technologies which enable adolescents these days to become both consumers and producers of their own media texts (Buckingham, 2008b; Lankshear & Knobel, 2010; Reid, Burn, & Parker, 2002; Willett, Burn, &

Buckingham, 2005). Section 2.6 in Chapter 2 contains a more elaborated definition of the term.

Young people have been characterised by a plethora of names such as the digital natives (Prensky, 2001), the digital generation (Buckingham, 2006), the Millennials (Gee, 2004a) amongst many others. It has been said that young people are the “native speakers of the digital language of computers, video games and the Internet” (Prensky, 2001, p. 1) and that they use technology as an integral part of their lives in a taken-for- granted manner. Yet, there remains the mismatch between the use of technology in adolescents’ literacy practices inside and outside schools (Bloome, 2008; Leander, 2007; Leander & Lewis, 2008; Mahiri, 2008; Schultz & Hull, 2008). Adopting a social view of literacy enables me to understand how adolescents use technology both inside and outside school which to date has neither been well understood nor reported in Singapore. I believe that a practice view of how adolescents engage with technology inside and outside school may compel educators to reconsider using technology beyond the purpose of content-based instruction (as reported in the studies above) in ways that better match the interests of the adolescents.

Although the work of New London Group (Cope & Kalantzis, 2000) emphasises the roles of schools in designing social futures through their curriculum and literacy pedagogy, literacy researchers remain sceptical about how adequate schools are in preparing the learners to meet the constantly changing literacy demands of school and life (J. Davies & Merchant, 2009b; Gee, 2004b; Hague & Williamson, 2009; Ito et al., 2008; King & O'Brien, 2002;

Lankshear & Knobel, 2002, 2006; Lankshear, Synder, & Green, 2000; A. Luke, 2002; A. Luke & Elkins, 2000; Mahiri, 2004; B. Street, 1999). These literacy researchers question the sites of learning and take great interests in studying everyday and informal literacies and learning outside the classroom walls. It can be argued that many studies are emphasising that the young people have gone ahead of policy and there is now a rallying call to understand what is learnt and not learnt in school and how schools can appropriately respond to the changing digital epistemologies (Green & Luke, 2006; Sefton-Green, Nixon, & Erstad, 2009; B. Street, 2005; Willett et al., 2005).

School literacies are argued as ideological practices characteristic of the specific ways of participating in literacy events in the routine school life (Barton, 2007; B. V. Street & Street, 1995; J. C. Street & Street, 1991) whereas *out-of-school literacies* refer to the ideological practices characteristic of the specific ways of participating in literacy events outside institutionalised settings and they tend to focus on the vernacular literacies that are not recognised in formal education (Hull & Schultz, 2001, 2002). (See Section 2.4 in Chapter 2 for a more elaborated definition of these terms.) Many have argued that school and outside of school are no longer clearly-bounded domains of literacy practices and more work is needed to understand the relationship between school and out-of-school literacies (Bloome, 2008; Carrington & Robinson, 2009; Leander, 2003; Leander & Lewis, 2008; Schultz & Hull, 2008). Such research is currently at its infancy in Singapore.

I take the stance that only a social view of literacy can illuminate possible explanations for the gap between school and out-of-school literacy

practices. Gee (2008) explains that “literacy has different effects in different social settings, and none apart from such settings” (p. 67). By adopting the social view, insights like the following can be made more accessible: what literacy stands for and which definition counts as literacy; to whom and for whose interests; who shapes and regulates the rules in literacy practices and who has to obey these rules; who has the power to sanction the types of resources and distribute them; who has the access to resources and what kinds of resources are accessible.

I build on the previous baseline research study done by Kramer-Dahl et al. (2006) on Singapore secondary students' literacy practices by sharing their focus on students' interactions around texts. Unlike the study that focuses on interactions around printed texts in English, Science and Social Studies lessons, my study focuses on 14 year-old students' interactions around multimodal and multimedia texts in their English and computer literacy lessons. (See Section 2.5.1 for a discussion of the difference between multimodal and multimedia texts.) Although it has been acknowledged that literacy is social practice, their focus is on the teachers' practices and the students' out-of-school literacy practices are not studied.

I draw on the notion of *repertoires* cited in Kramer-Dahl, Teo and Chia (2007) to apply a social view of literacy to examine literacy and learning. I extend their use of the term to justify my focus on adolescents' *multimodal textual repertoires* which refers to the diverse ways in which adolescents, as meaning makers, engage in multimodal literacy activities that are learnt from their interactions around texts with others when participating in cultural

practices. The definition proffered here is made clearer in Section 2.5 in Chapter 2.

Bearing in mind what has been expounded about multimodality, literacy and learning in the literature, I enter my research study with the aim of understanding the adolescents' perspectives on what they do with literacy in everyday lives and how they negotiate the relationships between the dominant notion of literacy and learning in school and those they are developing outside school. Grounded in theories of literacy as social practice, this research study asks:

1. What are adolescent students' multimodal textual repertoires in and out of school?
2. When adolescents use digital media for creating multimodal and multimedia productions for schoolwork, how do they construct a relationship between school literacy practices and those they are developing outside school?
3. What do adolescent students' multimodal textual repertoires in and out of school suggest about the ways they learn?

It is my goal that my study will contribute to the understanding of literacy as social practice in a context where there are competing ideologies of literacy and learning and the relationships between school and out-of-school literacies need extended thoughts in this digital age. Although it is not within the scope of the thesis to have an impact on the current national language and literacy syllabi, I hope my findings can sensitise practitioners about adolescents and their practices. Specifically, I hope that my work, together

with the existing small body of studies that share the same viewpoint of literacy as social practice in Singapore, can create an impetus for change by inviting more constructive conversations around the merits and limitations of such a viewpoint to propel the field of literacy into the future.

1.4 The Research Context

When my study first began, the Singapore Ministry of Education was restructuring its educational system to encourage more diversity and choice. Amongst its new initiatives, it started a gifted education programme known as the *Integrated Programme* (IP) in 2005 to allow students who are clearly university-bound to proceed to junior college education without taking the Singapore-Cambridge General Certificate of Education Ordinary Level (GCE O-Level) Examination at the age of 16. Instead, these students are required to attain a terminal qualification decided upon by their school, such as the International Baccalaureate (IB) Diploma. The IP schools are given approval by the Singapore Ministry of Education to design their own curriculum to better cater to their high-ability students.

It was when Lakeshore High School (a pseudonym I gave to the collaborating school) became an IP school that my colleagues and I from the Singapore National Institute of Education were invited to contribute to their language arts curriculum. My involvement in the collaborative project was to co-design lessons with the key curriculum designer. My professional development and research work with Lakeshore High School enabled me to gain access to my research participants.

1.4.1 The Research Site

My research study took place in Singapore at a school that I call Lakeshore High School in 2007. According to the school website, Lakeshore High School started as a school that offered Chinese as the medium for instruction. Unlike most schools in Singapore that are multicultural, Lakeshore High School is one of the few schools in Singapore that has almost all Chinese students in terms of ethnic race and most of them are from middle-income families (G. Y. Kan, personal communication, June 5, 2006).

Based on the press release from the Singapore Ministry of Education, the inception of the IP at Lakeshore High School took place in January 2006, beginning with its Secondary 1 and 2 students (students were 13 and 14 years old respectively), whom the school subsequently addressed as Year 1 and Year 2 students. At that point in time, there were only eight IP schools and Lakeshore High School was the ninth school to offer such a programme. For Lakeshore High School, their students are in the IP programme for six years and they take the Singapore-Cambridge General Certificate of Education Advanced Level (GCE A-Level) Examination in the sixth year.

According to the Head of the English Department from the school, the Singapore Ministry of Education ranked the school as one of the top schools in Singapore and it had been a norm for their students to dominate the top 8% secondary students for the past years (G. Y. Kan, personal communication, June 5, 2006). Unlike most schools that offer the English Language as the first language and their mother tongue as the second language, Lakeshore High School offers the English Language and the Chinese Language as first languages. The school is not only recognised for its academic achievement,

but it is also recognised for its innovative use of technology in the curriculum. The Singapore Ministry of Education recognised the school as one of the *Lead ICT Schools*, a scheme that recognised and supported schools that were ready to achieve a higher level of technology use and such schools were supported in their experimentation and research to advance innovative uses of technology in their curriculum (Ministry of Education, 2009b).

1.4.2 The School Multiliteracies Curriculum

In 2006, the English Department at the school was conceptualising their curriculum for English Language and Literature. The Head of the English Department and one of the key curriculum designers heard of the New London Group's (Cope & Kalantzis, 2000) pedagogy of multiliteracies from a conference. They were keen to explore how this pedagogy could support their plan to focus on the linguistic and paralinguistic modes of communication in their Year 2 language arts programme.

They participated in an exploratory project in July 2006 with the Singapore National Institute of Education to start a multiliteracies curriculum. Although the school was known as a LEAD ICT School, the Head of the English Department admitted that technology use for English Language teaching was lagging in contrast with the use of technology for other subject teaching in the school (G. Y. Kan, personal communication, June 5, 2006). Hence, the exploratory study aimed to emphasise the use of technology for language learning with a focus on critical thinking skills and the multimodal nature of communication (Tan & Guo, 2009). It expanded the forms and

genres of texts they used for teaching and learning by including reading and viewing of multimodal texts such as photographs, brochures, printed advertisements, movies, videos and websites into their curriculum. It also aimed to shift the students' role from a text consumer to a text producer by involving their Year 2 students in production work, such as developing brochures, PowerPoint and Flash multimedia presentations, and 3D productions. Such productions aim to involve the students in meaning making using language and other semiotic modes in communicating with specific target audience. When my study began in the school, the students were involved in creating the Flash multimedia presentations and MediaStage productions as part of their multiliteracies curriculum (see Sections 1.4.2.1 and 1.4.2.2 below).

1.4.2.1 *Creating Flash multimedia presentations.*

The Adobe Flash software, previously known as Macromedia Flash, is an animation and multimedia software. Citing Vander Veer and Grover, Orlowicz (2010) describes the software as a tool for do-it-yourself animation; it "offers one point of entry into the practice of digital animation production" (p. 187). Flash, for short, is commonly used for creating animation, integrating video into web pages, making games and developing Internet applications. To use Flash for these purposes, the users have to learn the programming language within the software called ActionScript. Orlowicz (2010) claims that "[t]he more the user understands about ActionScript the more intricate the interactivity can be, but Flash in many ways simplifies this element for the average user" (p. 190).

In my study, my research participants learnt how to use Macromedia Flash 8.0 not from their language arts lessons but in their computer literacy lessons for about eight weeks. The production task of creating a Flash multimedia presentation was a combination of their language arts and computer literacy project. The task was a group project and it demanded that the students create a multimedia production to promote their new language arts curriculum targeted at potential overseas students who might be interested in learning English and studying in their school.

The production task was assigned after the students had lessons on reading or viewing multimodal texts such as advertisements in printed materials (newspapers, brochures and magazines) as well as multimodal and multimedia texts such as expository texts in web pages. In these lessons, the students had discussions on how to go about deconstructing such texts particularly with regard to the techniques the producers used to act on them as readers or viewers. These lessons were intended to prepare the students for the production of their Flash presentation so that they had the opportunities to use these techniques when they were the digital text producers themselves.

I observed the two classes that were involved in the multiliteracies curriculum exploratory study. They were Class 2F and Class 2J. Class 2J had more time to work on their project than Class 2F. Class 2J were given five 2-hour lessons to complete their Flash project, with these lessons taking place from end March to early May 2007. Class 2F was scheduled to have their lessons on using the software during August and September. As it was near the year-end examination, the teacher in charge decided to dedicate only two

2-hour lessons for Class 2F to complete their group project. She extended the deadline for their project submission and allowed the students to work on their project outside class time on their own.

1.4.2.2 *Creating MediaStage productions.*

MediaStage is an animated environment with a range of backdrops, props, sounds, images, recording facilities, text-to-speech technology, lighting and camera work made readily available for creating 3D productions such as short films, television news, pop music video and other media production work. It was intended for “modelling human behaviour” (Owen, 2003) and developed for the General Certificate of Secondary Education (GCSE) Media Studies in the United Kingdom (Carter-Bland & Esseen, 2004).

Lakeshore High School purchased the software to explore how it could be used for their multiliteracies curriculum in 2007. From July to September, the students had been reading Shakespeare’s Macbeth in their language arts classes. To end their unit of work for the academic year, the teacher wanted the students to use MediaStage to produce a short clip of 30 seconds to one minute to portray one of the themes that they had learnt from Macbeth Act 1 Scene 7. Figure 1.1 shows the themes listed by the language arts teacher in her instruction sheet for the MediaStage production task.

To assist the students in using the software, a 3-hour crash course was conducted by the local vendor that sold the software to the school. Due to the constraints of space and time, the language arts teacher asked for one or two

student representatives from each project group in Class 2F and Class 2J to attend the training session.

Figure 1.1. Themes for MediaStage Production

Having read selected scenes from Macbeth, you should have given thought to one or more of the following themes:

- ‘*Fair is foul and foul is fair*’ – Appearance versus Reality
- The witches prophesize that Macbeth shall be king. Is it destined that he should murder the king to get the throne or is Macbeth making the prophesy come true (self-fulfilling prophesy)? Does Macbeth have a choice over his actions? – Fate versus Free Will
- There are different types of love and loyalty portrayed in the play: Macbeth and Duncan, Macbeth and Lady Macbeth. How is love and loyalty being shown as important and how does Shakespeare convey this? – Love & Loyalty
- ‘*I have no spur
To prick the sides of my intent, but only
Vaulting ambition, which o'er leaps itself
And falls on the other.*’
How far should one go to achieve or fulfil one’s ambition? Is ambition good or bad?
- What are some ideas that you get about men and women from the play (look at Lady Macbeth’s speech)? How are men and women perceived differently in Elizabethan times?

1.4.3 The Research Participants

For the purpose of my study, I invited Class 2F and Class 2J who were involved in the multiliteracies curriculum project to participate as research participants in my study. At first, 21 students volunteered but the number eventually dropped to 10 because of the lack of parental consent and non-participation in the data collection processes (see Section 3.5 for research ethics). All my research participants were Chinese and they were about 14 years of age when my research was conducted. They had been in the same class as their Year 2 classmates since they were in Year 1.

From Class 2F, my research participants were Jay, Wendy, Sally, Xin, Pamela, Yenny, Tiffany and Melissa. From Class 2J, my research participants were Amanda and Brian. All the names presented in this thesis are pseudonyms, given to protect the confidentiality of the accounts provided. My research participants' teachers grouped them for all their production tasks and they remained in the same group for the entire year. For my final 10 research participants, they were grouped as follows:

- (a) Class 2J Group 1: Amanda, Brian, (Dawn and Sheng)
- (b) Class 2F Group 6: Sally, Jay, Xin, Wendy, (and Zac)
- (c) Class 2F Group 7: Tiffany, Pamela, Yenny, (and Adrian)
- (d) Class 2F Group 8: Melissa, (Jane, Elisa and Heng)

Each group had an average of four members, including those who dropped out from my research participation. The names of the students who dropped out from my research participation from these groups are indicated within parentheses in the list above.

All of them had at least one computer desktop with Internet access in their homes. Amongst them, Wendy, Xin, Pamela, Tiffany and Melissa had their own personal laptop or desktop in their homes. All of them also had mobile phones which they were not allowed to use when they were in school.

Prior to Flash, all of them learnt to use Adobe's Photoshop in their computer literacy class when they were in Year 1. Amongst them, there were common uses of technology outside school, such as searching for information in the Internet for school research projects, creating Microsoft PowerPoint

presentations for school, writing reports using Microsoft Word, sending instant messages through what was previously known as MSN (Microsoft Network), emailing and listening to songs using Windows Media Player. Nonetheless, Brian only started his MSN account only towards the end of my study while the rest had theirs since Year 1. After Year 1, Tiffany, Yenny, Pamela and Xin continued to explore their interests in creating images and other visual texts like cards using Photoshop at home. There were a few who also played online games, such as Jay, Amanda, Sally and Brian. Again, Brian started playing online games only towards the end of my study. All of them had been bloggers since they were in Year 1, except for Wendy, Sally and Brian who did not write but read blogs at the point of conducting my study. Amanda was the only fan fiction writer amongst my research participants. I will provide detailed accounts of their uses of technology whenever relevant in different parts of the thesis.

1.5 Overview of the Thesis

Following the introductory chapter, I organise the remaining parts of this thesis into two parts. Part I of the thesis consists of two chapters and concerns my way of seeing adolescent literacies. In Chapter 2, I make clear my understanding of the New Literacy Studies (NLS), a body of studies which argues for a social practice viewpoint of literacy, as the theoretical orientation for my study. I bring together the notions of adolescent literacies, literacy as social practices, school and out-of-school literacies, multimodal textual repertoires, and digital media as the key theoretical constructs orienting my study. Based on the theoretical perspectives I adopt, Chapter 3 lays out my

constructivist epistemology and explains how my constructivist epistemology frames my methodology to help me understand the adolescents' literacies inside and outside school. I also offer an account of my research processes when I adopted an ethnographic perspective for my study.

Part II of my thesis consists of six chapters and it provides the ethnographic accounts of how the adolescents engaged in multimodal textual repertoires when they participated in multimodal and multimedia text productions in and out of school. I organise these findings as themes that emerged from my data analysis. This part of my thesis shows how literacy and learning were inseparable in social practices, regardless of the sites of their occurrences. It therefore explores the relationships and tensions between the adolescents' school and out-of-school literacies. It also closely attends to the ways that the adolescents learnt inside and outside school, namely learning by doing and social learning.

I conclude my thesis by summarising the key findings and arguments of my thesis. I reiterate my central argument that learner-centeredness can be enacted in literacy pedagogies only when literacy is understood as social practice and adolescents' multimodal textual repertoires are considered. I also highlight my contribution to both theory and practice and offer a personal critique of my own research as ways of suggesting future directions for further research.

PART I

WAYS OF SEEING:

RESEARCHING ADOLESCENT LITERACIES

Part I of the thesis provides an outline of my theoretical orientation and methodological approach of my study. I make clear my understanding of the New Literacy Studies (NLS) as the theoretical orientation for my thesis and offer a critical discussion on the merits and limitations of NLS. I also review the concepts commonly used from this perspective to explicate several distinctions of terms used within NLS that are relevant to my study. More importantly in Chapter 2, I put forward my arguments for thinking about adolescents' multimodal literacy practices as multimodal textual repertoires.

In line with my theoretical orientation, I begin Chapter 3 by explaining the constructivist epistemic stance that I adopt for my study. I then describe how this stance frames the design of my study and provide an adequate justification for adopting an ethnographic perspective and how I went about conducting it. I end Chapter 3 by pointing out some challenges in adopting an ethnographic perspective to studying adolescent literacies.

CHAPTER TWO

THEORETICAL ORIENTATION

Literacy is primarily something people do; it is an activity, located in the space between thought and text... Like all human activity, literacy is essentially social, and it is located in the interaction between people

(Barton & Hamilton, 1998, p. 3)

2.1 Introduction: Theorising Adolescent Literacies in the Digital Age

In Chapter 1, I argued that the viewpoint of literacy as social practice has not been widely adopted for research nor for language and literacy education in Singapore; rather, the autonomous model of literacy is strongly invoked. I also suggested that such a social practice viewpoint is capable of addressing the gaps in literacy research that has been carried out in Singapore and elsewhere. While it is naïve to refute the importance of skill development through literacy education for Singapore, it is equally important to be cognisant of what this viewpoint leaves out. In this chapter, I build on my arguments from Chapter 1 and make clear my understanding of NLS as the theoretical orientation for my thesis. The review of the concepts commonly used from this perspective is important in explicating several distinctions in NLS which appears to be undergoing certain tensions in the digital age.

I shall start with *adolescent literacies*, a term which encapsulates my interests represented in the three research questions for my study. My use of

the term follows Alvermann's notions of *adolescence* and adolescent literacies that are clearly articulated in many of her works, that is:

- (a) The adolescents are not perceived as the "incomplete adults" (Alvermann, 2006, p. 40) and any views that render adolescence as "developmentally deterministic" and "age-biased" (Alvermann, 2002, p. vii) are rejected.
- (b) Adolescent literacies refer to the literacy practices of youth who "act provisionally at particular times" (Alvermann, 2006, p. 40) in particular situations within particular aspects of the physical, social and psychological world.

From this perspective, the adolescents are not necessarily "less competent and less knowledgeable than their elders" (Alvermann, 2006, p. 40).

My use of adolescent literacies also foreground the multiple literacies that adolescents embrace in their everyday lives to encompass "the performative, visual, aural, and semiotic understandings necessary for constructing and reconstructing print-and nonprint-based texts" (Alvermann, 2002, p. viii). Citing A. Luke and Luke, Lewis and Finders (2002) argue that adolescent literacies make adolescents dangerous because their "knowledge and skills threaten adults who lack them, leading them to the current panic for the good old days of print literacies" (p. 102). Other researchers interested in adolescent literacies point to the shared concern of acknowledging the multiple literacies beyond those sanctioned by schools which adolescents use to shape and empower their lives (Faggella-Luby, Ware, & Capozzoli, 2009; Phelps, 1998); Alvermann (2002) argues that these are the literacies that are

yet to be harnessed but may be of value to “any work deemed important in classrooms” (p. xvii).

What is suggested above in the arguments centring around adolescent literacies is that what counts as literacy by teachers, educators and adults may not necessarily be shared and appreciated by the adolescents. As Papen (2005) has rightfully said, literacy is a contested term and it is more appropriate to think about literacy “not so much in terms of definitions and common understandings, but “*competing ideologies of literacy*” that assert “particular view[s] on literacy that has implications for how we think about learners, how we think about what they ought to learn, and how this [can] be achieved” (p. 12). By ideology, Papen (2005) explains that it “relates to processes of power and domination” and they “easily become naturalised, that is, they are accepted as common everyday knowledge though in fact they are part of particular worldviews” (p. 49).

The notion of competing ideologies of literacy can be traced back to B. Street’s (1984) arguments against the autonomous model of literacy and his arguments for the *ideological model of literacy*. In explaining the latter, B. Street and Lefstein (2007) explain that the model:

stresses the significance of the socialization process in the construction of the meaning of literacy for participants and is therefore concerned with the general social institutions through which this process takes place and not just the explicit ‘educational’ ones. It distinguishes claims for the consequences of literacy from its real significance for specific social groups. (p. 117)

B. Street (2001b) clarifies that the ideological model of literacy does not deny the development of skills for socio-economic and cognitive gains, but perceives it as “encapsulated within cultural wholes and within structures of power” (p. 435). In short, B. Street and Lefstein (2007) explain that literacy entails ideological work when people interact with one another to define what is and is not reading and writing; it imbues values in how and what they read and write and over time, sanctions some ways of reading and writing and marginalises others. From this perspective, it can be argued that B. Street’s (2001b) dichotomy between the autonomous and ideological models of literacy is not a sustainable one.

In my study, I anchor my understanding of literacy based on B. Street’s (2001b) notion of ideological model of literacy. It posits literacy as social practice (see Section 2.3 below). More relevantly to studying adolescent literacies in the digital age, it poses the question of how people “take hold of the new communicative practices being introduced to them” (B. Street, 2008, p. 5). This thesis is dedicated to build on this argument to illustrate how school and out-of-school literacies are socially constructed and more appropriately understood as social practices.

Barton (2007) notes that the dominant views of literacy perceived by the general public “are school-based definitions of literacy” (p. 4). In Chapter 1, I have presented the ideology of school literacy in Singapore. In the same chapter, I also argued that the Singapore Ministry of Education has broadened its notion of literacy to acknowledge the increased demands on the learners with the changing times. The Ministry has accepted literacy beyond reading and writing print-based texts to include media and visual literacy in its current

national English syllabi. As I have argued in Chapter 1, its notion remains rooted in the autonomous model of literacy (B. Street, 1993) while broadening its notion of literacy to embrace multiple ones. I contend that the Ministry's viewpoint of multiple literacies is related to access of knowledge and skills necessary for one to remain relevant in the globalised economy. Such a viewpoint is akin to those advocated by the widely cited Partnership for 21st Century Skills (2004) and the North Central Regional Educational Laboratory (2003) that advocate multiple literacies such as media literacy, visual literacy, basic literacy of reading and writing, financial literacy and so forth.

In contrast, there is a body of studies called the New Literacy Studies or otherwise known as NLS (see Section 2.2 below) that seeks to broaden the notion of literacy to acknowledge the different literacies that are not recognised by formal educational institutions and generated by people for uses that are meaningful to their specific social and cultural contexts (Barton & Hamilton, 2000; Gee, 2000a; Hamilton, 2001; B. Street, 2001b, 2005). Unlike the notion of multiple literacies based on the autonomous model, NLS understands literacy as social practices, a viewpoint advocated by Barton and Hamilton (2000), Gee (2008) and B. Street (2001b). This viewpoint believes that there are multiple literacies because people "have different literacies which they make use of, associated with different domains of life" and these "differences are increased across different cultures or historical periods" (Barton, 2007, p. 37). Nonetheless, B. Street (2000) suggests that this does not necessarily mean that for every single culture, there is a single literacy (p. 19).

The New London Group's or NLG's (Cope & Kalantzis, 2000) argument for multiple literacies or multiliteracies bears the same intention as NLS to address the cultural and linguistic diversity in various social and cultural contexts, except that they think the way to do so is through literacy pedagogy (see Chapter 1). Although both NLG and NLS acknowledge the multiple literacies in social, cultural and linguistic diversity, the NLG's notion of multiliteracies also emphasises the multiple forms of literacy associated with semiotic modes found in the multiplicity of communication channels and media (Mills, 2009; B. Street, 2000; B. Street & Lefstein, 2007).

The proliferation of new digital media and multimodal texts in adolescents' literacy practices calls for another important distinction to be made, i.e. the distinction between media and literacies (Barton, 2001; Moje, 2009). I argue that this concern raises the issue of the old wine in new wine skin symptom when technology is integrated into literacy education (Lankshear et al., 2000; Moje, 2009). The thrust of the argument is that despite the use of new media for teaching and learning, teachers continue to use it to propagate old literacy skills. This is the case for the baseline study that I cited in Chapter 1 where Singapore teachers continue to use technology in old ways, i.e. for content-based and didactic instruction (Jacobson et al., 2010; Lim, 2006). Conversely, Moje (2009) argues that it can be a case where "new literacies may produce skills that support navigations of old media (i.e., print-on-paper media)" (p. 349).

The differences between the media and the literacies are critical. For without a clear distinction between the two, it may be impossible to identify what makes a literacy practice new. In the next section, I clarify what counts as new literacies to avoid making the assumption that the use of new digital media is equivalent to the emergence of a new literacy in my data.

2.2 The “New” in the New Literacy Studies (NLS)

I anchor my study in the theoretical framework of NLS. First introduced by Gee and B. Street (1993), NLS is a body of studies that examines literacy as social practice (Baynham & Prinsloo, 2001). What characterises NLS is its resolution to dissolve the Great Divide theory that created categorisations between literate and non-literate as well as the oral and written societies in the early 1980s (Papen, 2005; Reder & Davila, 2005; B. Street & Lefstein, 2007). This is the central tenet of the pioneering work in NLS as it persuasively argues for a shift in thinking about literacy from skills to social practices (Baynham & Prinsloo, 2001; Gee, 2008; Papen, 2005; B. Street, 2001b). Towards this end, the pioneering work in NLS sets itself apart by dissociating itself from formal learning in educational institutions and shifts towards multiple literacies observed in people’s everyday lives (*ibid*).

As noted in the previous section, NLS pluralises literacy to emphasise that people read and write differently for different purposes in different social and cultural contexts. Hence, it is meaningless to use literacy as a monolithic term when literacies are diverse and socially constructed over time in different

domains of people's lives (Barton, 2007). Because NLS approaches literacy from the practice viewpoint, it is therefore not surprising that in literacy research, researchers who employ the same viewpoint tend to use the term literacy and literacy practice interchangeably as synonyms (Papen, 2005).

In short, the pioneering work of NLS has pushed the frontier of literacy studies to new heights in two ways. First, NLS brings in a new way of approaching literacy research; rather than researching literacy from a cognitive or psychological perspective, the viewpoint of literacy as social practice pays attention to the roles of literacy in people's everyday lives (Lankshear & Knobel, 2003). Second, NLS refers to 'new forms of literacy', such as vernacular literacies, i.e. literacies "that have their origins in the purposes of everyday life but are not regulated, codified or systematised by the explicit rules and procedures of formal social institutions" (Hamilton, 2001, p. 179).

Nonetheless, I would like to point out the challenge of deciding what literacy practices are new. Specifically, I ask a fundamental question: What literacy is rendered new and to whom? The adolescents inscribe a world that appears ordinary to them as digital natives but their literacies may not be understood in the same way by their teachers or others who do not share their cultural ways of using technology (Green, 1994). What is perceived as a new literacy practice may possibly be teachers' and researchers' "own lack of familiarity with the media or tools as they are actual changes in processes or practices" (Moje, 2009). I return to this point in Chapter 3 when I discuss the methodological challenges in researching adolescent literacies.

Relating to the issue of identifying the “new” in NLS, Lankshear and Knobel (2003) criticise NLS for not taking into account of “what [they] personally have come to regard as important and influential new literacies” (p. 23) (see Section 2.2.1). Lankshear and Knobel (2003) have criticised the pioneering work of NLS for concentrating too much on the written language and has ignored the new forms of literacies that have emerged from people’s uses of digital media. The same argument is also heard in Gee’s (2010) recent work where he argues that there is another body of studies that stems from NLS which he calls the new literacies studies and it concerns itself with understanding “different ways of using digital tools within different sorts of sociocultural practices” (p. 32). I shall address the ‘distinction’ that Gee (2010) makes between NLS and the new literacies studies in the next section.

2.2.1 NLS on “Shifting Ground” in the Digital Age

In Gee’s (2010) recent work entitled “New Digital Media and Learning as an Emerging Area and “Worked Examples” as One Way Forward”, Gee (2010) suggests that NLS remains faithful to its commitment to “study literacy (reading and writing) as a sociocultural achievement rather than a cognitive one” (p. 9). He adds that there is a growing body of studies that starts with the same premise as NLS in understanding literacy as social practice but with the interest of studying technologies and their effects in different contexts. Gee refers to this body of studies as the new literacies studies and he identifies the hallmarks of the new literacies studies as follows:

- (a) The new literacies studies is about studying new types of literacy beyond print literacy, especially digital literacies and literacy practices embedded in popular culture.
- (b) Just as NLS wanted to talk about different literacies in the plural – that is, different ways of using written language within different sorts of sociocultural practices – so too, the new literacies studies want to talk about different digital literacies – that is, different ways of using digital tools within different sorts of sociocultural practices.
- (c) Like NLS, the new literacies studies also argue that the meanings to which these technologies give rise are determined by the social, cultural, historical, and institutional practices of different groups of people. And as with NLS, these practices almost always involve more than just using a digital tool; they involve, as well, ways of acting, interacting, valuing, believing, and knowing, in addition to often using other sorts of tools and technologies, including oral and written language. (2010, pp. 31 - 32)

Although Gee's attempt to review NLS by differentiating it from the new literacies studies is timely in the fast-changing communicational landscape, his claim is disputable. In current literature, researchers working in NLS have not ignored the uses of technologies in literacy practices. Rather, they have begun to broaden their interest in reading and writing to study the relations of the written language to other media.

For instance, Lee (2007) grounded her study of language and script choices in young people's instant messaging (IM) practices in NLS. In her study of 19 young people in Hong Kong, she argued for IM as a social practice and discussed the affordances of the IM technology in these young people's text-making practices (see Section 2.6 on my use of the term *affordances*). Barton, whom Baynham and Prinsloo (2009) recognise as one of the second generation of NLS proponents, was amongst the first to identify the shift "from research of print-based reading and writing practices to include new textual practices that are mediated by digital technologies" in NLS (Mills, 2010, p. 247). Barton's recent work has also included the study of vernacular literacies in Web spaces such as Flickr (Barton, 2010).

In terms of locating new forms of literacy in the digital age, I find Lankshear and Knobel's (2007) definitions of new literacies useful in differentiating literacy from media. They point out that new literacies consist of new "technical stuff" and new "ethos stuff" (Lankshear & Knobel, 2007, p. 7). Furthermore, they define new "technical" stuff as "a quantum shift beyond typographic means of text production as well as beyond analogue forms of sound and image production" (Lankshear & Knobel, 2007, p. 9). As for new "ethos stuff", they explain that new literacies are more participatory, collaborative, distributed in nature than conventional literacies (*ibid*).

In short, it can be argued that Lankshear and Knobel's (2008a) notion of new literacies is synonymous with *digital literacies* or *digital literacy practices* where they define it as "the myriad social practices and, conceptions of engaging in meaning making mediated by texts that are produced, received, distributed, exchanged, etc., via digital codification" (p. 5).

Lankshear and Knobel's (2007) notion of new literacies resonate with Gee's (2010) notion of new literacies above. Elsewhere, Gillen and Barton's (2010) define digital literacies as "the constantly changing practices through which people make traceable meanings using digital technologies" (p. 9). Although Gillen and Barton's (2010) notion of digital literacies retains its focus on literacy practices, they draw on the work by Leu et al. (2004) who emphasise new literacies as "the skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and contexts that continuously emerge in our world and influence all areas of our personal and professional lives" (p. 1572).

My point in this review about NLS is to argue for the relevance of NLS in studying adolescents' literacy practices in the digital age. Whilst I acknowledge that the pioneering work in NLS concentrate on the written language, I have shown that this has been broadened more recently to study people's literacy practices that are mediated by technologies in their everyday lives. Hence, Gee's 'distinction' between NLS and the new literacies studies are questionable. After all, the new literacies studies singled out by Gee (2010) stems from NLS and it does not contradict the key tenet of NLS in studying literacy as social practice. I also rely on Lankshear and Knobel's (2007) notion of new literacies to help me identify critically what is new in a literacy practice. Similarly, my use of digital literacy practices is therefore drawn from Lankshear and Knobel's (2008) notion of digital literacies cited above.

2.2.2 NLS and Learning

In this section, I put forward my arguments for anchoring my study in NLS to understand how my research participants learn when there is an established literature that criticises NLS for ignoring learning when studying literacy in different contexts. It has been noted that in the pioneering work of NLS, the application of the social practice view on learning has been novel (Gee, 2010; Papen, 2005; B. Street, 1999, 2003a). I would argue that this is due to its intention to study literacy in people's everyday lives, rather than in formal learning contexts such as in schools. Although learning is less emphasised in NLS, it does not mean that the social practice viewpoint does not consider any educational implications.

Papen (2005) and Baynham (2004) note that Heath was amongst the first to examine the relationships between school and out of school by suggesting that bedtime story telling in middle-class children's homes has prepared them for similar reading activities in school learning. Ivanič (2009) also observes that recent scholarship in NLS has made attempts to apply the theoretical lens of NLS to study formal schooling. For instance, B. Street offers some suggestions for curriculum, pedagogy and assessment based on the social practice viewpoint; these suggestions were first addressed in 1997 in a journal paper published by the UK National Association of Teachers in English (NATE). He lists them as follows:

- (a) Literacy is more complex than current curricula and assessments allow.

- (b) Curricula and assessments that reduce literacy to a few simple and mechanistic skills fail to do justice to the richness and complexity of actual literacy practices in people's lives.
- (c) If we want learners to develop and enhance the richness and complexity of literacy practices evident in society at large, then we need curricula and assessments that are themselves rich and complex and based upon research into actual literacy practices.
- (d) In order to develop rich and complex curricula and assessments for literacy, we need models of literacy and pedagogy that capture the richness and complexity of actual literacy practices.
- (e) In order to build upon the richness and complexity of learners' prior knowledge, we need to treat "home background" not as a deficit but as affecting deep levels of identity and epistemology, and thereby the stance that learners take with respect to the "new" literacy practices of the educational setting. (2005, p. 420)

Gee's work is widely cited for applying the practice view of literacy to learning. In his books (Gee, 2003, 2004b), he has made a unifying argument that children learn best through "cultural processes" where there are modelling of behaviours by masters and support, feedback and information are given just in time only when needed (Gee, 2004b, p. 12). He contends that this learning is situated and less alienating for children. He furthers his argument by contending that children are more likely to acquire the skills that are important in new times by playing computer games in their everyday lives than

through traditional schooling. He claims that computer games embed principles of learning that are more anchored in contemporary learning theories. By acquiring these skills through game play is in fact producing *mushfaking*, a term Gee (2008) borrows from prison culture to refer to “[making] do with something less when the real thing is not available” (p. 180). Gee (2008) argues that mushfaking can be a possible starting point in applying the practice view of literacy to classroom teaching and learning.

Reder and Davila (2005) argue that although NLS has offered practitioners with rich accounts of learners' literacy practices, it has not “developed a practical alternative pedagogy for literacy” (p. 182). This criticism needs to be revisited as recent literature is increasingly reporting more applications of NLS in practice, as cited above. Furthermore, Barton, Ivanič, Appleby, Hodge and Tusting have started work in addressing the lack of pedagogy based on NLS; they suggest five aspects of a social practice pedagogy, namely:

- (a) *Researching everyday practices*: Teachers and students can investigate their changing language, literacy and numeracy practices and the learning practices around them.
- (b) *Taking into account of learners' lives*: People are complex: they have histories, identities, current circumstances and imagined futures. We need to engage with all these different aspects in a teaching and learning relationship.

- (c) *Learning by participation*: Using authentic materials, in tasks for real purposes, helps to make links between learning and literacy, numeracy and language in people's everyday lives.
- (d) *Learning in safe, supported contexts*: A social practice pedagogy recognises and values social and affective aspects of learning, including physical and emotional safety.
- (e) *Locating literacy learning in other forms of meaning-making*: This approach recognises and works with different literacies that include oral and visual ways of communicating. (2007, p. 161)

In sum, the key thrust of NLS when applied to learning is its ability to unpack the complexity in the relationships of literacy, people's social practices and learning. I argue that the same reasons that compel me to employ the social practice viewpoint to study adolescents' literacy practices are equally convincing for studying learning. With respect to my study, applying NLS to study learning positions me to challenge the epistemology underpinning the way literacy is enacted in Singapore classrooms. It also positions me to be critical about the pedagogy invoked in the literacy and language education in Singapore. Reacting against the idea of designing pedagogy on "assumed needs" (Castleton, as cited in Papen, 2005, p. 131), this thesis suggests that literacy and learning are inseparable in social practices, regardless of the sites of literacy practices; any design of adolescents' literacy pedagogy should therefore first acquire an understanding of how adolescents construct their literacies and ways of learning in school and their everyday lives.

2.3 Literacy as Social Practice

In this chapter, I build on what was previously written in Chapter 1 to make clear the social theory of literacy as the orienting theory that underpins my study. I draw on the notion of social practices used within NLS, i.e. by social practices, it refers to the “recurring patterns of behaviour that are culturally recognizable” and “they involve people making meaning and communicating their meanings, by using language and other semiotic means” (Papen, 2005, p. 30). This notion of social practices is based on the notion of social practices offered by Tusting, Ivanič and Wilson (2000), except that it has emphasised the mode of meaning making beyond language and differentiates *literacy events* from literacy practices with the former as observable activities and the latter as hidden but can be inferred from literacy events. I shall discuss this point at greater length below.

Hence, by literacy as social practice, I refer to the six tenets of the social theory of literacy espoused by Barton and Hamilton, namely:

- (a) Literacy is best understood as a set of social practices; these can be inferred from events which are mediated by written texts.
- (b) There are different literacies associated with different domains of life.
- (c) Literacy practices are patterned by social institutions and power relationships, and some literacies are more dominant, visible and influential than others.

- (d) Literacy practices are purposeful and embedded in broader social goals and cultural practices.
- (e) Literacy is historically situated.
- (f) Literacy practices change and new ones are frequently acquired through processes of informal learning and sense making.

(2000, p. 8)

From this perspective, literacy as social practice is used interchangeably to refer to the social view of literacy. It is therefore based on the ideological model of literacy that seeks to recognise the variety of social and cultural practices that involves reading and writing in different contexts (B. Street, 2001b).

According to Barton and Hamilton (2000), literacy events refer to the regular activities that repeat themselves in observable manners. They “arise from practices and are shaped by them” (p. 8) and are situated in particular social and cultural contexts. Although Barton and Hamilton (2000) explain that literacy practices “are the general cultural ways of utilising written language which people drawn upon in their lives” (p. 7), they clarify that this notion entails a consideration of the use of the written language “in an integrated way as part of a range of semiotic systems” (p. 9). It is important to note that literacy events are the “constituents of literacy practices” (Hamilton, 2000, p. 16) and can therefore be used as the unit of analysis in a literacy study. Literacy practices, on the other hand, are the “analytical frame” (Prinsloo & Baynham, 2008, p. 4) that can only be inferred from literacy events to understand how one gives meaning to literacy events, conceptualises and

values reading and writing the written language in relation to other semiotic modes (Barton & Hamilton, 2000; Hamilton, 2000; B. Street, 2000).

Although Barton and Hamilton's (2000) definition of literacy event has been widely used by many studies, the notion has been problematised in recent work. For instance, Maybin (2007) in her analysis of children's meaning-making around texts, argues that children's playful activities are often woven into their participation in classroom activities. When that happens, their playful activities become "subordinated events" nested within the official event in the classroom (p. 522). Since the playful activities are woven into the official classroom activities, it is difficult to identify when an event starts and ends.

Addressing the problem in identifying the boundary of a literacy event, Barton and Hamilton have redefined their notion of the literacy event. According to them, each literacy event is "nested and can be broken down into a set of smaller activities" (Barton & Hamilton, 2005, p. 19). Put it in another way, literacy events may overlap and they entail multiple subordinated activities or take place as a chain of repeated activities (Barton & Hamilton, 2005).

This notion of literacy event defined by Barton and Hamilton (2005) is useful in enabling me to account for how my adolescent research participants multitasked in their literacy practices (see Chapter 6). Specifically, the emphasis is on the activities in a literacy event which Hamilton (2000) defines as "the actions performed by participants in the literacy event" (p. 17). In Chapter 3, I elaborate how I draw on the understanding of activities in a

literacy event to study literacy practices, based on the arguments put forward by Barton and Hamilton (2005) and Hamilton (2000). I continue my discussion about the permeating boundary of literacy events as part of my review on school and out-of-school literacy practices below.

2.4 School and Out-of-School Literacies

A review of literature within NLS shows that the notion of literacy as social practice has led to a reconceptualisation of school and out-of-school literacy practices. It has also raised dissenting views on the relationships between school and out-of-school literacy practices. In this chapter, I build on what I mean by school and out-of-school literacy practices briefly defined in Chapter 1.

My use of these two terms is informed by the ideological model of literacy outlined earlier on in this chapter. Hence, I use school literacies and out-of-school literacies synonymously with school literacy practices and out-of-school literacy practices respectively. By presenting my use of these terms in two separate sub-sections, I am not suggesting that there is a clear dichotomy of school and out-of-school literacy practices. I return to this point in Chapter 8 where I advance my argument on the relationship between school and out-of-school literacy practices.

2.4.1 School Literacy Practices

Barton's (2007) notion of literacy practices emphasises the situated nature of literacy, that is, there are different literacies involved in different domains of life. From this perspective, school literacy is only one amongst many types of literacies. This has been a long-standing argument put forward by Heath (1983), Scribner and Cole (1981), J.C. Street and Street (1991), B.V. Street and Street (1995) as well as others who build upon their similar argument. When studying school literacies as social practices, it is therefore useful to bear in mind that there are "selections of practices, and these selections are not accidental, random, or idiosyncratic" (C. Luke, 1997, p. 191). These selections support what authoritative organisations or people, such as the government, count as literacy.

In Chapter 1, I made clear that my use of school literacy practices refers to the ideological practices characteristic of the specific ways of participating in literacy events in the routine school life (Barton, 2007; B. V. Street & Street, 1995; J. C. Street & Street, 1991). It can be argued that the common understanding of school literacy practices relies on the view of literacy as skills. It is also the literacy that the public tend to associate with schooling and education or what Barton calls the "literary view of literacy" which he defines as "a view of literacy which comes from the study of literature" (Barton, 2007, p. 167).

Such conceptualisations of school literacy practices are anchored in J.C. Street and Street's (1991) 'pedagogization' of literacy (p. 143) which they use to refer to the institutionalised practices of teaching and learning associated with the school but may also be identified in home practices.

Specifically, J.C. Street and Street (1991) identify the following attributes “endemic to pedagogized literacy” (p. 151):

- (a) *The objectification of language*: Language learning practice was “frequently concerned with learning formalized uses of language and subjecting oral to written conventions” (p. 153).
- (b) *Space labelling*: Seating positions in a classroom are specifically allocated and rooms are numbered or labelled for “designated functions” at specified times (p. 156).
- (c) *Procedures*: Teaching strategies that bound the organisation and access to teaching and learning materials and activities within “a culturally defined authority structure” (p. 157).

In my study, the attributes of school literacy practices described by J.C. Street and Street (1991) were observed. Nevertheless, I also attend to the tensions that occurred when my research participants showed resistance to the dominant school literacy practices. Hence, my understanding of school literacy practices also embraces both the official literacy practices regulated by the school authorities and the unofficial ones constructed by the students (Barton, 2007; Bloome, 2008; Maybin, 2006).

Like Maybin (2006), Barton (2007) notes that school literacy practices can be “characterised as talk around texts” (p. 179). Nevertheless, Maybin (2006) argues that when children participate in talk around texts in their school literacy practices, close analysis of their talk shows that school literacy practices tend to be a hybrid mix of official and unofficial literacy events. With such a hybrid nature of school literacy practices, “[p]roblems are solved,

knowledge is gained and competence achieved through a hybrid mix of scaffolding, modelling, collaboration, disputation and play with intellectual and peer-social processes closely intertwined" (Maybin, 2006, p. 183). This hybrid nature of school literacy practices was also observed in my study. I address this at greater length in Part II of my thesis when I discuss my analysis of my research participants' participation in text productions in school.

2.4.2 Out-of-School Literacy Practices

Although a search of literature within NLS shows many studies about out-of-school literacies, there are not many researchers who clarify their use of this term. Nonetheless, it is a term that requires explanations and its meaning can be inferred from the extensive literature within NLS. Briefly, by out-of-school literacies, I refer to the ideological practices that are characteristic of the diverse ways of participating in literacy events outside institutionalised settings.

Like my use of school literacies, my use of out-of-school literacies is sensitive to the domain of literacies, that is, "the sphere where a literacy practice originally was created and used" (Pahl & Rowsell, 2005, p. 50) and this is not necessarily the same as the site of literacies which Pahl and Rowsell (2005) refer to as "the place where the literacy practice is actually engaged with" (p. 50). Following the arguments of many scholars who are interested in the relationships between school and out-of-school literacies such as Hull and Schultz (2002), I acknowledge that the boundary between school and out-of-school literacies is a permeating one. For instance, in my

data, blogging was a common out-of-school literacy practice amongst my adolescent research participants where the domain was home but some of these adolescents were blogging in school, the actual site of the literacy.

Often, out-of-school literacies are seen as deficit and rejected in school, in contrast with the dominant literacy practices sanctioned by schools. They are also understood as vernacular literacies because they originate from non-school contexts, including family and community (e.g. Barton et al., 2007), after-school programmes (e.g. Hull, 2003; Staples, 2008) and amongst peers (e.g. Black, 2009b; Carrington, 2005; B. J. Guzzetti, 2009; Ito et al., 2008). Following Hamilton's (2001) notion of vernacular literacies, out-of-school literacies can be understood as vernacular because they "have their origins in the purposes of everyday life but are not regulated, codified or systematised by the explicit rules and procedures of formal social institutions" (p. 179); they "do not count as 'real' literacy and neither are the informal social networks that sustain these literacies drawn upon or acknowledged" (p. 179).

Barton and Hamilton (1998) suggest that vernacular literacies play six roles in people's everyday lives, namely for organising life, personal communication, private leisure, documenting life, sense making and social participation. For adolescents in today's context, these roles remain evident in the extensive literature on adolescent literacies within NLS. Notably, Ito, et al. (2008) cite friendship-driven and interest-driven online participation as two distinguishing ways young people in America use digital media in their everyday lives. Others such as Thomas (2007) argues that the presentation of self is one of the key reasons that compel youth to participate in online activities, such as in playing online role-playing games.

Some studies remain adamant that the gap between school and out-of-school literacies cannot be bridged (e.g. Baynham, 2004; Moss, 2001). The unifying argument is that out-of-school literacies are not recognised as literacy when schools continue to define literacy as discrete cognitive skills. (See Chapter 8 for a more detailed discussion on the dissenting views on the distinctions between school and out-of-school literacy practices.) Nevertheless, there is an increasing body of recent research that not only recognises out-of-school literacies as a form of literacy but aims to close the gap between the two domains of literacies.

The work of Hull and Schultz (e.g. Hull, 2003; Hull & Schultz, 2001), Moje, O'Brien and colleagues (Moje et al., 2004; O'Brien, Moje, & Stewart, 2001), Merchant (2009a, 2009b) amongst many others have undoubtedly been a key influence in this area, even though they do not necessarily focus on adolescents' digital literacy practices only. The key thrust of their argument can be summarised by the words of Hull and Schultz (2002) who argue that "[t]here are some ways in which the distinction between in school and out of school sets up a false dichotomy" (p. 12). In line with this argument, I enlarge the considerations about school and out-of-school literacies presented here to identify ways adolescents made connections between their school and out-of-school literacies in my data.

2.5 Multimodal Textual Repertoires

In my thesis, I focus on the literacy activities related to multimodal and multimedia text production integral in my research participants' school and

everyday practices. Hence, a more precise way to posit my study is to narrow its focus from adolescents' literacy practices to adolescents' multimodal literacy practices. Nonetheless, I find the use of the term, multimodal literacy practices, remains too broad and is insufficient to highlight the shifts that I note in the current work of NLS.

Drawing on the literature review that I have done on multimodality, NLS and adolescent literacies, I would like to suggest the use of the term multimodal textual repertoires to bring together and emphasise the following characteristics of adolescents' multimodal literacy practices in the context of my research, namely the multimodal nature of adolescents' literacy practices, their participation in reading and writing texts as consumers and producers in multimodal and technology-mediated environments, their literacies as resources and their agency as meaning makers when constructing their literacy practices in and out of school. My notion of multimodal textual repertoires draws on Kramer-Dahl et al. (2007) use of 'textual repertoires' to refer to "ways of engaging in activities learned from participating in cultural practices" (p. 170).

In this thesis, my use of adolescents' multimodal textual repertoires is similar to adolescents' multimodal literacy practices. It inevitably includes their digital literacies which are often multimodal and involves multiple media. My use of the term, however, does not bear the intent to focus on the processes of selecting and combining the use of semiotic modes to represent meanings in a text, as used by many literacy researchers who have used the term *text-making* to refer to such processes (e.g. J. Davies & Merchant, 2009a; Lee, 2007; Pahl & Rowsell, 2005). There is an established body of work by Kress,

van Leeuwen and Jewitt in this aspect that pays attention to how various semiotic modes are shaped by people to make and represent meanings in multimodal texts. For example, the work of Jewitt and Oyama (2001) have established how point of view, angles, gaze and other semiotic modes are available in images to make meaning in order to achieve the social functions they serve. In my thesis, I do not equate my use of multimodal textual repertoire to refer to such notion of text-making.

Within NLS, Tusting, Ivanič and Wilson (2000) explain that literacy practices are both social practices and *textual practices*. The former defines the purpose of the written language whereas the latter refers to “the culturally recognisable patterns for constructing texts” (p. 213). My use of multimodal textual repertoire does not differ from the notion of textual practices defined by Tusting, Ivanič and Wilson (2000). However, the use of textual practices tends to lead me to focus on texts as the unit of analysis and the process of texturing or textual organisation, as used by Fairclough (2003). This is not the purpose of the study although I stand firm in my theoretical orientation that literacy practices are textually mediated (Barton, 2001; Barton & Hamilton, 2005). I suggest using the term multimodal textual repertoires to refer to the diverse ways in which adolescents, as meaning makers, engage in multimodal literacy activities that are learnt from their interactions around texts with others when participating in cultural practices. I explain in greater detail my use of the term **below**.

2.5.1 Multimodality and Multimediality in Adolescents' Literacy Practices

The current work of NLS has contextualised literacy research within communicative modes beyond language (Lewis & Fabos, 2005; B. V. Street, 2005; Tusting, 2008). In contemporary times, the advent of the digital revolution is constantly producing emerging digital technology with increasing interactivity (Everett, 2003). As a result, the digital age is changing social practices that are becoming more multimodal with the complex convergence of various media. This is the key reason for attending to multimodality when studying my research participants' literacy practices in my study.

My data show how my adolescent research participants drew on a range of media and multimodal representation and communication modes in their literacy practices in and out of school. It thus makes sense to me to extend Kramer-Dahl et al.'s (2007) use of textual repertoires to multimodal textual repertoires to focus on the students' interactions around multimodal and multimedia texts as they embrace the reading, viewing and production of these types of texts in their literacy practices.

Bearne (2003), Jewitt (2005), Kress and van Leeuwen (1996), the New London Group (Cope & Kalantzis, 2000) and Unsworth (2008) in several of their publications have argued that a definition of literacy must begin with an understanding of the nature of language which can be defined as a system of signs to construct meaning. It is no longer defensible to think that texts that students encounter today remain language dominant when there are many other semiotic resources available for making meaning. It is noteworthy to point out that multimodal and multimedia texts are not necessarily the same.

Multimodal texts are not necessarily produced with digital technology. For instance, in Ormerod and Ivanič's (2002) study of children's texts, the multimodal parts of the texts were created without using digital technology. What is clear is that the advent of technology has resulted in a proliferation of texts that are not only multimodal but multimedia in nature, i.e. generated by using multiple media (e.g. a webpage with music, videos, animated and moving written and visual texts all combined together on one screen).

The inclusion of multimodal texts involves texts present in the media or *media texts* in short. Following Buckingham (2003), my use of media texts refer to the programmes, films, images, web sites (and so on) that are carried by various media. In my study, examples of media texts in my research participants' literacy practices include music, movies, television shows, photographs, blogs and blogskins, fan fiction and lifestyle magazines. I not only pay attention to such media texts that my adolescent research participants consume, but also those they produce in and out of school.

When using the term multimodal textual repertoire, I retain my focus on the literacy events and practices where the written mode remains salient when the adolescents are involved in interactions around texts. This, I note, is also the stance that Heath, Street and Mills (2008) adopt when they argue for an ethnographic approach for studying languages and literacies. Similarly, other literacy researchers who adopt a social practice view to studying literacy also pay attention to the multimodal nature of literacy practices especially when technology is used. For instance, Carrington (2005), J. Davies and Merchant

(2007), Lankshear and Knobel (2006) use weblogs as an example to show how people use technology to combine moving and static images, written words, and sound together to publish in the Web.

As suggested by the baseline research conducted in Singapore (see Chapter 1), the nature of multimodal writing is not relevant to formal learning. However, I find it worthwhile to attend to multimodality in social practices, including school practices, even though it may not shed light into the relationship between literacy and student achievement. For instance, Jewitt (2006) shows how multimodal texts created by the students represent, realise and embody in themselves their rich social and cultural histories. Others such as Burn (e.g. 2009), Snyder and Prinsloo (2007) and Jenkins (2007) pay attention to how young people use digital media to create multimodal texts, what these multimodal literacy activities mean to them in terms of learning and other purposes, and how these multimodal texts fit into their literacy practices in and out of school.

I find it hard to ignore multimodality in adolescent literacies when there is recognition that representation and communication modes in social practices are increasingly realised using digital media. Following Barton's (2007) argument that to be literate has "to do with confidence in the medium" (p. 185) and "to be confident in the literacy practices one participates in" (p. 185), it is important for me to study how my research participants relate their multimodal text experience from their everyday lives to their schoolwork when they negotiate what counts as literacy and what literacy counts to them.

2.5.2 Texts, Productions, and D/discourses in the Textually-Mediated World

Barton and Hamilton (2000) argue that literacy is textually-mediated and “the study of literacy is partly a study of texts and how they are produced and used” (p. 9). Although it can be inferred that Barton and Hamilton (2000) refer texts to written and print-based materials in their earlier work, often the use of the word text is used without an explicit definition. The most suggestive definition of text refers to their broad use of texts as printed texts of everyday life, such as shopping lists, newspapers, recipes; elsewhere, the word texts is used interchangeably with artefacts in literacy events which is a common use within an ethnographic tradition of researching literacy (Hamilton, 2000). In my study, I focus on multimodal and multimedia texts which I have defined earlier.

In this thesis, I emphasise the notion of text as an artefact in the adolescents’ school and everyday lives. By this, I mean texts are “traces of social practice” (Pahl & Rowsell, 2005, p. 199). I also follow Carrington’s (2009) notion of text as “an artefact that encodes and displays the tensions, resistances, positioning and affinities of its producer” (p. 6). When used in these ways in my study, the adolescents’ identities are performed in texts and these identities are acquired over time through participation in social and cultural contexts. In other words, texts as artefacts are the “resources for seeing and understanding” the adolescents’ world; they symbolise the practices bound to the particular social and cultural contexts with the assumed roles and relationships of the participants involved in the settings (B. Street, 2008, p. 7).

In this thesis, I use *production* interchangeably to refer to the multimodal and multimedia texts the adolescents create in their school and out-of-school literacy practices. This term is also used elsewhere to refer to the “communicative use of media, of material resources” (Kress & van Leeuwen, 2001, p. 66). When using the term production, I bear in mind the distinction that Kress and van Leeuwen (2001) make between design and production.

In Burn and Durran’s (2007) explanation of the difference, they point out that design is the “conceptual side of expression, and the expression side of conception” (p. 5) and it involves the “choice of mode”. As mentioned in Chapter 1, the New London Group’s (Cope & Kalantzis, 2000) pedagogy of multiliteracies focuses on the use of Designs of meaning based on this notion of design. Specifically, they define Designs of meaning as having three elements:

- (a) Available Designs: Resources for Meaning; Available Designs of Meaning;
- (b) Designing: The work performed on or with Available Designs in the semiotic process;
- (c) The Redesigned: The resources that are produced and transformed through Designing. (Cope & Kalantzis, 2000, p. 23)

In contrast, production involves leveraging on skills to give perceivable and material form to design by articulating “realistic details, texture, colour and so on” (Kress & van Leeuwen, 2001, p. 2) or “involves the choice of medium” (Burn & Durran, 2007, p. 19). To be pedantic, in my thesis, production does

not bear any “connotations of a factory-line, a conveyor belt of piece-by-piece assemblage” where “students need only to follow a series of sequential steps to create their intended project” (Bruce, 2007, p. 13). My data suggest that the distinction is not easily identifiable in actual practices and design may not necessarily precede production (Kress & van Leeuwen, 2001). I return to this point in Chapter 5 when I discuss the adolescents’ production-on-the-go practices.

In this thesis, I also distinguish texts from *discourses* (Fairclough, 1992). I think of discourses in several ways in my thesis. First, I use discourses in the way defined by Kress (1989) to refer to:

systematically organized sets of statements which give expression to the meanings and values of an institution. Beyond that, they define, describe and delimit what it is possible to say and not possible to say (and by extension - what it is possible to do or not to do) with respect to an area of concern of that institution, whether marginally or centrally.
(p. 7)

This notion is useful when I study the production discourses communicated through the multimodal and multimedia texts that my research participants created for their schoolwork. Nonetheless, Kress’ (1989) notion of discourses restricts itself to institutionalised contexts and language use only.

Another way of thinking about discourses is raised by Papen (2005) to refer to discourses as “themes, attitudes and values – expressed through written and oral statements, images and behaviour - which at a given time and place, within a certain institutional or non-institutional context are deemed

meaningful” (p. 12). It can be argued that this latter understanding of discourses extends Kress’ (1989) notion in that it also attends to discourses as “socially constructed knowledges of (some aspect of) reality” that is developed in particular social contexts (Kress & van Leeuwen, 2001, p. 4). Discourses represented in a text come into being because a particular group of people or a particular person produces it with a particular intent for a particular audience and the production of the text and its discourses cannot be isolated from the practices of the producer or producers (Pahl & Rowsell, 2005). When attending to the multimodality and multimediality in literacy practices, language and other semiotic modes are therefore used both to represent and construct reality.

Gee (2005) uses Discourse (with an uppercase ‘D’) to refer to “ways of acting, interacting, feeling, believing, valuing, and using various sorts of objects, symbols, tools, and technologies” (p. 7) as “ways of being in the world” (p. 7). It can be argued that his use of Discourse is intended to stress how social practices are capable of shaping and being shaped by one’s way of being. D/discourses are therefore intertwined, embedded, constructed and reproduced in social and cultural practices and texts are seen as carrying different D/discourses from the perspective of NLS (Pahl & Rowsell, 2005).

Gee’s (2005) use of Discourses although intriguing is also problematic. It can be argued that his use of Discourses appears to refer to one’s multiple identities. In this thesis, the adolescents’ identities will be discussed in my data. However, to avoid a confusion of terms, I prefer to use the term identities rather than Discourses.

Lastly, although my use of text restricts itself to tangible man-made artefacts thus far, I would like to include the use of text to refer to lived experiences as suggested by Mahiri (2004) and Wallace (2006). As my data suggest, 'adolescents' school lives are used by them to be the texts for their blog posts. These are what Harste, Woodward and Burke term the "literacy stories" (as cited in Wallace, 2006, p. 74) and they are published in their blogs. I return to this point when I discuss Pamela's blog in Chapter 9.

2.5.3 Literacy as a Repertoire of Changing Practices

In her review of the digital turn of NLS, Mills (2010) claims that within NLS, literacy is understood as "a repertoire of changing practices for communicating purposefully in multiple social and cultural contexts" (p. 247). Although the term 'repertoire' has been used widely such as by Dyson (2002), Gutierrez and Rogoff (2003), Green, Dixon, Lin, Floriani and Bradley (1994), Tuyay, Jennings and Dixon (1995), Wallace (2006), the term remains undefined and appears to refer to a set of things of a particular kind that a person is capable of doing. For instance, a literacy repertoire may mean a set of literacies a person has. I borrow Mills' (2010) words to focus on the myriad multimodal literacy practices constructed by adolescents and explain what repertoire means to me in this thesis.

In my use of multimodal textual repertoire, I define it as the diverse ways in which adolescents, as meaning makers, engage in multimodal literacy activities that are learnt from their interactions around texts with others when participating in cultural practices. My use of repertoire centres on the notion of

literacy as a social accomplishment, rather than as an individual achievement. Hence, my focus is not on the individual per say, but the individual as a member of a social group. Such a view is in line with the argument put forward in NLS where literacies are “socially organized practices” (Scribner & Cole, 1981, p. 236); literacy and learning are therefore socially constructed (Barton & Hamilton, 2000; Gee, 2000a; Gutierrez & Rogoff, 2003; Hamilton, 2001).

The other emphasis in my use of the term is built up from my emphasis on the social nature of literacy mentioned earlier; it brings attention to literacy as “a resource for different sorts of groups” (Barton & Hamilton, 2000, p. 13). This perspective is also influenced by the asset perspective of literacy, first suggested by Robinson and Turnbull (2005). In their study of young children’s engagement with mass media and popular culture, they argue that an asset model “assumes that mass media and popular culture content can work as a benefit to literacy” (p. 52). Along the same vein of argument, Moje et al. (2004) highlight the ways the adolescents in their study draw on the “funds of knowledge” (p. 342) from their engagement with media and popular culture when discussing issues related to content learning in schools.

Such a viewpoint of literacy contrasts with the deficit view that out-of-school literacies are unsanctioned literacies that schools have to correct or remediate. As raised earlier in my review of adolescent literacies within NLS, many literacy researchers are emphasising the competences adolescents acquired from their out-of-school literacies which largely remain untapped for learning in the classroom setting. Such a stance is also suggested by B. Street (2005) in his suggestions for curriculum, pedagogy and assessment based on the social practice viewpoint (see Section 2.2.2). It reinforces the

importance of accepting and understanding what literacies are socially constructed by adolescents, rather than assuming what literacies they need in any design of literacy pedagogy that claims to bring benefits to the learners.

The last emphasis on my use of multimodal textual repertoire is to emphasise the participatory culture that has been widely cited in adolescent literacies, such as by Dowdall (2009), Jenkins (2007), Sefton-Green (2004) amongst many others. It has been widely cited that adolescents are culture makers who constantly create and recreate their meaning-making resources with language and other semiotic modes (e.g. Gee, 2000b; Leander & Lewis, 2008; Mahiri, 2004, 2008; Sefton-Green, 2006). I follow Lankshear and Knobel's (2010) argument that the role of a text consumer and producer is no longer clearly defined in adolescents' multimodal literacy literacies. They argue for a new role which they call the *produser* (Bruns, as cited in Lankshear & Knobel, 2010, p. 10) to refer to a person who actively uses the resources available in their literacy practices to (re)create new resources that are in turn made available to others in their network.

Such practices of a produser (Bruns, as cited in Lankshear & Knobel, 2010, p. 10) is akin to Lankshear and Knobel's (2007) notion of new literacies that I have pointed out earlier (see Section 2.2.1) and more specifically resonates with Jenkins' forms of *participatory culture*, which includes:

- (a) *Affiliations*: Memberships, formal and informal, in online communities centred around various forms of media, such as Friendster, Facebook, message boards, metagaming, game clans, or MySpace);

- (b) *Expressions*: Producing new creative forms, such as digital sampling, skinning and modding, fan videomaking, fan fiction writing, zines, mash-ups);
- (c) *Collaborative Problem-solving*: Working together in teams, formal and informal, to complete tasks and develop new knowledge (such as through Wikipedia, alternative reality gaming, spoiling);
- (d) *Circulations*: Shaping the flow of media (such as podcasting, blogging). (2007, p. 3)

When attending to the participatory culture in adolescents' diverse and rich literacy practices, I prefer to use repertoire not just to attend to what literacies adolescents possess and what texts are given to them but what literacies they construct and what texts are created by them. In other words, I prefer to place premium on their role not just as a text consumer but also as a text producer or produser (Lankshear & Knobel, 2010, p. 10). The emphasis is thus on what they do in their literacy practices, given the access to resources they have. In the next section, I discuss the roles of the digital media that facilitate the participatory culture that dominates adolescent literacies.

2.6 Digital Media and their Affordances

From the plethora of digital literacies reported in literacy research, it is apparent that technology is now more than what is commonly known as information technology (IT) or information and communication technology

(ICT) (Buckingham, 2008a). The changing characteristics of technology in contemporary times, otherwise known as *new media*, are described as being digital, interactive, hypertextual, virtual, networked, and simulated (Lister, Dovey, Giddings, Grant, & Kelly, 2009). In this thesis, I do not distinguish new media from *digital media* but I prefer to use digital media to refer to the same notion. The word *new* tends to emphasise the latest technological development or innovation but a new technology in one context may not be new in another and the state of newness can hardly be guaranteed by the time this thesis is submitted. Rather, I choose to use digital media to refer to the shift in physical properties from the analogue to the digital form and more importantly, what changes this shift brings to social practices.

Digital media are electronic media that operate on numerical representations or digital codes (Manovich, 2001). As the digital codes make media programmable, digital media allows convergence of various media for producing and distributing multimodal productions and re-assembling these texts to accentuate its interactivity and aesthetic power (Everett, 2003; Lankshear & Knobel, 2007; O'Reilly, 2005). Hence, digital media have enabled adolescents these days to become both consumers and producers of their own media texts (Lankshear & Knobel, 2010; Reid et al., 2002). In a study of digital video in UK schools, Burn identifies the following characteristics as what is distinctly new about digital media when used by children and adolescents:

- (a) *Iteration*: The ability to endlessly revise;
- (b) *Feedback*: The real time display of the developing work;

- (c) *Convergence*: The integration of different authoring modes, such as video and audio, in the same software;
- (d) *Exhibition*: The ability to display work in different formats, on different platforms, to different audiences. (2009, p. 17)

Accordingly, it can be argued that the physical properties of digital media bring changes to social practices. For instance, the relationship between the consumer and the digital media is changing as more consumers become produsers (Bruns, as cited in Lankshear & Knobel, 2010, p. 10) when they transform rather than consume the content and other resources available in and through digital media, a point that I raised earlier. Another way to describe how digital media is changing social practices in this aspect is described by Hagel and Seely Brown's (2005) "*From push to pull model*" for mobilising resources.

According to them, the push model is associated with the characteristic of Web 1.0 where the users are positioned as passive consumers and content is pushed to them. In contrast, the pull model is associated with the characteristics of Web 2.0 where the users are positioned as "networked creators" (Hagel & Brown, 2005, p. 14) who know how to seek and draw upon resources, (re)assemble and (re)create them and then circulate these transformed resources to others in their network; the emphasis is thus on making choices in mobilising resources to satisfy one's needs when using the digital media.

It can be argued that adolescents' uses of digital media are familiar to them but they can be mystifying to those who do not share their practices.

Increasingly, many studies have focused on the affordances of the digital media in adolescents' literacy practices that involve the use of the digital media. The term affordances, when defined by Gibson (1979), refers to the perceived properties of a thing and its affordances are latent in it. I find Gibson's (1979) notion of affordances very limiting where it appears to focus only on the physical properties of an object. With respect to contemporary communication landscape, Kirschner, Strijbos, Kreijns and Beers (2004) three kinds of affordances, namely *technical, social and educational affordances*, are more apt in discussing the roles of technology in modern times.

I adapt Kirschner et al.'s (2004) explanations of these three kinds of affordances and suggest that they can be understood in these ways:

- (a) *Technical affordances*: The possible tasks that can be done based on the technical features or physical properties of the technology;
- (b) *Social affordances*: The possible social interactions that can be fostered amongst the users of the technology;
- (c) *Educational affordances*: The possible instruction and learning activities or behaviours that can be enacted.

In my thesis, I focus more on the social and educational affordances (as suggested by my data), rather than focusing on the power of digital media in terms of features and what it can offer technically.

Although my data suggest that the three kinds of affordances are inter-related, I attend to the issues that are raised in my review of the literature by

classifying my discussion points according to social and educational affordances of the digital media. It is also worthwhile to note that there is a difference between perceived affordances and actual affordances in any discussion about the roles of technology in literacy practices. Gibson (1979) advocates that affordances are primarily independent of one's culture and experience and he does not distinguish between real affordances (the latent use of an object based on its properties) and perceived affordances (selective choice on how a thing can possibly be used based on its properties).

To extend Gibson's (1979) notion of affordances, Norman (1993) distinguishes between the real and perceived affordances and his view of affordance considers the material and social aspects of design. Although I agree with Gibson (1979) that affordances are about perceptions of how a thing can possibly be used based on its properties, I do not agree with him that affordances are independent of the user's culture and experience. In this thesis, I emphasise my research participants' perceived affordances of the digital media as I seek to understand their perspectives of their own literacy practices.

In terms of social affordances, a key theme that comes to fore is the construction of identities using digital media (e.g. Alvermann & Heron, 2001; Black, 2009b; Buckingham, 2008b; Lam, 2000; Thomas, 2007; Willett et al., 2005). Creating digital videos, fan fiction, blogs, avatars for game play in the virtual worlds amongst others have been cited as ways of participating in literacy practices that enable adolescents to perform and define their identities.

Alongside this interest is the negotiation of online and offline identities across a range of contexts. Merchant and Carrington (2009) argue that “the very process of becoming literate involves taking up new positions and becoming a different sort of person” (p. 63). Nonetheless, the construction of identities is contentious and this may be problematic when there is tension between individual agency and authoritative structures within formal schooling (Willett et al., 2005). This viewpoint is also shared by Gee (2008) who anchors his arguments on the notion of Discourses to suggest that identity is contingent and highly dependent on the social practices that it is embedded in. A similar notion is pointed out by Bakhtin’s (1986) earlier work when he suggests the notion of *ideological becoming* to refer to how people develop ways of viewing the world and their system of ideas; a negotiation of ideological becoming is expected when there are struggles to assimilate dissenting ideological viewpoints.

The second theme that comes to fore when attending to the social affordances of digital media in adolescents’ literacy practices is the new ways they use digital media to stay connected with their peers. Notably, Ito et al.’s (2008) ethnographic work of young people in America suggests that young people have been using online spaces to extend friendships and interests. While participating in such online practices, the young people are also participating in self-directed and peer-based learning. Their study suggests that social contexts and learning are inseparable which thus shows how social and educational affordances can be related. In this thesis, I follow Ito and her colleagues’ argument that literacy and learning are inseparable in social practices regardless of the sites of their occurrences.

In terms of educational affordances, many have argued that there is informal learning when young people participate in text production using digital media outside school (Sefton-Green, 2006, 2007; Sefton-Green et al., 2009; Willett, 2009). Jenkins (2007) claims that young people's participatory culture in using digital media allows them to develop 21st century skills that are best learnt in a community. According to Jenkins, these skills include:

- (a) *Play*: The capacity to experiment with one's surroundings as a form of problem-solving;
- (b) *Performance*: The ability to adopt alternative identities for the purpose of improvisation and discovery;
- (c) *Simulation*: The ability to interpret and construct dynamic models of real-world processes;
- (d) *Appropriation*: The ability to meaningfully sample and remix media content;
- (e) *Multitasking*: The ability to scan one's environment and shift focus as needed to salient details;
- (f) *Distributed Cognition*: The ability to interact meaningfully with tools that expand mental capacities;
- (g) *Collective Intelligence*: The ability to pool knowledge and compare notes with others toward a common goal;
- (h) *Judgement*: The ability to evaluate the reliability and credibility of different information sources;

- (i) *Transmedia Navigation*: The ability to follow the flow of stories and information across multiple modalities;
- (j) *Networking*: The ability to search for, synthesize, and disseminate information;
- (k) *Negotiation*: The ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms. (2007, p. 4)

Similarly, Black (2009a) argues that writing in a fan fiction community also fosters print literacy and other 21st century competences that schools appreciate but have not inculcated in their school literacy practices.

In the studies cited above, the participatory culture in adolescents' out-of-school literacies usually take place in online communities and it has led to self-directed and peer-based learning (Ito et al., 2008; Sefton-Green, 2007). Self-directed learning is understood as *autodidactism* to refer to self-teaching, self-motivated learning or self-generated learning (Sefton-Green, 2007) whereas peer-based learning is often understood as social learning to emphasise the collaborative nature of learning in a community with people who share the same interests (Sefton-Green, 2007). Others such as Gee (2003) suggests that learning in the participatory culture is situated learning or learning by doing, building on the work of Lave and Wenger (1991) who argue that learning is best viewed as a social process that is situated in one's participation in social practices.

Gee (2010) claims that the educational affordances of digital media is an emerging area of "how digital tools and new forms of convergent media,

production, and participation, as well as powerful forms of social organization and complexity in popular culture, can teach us how to enhance learning in and out of school and how to transform society and the global world as well" (p. 14). In my thesis, I share the same goal as Gee when I explore the educational affordances of digital media. It is my interest to gain insights on the adolescents' perspectives of how they learn as an indication of the kinds of digital epistemologies – "what it means for [adolescents] to know things and what kinds of things it may be most important to know" - they embrace as 'digital natives' (Lankshear, 2003, p. 167). In the next chapter, I give an account of how I use an ethnographic perspective to fulfil the aim of my study.

2.7 Summary

In this chapter, I have argued for a social view of studying literacy even though I claim that the viewpoint of literacy that is invoked in my context of study is based on the autonomous model of literacy. I suggest that the dichotomy between the autonomous and ideological model of literacy is not a sustainable one. Anchoring my study in NLS, I review the ideologies of literacies commonly used by policymakers, researchers and educators. The review is crucially important in explicating several terms used in NLS, in times when NLS appears to be on shifting grounds in the digital age. I also argue that the current work in NLS is not distinguishably separated from the new literacies studies. To contend that NLS remains relevant in studying adolescents' multimodal literacy practices, I suggest understanding them as multimodal textual repertoires.

CHAPTER THREE

The QUALITATIVE INQUIRY

Culture never just “is”, but instead “does”

(Thornton, 1988, p. 26)

3.1 Introduction: The Constructivist Epistemic Stance

In this chapter, I explain my reasons for adopting an ethnographic perspective as the methodology for my study. Before I begin, I first describe the constructivist epistemic stance and how it frames my methodology. I understand methodologies as researchers' epistemological positions. Citing Mason, Silverman (2010) notes that the choice of methodology tends to reflect the researcher's own biography, and the knowledge and training received in the researcher's education.

Barton (2007) suggests that a social view of literacy is grounded in a constructivist epistemology. Barton's constructivist epistemology and many other studies in NLS are otherwise espoused as sociocultural studies of literacy (Freebody, 2001; Gee, 2004a; Lankshear & Knobel, 2007, 2008; Moje & Lewis, 2007). I align myself with the constructivist stance as used in NLS because I take the same premise that literacy is a socially and culturally constructed phenomenon, a stance which I elaborated in Chapter 2.

Patton (2002) explains that a constructivist stance begins with the central idea that human beings interpret and construct a phenomenon as a social reality. He implies that any phenomenon exists as a social 'reality'

because there is a tacit agreement amongst humans that a phenomenon exists when they participate in a particular culture. Hence, a phenomenon can only be studied within the context, in terms of place and time, in which it is constructed, and its definition is based on the values held by the participants in the particular culture. Power, therefore, becomes a point of interest because views of reality are contested, “socially constructed and culturally embedded [and] those views dominant at any time and place will serve the interests and perspectives of those who exercise the most power in a particular culture” (Patton, 2002, p. 100).

When applied to my research, how adolescents construct their literacies in school and their everyday lives, together with their reported perspectives, beliefs and values of those literacy practices, have to be included. Heath, Street and Mills (2008) point out that it is more apt to view culture as a verb. This means that culture is dynamic. Hence, studying how adolescents participate in a particular culture that requires them to work in certain recognisable and appropriate ways that are meaningful and purposeful to them within the culture or social group, what literacies count for, and what patterns of literacies are constructed over time can be made visible using ethnography.

3.2 The Ethnographic Perspective of Adolescent Literacies

Citing Silverman, Freebody (2003) explains that ethnography is a form of inquiry that involves the researcher observing a setting and gathering data, and being directly involved in the setting under study. The core features of

ethnography as a methodology are summarised well by Hammersley (2006); they include “the importance of studying at *first hand* what people do and say in particular contexts” and “involves fairly lengthy contact, through participant observation in relevant settings, and/or through relatively open-ended interviews designed to understand people’s perspectives, perhaps complemented by the study of various sorts of document—official, publicly available, or personal” (p. 4). Although described differently by different researchers, I have noted that the unifying and distinguishing features of ethnography as a methodology point to three key principles (Hammersley, 2006; Lillis, 2008; Smyth, 2006):

- (a) There is sustained engagement and direct researcher involvement in the research site;
- (b) It is holistic and involves collecting data from multiple sources from real-world contexts;
- (c) There is an emphasis on the research participants’ perspectives and understanding of the phenomenon under study.

Ethnography has been cited as the hallmark of NLS (Baynham, 2004; Papen, 2005, Chapter 4; Prinsloo & Baynham, 2008). There are compelling reasons for choosing ethnography as an appropriate methodology for NLS. The insights gained from ethnography merit attention. First, ethnography fits well with the aim of studying everyday practices in NLS and how these practices are positioned within social institutions (Baynham, 2004; Heath et al., 2008; B. Street, 2001a). Second, ethnography is also credited with providing a thick description of social practices from an insider’s point of view

(Heath et al., 2008; Lillis, 2008; Sarangi, 2007). The primary merit in adopting an ethnographic approach lies in its ability to provide meaning in context, a cultural description of how communicative practices are instantiated, and how artefacts are created (Barton & Hamilton, 2000; Green & Dixon, 2008; Heath et al., 2008; Kress & Street, 2006).

Sarangi (2007) has coined the term *thick participation* to refer to sustained engagement in the research site being a necessity to gain a thick description of the insider's point of view. Lillis (2008) has added to Sarangi's (2007) point and emphasised the necessity of thick participation for what Maybin (2006) has called "tuning into" (p. 12) what is significant to the research participants and therefore worthy of further inquiry at the research site. Given the goal of producing a thick description of culture from an insider's point of view, what is gained from the field of NLS is an ever-increasing catalogue of accounts of new literacies in people's lives and everyday social practices (e.g. Pahl & Rowsell, 2005, 2006).

Green and Bloome (1997) are careful to make a distinction between *doing ethnography* and *adopting an ethnographic perspective*. Unlike doing ethnography, which involves broad, detailed and long periods of observing cultural patterns and practices in a social or cultural group, an ethnographic perspective enters the site of study with "a more focused approach to study particular aspects of everyday life and cultural practices of a social group" (Green & Bloome, 1997, p. 183). Other than this distinction, the features and merits of ethnography which I have raised earlier equally characterise the ethnographic perspective.

In my study, I draw on Barton and Hamilton's four aspects of an ethnographic perspective to studying adolescent literacies:

- (a) It focuses on real-world settings;
- (b) Its approach is holistic, aiming at whole phenomena;
- (c) It draws on multiple methods of collecting data;
- (d) It is interpretive and aims to represent the participants' perspective(s). (1998, p. 57)

Although there are many merits in adopting an ethnographic perspective, as described in this section, it has not been adopted without criticism. In the remaining parts of this chapter, I shall describe my research processes and raise my critique of using such a methodology in my study. I highlight the merits and therefore the uses of multiple data collection methods in Section 3.3 and the methodological challenges in using these methods in Section 3.6.

3.3 Data Collection and Selection

In this section, I describe how I went about conducting a study from an ethnographic perspective. Being granted access to a research site is a privilege to the researcher. Lakeshore High School was the only school, at that time, that was interested in broadening its notion of literacy (to the best of my knowledge). Hence, in my PhD study, I have adopted theoretical sampling to pursue my research interests. As Denzin and Lincoln (2000) put it:

Many postpositivist, constructionist, and critical theory qualitative researchers employ theoretical or purposive, and not random, sampling models. They seek out groups, settings, and individuals where and for whom the processes being studied are most likely to occur. (p. 370)

When adopting an ethnographic perspective, I used the research methods commonly adopted in ethnography which comprise participant observations, in-depth semi-structured interviews, and document analyses, which in my case refers to the analyses of adolescents' artefacts from their literacy practices (Papen, 2005). I also made use of research participants' diaries (Hyland, 2002; K. Jones, Martin-Jones & Bhatt, 2000) and students' blogs which served as their online journals.

In addition, I included methods used in the Literacies for Learning in Further Education (LfLFE) project (Ivanič et al., 2009) to map adolescent students' literacy practices across time and space. These included:

- (a) Satchwell's (2006) "Literacy Around the Clock" (what literacy activities the adolescents were involved in on a typical day).
- (b) Mannion, Ivanič and LfLFE Group (2007), and Mannion and Miller's (2005) Venn diagrams (the literacy activities they were involved in, inside and outside school, and the kinds of texts these events involved). In the study described by these researchers, students from further-education colleges were asked to represent the types of texts that they read and/or wrote about, across domains, by using Venn diagrams.

(c) Mannion et al.'s (2007) school floor plan annotation (the literacy activities the students were involved in at different places and times in the school).

I added another one to the list, adapted from Anstey and Bull (2006), which I call the “Captain of my Life” mapping method. With this method, my research participants were asked to list the roles they played in their everyday lives and what reading and writing activities were involved in them. Mapping literacy events by roles in this activity allowed me to compare those which my research participants described in their everyday lives, in and out of school.

It is also important to recognise that although I use the phrase “data collection” throughout this chapter, I follow Charmaz's (2006) argument that data are constructed. The data I collected for my study were constructed through fieldnotes, interviews, and video and audio recordings, as well as the artefacts that I requested from my research participants. There were also artefacts that were constructed by my research participants as part of their commitment to my research study, such as self-taken photographs of their own literacy practices in and out of school. Figure 3.1 shows the types of data I collected and analysed.

Figure 3.1. Types of Data Collected and Analysed

Time Frame	May to October 2007	May to November 2007	August 2007 to January 2008	May to October 2007	June to December 2007	September to December 2007	October 2007
Data Collection Methods	Participant observations	In-depth semi-structured interviews		Artefact analyses			Mapping methods (used by the Literacies for Learning in Further Education project)
Types & Amount of Data Collected	31 fieldnotes of the lessons observed, video and audio recordings of each of these lessons (each lesson was 45 minutes to 2 hours long)	12 semi-structured group interviews (30 minutes to 1.5 hours long)	23 individual interviews (1 hour to 1.5 hours long per interview)	12 sets of multimodal productions by the students, 9 written reports about their multimodal productions, 11 storyboards	6 sets of diaries (written from June to November); 9 sets of blog post (from July to December)	10 sets of photographs taken by the research participants, 1 set of Photoshop pictures done by 1 student, 1 set of blog skins created by 1 student, 1 series of fan fictions written by 1 student	43 artefacts from the mapping activities
Research Questions	RQ1	RQ2			RQ3		

Out of all the data analysed, I selected *key incidents* from the data I collected at the school site for in-depth analysis and discussion in this thesis. By key incidents, I refer to Emerson's (2007) notion that they are the events from my participant observations that "suggest and direct analysis in ways that ultimately help to open up significant, often complex lines of conceptual development" (p. 457).

3.3.1 Participant Observations

Wolcott (2008) defines participant observation as an umbrella term to describe everything that ethnographers do at the research site that is not some form of interviewing. I relied on participant observations to provide me with first-hand experience of seeing what might routinely escape the awareness of the research participants in the setting (Patton, 2002). I

conducted participant observations once or twice a week, either during language-arts lessons (45 minutes to one hour per lesson) or computer literacy lessons (two hours per lesson), at Lakeshore High School, except when I was in Lancaster for my residency or when the school was preparing their students for school assessments. The participant observations took place in the computer laboratories from May to the beginning of October 2007 where the lessons I observed emphasised the reading/viewing and production of multimodal texts.

As my research participants were asked by their teacher to sit in groups, I had to move from group to group to observe their activities for my participant observations. When my study first started, there were three groups in Class 2F and two groups in Class 2J. I stood close enough to each group to be able to observe what they were doing and saying, but was conscious of aiming not to exert an intrusive ethnographic presence. Nonetheless, as the research progressed, this was not possible as the students themselves would approach me to ask for technical help with the software they were using. I highlight the 'problems' I encountered with participant observations and writing fieldnotes in Section 3.6.

When writing my fieldnotes, I focused on chronological accounts of events in real time. During each participant observation, I directed my gaze at the basic elements of literacy events and practices advocated by Hamilton (2000), which comprise the participants, settings, artefacts and activities. However, as practices are invisible (Barton & Hamilton, 2000), I could only note down the visible elements in a literacy event and left the invisible elements as interpretations that I made in my fieldnotes after each participant

observation. Hence, during my participant observations, I took notes of the these elements, as shown below in Figure 3.2:

Figure 3.2. Participant Observations of Literacy Events

- (i) **Participants:** What was each of my research participants doing in the group work? How did they organise themselves in their group work?
- (ii) **Settings:** Did they bind themselves to the physical site of where each lesson observation was held? Were there other physical or virtual places they visited?
- (iii) **Artefacts:** What texts and technologies did they refer to or use in their group work? What were they used for?
- (iv) **Activities:** What did each of them do as part of their contribution to their group work? What else did each of them do that is not directly related to the instructed task given by the teacher?

All impressions, questions, interpretations and problems noticed during the participant observations were written up in separate sections from the accounts of the activities in my fieldnotes. These included my puzzling thoughts about what did not happen, e.g. almost all my research participants did not refer to the training manual when they were exploring the software, MediaStage (see Chapter 5). This was a combination of techniques for writing fieldnotes as recommended by Merriam (1998) and Wolfinger (2008). I typed up my fieldnotes after the participant observations and only made grammatical changes to them.

I also wrote memos for each fieldnote after each participant observation. In addition, I also reorganised each of my fieldnotes from chronological accounts to fit Hamilton's (2000) framework of basic elements of a literacy event and practices. This reorganisation of my fieldnotes enabled me to study each of the basic elements of literacy events in detail, which was necessary for coding purposes during my data analysis.

During my participant observations, I relied on video and audio recordings to record the literacy events for each group. Because I was the sole researcher in each participant observation, I had to move from group to group to access observational data. I positioned one video camera where each group was sitting, making sure that I was able to view my research participants and what texts they were reading/viewing or producing, either on their desks or on their computer screens. I switched on the video camera to start recording once the students started walking into the classroom or computer laboratory where the lesson observations were conducted. There was usually enough lead time to capture the ways in which each group participated in their lessons, from the moment they settled down in their usual places. On average, the amount of video recording collected from each participant observation ranged between 45 minutes and two hours long for each group.

I included audio recording because the computer laboratory was too noisy for me to be able to listen to their group talk when I played back my video recordings. As a result, I requested each of my research participants to hang an audio recorder around their neck with a lanyard in order for me to listen to their social interactions during the participant observations. As for the

amount of audio recording collected from each participant observation, it ranged between 45 minutes and two hours for each group of students (the same as for the video recording).

The video and audio recordings allowed me to play them back for repeated viewing and listening of students' participation and group talk. Together with the fieldnotes, the video and audio recordings allowed me to compare the data collected from the student interviews, and provided me with the opportunity to understand what the students might not be willing to share with me in the interviews. When I compared my fieldnotes, video logs and audio transcripts, I took note of any inconsistency with what I wrote in my fieldnotes. Changes were then indicated either using another font or colours, or by inserting comments in my typed fieldnotes to facilitate subsequent data analysis.

Given the short period of time I had to conduct my research, I did not think that my research participants would trust me enough to allow me to conduct participant observations of their out-of-school literacy practices. I provide instances of the initial resistance shown by some of them in Section 3.6. Moreover, because I was working as a full-time lecturer, it was not possible for me to expand my participant observations to all ten of them for their out-of-school literacy practices.

3.3.2 In-Depth and Semi-Structured Interviews

Without the opportunity to conduct participant observations on my research participants' out-of-school literacy practices, the research interview

was by far the most suitable qualitative method for studying these adolescents' "understanding of the meanings of their lived world, describing their experiences and self-understanding, and clarifying and elaborating their own perspective on their lived world" (Kvale, 1996, p. 105). Different theoretical orientations determine what can be learnt from an interview (Brenner, 2006). For me, my ontological assumption when engaging in the interviews as a research method was that I was an instrument for collecting data and that I was trying to gain privileged access to my research participants' lived worlds (Kvale, 1996). I approached the interviews with an open mind, neither looking for any theory to be tested, nor for "objective data to be quantified, but meaningful relations to be interpreted" (Kvale, 1996, p. 11).

I do not believe that there is one absolute truth in what is understood from the interview. On the contrary, my epistemological assumption is that the most suitable way to understand adolescents' literacy is to view it from their shared experiences, practices and beliefs that arise from their shared cultural perspectives (Brenner, 2006). Hence, my interpretations of my interview data were co-constructed by my research participants and I, and they emerged from our interview conversations. These interpretations are what Kvale (1996) terms "the constructive nature of the knowledge constructed through the interaction of the partners in the interview conversation" (p. 11).

I conducted twelve group interviews and two individual interviews with my research participants. They were in-depth (unless the research participants indicated some form of discomfort during the interviews) semi-structured interviews. Each interview lasted from 30 minutes to 1.5 hours and

was recorded using two audio recorders, one recorder being a back-up in case of any technical problems during the recording. For the group interviews, each of them was conducted soon after completion of the students' multimodal school productions. The individual interviews took place towards the end of the research for two reasons. First, I had to build a rapport with my research participants so that they would be more comfortable when they were with me individually. Second, I relied on artefacts collected from the individuals to identify the focus of my individual interviews (see Section 3.3.3). Hence, each individual interview was conducted after I had read and studied at least one and a half months of their diary entries and blog posts, and also after I had received the self-taken photographs from my research participants.

Fontana and Frey (2000) note that the group interview is a technique that straddles the line between formal and informal interviewing. Compared to an individual interview, I assume that a group interview would put my research participants more at ease with me as their classmates were with them during those interviews. From my transcriptions and coding of the interviews, there was evidence of how one tended to build on one another's topic during the group interviews. There were also more instances of laughter in the group interviews than in the individual interviews. It was my intention to use the group interactions to elicit knowledge, experience and beliefs that were shared amongst the research participants in the group. I made use of the shared insiders' knowledge from one group to find out whether any other of my research participants, from other groups, had similar viewpoints or experience.

During Group Interview 1, my first time talking to my research participants without the presence of their teachers, I asked them to introduce

themselves to me. I focused on what was a typical day for them and asked them about their typical activities outside school. I sought to understand the literacy practices that were significant to them and their uses of digital media at that point of the interview. For Group Interview 2, I showed them some artefacts which epitomised those they mentioned in Group Interview 1. I asked them for their viewpoints about the possibility of using the artefacts (a classic fiction storybook, anime, a YouTube video, a blog) for their language-arts lessons. These were used as example texts to prompt for more insights into their everyday literacy practices and the values attached to those artefacts. From their responses, I was able to understand their views about school and out-of-school literacy practices. During Group Interview 3, I showed my research participants their multimodal productions during the course of the interview and asked them to talk me through their production choices and the way they worked on their productions together.

The individual interviews started with the out-of-school literacies that the students engaged in, and their motivations, values and attitudes behind these out-of-school literacies. I also sought to find out how they first came to know about these literacies. Each individual interview was based on what I had read from their diaries and blog posts. They were also based on the artefacts that they produced by using the mapping methods used in the Literacies for Learning in Further Education (LfLFE) project (Ivanič et al., 2009) (see Section 3.3.3 for how I used these artefacts during the interviews to anchor my focal points for the interview conversations). I relied on the individual interviews to help me understand my research participants' perspectives. This helped me to understand how they had been shaped and

how they shaped their literacy practices when they participated in different literacy practices. Having a mixture of in-depth interviews and participant observations helped me to compare my descriptions of the research participants' multimodal textual repertoires with their reported experiences and perceptions.

3.3.3 The Research Participants' Artefacts

The first set of artefacts that I collected were the resources from my research participants' school literacy practices. First, they consisted of the resources the teachers provided them with for a particular lesson, such as task sheets with instructions for their project requirements, and notes on how to go about reading a multimodal text. Second, they consisted of the students' reports, planning sheets, storyboards and their actual multimodal productions (Flash multimedia presentations and 3D animated productions known as MediaStage productions). I used these artefacts in my interviews to understand the ways they went about making choices together in order to create a multimodal production, i.e. their ways of coordinating their roles and work-sharing to achieve completion of the production work given to them by their teacher.

The second set of artefacts that I used to direct the individual interviews were the research participants' diaries and/or blogs. Following the arguments of K. Jones, Martin-Jones and Bhatt (2000), I used the research participants' diaries to provide me with a means of understanding the students' literacy practices across space and time. Used in this way, the

diaries were elicited texts (texts that involved research participants in writing the data) (Charmaz, 2006, p. 36). For the research diaries, I let the students decide which specific day and time of their lives to write about, as long as what they wrote about pertained to their reading and/or writing activities in and out of school. Additionally, I did not stipulate when and how many times they should write in their diaries. The other aspect of decision-making that I allowed was the students' choice of diary. Some preferred to email me their diaries. Although the form of diaries was not standardised, I respected their decisions in view of my purpose for this activity. Moreover, I realised that the varied means of writing their research diaries (email messages, print-based diaries, blogs) were indications of how diverse their interests and values were.

Seven research participants did not want to write diaries for me and invited me to read their blogs instead. Melissa wrote a research diary and also invited me to read her blogs. Xin wrote a research dairy for me in August 2007 when she could not blog at home because her computer had broken down. The research participants' blogs became extant texts (these are texts where the researcher does not affect their construction) that I used for the individual interviews (Charmaz, 2006, p. 37). During the individual interviews, the students also showed me the artefacts that they mentioned in their diaries and/or blogs such as their photographs edited using Adobe Photoshop (extant texts as research participants' artefacts).

The third set of artefacts were the students' self-taken photographs (Carson et al., 2004; Hamilton, 2000; Hodge & Jones, 2000). I invited my research participants to take photographs of places in school and out of school where their reading and/or writing activities took place. In allowing

them to decide where and what they wanted to photograph, I used these photos to elicit their perceptions on issues relating to their literacy practices during the individual interviews. The photographs formed another sort of ethnographic evidence of their literacy events that they revealed in their diaries and/or blogs.

It was noted that before making my request for their self-taken photographs, many of my research participants already had the habit of posting photographs they took with their mobile phones on their blogs. Such a method matched their literacy practices at that time and thus became a convenient way of involving them in the research process and augmenting what I had gathered from their diaries and/or blogs. With the combination of diaries, diary-focused and photograph-elicitation interviews, and mapping activities that I describe below, I hope to achieve the benefits of these ethnographic methods mentioned by K. Jones et al. (2000), i.e. “to identify where texts were centrally constitutive of social action and social processes, where texts mediated a particular dimension of a particular social processes or where they played no part at all” (p. 332).

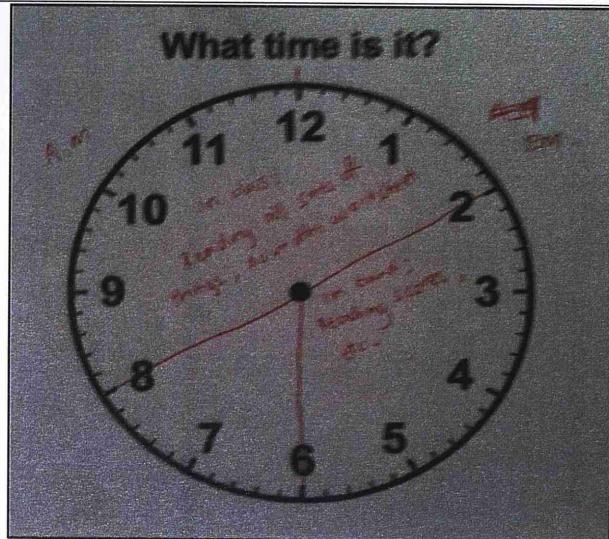
The fourth set of students’ artefacts were elicited using mapping methods, mainly originating from the Literacies for Learning in Further Education (LfFE) project (Ivanič et al., 2009) to map adolescent students’ literacy practices across time and space. They are useful for understanding the social relations, purpose of the practices and situated experience of these literacy demands. Given the presumed sensitivity to adolescence amongst my research participants and the topic of out-of-school literacy practices, I wanted to choose a research method that would allow me to assist my research

participants in developing their own understanding of their reading and/or writing activities outside school.

Other than the participants writing research diaries and taking photographs of their daily literacy events and texts that they engaged with, I drew on the following four mapping activities of their literacy events across time and space: Besides Satchwell's (2006) "Literacy Around the Clock", that was used during the individual interviews, and the other three mapping activities that took place on separate occasions in a group setting before I had interviews with the individuals. The grouping followed the same grouping used for their project work, as described in Section 1.4.3 in Chapter 1. I then made use of the artefacts from these mapping activities to anchor my focus for the individual interviews. Figures 3.3a to 3.3d explain how I went about conducting the four mapping activities.

Figure 3.3a. Literacy Round the Clock: Mapping Out Literacy Events According to Time

I followed Satchwell's (2006) "Literacy Around the Clock" to map my research participants' literacy events according to the time of day. This was the first mapping activity and was used during the individual interviews. In this mapping activity, I asked my research participants to think of a particular day and recall the reading and writing activities they did on that day. They could then write and/or draw these activities on a picture of a clock face that I gave them. They were also given an option not to use the clock face but have their own temporal representation of their literacy activities.

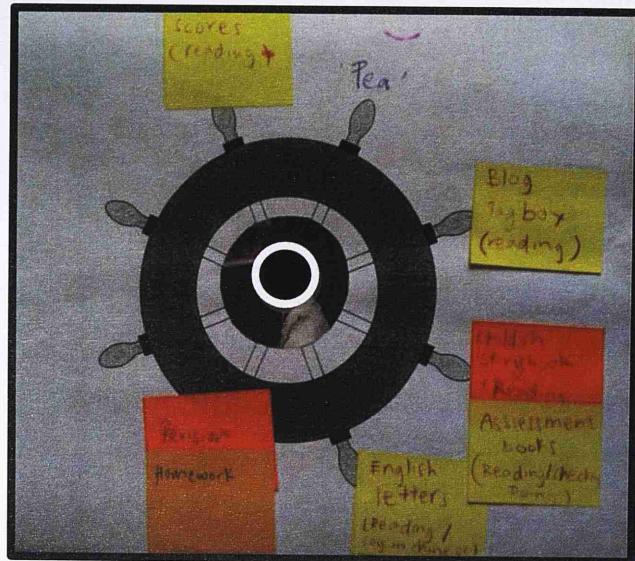


I then asked them to compare this particular day they had represented with any other days. I used the following question as a trigger to find out more about regular literacy activities in their everyday lives: "Compare this particular day with other days. Are there other reading and writing activities which you do on other days that are not captured on the clock face?"

I also used Satchwell's (2006) "Literacy around the Clock" activity to compare with what my research participants first told me about their everyday literacy practices in Group Interview 1. This was intended to validate my interpretation of my research participants' out-of-school literacy practices.

Figure 3.3b. The 'Captain of my Life' Activity: Mapping Out Literacy Events According to Roles

I adapted Anstey and Bull's (2006) idea of asking students to map their literacy activities to their roles as a way to help them better understand that reading and writing are part and parcel of everyday life. I called it the "Captain of my Life" activity where my research participants' mapped their literacy activities associated to the roles they played at school and in their everyday lives. In this activity, I gave them a picture of a ship's wheel as a form of visual metaphor for the students controlling their own lives. The 'Captain of my Life' activity aims to direct the focus from literacy practices occurring on a given day to roles across domains which go beyond the time frame of a particular day.



Prior to this mapping activity, I took pictures of my research participants, individually and as a group, based on their group seating arrangement. In groups of four to five, the students pasted the group photo at the centre of the ship's wheel. The group was given a picture of the steering wheel of a ship. As a group, they discussed the possible roles that they played in and out of school and wrote them on each of the spokes of the ship's wheel (there can be more than one role next to each spoke). To provide them with an example, I used myself to illustrate to them the roles that I assumed.

As an individual activity, each student was given a copy of the picture of the ship's wheel. Each of them pasted his/her photo in the centre of their wheel and then wrote the different roles they played on the picture (usually next to each spoke of the ship's wheel). The choice of using students' personal photographs was an attempt to keep them focused on reflecting on their own literacy practices. Each student was then asked to write/draw what they read and wrote when assuming each role. If it was a printed text, the student would be asked to write/draw on a yellow note pad. If it was a multimodal text, he/she was asked to write/draw on an orange note pad. Printed texts could be multimodal. Hence, how students classified the texts become a discussion point about their literacy practices for the follow-up individual interviews.

Figure 3.3c. Pseudo Venn Diagram Representations of Students' Literacy Practices

This activity was inspired by the research work done by Mannion et al. (2007) and Mannion and Miller (2005), but my use of the activity differed from theirs in the following ways:

- (a) As my research participants were 14 years old, I developed a more adolescent-sensitive form of Venn diagram as these diagrams are often associated with mathematics. Hence, my research participants might not be motivated to participate in "another school-like" task, especially when the activity was being conducted after their final examinations for the year.
- (b) Mannion et al. (2007) focus on three domains in their use of Venn diagrams which are relevant to Further Education Colleges, i.e. at home, school or work, whereas Mannion and Miller (2005) focus on college, work, home and community. Given the scope of my study, I could only focus broadly on two domains – school and out of school.
- (c) I left it to my research participants to decide how the domains could be connected or disconnected in terms of the kind of reading and/or writing activities that they engaged in. I provided them with four possible permutations of Venn diagrams, in the form of manga art (a popular art form among my research participants), otherwise known as what I call pseudo Venn diagrams.

Each student was given a range of pseudo Venn diagram representations. I explained to the students how these Venn diagrams could be used to represent their reading and/or writing activities in and out of school. Students shared their representations and rationales for them with other members in the group. This activity was intended to map out students' reading and/or writing activities according to the types of texts they engaged in, their modes and media, the purposes and domains of use.

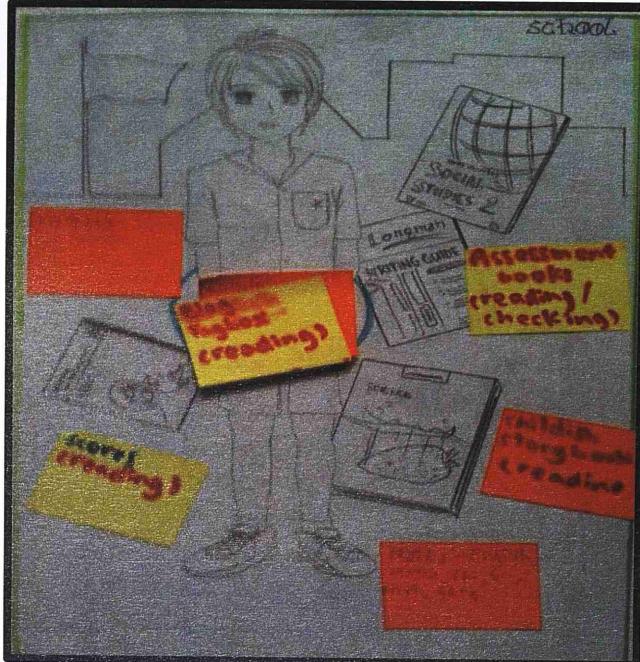
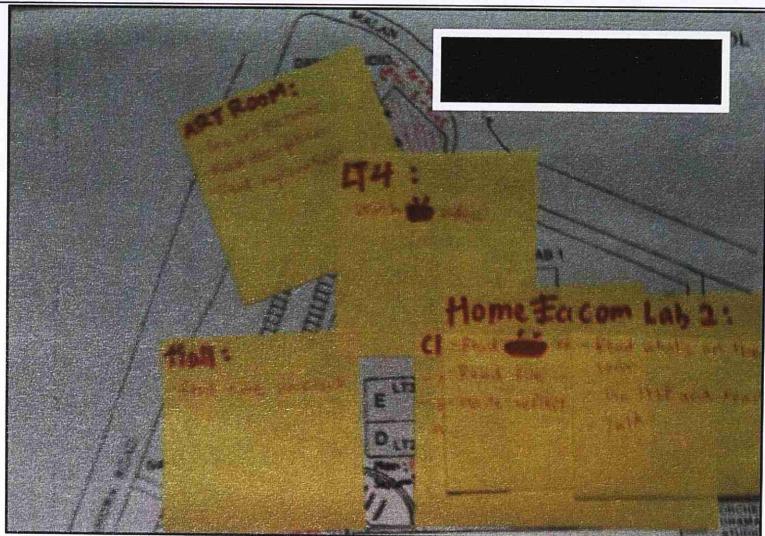


Figure 3.3d. School Floor Plan Annotation

I followed Mannion et al.'s (2007) idea of mapping literacy events to space within a specific physical site. Each student was presented with a floor plan of their school which the vice-principal of the school had kindly given to me. I went through the floor plan with them to check that they knew what was represented on the plan. I then asked the students the following questions:

- (a) In a typical week, where do you usually go at school? Mark these places with the time of day on the floor plan.
- (b) Think about what you do there. Which of these areas involve some form of reading and/or writing by you?

Each student was given sticky notes. Individually, the students wrote the activities and types of texts on the notepads and pasted them onto the respective spaces indicated on the floor plan. As an alternative, I also provided them with photographs that I had taken at different sites in their school. The students annotated the floor plan and shared what types of texts they read and/or wrote in these spaces. I used this activity to find out more about their identities when learning in and out of school.



The merit of these mapping activities lies in my invitation to the adolescent students to come forward, as they are, with what they embody in their text experience. This is paramount to studying adolescents' multimodal textual repertoires. During the mapping activities (except for Satchwell's (2006) "Literacy Around the Clock"), I observed that the group setting brought up disagreements and interesting shared knowledge that students had. Although their representations during the mapping activities might be influenced by the presence of their peers in a group setting, their individual perspectives were solicited again during the subsequent individual interviews. The research dairies, blogs, self-taken photographs and artefacts from the mapping activities were used to identify questions for individual interviews with my research participants. Studying these artefacts, and relating my individual interviews to them, enabled me to gain ethnographic perspectives of the students' out-of-school literacy practices. This adds to the validity of my research, an important consideration which I shall discuss further in Section 3.4.3.

3.4 Analysing the Ethnographic Data

Knobel and Lankshear (1999) emphasise that data analysis is a theoretical and interpretive practice. In this section, I describe and justify how I analysed my data by providing accounts of the way I transcribed and coded my data. I also justify how validity and trustworthiness of my study have been achieved.

3.4.1 Transcription

Cameron (2001) claims that transcription is the beginning of the data analysis and interpretation process. Decisions on what to include and how to represent that in a comprehensible form are paramount in transcription. Roberts (1997) asserts that “transcription is representation, and there is no natural or objective way in which talk can be written” (p. 168); hence, a transcription system that can best represent the recorded interactions is required.

For my data, I originally intended to transcribe my video and audio recordings to facilitate further analysis. However, because my research participants were working on their productions in a noisy multimedia environment, I could hardly decipher the talk that was heard when I played back the videos. Despite this problem, I proceeded with writing content logs (Jordan & Henderson, 1995) where I logged the basic elements of literacy events and practices, based on Hamilton’s (2000) framework, during the video playback. I was not able to expand my content logs into video transcription with annotations of verbal and non-verbal behaviours represented, a common

method recommended in qualitative research (Erickson, 2006; Goldman, Pea, Barron & Denny, 2007). Hence, for transcription for my data analysis, I transcribed the group and individual interviews with my research participants, and the audio recordings of their interactions made during my participant observations.

My audio and interview recordings were saved as Windows Media audio files. To convert the sounds into data, I first referred to Freebody's (2003) conventions that are based on conversational analysis (CA). I chose the conventions developed within CA because I wanted to study their interactions around texts, and how meanings were jointly constructed during the interviews with me. Hence, I transcribed verbatim, by using the conventions recommended by Freebody to indicate: (a) parts of the talk that had interruptions; (b) overlappings; (c) emphasis on certain words; (d) elongated vowel sounds; (e) words that run together; (f) parts of the talk that showed they were indecipherable; (g) my best guess at difficult-to-transcribe talk; (h) comments about the talk; (i) pauses that occurred in the talk (ibid). As I was not conducting conversational analysis of the talk as such, I decided to omit arrows indicating rising or falling intonation. I also followed Freebody's suggestion to use punctuation marks to replace what I interpreted from intonations heard in the talk in order to make my transcripts more readable when I re-read them (ibid).

I revised the transcription conventions that I used for my first round of transcription when I was selecting excerpts for illustration purposes during my thesis writing. The revision was intended to differentiate translation from Chinese or other dialects, or Singapore Colloquial English, to intelligible

Standard Singapore English. This revision was necessary as I wanted to represent my research participants' cultural practices of meaning-making through their talk.

I also needed a convention to indicate a gloss because some terms used by my research participants make sense only to those who are familiar with the Singaporean education system or who have lived in Singapore. The last revision that I made was to include a convention to indicate laughter. Laughter was constantly heard when my research participants were working together on their multimodal productions. This became a noteworthy point which I developed further in my interpretation of the data. Table 3.1 shows the final transcription convention for audio analysis in my thesis.

Table 3.1. Transcription convention for audio analysis in my thesis (Adapted from Freebody, 2003)

interruption	//
[Beginning of overlapping talk
]	End of overlapping talk
Talk-talk-talk	Words that are run together
(talk)	Best guess of difficult-to-transcribe talk
(x.0)	Pause of x seconds; (.) is sometimes used to indicate a brief untimed pause
<u>Talk</u>	Emphasised talk
Ta::alk	Elongated vowel talk
,	Continuing intonation, typically annotated in written text
.	Falling tone to indicate the end of a sentence
?	Rising or rising-falling tone to indicate a question recognisable in Singapore Colloquial English or Standard Singapore English
!	Rising tone to indicate any form of exclamation recognisable in Singapore Colloquial English or Standard Singapore English
()	Indecipherable talk
((comment))	Comment
((talk))	Bold font to indicate translated talk
((gloss))	A gloss
((giggle))	Non-verbal features such as laughing, coughing, sighing etc. are written in italics and parentheses

3.4.2 Coding and Memo-Writing

Whilst I do not follow grounded theory practice in detail, I drew on Charmaz's (2006) practice when coding my data. Putting forward the argument for using grounded theory, Charmaz and Mitchell (2001) claim that grounded theory methods "move the research and the researcher toward theory development" (p. 160). Their approach includes strategies common to Strauss and Corbin (1998) and comprises procedures such as seeking data while analysing them, describing observed events and social processes in the data, emergent coding of data to elicit patterns or themes, developing and integrating theoretical categories into a framework to understand the data (Charmaz, 2006; Charmaz & Mitchell, 2001).

My decision to frame my analysis using Charmaz's (2006) grounded theory practice is in line with my constructivist epistemology. The care taken in aligning theory and method ensures that I am coherent in my logic in use (Gee & Green, 1998; Green & Bloome, 1997; Heath et al., 2008). Charmaz (2006) adopts a constructivist epistemology, also known as social constructionist by many methodologists (Patton, 2002). In Charmaz and Mitchell (2001), the authors claim that Strauss and Corbin (1998) "profess traditional positivistic concerns about reliability, validity and verification" (p. 161). In contrast, Charmaz focuses on how action and meaning are constructed. Hence, she is more concerned with the correspondence between the researcher's ethnographic descriptions and the human experience observed (Charmaz & Mitchell, 2001):

Neither observer nor observed come to a scene untouched by the world. Researchers and subjects hold worldviews, possess stocks of

knowledge, and pursue purposes that influence their respective views and actions in the presence of the other. Nevertheless, researchers alone are obligated to be reflexive about what they see and how they see it. (p. 162)

Charmaz's (2006) approach entails the emergent coding of data to elicit patterns or themes, developing and integrating the theoretical categories into a framework to understand the data. I drew on Charmaz's (2006) suggestion to code with gerunds to help me stay close to the data. Nonetheless, because I had 10 research participants, I added the subject (my particular research participant) before the verb to track who was doing what at a particular time. An example was: *Amelia selecting and deciding the song to use for the presentation.*

When analysing my fieldnotes and video logs, I employed Charmaz's (2006) incident-to-incident coding. In incident-to-incident coding, the researcher compares incidents and focuses on the research participants' mundane behaviours. This works well for observational data such as my fieldnotes and video logs. I found that treating Charmaz's (2006) incidents as a literacy activity worked well when using Hamilton's (2000) framework for analysing a literacy event. Charmaz (2006) explains that with incident-to-incident coding, routine actions in incidents are coded so that comparisons between incidents can be made. However, there is no clear definition of what constitutes an incident from either Charmaz's (2006) or Emerson's (2007) work on using key incidents for data analysis. Hence, when I treated each incident as a literacy activity, I remained consistent in using the literacy event

as my basic unit for analysing literacy practices (Barton & Hamilton, 2000) across my sources of data.

For the analysis of the audio recordings from my participant observations and interviews, I transcribed my recordings and coded the transcripts line by line, as advised by Charmaz (2006), to allow themes to emerge. Specifically, I was looking for insights into what I could not perceive when analysing the video data. The line-by-line coding sensitised me to aspects such as the nature of the talk, how roles were performed and how production choices were made.

However, I did not find Charmaz's (2006) coding processes to be suitable for multimodal artefacts, such as the school productions, artefacts from the mapping activities, self-taken photographs, diaries, blogs and storyboards. For these artefacts, I relied on a more generalised open-coding system suggested by Dornyei (2007), where I labelled parts of these artefacts that enabled me to understand the basic elements of literacy events and practices suggested by Hamilton (2000). I would ask the following questions with regard to open coding: For literacy events represented in the artefacts or involved in creating the artefacts, who were the participants that were represented or involved?; what was the setting that was represented or involved?; what tools were represented or used to create the artefacts?; and what activities were represented or involved in creating the artefacts?

My initial coding started with coding my data by types, as described above. As my research participants were grouped for my participant observations, I started engaging with constant comparative methods (Glaser &

Strauss, as cited in Charmaz, 2006) at the end of my initial coding. I compared the emerging themes from the coding of each data type across the groups. For instance, for the coding of fieldnotes, I looked at the themes emerging from the Group 1 data to see whether they were relevant or not for the other groups.

I became more focused on my coding when I started to recode my data by group and text-production type. For instance, for the coding of data relating to Group 1's Flash multimedia production, I noted which themes emerged from the Group 1 data (fieldnotes, video logs, school artefacts, interview and audio transcripts relating to the Flash multimedia production) and were found in or were absent from other groups' Flash multimedia productions. The same procedure was applied to the datasets relevant to MediaStage production. I then tabulated the comparisons of themes that emerged from all the groups in the data relating to the Flash multimedia productions and MediaStage productions, using an Excel spreadsheet.

To compare school and out-of-school literacy practices, I needed first to compare the themes that emerged from studying my research participants' artefacts from the mapping activities, research diaries, blogs, self-taken photographs, and the individual interviews. First, I tabulated the comparisons of themes that emerged from the data specific to each research participant in order to look for common themes and for those that stood out by themselves. Second, I compared these themes with those that emerged from coding the data needed to understand my research participants' school literacy practices. This led me to axial coding, i.e. coding that links categories to sub-categories

and “specifies the properties and dimensions of a category” (Charmaz, 2006, p. 60).

The process of coding was iterative. I coded my fieldnotes immediately after each participant observation. This was necessary because what I observed about their practices constantly influenced my gaze for subsequent participant observations and helped me to frame the direction of my group interviews. I was not able to analyse my audio data in time before each participant observation. This was due to work commitments and the immense amount of audio data I had to transcribe and analyse before my following participant observation, which was usually one week later. The same applies to my video logs.

As for the students’ school artefacts, I could only obtain them from the teacher after she had marked them. They were coded before the group interviews, as my interpretations of the students’ school artefacts also framed my interview questions for the group interviews. As for the students’ research diaries, blogs, self-taken photographs and artefacts from the mapping activities, they were coded before each individual interview. This was an ongoing process, as this was timed in accordance with what I received from the students.

For those with printed research diaries, I had to photocopy their entries on the same day I received them from the students so that I would not disrupt their momentum of writing research diaries for me. For the blog posts, I had to rely on multiple modes of collecting and representing my data: (a) video recording of blogs, using Camtasia software, to capture their multimodal

aspects (the visual appeal of the blog skins, the video and music files embedded in the blogs, the pictures posted, the multimodal nature of writing the blog posts with all their range of font colours, font styles and emoticons and active links within them); (b) a printed copy of blog postings – to facilitate my reading of the postings without having to scroll up and down the blog; (c) my memos of what I read from each of their blog postings.

The first set of group interviews were transcribed and coded before the second set of group interviews started. Likewise, the second set of group interviews were transcribed and coded before the third set of group interviews. This was necessary as I often checked my interpretations of my analysis of the previous group interviews with my research participants. For the last set of group interviews, I checked my interpretations of what my research participants shared with me at the end of Group Interview 3. Likewise, this was done in my final individual interviews with each of my 10 research participants.

Focused coding could only occur when I had more “analytic sense” (Charmaz, 2006, p. 58) of what codes and eventually themes would be significant to my study after countless hours of analysing my data. This would not have been possible without my habit of writing short memos after analysing each data type. At different stages of analysing my data, I developed my short memos into conceptual memos for the analysis of each of the data types, which I then organised into: (a) overview, (b) patterns, insights and breakthroughs, and (c) problems and setbacks (Heath et al., 2008, p. 80).

3.4.3 Validity and Trustworthiness of the Study

Anfara, Brown and Mangione (2002) assert that “in all the discussions of validity in qualitative research there is one major element that is not sufficiently addressed – the public disclosure of processes” (p. 29). In this chapter, I have described the way that I went about coding my data with the aim of achieving validity in my qualitative study. I have aimed to achieve *communicative validity* that stresses “the soundness of the argument put forward”, and to present the reader with trustworthy interpretations of the phenomena studied (Carspecken, as cited in Knobel, 1999, p. 15). I have achieved this by adhering to Denzin and Lincoln’s (2008) criteria for evaluating research based on a constructivist epistemology: *credibility*, *transferability*, and *trustworthiness*.

Credibility is the salient test of ‘reality’. Charmaz (2006) explains that for a study to be credible, there must be sufficient data and evidence to merit the researcher’s claims, systematic comparisons between observations and categories, and a strong link between the data gathered and the researcher’s argument and analysis. To enhance credibility, qualitative researchers use various procedures, such as prolonged engagement, persistent observation, and triangulation. By triangulation, I refer to Patton’s (2002) *data triangulation* (using a range of data types) and *methodological triangulation* (using multiple methods for data collection) (p. 247), which I accounted for in Section 3.3.

Transferability is the other criterion in constructivist epistemology (Denzin & Lincoln, 2008). The thick descriptions that I provide, based on an ethnographic perspective of literacy research, give my readers sufficient

details to determine whether or not my ways of researching and findings can be transferred. With increasing numbers of ethnographic accounts of new literacies, I argue that literacy researchers are able to compare and contrast what has been done and draw on one another's studies to understand literacy practices holistically, in different contexts, even though each ethnographic study is bound to the context it situates itself in.

Denzin and Lincoln (2008) have argued for the trustworthiness of a study within the constructivist paradigm. Knobel (1999) also contends that "the trustworthiness of a study can be claimed by the researcher, but ultimately can only be verified by readers" (p. 15). I used member checks, amongst other techniques, to achieve trustworthiness for my research. In the interviews that I conducted, I informed my research participants what I had interpreted, based on the data that I analysed, and shared with them what I heard from them at the end of each interview. I invited them to correct my interpretations and noted what was perceived as valid to them instead.

3.5 Research Ethics

I asked permission from the school authorities to speak to two classes, 2F and 2J, which were under the charge of the teacher with whom I worked on the collaborative NIE-Lakeshore High School project. As part of the process of collecting data, I made a conscious effort not to compromise on research ethics, as regulated by Lancaster University. Although the students had seen me in their classrooms, because of my collaborative project with their teacher,

I did not take it for granted that they would allow me to observe them and record their group interactions without signing a formal consent form.

At the start of my PhD research, I briefed the two classes about my research interest and invited them to participate in my study in May 2007. To those who volunteered, I gave an information sheet about what my PhD project entailed, what was required from them, the risks and benefits that might occur during the research study, how I could guarantee the confidentiality of what they would share with me, and how the results of the study would be used. I did not brief the parents but rather asked the students to seek their parents' consent. I also made it known to them that their parents could call me should they need any clarification. Both students and their parents signed, on the same consent form that I gave them, before I collected data from them. Appendix 1 shows the information sheet and consent form that I used.

Four of my research participants were bloggers. As soon as I had received the blog addresses of my research participants, I started reading, recording and coding their blog posts. Because of the archival feature in blogs, I could have accessed blog posts by my research participants' that were published before the date indicated on the consent forms. However, I did not do so as I felt it was only proper to read their blogs with their knowledge and clear invitation to do so. I also did not tag their blogs (leave comments on their blogs) when I read them because I was aware that my online adult presence might deter their friends from tagging, or deter them from writing freely on their blogs.

The other ethical practice that I deliberately engaged in is demonstrated by the way I transcribed my audio recordings and interviews. I made a commitment to represent my research participants' voices to the best of my ability. Hence, to avoid any possible alteration of their intentions, I included conventions that overtly showed my translation of their utterances when this was called for, such as instances where they code-switched.

3.6 Methodological Challenges

Some of the methodological challenges I encountered in my study are inherent in conducting an ethnographic study. Broadly, these challenges were related to my position as researcher, my relationship(s) with the research participants, the use of technology to collect data, and interviewing adolescents. These challenges were, nonetheless, inter-related.

3.6.1 My Shifting Position

In my study, I positioned myself as *the cultural Other*, a term coined by Bhaba (1994), in his argument on the construction of culture in spaces where cultural differences occur. I positioned myself as a cultural Other because I was not born into an environment in which I used technology in a taken-for-granted manner; I had to attend courses to learn how to use the Internet, Flash and Windows applications as part of my work obligations. Being a cultural Other was not necessarily a limitation as it engaged me in an internal dialogue between an insider's and an outsider's perspectives, and deepened my understanding of adolescent literacies.

C.A. Davies (2008) defines reflexivity as “a turning back on oneself, a process of self-reference” (p. 4). Throughout my research, I have borne in mind three aspects of reflexivity, as suggested by Patton (2002). These include *self-reflexivity* (my way(s) of knowing), *reflexivity about those studied* (their ways of knowing and their worldviews), and *reflexivity about audience* (their relationship with me, how they perceive me, the perspectives they offer to my inquiry) (Patton, 2002).

I observed that my scholastic stance had given rise to my assumption that the adolescents in my study needed guidance in reading, viewing and producing multimodal and multimedia texts. Part of my work with my research participants' language arts teacher was to produce a reading toolkit which would serve as a scaffold to help her and her students read a multimodal text (Tan & Guo, 2009). This scaffold was created based on the assumption that there was a need for teachers and students to learn a metalanguage to negotiate the meanings constructed in multimodal texts. Having equipped themselves with this knowledge, this would thus enable them to apply the same metalanguage when text production was involved in school literacy practices. However, it was after a few participant observations and coding of my video logs that I began to realise that the students did not need any scaffolding for their text production.

The other challenge as a cultural Other was to understand and accept the social language used by my research participants. At first, I struggled when studying their blogs and diaries as they used so many emoticons and so much 'MSN language'. Being an ex-school teacher, I had to suspend my personal judgement that such social language was 'not English at all'. To help

me understand the texts they created, I had to learn from my research participants what those symbols and strings of letters meant. In my group and individual interviews with them, I was corrected for using words like “blog template” when I should have said “blog skin”. I did not understand what they meant by “tag me” or “my blog is dead”. My research participants were so amused by my ignorance of their everyday language that one of my research participants, Melissa, wrote me a long email to teach me how to start my own blog and create my own blog skin.

As my research participants got to know me better, in the course of my study, I realised I had shifted from an observer to a participant- observer. While there are several roles an ethnographer can adopt (J. Davies & Merchant, 2007), I became a substitute teacher in the last few participant observations. My research participants’ teacher became busier with administrative matters related to the year-end examinations towards the end of 2007. On a few occasions, she left me alone with Class 2F and Class 2J. On one occasion, she was on medical leave and I had to take over her lesson as the substitute teacher. On that day, she even texted me about what to do with her two classes in her absence.

Although it can be argued that being a substitute teacher was an indication that I had been accepted by the two classes, this role also posed a problem to my participant observations. As substitute teacher, writing fieldnotes became difficult when I had to attend to the students’ questions and technical problems. Ultimately, I ended up by summarising my observations after each class had ended. As a result, I was not able to write up vivid and

descriptive actions and activities which is the recommended technique for writing fieldnotes (Nespor, 2006) when I was the substitute teacher.

3.6.2 The Researcher-and-Research Participant Relationships

As suggested in Section 3.6.1, my position changed as my relationships with the research participants grew closer. At the start of my research study, I assumed that because the students had seen me in their classes with their language arts teacher, I should be readily accepted by my research participants when I asked them to participate in my study. However, being seen with their teacher positioned me too as a teacher in my research participants' view and this was not favourable to my case at all.

For instance, when I was still exploring possible research directions for my PhD study, I casually asked the students in Classes 2F and 2J whether they had blogs. Some of those who told me that they did not have blogs later became my research participants. A comparison of my initial list of those who claimed that they did not have blogs and my research participants' blog addresses shows some of those students who were initially not ready to share their blogs with me. Amanda was one of those who told me that she did not have a blog. Furthermore, she also did not want me to know how I could locate her fan fiction on the Web. She claimed that she would be embarrassed to let me read what she wrote. It was towards the end of 2007 that I managed to convince her to give me the name of her fan fiction, just in time for my last individual interview with her. Clearly, trust was needed for me to have access to their out-of-school text productions, such as blogs and fan fiction.

When I found out that the students went on MSN chat often, I tried building rapport with them by chatting with them online. This proved to be challenging when I was in Singapore because my research participants often went online at night, the time of day when I had to attend to my family. Nonetheless, I made use of the difference in time zones and invested some time chatting with them online when I had my residency at Lancaster. It was a short but helpful period to help 'break the ice' between us.

I would not claim that MSN chatting fully closed the gap between my research participants and I. Nonetheless, the time I spent interacting with them, in the course of doing my research, helped me gain their acceptance. For instance, Jay invited me to be his friend through a social network site, Friendster, at the end of 2007; Wendy invited me to be her pen pal after our last interview. She would write to me sometimes in her research diary and ask me for advice on how to resolve certain situations she encountered in class. To Wendy, my role as a researcher had expanded to agony aunt.

I would argue that the relationship between researcher and research participants will eventually circumvent the negative effects of the researcher's presence. During my participant observations, I consciously stood in a space that was less intrusive. Nonetheless, I was near enough to be noticed by my research participants. In the earlier phases of my study, I observed instances where my research participants would quickly close their blogs when I was near them during my participant observations. Video and audio recording also created some discomfort for my research participants in the early phases of my study. (See the next section where I address this point at greater length.)

Nevertheless, towards the end of 2007 when I was with my research participants without their language arts teacher, those who liked to read their blogs during their production work continued to do so in my presence. Music from Windows Media Player was also played for their leisure purpose during their production work. These observations became part of my findings which I analyse in detail in Chapter 6. If I forgot to switch on the audio-recorders, my research participants would remind me about it before they started their work. Without their reminders, I would not have been able to collect all the data I needed for this thesis. My friendship with them thus became an asset to me as I progressed with my research.

3.6.3 The Use of Technology for Data Collection

Hammersley (2006), amongst many others, claims that the use of multiple methods to collect data collection is one of the distinguishing features of ethnography. When adopting an ethnographic perspective in my study, the use of technology to collect multiple types of data posed several challenges for me. The first concerned my (researcher's) intrusive presence, the second concerned the technicalities of recording data.

When I played back my video recordings, I realised that one of my research participants, Xin, was not comfortable with the video recording the first time this occurred. She covered her face with a piece of A4-sized paper whenever she could. Similarly, Melissa tried to move away from the video camera so that her face could not be captured by the video camera. However, I did not observe any further such discomfort in subsequent recordings.

On a sustained basis, I noted that Pamela and Tiffany did not like wearing audio recorders around their necks. They preferred to hold their individual audio recorders in their hand or leave them on the table while they worked. Although I tried persuading them to wear the audio recorders round their necks, preferably close to their chin to ensure audible recordings, I did not force them to do so for fear that they would choose not to record anything at all.

The first technical problem arose because I had no idea how fast adolescents could be in changing their blog skins. On average, they changed their blog skin every fortnight. I soon learnt to read and record their blogs fortnightly, rather than once a month.

A second technical problem arose because I was single-handedly video- and-audio recording my participant observations. As my research participants were grouped for recording and project purposes, I had to quickly switch on the video and audio recorders for all of them, moving from group to group, before they started their production work. This posed a problem on two occasions when the teacher did not give me ample time to set up my recording equipment before her lesson started. Eventually, I sought my research participants' help in switching on the audio recorders. Their help also brought risk to my data collection as there were times when my research participants did not start their audio recorders. For instance, at the start of my research, Tiffany, often deleted her audio recordings or would switch off the audio recorder I gave to her.

Jewitt (2006), in her multimodal analysis of classroom interactions, suggests that it may be better for the researcher to operate the video camera, rather than “setting up a static camera and for the researcher to leave” (p. 34). Jewitt (2006) has pointed out that the latter “lessens the impact of the research on the phenomenon being studied” (p. 34). In her study, Jewitt (2006) claims that classroom demands made it difficult for the teacher she was observing to turn on and operate the video camera and that constant changes in students’ and teachers’ movements demanded constant shifting of the video camera in order for the recording of ongoing activities to take place.

In my study, I had to identify an appropriate spot where I could focus on each group of research participants to ensure that I could record their ongoing activities and computer screens. I had no choice but to leave my static camera there so that I could move from one group to another to observe my research participants and write my fieldnotes. Occasionally, the students in the class might block my video camera or shift its focus as they moved around. This was done accidentally as they moved from one spot to another. When that happened, I had to quickly reset the focus of my video camera as soon as I became aware of the problem.

Having several groups of research participants, and multiple types of data to collect from each group, made it impossible for me to synchronise the recording of each type of data at a particular point in time. Nixon (2003) advocates that literacy researchers try out ways of collecting data that cannot be addressed adequately in traditional methodologies. However, new ways of collecting data may in themselves be problematic. For instance, I tried to use Morae, a program that synchronises real-time recording of activities captured

on a computer screen, with video and audio recording of interactions that take place on the computer. However, Morae could only capture at most two students in its video camera view, whereas I had about four students in a group. The school network could not support the use of Morae and it led to constant hanging of the computers. As a result, I decided to rely on contextual knowledge from my participant observations and fieldnotes, and constant comparisons of data, to obtain a thick description and holistic perspective of my research participants' school literacy practices.

With or without Morae, the nature of engaging in multimedia and multimodal text production made the research site a very noisy environment for video and audio recording to take place. This proved to be the greatest challenge to me when I tried to transcribe my video and audio recordings. For my video recordings, I could hardly hear the students' interactions audibly. The audio recordings could be transcribed but much effort had to be put in to the transcription process. Because it was so hard to decipher what could be transcribed from the audio recordings, I was tempted to abandon using my audio recordings as data. The quality of the audio recordings worsened when my research participants saturated their interactions with laughter. At first, I thought that they were fooling around and was tempted to abandon my audio data collection. This perception could have cost me a hefty price, because without my audio data I would not have been able to understand how my students constructed their literacy practices.

3.6.4 Mitigating the Differentiation of Power

During the group and individual interviews, the students sometimes used Singapore Colloquial English. I had to put aside my teacher identity and acknowledge that this was the register they used with their peers and for the interviews. As I wanted them to have freedom of speech, I did not correct their English since I was able to understand what they said. I also made a point of using their social language, e.g. blog skins (rather than templates), tag me (rather than leave a comment on my blog) and so forth as a way to build a rapport with them.

The direction of interviews was usually driven by me, the researcher, who came prepared with a list of questions and a research agenda. To mitigate the differentiation of power between my research participants and me, I consciously used follow-up comments and probing questions to allow my research participants to direct the topic of interview conversations. Learning to let my research participants talk more than me allowed me to pursue my research agenda, yet allowed my research participants space to develop topics that were particularly meaningful to them.

The primacy in analysing the interview data was the validity of my interpretations. Without direct observation of the context of what was shared by my research participants during an interview, I would not know whether what was reported in the interview was representative of my research participants' literacy practices. I often asked myself: What were the unsayables or unobserved? Hence, at the end of each group or individual interview, I made a habit of sharing my interpretations of what I heard with my research participants as a form of member check. I found this to be apt as my

research participants' literacy practices were diverse and changing all the time. It would be hard to clarify with them matters that happened to them a few years ago, given that their lives had moved on so fast since the last day of my participant observation or interview with them. Data and methodological triangulation have also proved to be useful in achieving communicative validity, as discussed in Section 3.4.3.

3.7 Summary

In this chapter, I have attended to the merits and challenges of taking an ethnographic perspective to studying adolescent literacies. I have justified how this is more appropriate to achieve communicative validity for my study, that takes a constructivist epistemic stance. While observing the adolescents in my ethnographic study, I have also observed myself and my interactions with the adolescents. Such reflexivity has created an internal dialogue between insider and outsider perspectives which has proved to be useful in understanding adolescent literacies.

PART II

THE LITERACY PRACTICE-AND-LEARNING CONNECTION

Part II of my thesis consists of six chapters. Chapters 4 to 7 address my first research question: What are adolescent students' multimodal textual repertoires in and out of school? Throughout Chapters 4 to 7, I show ethnographic accounts of how my research participants brought in their out-of-school literacy practices to their school literacy practices when they were participating in collaborative text production.

In Chapter 8, I summarise the relationships between school and home literacy practices as two sites of literacy practices. Hence, Chapter 8 addresses the second research question: When adolescents use digital media for creating multimodal and multimedia productions for schoolwork, how do they construct a relationship between school literacy practices and those they are developing outside school? Finally, in Chapter 9, I revisit the ethnographic accounts of my research participants' multimodal textual repertoires to highlight salient ways of learning amongst my research participants in and out of school. I also highlight the tension in adolescents' identities in learning when they claimed that traditional print-based literacy in language learning remains key to their social futures.

CHAPTER FOUR

THE COLLECTIVE ASSEMBLY

"The rest we do together because we need photos and stuff."

- Melissa

4.1 Introduction

This chapter is the first of four chapters which address my first research question about adolescent students' multimodal textual repertoires in and out of school. Although I foreground my research participants' multimodal textual repertoires in school, an understanding of how these occur in their out-of-school literacy practices is necessary in order to gain insights into their school literacy practices. I start with the *collective assembly* where I define and describe how it was enacted by my research participants, in and out of school.

I turn to Lankshear and Knobel's (2003) notion of *collective assemblage* to understand how my research participants participated as a group to create their Flash and MediaStage productions in their school literacy practices. Lankshear and Knobel (2003) claim that:

Practices of information gathering and organizing are often highly customized and dispersed. The individual depends on roles being played by various services and technologies, ranging from search engines and 'bots' to customized news feeds. Hence, a particular assembly of knowledge that is brought together – however momentarily

- in the product of ‘an individual’ may more properly be understood as a *collective assemblage* involving many minds (and machines). (p. 166)

In this thesis, I borrow this term from Lankshear and Knobel (2003) to describe my research participants’ multimodal textual repertoires. However, my use of the term differs from that of Lankshear and Knobel (2003) in two ways. I address these differences in Section 4.3.

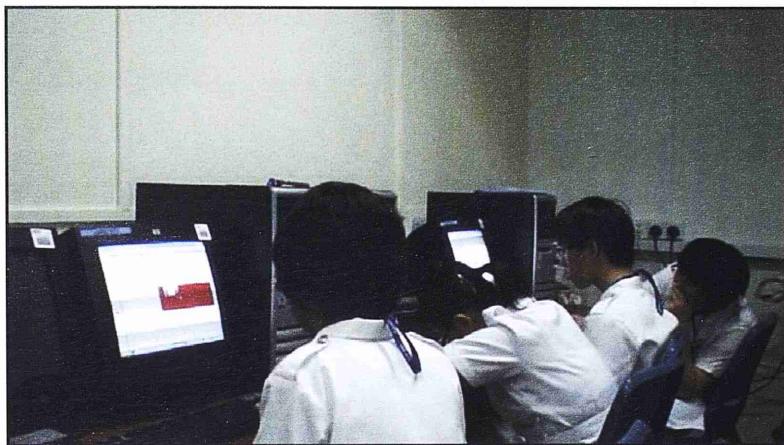
There are two main points I raise in this chapter about the collective assembly, namely collective assembly as shared authorship and collective assembly as remix. To illustrate what I mean by collective assembly in my study, I shall describe how students in Group 6, from Class 2F, engaged in Flash and MediaStage productions as anchoring points for discussions and comparisons with the other three groups of students.

4.2 Production in School Literacy Practices

Previously, in Chapter 1, I provided a description of Adobe Flash and MediaStage as well as the production tasks given to my research participants (see Sections 1.4.2.1 and 1.4.2.2). For the whole of 2007, the lessons where my research participants were creating their Flash and MediaStage productions took place in the same school computer laboratory, known as Computer Laboratory 2. This was the allocated space for Classes 2F and 2J to use computers for their schoolwork. They were also physically positioned in the computer laboratory. They stayed in the same groups and were allotted designated computers to work with, unless there was a need to change computers in instances when the computers ‘hanged’. Figure 4.1 shows the

setting for group work for the Group 6 students; there was a similar setting for the other groups, with the computers arranged in rows.

Figure 4.1. The Setting for School Productions

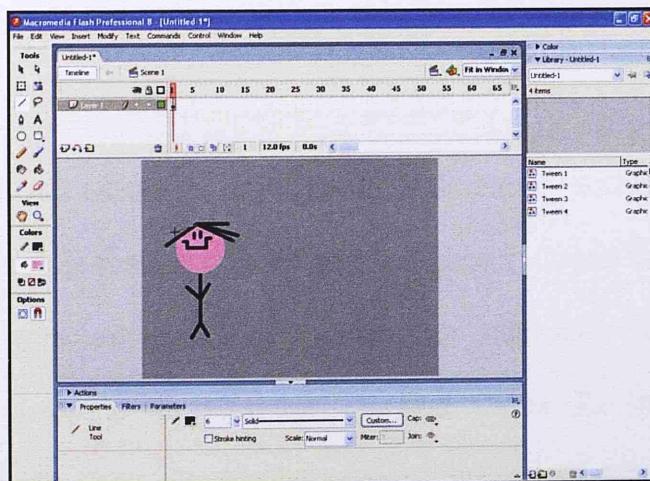


The Flash multimedia presentations were planned to align with the language arts curricular theme. For the Flash presentations, the students were learning about expository texts, particularly persuasive texts on print-based materials (e.g. advertisements in newspapers), websites and web videos. As described in Chapter 1, the Flash project required the students to create a multimedia presentation to promote their new language arts curriculum to potential overseas students who might be interested in learning English and studying at their school. The target audience for the Flash presentations was potential students who were around 12-13 years old. The language arts teacher explained to the students that their presentations might be selected for use on 'Open House Day' at the end of the year. The group project also aligned with their computer literacy lessons on Flash and was used to assess the students' technical competency in using Flash to create animated presentations.

As previously described in Section 1.4.2.1, in Chapter 1, the students had 10 formal lessons on how to use Flash in their computer literacy classes. However, Group 6 and the other two groups of my research participants from Class 2F only had two 2-hour lessons out of ten lessons to create their Flash presentations whereas Class 2J had five 2-hour lessons to do so.

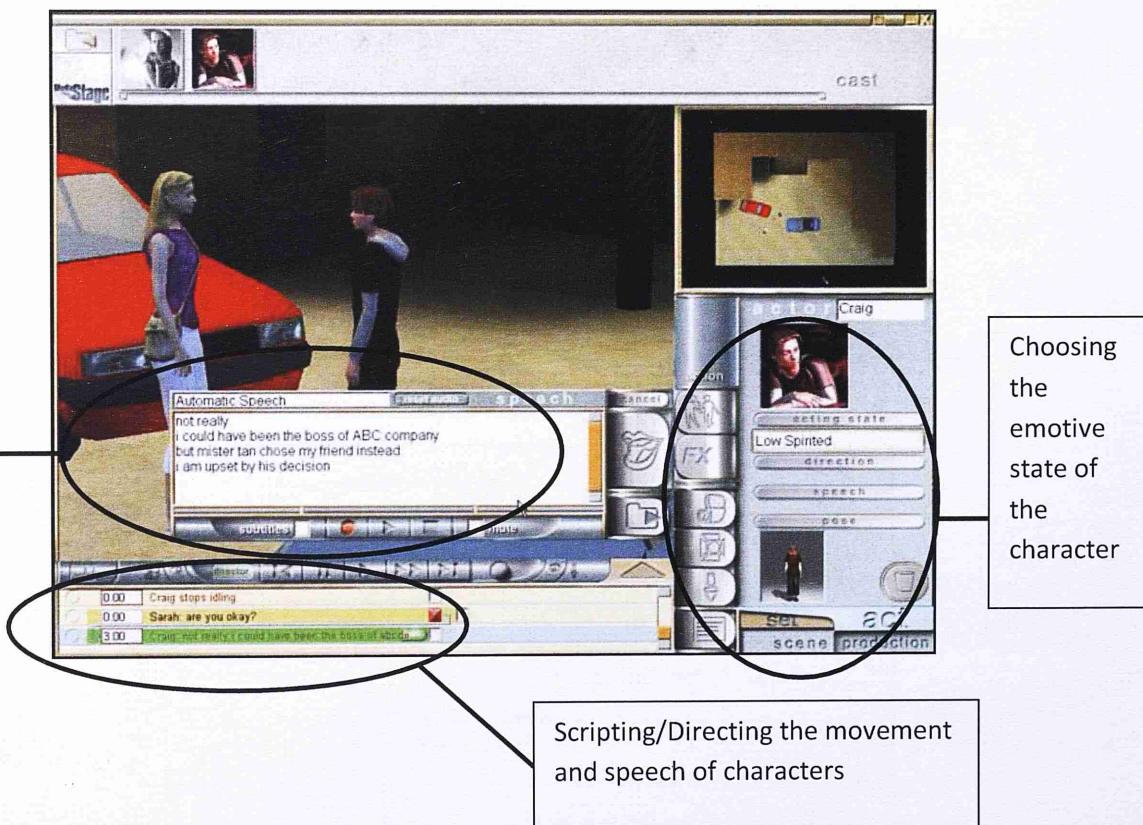
These lessons were the ninth and tenth lessons for Class 2F and the fifth to tenth lessons for Class 2J; they were set aside as time for the students to create their Flash presentations and the deadline was originally set to be the end of the tenth lesson. Nonetheless, the teachers extended the deadline for project submission and allowed the students to work on their projects on their own time outside class. To facilitate the group work, the teacher instructed the students to switch on two computers for their production tasks, i.e. one for researching information about the school and other resources such as pictures of the school that they might need for their Flash presentations, and the other to be used to create the actual Flash presentations. The teacher left it to each group to divide their roles to complete the project. Figure 4.2 shows a screen capture of a Flash multimedia presentation.

Figure 4.2. A Screen Capture of a Flash Multimedia Presentation



Like the Flash presentations, the MediaStage productions were planned to align with a curricular theme. The MediaStage productions were used as part of their lessons on literary studies. As described in Chapter 1, the teacher wanted the students to use MediaStage to produce a short clip of around 30-60 seconds to portray one of the themes that they had learnt from Macbeth Act 1 Scene 7 (see Figure 1.1 for the list of themes given by the teacher). Figure 4.3 shows a screen capture of a MediaStage production.

Figure 4.3. A Screen Capture of a MediaStage Production

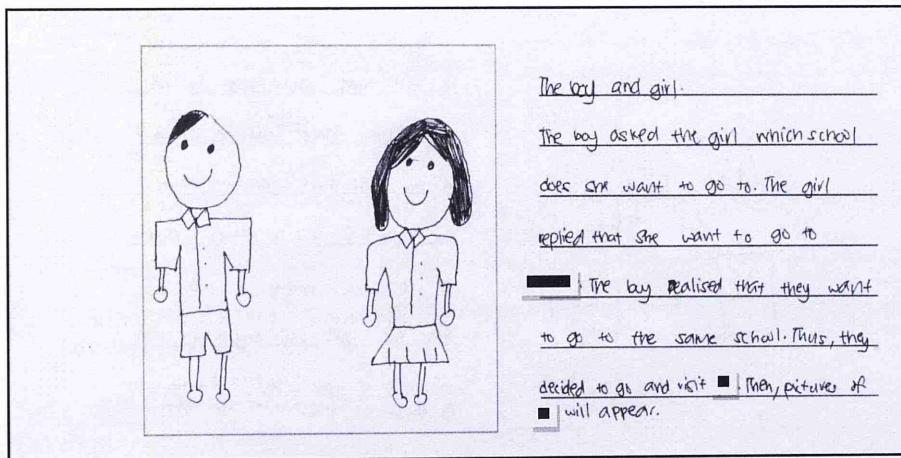


Amongst my research participants, only Brian, Sally, Xin and Tiffany attended the training sessions; Sally and Xin were in Group 6. As the year-end examinations were approaching, the teacher set aside only four 1-hour language arts lessons for Classes 2F and Class 2J to complete their MediaStage productions. There were some technical difficulties when the

school tried to install MediaStage onto all the computers in the laboratory. As a result, only half of the computers in the laboratory could be used. This meant that, for each group, there was only one computer with MediaStage installed on it for their project use.

There were standard procedures to keep to when creating the Flash presentations and MediaStage productions. Before they proceeded with a production, the students were required to plan what they wanted to represent and communicate. For the Flash presentation, the students started with storyboarding where they had to draw out a representation and the written texts that would appear on each screen. Figure 4.4 shows a screen capture of a storyboard for Flash presentation. In the figure, the name of the school is covered to ensure anonymity.

Figure 4.4. A Screen Capture of the Storyboard for the Flash Presentation



For the MediaStage production, a planning sheet with a storyboarding template was given to the students. The language arts teacher instructed the students to work on the planning sheet and storyboard before they began work on the actual production. On the planning sheet, the students were

asked to state the choice of genre of their production and the reasons for their choice, their target audience, and the main message or theme that they intended to convey. Like the Flash presentations, they were also asked to draw out their ideas for the plot, characters, props, use of music and videos (if any) for each scene. Figure 4.5 shows a screen capture of a planning-sheet template used for the MediaStage productions.

Figure 4.5. A Screen Capture of the MediaStage Planning Sheet Template

This planning sheet is to help you think through your ideas for your MediaStage production. You may follow the outline below to help you plan your production.

1. Which genre will you be creating? Examples you may consider are:
 - Film
 - Chat shows
 - Newspapers
 - MTV
 - Advertisement

We have decided to choose _____ because _____

2. The target audience we wish to attract is _____
3. The main message that we want to communicate is _____

4. Our proposed idea (You may use the following points to guide you if they are relevant to you.)

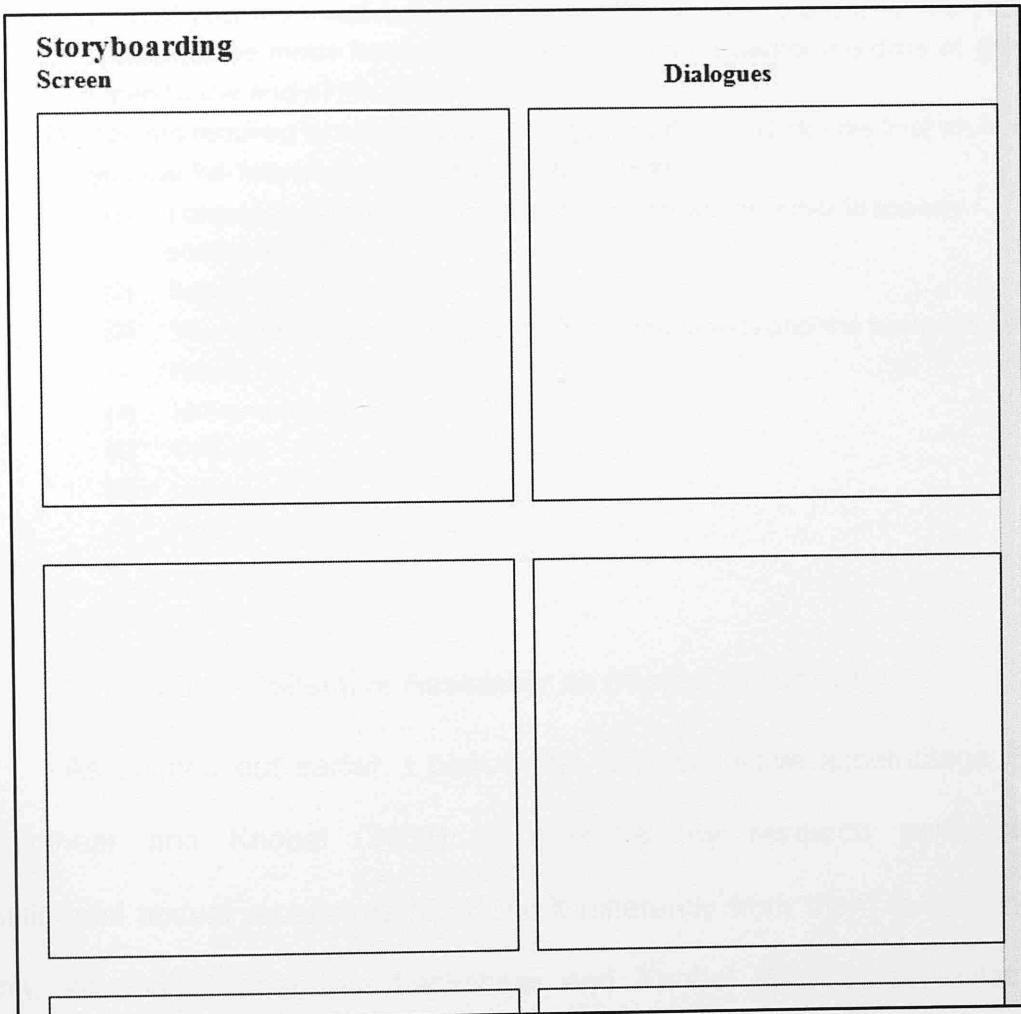
Set Building/Scene

(a) Plot

--

Additionally, a simple storyboard was also created to help them represent the flow for each scene in their production. Figure 4.6 shows what it looks like on a planning sheet.

Figure 4.6. Storyboarding Section on the MediaStage Planning Sheet Template



Besides planning and storyboarding the productions, their language arts teacher also required the students to submit a report on their production choices upon completion of each production. Figure 4.7 shows a screen capture of the report requirements for the Flash presentations (see Item 2). The same requirements were also given to the students for their MediaStage

productions. The names of the school and teacher are covered to ensure anonymity.

Figure 4.7. Report Requirements for the Productions

Project Requirement:

- (1) After you have designed the multimedia production, you may be asked to present your multimedia production on █ Open House end of the year. Details will be made known to the selected groups nearer the date of █ Open House end of the year.
- (2) You are required to write a typed 2-page report (font 12 double line) on how you use the following and submit it to Mdm █:
 - (1) Language (You should include about 250 words, either in spoken and/or written form)
 - (2) Sound (use of Audio)
 - (3) Visuals (use of photographs, pictures and videos and the perspectives Taken)
 - (4) Movement/Animation
 - (5) Colours
 - (6) Logos
 - (7) Font

4.3 Collective Assembly as Shared Authorship

As pointed out earlier, I borrow the term collective assemblage from Lankshear and Knobel (2003) to describe my research participants' multimodal textual repertoires but I use it differently from them in two ways. First, although I note that Lankshear and Knobel (2003) use collective assemblage and collective assembly interchangeably, I prefer to use the term collective assembly rather than collective assemblage. I use the former to denote my research participants' ways of participating in multimodal and multimedia production, whereas the latter denotes a product. Lankshear and Knobel (2003) focus on individuals when they use the term collective assemblage whereas I borrow their term to describe how the students in my study worked together, as members of a group, when they were creating their

productions (see Section 1.4.3 for the groups they belonged to for both productions). Second, I make a distinction between collective assembly as shared authorship and collective assembly as *remix*. In this section, I focus on collective assembly as shared authorship and move on to explain collective assembly as *remix* in Section 4.4.

I turn to works by Buckingham, Sefton-Green and Burn on media production by young people in schools when thinking about how my research participants participated in collaborative multimodal and multimedia productions. Burn describes shared responsibilities in collaborative productions as *shared authorship* where students “may adopt different roles in the production process, and practices of the industry may be simulated” (Buckingham, Grahame & Sefton-Green, as cited in Burn, 2009, p. 135). In my data, the division of labour as shared authorship was also observed during my participant observations. The observations of shared authorship in my data are close (but different) to Lankshear and Knobel’s (2003) original meaning of collective assemblage.

In my data, my research participants’ literacy practices were both customised and dispersed when they were creating their Flash and MediaStage productions. This was observed for all four groups. Similar to Lankshear and Knobel’s (2003) claim about the practices of information gathering and organising, their practices were customised as many of their production choices leveraged their everyday practices and their interests; they were dispersed because different activities were performed by different individuals within each group before the final production was completed.

Consistently, in all four groups, one or two students took charge of using Flash and MediaStage to create the productions. They could be identified as the students who controlled the computer mouse to use the software to materialise their ideas. I call these students the producers in each group (see Chapter 5 where I discuss the difficulty in identifying a producer). These producers, in addition to relying on various technologies and online resources (such as music and videos), also depended on their fellow group members to look for necessary information and other resources to materialise the group's production ideas using Flash and MediaStage. Hence, different roles were played by different members in each group, and the final product was a collective assembly of the various contributions from the individual members in the group. In the remaining part of this section, I draw on my ethnographic accounts of the Group 6 students to illustrate how shared authorship was observed when the students were creating their Flash and MediaStage productions.

4.3.1 Coordination of Roles in Shared Authorship

From the very first day of creating the Flash multimedia presentations, I observed that my research participants in Group 6 had coordinated their roles amongst themselves. On the first day, Wendy tried to initiate a discussion by suggesting that the group should first consider their target audience. Xin put away the storyboard template given to them by the teacher and preferred to think about a possible narrative for the presentation. She suggested that they could have a pair of characters, such as a boy and a girl, or a grandmother and a child, or a parent and child. Wendy encouraged her to list down these

possibilities, which she did. Xin started typing onto a blank Microsoft Word document which she later saved as “plot (2F grp 6) 110907”.

Initially, based on my participant observation, it appeared to me that Xin was the scriptwriter, a role she took up of her own accord without any discussion with the other members of the group. She was the one who initiated a proper discussion on a possible narrative for their Flash presentation (after Wendy’s brief attempt) and then she typed it out using Microsoft Word. From the audio recording, her role as scriptwriter was also evident. She was the first one to suggest a list of characters for the plot. From those characters, she led the group to think about the settings and specified that they should be sites within the school. Subsequently, she led the group to think about possible dialogues between the characters. She also asked the group to consider creating action buttons and suggested creating doors on a screen which would lead to the different sites where language experiences took place in their school.

However, close study of their interactions shows that Xin became a scriptwriter-cum-scribe as the interactions about the narrative developed. When Jay and Wendy dominated the discussions on the script, they took over Xin’s role as scriptwriter and repositioned Xin to be scribe where all she had to do was to type out their ideas. This was evident from my audio data which show how Xin was more pre-occupied with typing out her friends’ ideas for the narrative than generating her own ideas for a possible narrative. For instance, she was heard asking Wendy to repeat her ideas and then she simultaneously recited and typed out what Wendy said.

There were many discussions about the number of characters needed for their presentation. Eventually, the group realised that it would be simpler to settle for one boy and one girl as their main characters for a short presentation. When Xin was typing out the collective decision, Wendy was watching her and paying attention to any grammatical mistakes she made. Meanwhile Sally, who sensed that all must have agreed to have only two characters, decided that she should be the producer for the day and initiated drafting out the boy immediately after they had made their decision about having only two characters.

By the end of the first day, it was notable that the roles were carved out spontaneously in response to the demands of completing the given tasks for the project: There were three scriptwriters and they were Xin, Wendy and Jay. Xin doubled as the scribe who typed out the narrative using Microsoft Word, and Sally was the producer using Flash to draft out a boy and a girl. It was also noted that Wendy was the proof-reader who corrected Xin's grammatical mistakes when she was typing the plot out.

As scriptwriter-cum-scribe, Xin had the tendency to sanction what could be accepted as part of the narrative for their production. A comparison between the plot outline that she typed out and the students' interactions about the characters, settings and characters' dialogues shows that there were instances where some ideas suggested by different ones in the group were excluded in the plot outline. For instance, I noted that Xin typed out her peers' ideas for the settings to be featured in their production, i.e. home, school (classroom, library, canteen, track), except for Jay's suggestion to include the toilet. She did not include the computer lab in the list of possible

settings, an idea suggested by her. Instead, she added the hall in the plot outline, even though she did not mention it in the group interactions. This was picked up by Wendy and she would demand that Xin undo whatever she had typed without the consent of the others. In this instance, Wendy, the proof-reader, took the responsibility to check for discrepancies between what was agreed in the discussions and what was represented in the written plot outline.

Although Xin's role as scriptwriter was self-nominated, it was subtly challenged by Jay. On the first day of creating the Flash presentation, when the group had yet to decide on the number of characters for their plot, Jay asked to take over Xin's role by typing out the plot outline but was strongly rejected by Xin. Since he could not take control of the computer mouse from Xin to type out the plot outline, Jay suggested that each of them should think of a character and work out a production individually and then put their work together as one production. Jay's response was an attempt to change his role from a member who contributed to the script to a producer who materialised the script using Flash. Nevertheless, Jay's idea of shared authorship was ignored by the girls.

I compared how the coordination of roles took place in Group 6 with the other groups. In 2J Group 1, Amanda told the boys to take charge of using Flash. Brian took charge of using the software whereas Amanda took charge of scouting for relevant information on the school web pages, such as information relating to the school's Open House Day and their language arts curriculum. Each of them had a classmate seated next to them and their main role was to give comments to Brian and Amanda. Amanda also single-handedly produced an outline for the group's presentation and passed the

outline to Brian so that he could create the Flash presentation accordingly. The other girl in the group followed Amanda's outline to produce the storyboard for submission.

When I studied their interactions, Brian also depended on Amanda for the actual words to include in the written texts for the Flash presentation. In short, Amanda's role as scriptwriter was key in her group. I return to the discussion of Brian's and Amanda's roles in Chapter 5 when I discuss the difficulty in identifying a producer in the collaborative text production. Based on my group interview, I found out that although they managed to complete their Flash presentation at school, the report was prepared by Amanda at home.

For Group 7, it started with Tiffany who took charge of using the software and was also the storyboard "draughtsman" on the first day of creating the Flash presentation. Tiffany led her friends in discussing possible ideas for their storyboard. Interestingly, she drafted out her ideas using Flash to explain how her ideas could be visually represented before she drew anything on the storyboard. The rest watched her use Flash not as observers but as critics of Tiffany's production for the group. They made comments to Tiffany regarding what was aesthetically and technically feasible while Tiffany drafted out figures and objects using Flash. On the last day of creating the Flash presentation, Pamela drafted a school gate and Yenny drafted a school-girl. Tiffany took over from Pamela and used Flash to sketch out a visual computer and thought bubbles. Group 7 started with one person taking charge of using the software and two critics, and then all three girls took up the role of producer on the last day. Because this group did not complete their Flash

presentation at school, I found out from the group interview that they had decided that Tiffany and Yenny would complete it at home while Pamela would work on the report. I returned to this point in Section 4.3.5.

In Group 8, the assembly of tasks was evident at the start of the first lesson for creating the Flash presentation. The students in Group 8 engaged in a pass-it-on method of working together when they followed the teacher's instruction to start with the storyboarding activity. After the teacher handed the group the storyboard template, it was passed from one student to another without any group discussion at first. When Melissa finally had some concrete ideas on what her group could do for their production, she started switching off their computers so they could work on the storyboard together.

Hence, on the first day, it was Melissa who suggested that she and her group members should take up the role of storyboard "draughtsman" before engaging in further work. On the last day, Melissa took the initiative to split up the production work. Within this group, it was evident that there was a team of producers; Melissa paired up with another girl to create the visual and written texts in their Flash presentation while another pair of students worked on the content page for their presentation. Because they did not have enough time, I found out from the group interview that Melissa and the others continued with their production after school, in the same computer laboratory, but she asked one of the members to work on the report at home.

4.3.2 Evolving Roles in Shared Authorship

As suggested in the ethnographic accounts above, the various roles emerged and evolved in all four groups as they proceeded with their productions. I draw on the data for the Group 6 students to illustrate that the division of labour was more complex than the teacher's suggestion of dividing the collaborative text production clearly into two or three students taking charge of resource searching while another two or three students would take charge of the actual production.

On the last day of producing the Flash presentation, the teacher reminded the students that there were some groups that had yet to hand in their storyboards. Upon hearing that, Wendy from Group 6 reminded her group that they had to start their storyboarding activity and hand in the storyboard to their teacher by the end of the lesson. At one point, she asked Jay to work on the storyboard based on whatever Sally had drafted for the Flash presentation. Jay did not work on the storyboard because he was waiting for Xin to complete the script that she typed the week before. When nothing was done to the storyboard, Wendy asked Xin to work on the storyboard instead while Sally continued to draw a schoolgirl using Flash.

When all of them saw the schoolgirl that Sally had drafted, they were unhappy with her drawing and asked Sally to do something more like Tiffany's (my research participant from Group 7 in the same class). Jay immediately took over the computer mouse from Sally and started drafting a schoolgirl using Flash. While he was doing that, Sally went to Group 7 to observe how Tiffany had gone about drafting a schoolgirl. After that, she returned to her group to redraft her schoolgirl using Xin's computer. When Xin saw that Jay

and Sally were both drafting a schoolgirl using different computers, she suggested reorganising the production work. She suggested that Jay draft a schoolboy and Sally draft a schoolgirl. Jay did not mind but he made the point that the schoolgirl should be drawn well.

About an hour into producing the Flash presentation on the last day, Wendy volunteered to write the report as she claimed that she could type better than Xin. Xin did not mind as she was still busy drawing the storyboard. Nonetheless, Wendy tried asking Xin to help her with the report-writing later. Whenever Sally and Jay needed help with technical use of the software, Xin would lend a hand. In short, the students changed and multiplied their roles based on needs arising as a way of cooperating with one another in their shared authorship. By the end of the last day, Jay was the other producer, with Sally, to use the software to create the schoolgirl. Wendy facilitated the group work by directing the work to be done by each individual and also became the report-writer. Xin was the technical helper for Jay and Sally and her main role during the lesson was to be the storyboard “draughtsman”.

Group 6 was unable to complete their Flash presentation by the end of the second lesson allotted to creating the Flash presentation. They decided to stay on after school to finish their work, except for Wendy who had to attend some co-curricular activities. Because of the shortage of members in the group and the closing deadline, the students' roles changed again as the deadline closed in on them. Xin took over the producer's role from Sally and Jay while Jay insisted on going around the school discretely taking pictures using his mobile phone, despite there being a ban on taking photographs unaccompanied by a teacher on the school premises. He also chose the

background music for the Flash presentation. As their MediaStage production was due during the same period, Sally obtained her group's consent to finish off the MediaStage production while Xin and Jay worked on completing the Flash presentation.

It could be argued that the shared authorship was initiated by the teacher, since it was group work. The teacher expected the shared authorship to take place in a straightforward manner: two or three students to use one computer to look for pictures and information about the school, from the school website, while another two or three students could use another computer to create the Flash presentation. I would argue that my research participants coordinated their shared authorship differently from the teacher's expectations as the deadline approached. My data suggest that the division of labour was more complex when my research participants engaged in collaborative text production in their school literacy practices. The students not only switched on more than two computers to facilitate their division of labour, but they constantly changed their roles so that they could be more efficient. I pursue how my research participants participated in their shared authorship as the deadline closed in for their MediaStage productions in the next section.

4.3.3 Shared Authorship as a Crunch-Time Behaviour

In this section, I present more evidence from my data that suggest there was shared authorship as an integral part of my research participants' "socially organised practices" (Scribner & Cole, 1981, p. 236). Just as their language arts teacher had her own *crunch-time behaviour* (Tan, Bopry, &

Guo, 2010), I describe my research participants' shared authorship as their own crunch-time behaviour. By this, I mean it was part of their Discourse (Gee, 2005) when they participated in collaborative text production in their school literacy practices, at a critical time, when they had to work efficiently to meet deadlines.

I find 'crunch time' an appropriate phrase for two reasons. First, when my research participants from Class 2F were creating their MediaStage productions, they were also busy completing their Flash presentations during the same period. At that point, the beginning of their year-end examinations was about a week away and all productions had to be handed in before the examinations began. Second, all my research participants were expected to be able to use MediaStage after the short 3-hour training arranged for those who attended it, while the others who did not attend thus had to learn how to use it from those who did. In the earlier section, my data show that my research participants were obliged to conform to the school literacy practices by fulfilling the required tasks given to them by the teacher. Yet, they did so by organising their ways of participating in shared authorship differently from what the teacher had imagined. In this section, I describe how they further shaped their school literacy practices at crunch time by concentrating on their roles as producers, thus rendering storyboarding and writing the report as less important literacy activities.

As with the Flash presentations, my research participants were instructed to write out their plans, draw storyboards, create their productions and write a report about their production choices. According to the teacher, they could not express what they wanted to do in drawings, as required for the

storyboarding. The teacher ended up discussing verbally with each group what they intended to do for their MediaStage productions. Although attempts were made to start writing up the planning sheets (such as the genre of production and the reason for the genre, the theme, the plot, the characters, and the choice of music or videos) and the reports, most of the time was spent experimenting with the new software, MediaStage. I discuss the importance of experimentation with MediaStage at length in Chapter 5.

My participant observations showed that when my research participants first started working on their MediaStage productions, some of them attempted to repeat the roles they had performed when they worked on their Flash productions regardless of whether or not they had attended the MediaStage training. For the Group 6 students, Sally and Jay took charge of using the software to realise the group's production choices. Xin, although having attended the MediaStage training, volunteered to take charge of the planning sheet (with the storyboard) and the report. Wendy continued to play the role of proof-reader and focused on correcting Xin's grammar when she was typing on the planning sheet. She also volunteered to take charge of the report-writing with Xin.

For the Class 2F Group 7 students, Tiffany and Yenny were the ones who took charge of using the software; although Pamela experimented with the software, her key contribution was to the report writing. For the Class 2F Group 8 students, Melissa only wanted to be the report-writer at first. She ended up taking charge of using the software for the production work although she had not attended the MediaStage training. In Group 1, Amanda continued to delegate the production work to Brian and volunteered to write the report.

However, because not all of my research participants were familiar with MediaStage, my participant observations showed that they ended up helping one another to figure out how to use the software in order to create the MediaStage productions about Macbeth. Hence, they took turns to use MediaStage at different stages of their production work. In other words, shared authorship took the form of sharing the responsibility of figuring out how to use MediaStage to depict the theme from Macbeth and materialise their production as a team of producers.

Excerpt 4.1 shows an example. It illustrates how the Group 6 students figured out together how to adjust the camera that was available in MediaStage. In this excerpt, Group 6 wanted to depict the theme of 'fate versus free will'. Sally had selected a living-room scene from the repository of backdrops available in MediaStage. She had problems adjusting the camera to direct the audience's eyes to that scene. Xin and Jay were guiding her as she controlled the mouse to get the appropriate camera shot for the scene. The excerpt epitomises the kind of talk the adolescents engaged in as they stood alongside Sally and explored with her how to use the software to get things done.

Excerpt 4.1. Being a Team of Producers in Shared Authorship

Sally:	Cannot zoom in what ! ((I cannot zoom in!))
Jay:	上面不可以 ((This cannot be done from the top view.))
Xin:	Try this one.
Sally:	No, this one cannot. Cannot zoom in already ((I cannot zoom in any further.))

Xin:	Try this one.
Sally:	Now we zoom into the chimney. Oh my god ! Can leh. ((Oh my god! It can be done.)) Oh my god ! Very 乱 ((messy)) already.
Jay:	Zoom in!
Xin:	Okay! Zoom out, zoom out, zoom out.
Sally:	There. Damn nice leh. ((It's damn nice.))

Such collaboration could be described as *collective intelligence*, the “processes of self-education, knowledge-sharing, and communal viewing and critique” (Burn, 2009, p. 141). Although Burn (2009) uses this term to describe the machinima groups in Second Life, it can be argued that the concept is equally applicable to my research participants’ collaborative text productions. In this group, only Sally and Xin had attended the MediaStage training. Yet, Jay was able to share their reasoning process in order to solve the technical problems in using the camera. In order to solve these technical problems together, they were simultaneously viewing the effects of Sally’s actions and provided constructive feedback by telling her what she could have done differently.

While the other groups were concentrating on using MediaStage to create scenes as a team, Group 7 was the only counter-example I had that continued their shared authorship in a similar way to their Flash production. On the last day of creating the MediaStage production, Tiffany and Yenny found another computer near them that could run MediaStage. They switched on two computers and pre-occupied themselves with their MediaStage

production. Nonetheless, Tiffany was interrupted twice when Group 6 and Group 8 asked for her help to fix their problems with setting camera angles. To work towards completing the various tasks, Pamela wrote the report according to the scenes Yenny and Tiffany had completed.

4.3.4 Shared Knowledge of Members' Capabilities in Shared Authorship

My data also suggest that shared authorship entails an unspoken and shared knowledge of what each member is capable of. When Sally announced to the group that she would draft the boy, the group was still exploring ideas on a possible narrative for their Flash presentation. She had her group members' blessing to be excluded from their discussions and to concentrate on drafting a boy using Flash. Wendy was keeping an eye on her while still participating in the group discussion.

From the students' interactions, I noted that Wendy tried on one occasion to take over the producer role from Sally when Sally's drawing looked incorrect to Wendy. However, Sally refused to pass the computer mouse to Wendy. At first, I had the impression that Wendy was eager to be a producer. However, I noted that she was the one who instructed Sally to draft out the boy and the girl when Sally first volunteered to draw the boy for their Flash presentation.

In the group interview, I tried to find out why Wendy did not want to involve herself as a producer when the group was working on the Flash presentation. The interview excerpt below shows how Wendy bore in mind

what her friends were capable of doing when she was delegating different tasks to her friends.

Excerpt 4.2. Shared Knowledge of Members' Capabilities in Shared Authorship

Lynde: Okay, now Wendy, could you tell me about your experience in these, doing these works. Did you enjoy them?

Wendy: Yea because mainly I only did the report.

Lynde: Ah! Why?

Sally: She's good in language what. ((**She's really good in language.**))

Xin: Yea, so she//

Sally: //Yea, lah. Do the report.

Lynde: Okay, then why didn't you, you contribute in the design?

((At this point of the interview, I used design and production interchangeably.))

Wendy: The design she can do, what ((**She is able to handle the design.**)). Then it's like the MediaStage that time, I was away (). I was having CCA. ((*CCA refers to co-curricular activities that took place in school but outside class time, such as uniformed group activities, orchestra, art clubs and so forth.*))

Based on my interview data, Sally knew Wendy as someone who was good at languages and so she was put in charge of writing the report. Wendy, on the other hand, thought of Sally as someone who was capable of producing the Flash presentation, so she approved of Sally taking charge of producing that. There was no mention of her wanting to take charge of using

Flash for the production task and how she was turned down by Sally on the first day of producing the presentation.

Wendy, like the others, had received the formal instruction on using Flash to draft actionable objects. She too should be able to draw a character using the software. When Wendy volunteered to draw the girl for Sally and animate the schoolboy, this implied that she knew how to do it. Hence, when she was watching Sally draft the schoolboy, she too wanted to have a go at drafting the character in that instance. However, she did not involve herself in using Flash because Sally had volunteered to draw the boy and she had proved that she could do it, even though there were times she needed a second opinion from Wendy.

4.3.5 Shared Authorship Outside School

My data also suggest that shared authorship took place not only in school but also outside it. From my interviews with the students, I learnt that they used their home practice of instant messaging to help them complete their schoolwork. This occurred amongst the Group 7 girls only when they were describing to me how they worked together to get their Flash presentation done. Tiffany and Yenny had Flash installed on their home computers. Consequently, they decided to complete different parts of the Flash presentation at home, leaving Pamela to work on the report based on what they had already created.

According to what was reported in the group interview, Tiffany and Yenny claimed that they passed on incomplete production work to one

another via instant messaging. They did not coordinate when they would be online but seemed to know when each other would be online on a particular day. The group work was done cooperatively without a group discussion. They simply added on to what was already done. Outside school, Tiffany created another scene for the presentation, inserted background music, created action buttons and then passed it on to Yenny who put in the pictures and created action buttons. The two girls concentrated on assembling the various bits and pieces that were created for the Flash presentation and did not bother themselves with discussions on what needed to be improved or corrected. In the group interview, the girls claimed that they continued to 'divide and conquer' the production demands online so that they could meet their deadlines.

Although such a way of participating in shared authorship was not observed amongst my other research participants when they strived to complete their Flash presentations, Amanda reported that she had asked her group members to complete a brochure and a report through instant messaging on a previous occasion. In the group interview, Amanda claimed that they passed on an incomplete brochure amongst three members in their group, excluding Brian who did not have an MSN account at that point. The three of them, including Amanda, built on one another's work by adding written texts and pictures or editing what had been done previously. Brian had to contribute his share by writing the report in school, based on what they had created.

Like Yenny and Tiffany, no prior appointment was made to meet online. As shown in the interview excerpt below, she would "catch" her group

members online and hold each person responsible to do his or her share of the group work. Sharing authorship online was thus another crunch-time behaviour and it rode on the back of their home practice of instant messaging.

Excerpt 4.3. Shared Authorship Online

Lynde: So you sent the file through email?

Amanda: Er, MSN.

Lynde: MSN. So, but then you must make sure everybody's online with you what. ((**So, but then don't you have to make sure everyone's online with you?**)) Did you call before you meet in MSN?

Amanda: No. Pass it around.

In sum, my data provide insights on what it is meant by “[adopting] different roles in the production process” in shared authorship, as first suggested by Buckingham, Grahame, and Sefton-Green (as cited in Burn, 2009, p. 135). A practice account of how my research participants engaged in collaborative text production showed the division of roles and labour was neither straightforward nor rigid; instead, they were regulated amongst themselves and the individual’s role evolved in response to crunch time. Such coordination of roles was informed by their shared knowledge of one another’s capabilities in order to meet the demands of the collaborative text production.

More importantly, my data also suggest that my research participants’ way of participating in shared authorship in school literacy practices downplayed the importance of drawing storyboards and writing a report to

reflect on their production choices at crunch time. Instead, they valued experimentation with the digital media to get the production started and done. I pursue this theme in Chapter 5 to show that experimentation with digital media was an integral part of their out-of-school literacy practices. In the next section, I describe collective assembly as *remix*, another literacy practice integral to my research participants' out-of-school literacy practices but circumvented in their school literacy practices.

4.4 Collective Assembly as Remix

In this thesis, I also associate Lankshear and Knobel's (2003) notion of collective assemblage with *digital remix*. Lessig (2005) explains *remix* as "someone mixing things together and then someone else coming along and remixing that thing they have created" (as in Lankshear & Knobel, 2006, p. 107). In Lankshear and Knobel's (2006) work, they clarify that remix practices "do not necessarily involve digitally remixing sound, image and animation, such as fan fiction writing and producing manga comics" (p. 108).

Remix when enabled by digital media is known as digital remix (Lankshear & Knobel, 2006) and is also understood as *mashup*, a term introduced by Tapscott (2009, p. 45); Tapscott (2009) describes the Net Generation as people who like to 'mash up' other people's content online to create artistic works. When used in this sense, the *mashup* practice accords with Lankshear and Knobel's (2006) notion of new literacies or digital literacies as being "socially recognized ways of generating, communicating and negotiating meaningful content through the medium of encoded texts within

contexts of participation in Discourses (or as members of Discourses)" (p. 64). Hence, in this thesis, when I use collective assembly as remix, I pay attention to digital remix in terms of Lankshear and Knobel's (2006) notion of new literacies or digital literacies.

In my study, the collaborative text production that took place when the students were creating their Flash presentations provide a stronger case for remix practices. The school authorities stipulated that mobile phones were not to be used in school. The students were also not allowed to go around the school to take pictures or videos without the consent of their photography or video subjects or without the presence of a teacher. As a result, my research participants were told by their teachers to obtain pictures from their school homepage should they want to include pictures in their presentations. A credit page on which to cite the sources of their resources was also made compulsory.

As with the shared authorship, the remix practice was initiated by the teacher when my research participants engaged in their collaborative text production at school. My data also suggest that their guiding principle for remix was to '*cool down*' the media (Bopry & Tan, 2008), a term defined below. There was evidence that remix to '*cool down*' the media was drawn from their out-of-school literacy practices.

4.4.1 Remix to 'Cool Down' the Media

Whilst there is some acknowledgement that remix practices are prevalent in digital literacies (Lankshear & Knobel, 2006; Sheridan & Rowsell,

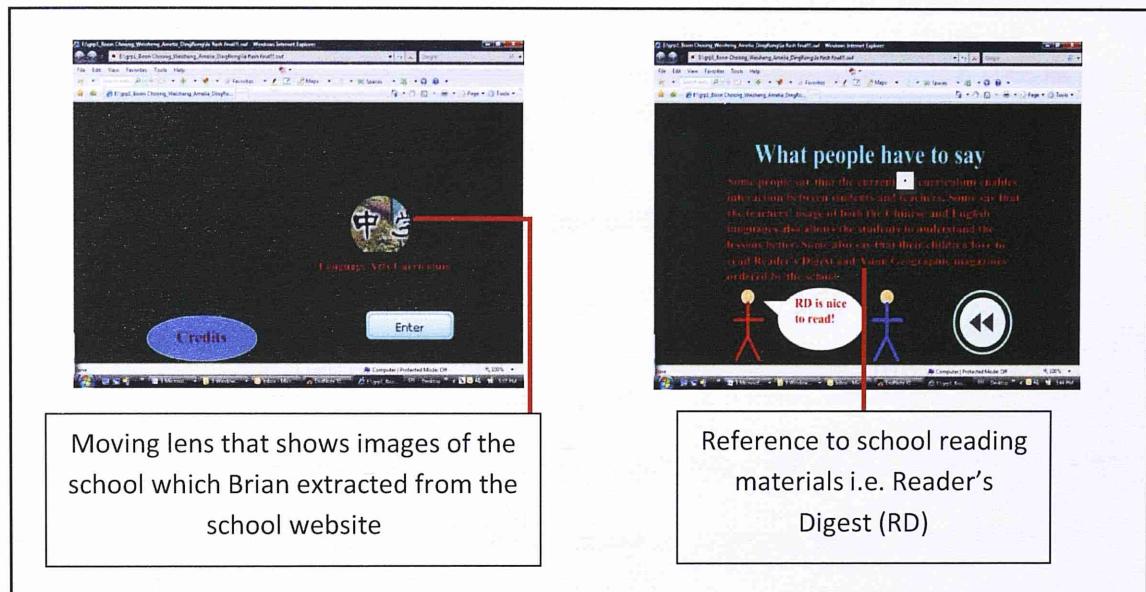
2010), Kress (2010) notes that less is known about the principles of remix and what principles of selection are at work. In this section, I provide illustrative examples to raise two key points about the adolescents' remix practice. First, their remix practice served to 'cool down' the media; this was an out-of-school literacy practice and was used to gain attention from their target audience. Second, a remix practice at school could stifle the students' creativity when there was a lack of sponsorship of time and resources.

During my participant observations of the Group 1 students, Brian was digitally cutting and pasting selected pictures from their school web pages. In their report, it was also stated that the group thought that the best way to illustrate an interesting language curriculum was to show their target audience a little of their school life and the activities they did in their language arts classes. Hence, they used pictures from the school's web pages, such as the school crest and pictures of the school campus and lessons. They also referred to materials used for their school reading programmes, specifically the Reader's Digest and Asian Geographic magazines. In other words, by obeying their teacher's instruction to obtain images only from the school website, this group drew only on their school practices when making production choices.

In my group interview with Amanda and Brian, Amanda explained that the Reader's Digest and the Asian Geographic magazines were the "the stuff that the school gives [them] to read." Figure 4.8 shows two screen captures of their Flash presentation that illustrate how they drew on their school literacy practices when making production choices in their remix practice. Because of confidentiality, pictures that show school students, teaching staff or other

forms of identification of the school are not chosen for illustration purposes in this thesis or are partly covered when used.

Figure 4.8. Drawing on School Literacy Practices for Production Choices in Remix Practice



Nevertheless, there were also attempts to draw on the students' everyday lives when making production choices (see Chapter 8). For instance, the final choice of background music for Group 1's Flash presentation was made by Brian although Amanda was supposedly the person responsible for looking for music for the presentation. He chose the song "Breaking Free" from High School Musical. In my group interview with Amanda and Brian, Brian explained to me that he found the audio file of the song in the students' shared folder on the computer he was using. He chose it because High School Musical was of great interest to the students at that time and the song was about school life which he thought was relevant to the theme of the Flash presentation.

I find McLuhan's (1964) perspectives on hot and cold media useful when thinking about my research participants' remix practices. According to McLuhan (1964), media can be categorised into *hot and cold media* thus:

A hot medium is one that extends one single sense in "high definition." High definition is the state of being well filled with data ... hot media do not leave so much to be filled in or completed by the audience. Hot media are, therefore, low participation, and cool media are high in participation or completion by the audience. (pp. 24 - 25)

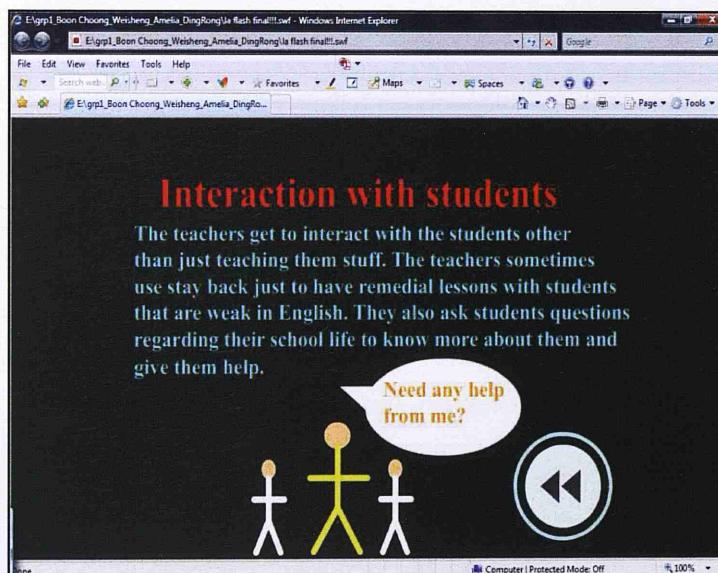
McLuhan (1964) explains that a radio is a hot medium whereas a telephone is a cold one, because the ear receives a lot of information aurally from the radio, as compared to a meagre amount from the telephone. Similarly, a photograph is a hot medium whereas a 1960s cartoon is a cold medium for the simple reason that the photograph provides a lot more information visually as compared to the limited visual information from the cartoon.

Following McLuhan's (1964) argument, I use the term '*cooling down*' *the media* to describe my research participants' way of making productions that were attention-seeking. This is a term that my colleague and I have coined to describe adolescents' use of multimedia to create productions that are multi-sensory, more interactive and with less emphasis on the written mode (Bopry & Tan, 2008). For instance, in Group 1's Flash presentation, their use of a moving lens to direct the audience's attention to images of the school, the images of school literacy activities and the theme song from High School Musical were evidence that they were making attempts to '*cool down*'

the media. I would argue that the photographs my research participants chose were visually of high definition, as compared to the people they drew using Flash. Nonetheless, these photographs relating to the school were less filled with data when compared to the school webpages that were filled with long descriptions in written mode. Examples of the school webpages that they referred to is provided in Figure 4.12.

In addition, they also created dialogues between people, either student to student or teacher to students. This was another strategy to 'cool down' their Flash presentation. Figure 4.9 shows a screen capture of where the students used dialogues to interact with the target audience.

Figure 4.9. 'Cooling Down' the Media with Dialogues



As shown in the figure, a speech bubble pops up and the teacher asks, "Need any help from me?". With a visual and pop-up text such as this, it could be argued that these were strategies used to create a reader/viewer-inclusive effect and engage the readers/viewers to participate in the interactions through the Flash presentation. The students' intent to 'cool down' the media

was a way of gaining their target audience's attention, as shown in their written report (see Figure 4.10).

Figure 4.10. 'Cooling down' the Media for Seeking Attention

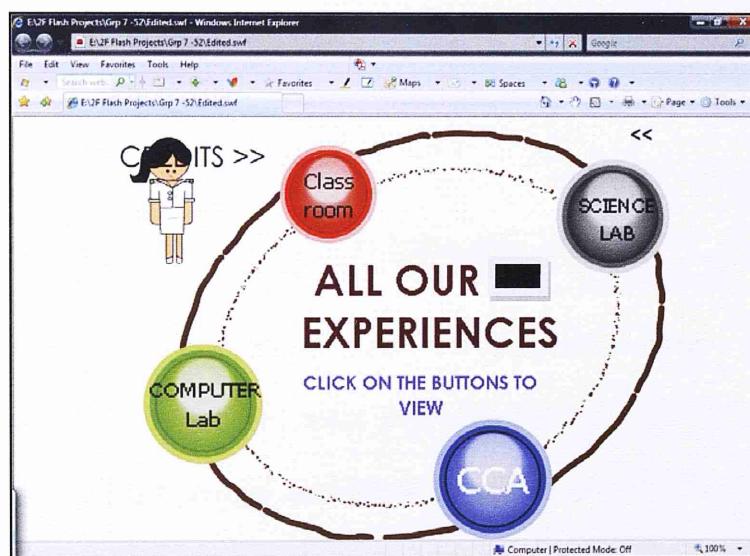
There are different segments with each push of a button, and each segment contains different information. It is not wordy and each segment has a few pictures so that it would not look so plain and boring. People tend to be more attracted to colourful stuff as it is more pleasant to the eye. With our black background and red or blue words, the words stand out and look pretty attractive because of the colors we have used. The pictures make the segment look more attractive and viewers would not get bored.

The same principle of cooling the media in the remix practice was also apparent in Group 7. For this group, different techniques were used to appeal to the senses and emotions of their target audience, such as: the screeching sound of a door when someone clicked on it; the classical music "Canon in D" was played throughout the presentation as the background music; pictures and images that were taken from their school website and the school's year book; and the speech bubbles for dialogues with the target audience.

When asked why they did not include any videos, Yenny explained to me that the Flash presentation might not play smoothly if a video was embedded. Yenny's response suggests that they leveraged their knowledge of the technical affordances of Flash in their remix practice. In my group interview with Group 7, Yenny kept stressing that a Flash presentation was not a PowerPoint presentation. It could be inferred that Yenny understood that Flash was intended to create animated and interactive presentations using action buttons.

Figure 4.11 shows the main menu of Group 7's presentation and how information could be accessed by clicking on various buttons. Similar to the other groups, the use of actionable buttons served to involve the target viewers by getting them to click on the buttons in order to access information about their school and the language arts curriculum. (In Figure 4.11, the abbreviated name of the school is covered up to ensure anonymity.)

Figure 4.11. 'Cooling Down' the Media with Action Buttons



There was a discrepant or deviant case (Cohen, Manion, & Morrison, 2007) where remix did not serve the purpose of 'cooling down' the media. In my interview with Melissa, she too understood that a Flash presentation should not be just another PowerPoint presentation. However, no one in her group was good at 'tweening' objects (creating motion and animation). According to Melissa, she and the other two girls spent much time trying to 'tween' objects but, in the end, they had to give it up because of the time constraint. What was produced in the end was a remix of pictures and written texts taken from the school's website.

I made a comparison between those pages and their final product. The girls did indeed copy, cut and then paste information from the school's website into their Flash presentation to cover the following:

- (a) Picture of students on the welcome page
- (b) School history and background
- (c) Bicultural Studies programme
- (d) Co-curricular activities
- (e) Overseas Exchange Programme
- (f) The school's Integrated Programme

Figure 4.12 shows an example of remix as plagiarism where the Group 8 students copied, cut and pasted texts from the school website. In the figure, the original name of the school was blocked out to ensure anonymity. It was apparent from the screen captures that most of the texts in the Flash presentation were taken from the school website. The only new line that was added by the students was the current location of the school which was not given in the outdated information on the school website. The students also chose the same font style and colour when writing the new line as a form of continuity with the text they copied from the school website.

Figure 4.12. Remix as Plagiarism

home about the school direct school admission academic programme achievements cca

School History & Background

Founded in 1956, [REDACTED] was the first Chinese secondary school set up by the government. Initially known as the Singapore Government Chinese Middle School when it occupied the premises of Seng Poh Primary School, it was renamed Queenstown Government Chinese Middle School when it moved to Strathmore Avenue.

In 1958, it was relocated to Jalan Kuala and renamed [REDACTED] Government Chinese Middle School. It admitted its first batch of English stream pupils when it was selected as one of the nine Special Assistance Plan (SAP) schools in 1979. The school moved to its present site on West Coast Road in December 1986. It became a single session school in 1993 and was among the first six schools to assume autonomous status in 1994.

School Philosophy

The school aims to develop each student to his fullest as a total person intellectually, morally, socially, emotionally and physically so that he will be able to live a full, productive and meaningful life.

The school believes in the uniqueness of each student and aims to stretch each

(Screen capture of the school website)

E:\2F Flash Projects\gp8-40\R\Langarts flash proj-2Fgrp8.swf - Windows Internet Explorer

File Edit View Favorites Tools Help

Search web... Favorites Maps Spaces (4) Tools

File Edit View Favorites Tools Help

Search web... Favorites Maps Spaces (4) Tools

E:\2F Flash Projects\gp8-40\R\Langarts flash proj-2Fgrp8.swf

School history and background

Founded in 1956, [REDACTED] was the first Chinese secondary school set up by the government. Initially known as the Singapore Government Chinese Middle School when it occupied the premises of Seng Poh Primary School, it was renamed Queenstown Government Chinese Middle School when it moved to Strathmore Avenue.

In 1958, it was relocated to Jalan Kuala and renamed [REDACTED] Government Chinese Middle School. It admitted its first batch of English stream pupils when it was selected as one of the nine Special Assistance Plan (SAP) schools in 1979. The school then moved to West Coast Road in December 1986. Currently, we are housed at 2 Malan Road and the present site was used by a junior college. It became a single session school in 1993 and was among the first six schools to assume autonomous status in 1994.

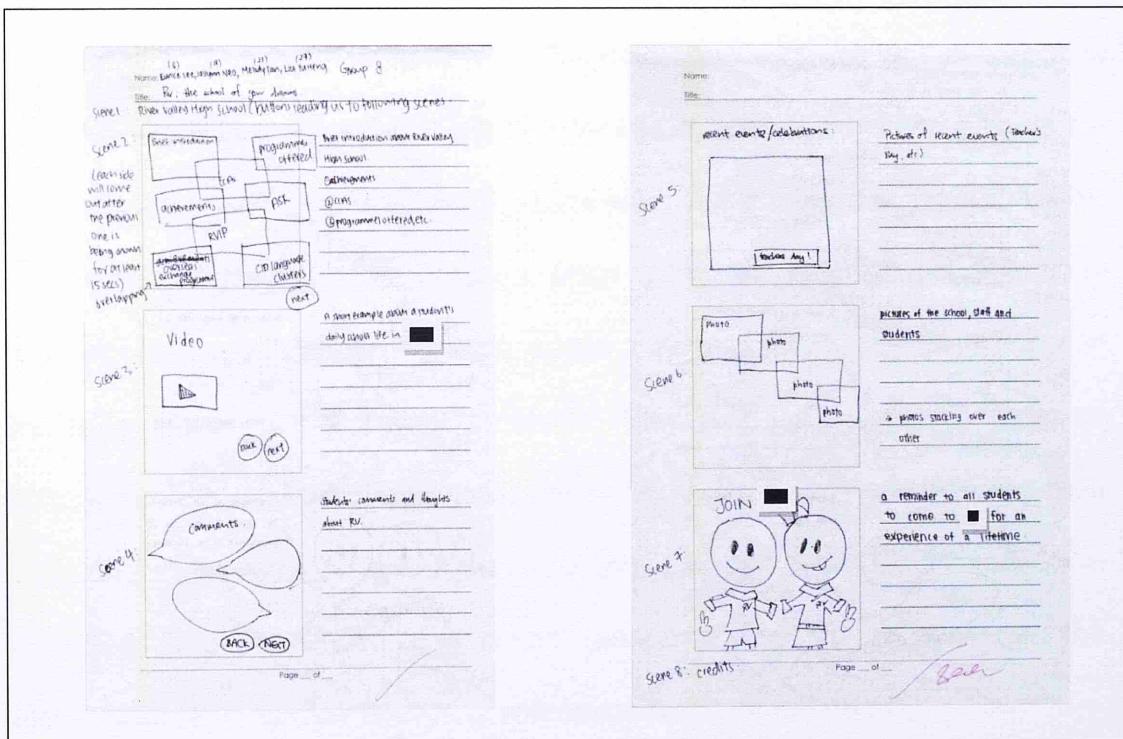
A new line added to provide updated information on the current school location.

(Screen capture of Group 8's Flash presentation)

I also made a comparison between Group 8's storyboard (see Figure 4.13) and their Flash presentation. Group 8 only managed to realise the first screen drawn on their storyboard. Melissa explained, in her interview with me, that her group had to abort their original ideas (those shown on the

Storyboard) because they were running out of time to complete their Flash presentation. Their storyboard, however, shows their original intent to cool the media in ways similar to those considered by the other groups, such as embedding a video to show a typical day at school, adding images, creating animated characters, having speech bubbles for dialogues with the target viewers and including background music. In the next chapter, I return to the point about how their meaning-making changed because of technical challenges.

Figure 4.13. Group 8's Storyboard Ideas for 'Cooling Down' the Media



In my interview with Melissa, she stressed the use of animation to create characters that talked to the target audience and the more extensive use of colourful pictures, music and other sound effects to be included if she had had the time. She too claimed that such strategies could get the attention

of their target audience, and keep the audience interested so that they would not become bored. Excerpt 4.4 shows her viewpoint from the interview data.

Excerpt 4.4. Melissa's Viewpoint on Animation

Because animation is because if you look at the computer, you'll think of animation. If you want no animation, you might as well just look at the brochure.

Although the Flash presentation submitted by Melissa and her group members did not show that they had leveraged the technical affordances of the software to create animated texts, my data show that she was aware of its technical affordances and had made attempts to create animated objects for the presentation. The two 2-hour lessons were not enough for them to tackle the technical challenges they faced when using Flash to create what they originally intended. While my data suggest how collaborative they were in trying to solve their technical problems, they had to resolve to remix as plagiarism; not only was their creativity stifled in the interest of fulfilling their obligation to submit their schoolwork, but they also ran into ethical problems in engaging in remix practices at school (although they did acknowledge the school webpage as their source of reference on the credit page).

Sheridan and Rowsell (2010) argue that remix is an example of how people can engage in what the New London Group calls the Designs of meanings in multimodal literacy practices. They claim that participation in remix practices also inevitably brings about problem-solving practices which potentially allow one to be creative and, hence, to resolve the fear of remix as

plagiarism. Elsewhere, Lankshear and Knobel (2006) also cite creativity as the key impetus for remix practices. Nonetheless, my data suggest that without giving the adolescents enough time, they might resort to remix as plagiarism in order to meet the deadlines for their schoolwork.

Creativity was also stifled when every group used pictures from the same legitimate source (the school website). For Jay, however, he would rather take his own pictures than copy them off the school website. When Jay stayed back at school to complete the Flash presentation with his group members, he broke the school rules when he went around the school premises to take photographs of different sites of literacy practices using his mobile phone. In the next section, I draw on my out-of-school data about Jay to show that there was evidence that remix practice was an integral part of his out-of-school literacy practices. Further illustrative examples are provided in Chapter 8 where I discuss how my other research participants drew upon their out-of-school literacy practices for their school productions. In the same chapter, I return to the point on the educational affordances and implications of engaging in remix practice in school collaborative text production.

4.4.2 Remix as an Out-of-School Literacy Practice

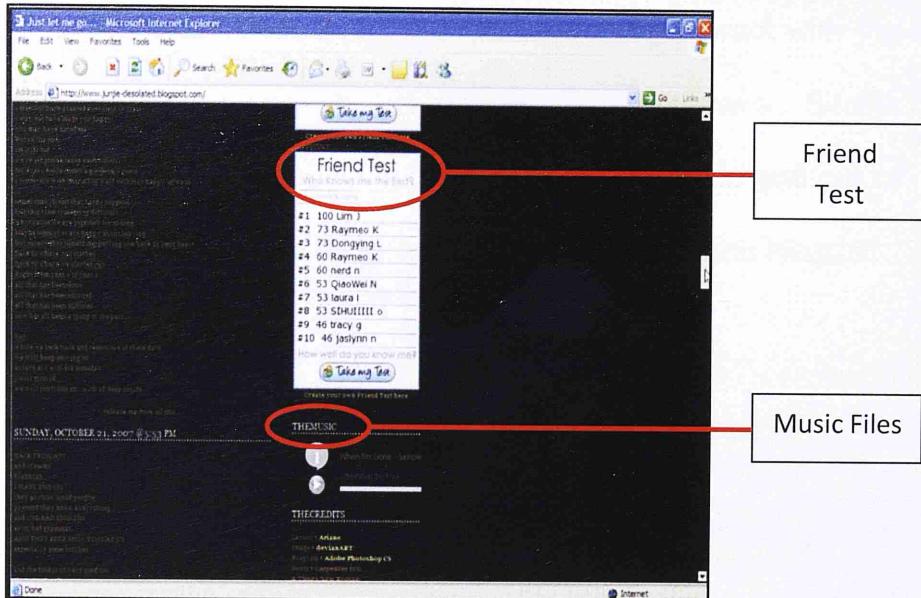
Similar techniques for 'cooling down' the Flash presentations by the other three groups were also observed in Group 6's Flash presentation. Nevertheless, I noted that there were fewer written texts and more visual texts for this group. For instance, to show the accomplishments of the school, this group had one screen that displayed the long list of awards that the school

had won in recent years. In this section, I draw on my out-of-school data about Jay to illustrate that my research participants who blogged had participated in remix practices; ‘cooling down’ the media was acquired in their blogging practices and they brought over the same principle to remix in their school productions.

Jay started blogging when he was 13 yrs old. He learnt to blog from his friend who guided him in creating his own blog through MSN. He claimed that he read his friends’ blogs two or three times a week. It only took him a few minutes to read his friends’ blogs each time and he could only do so before his mother returned from work in the evening. He blogged about twice a month, spending 30 minutes to one hour each time. He liked blogging because he liked staying connected with his friends and blogs also provided an avenue to vent out his frustration when his friends annoyed him. He also claimed that he liked “to read back his life” when he read his own blog.

In his blog, Jay liked embedding music files that would play automatically the minute I accessed and read his blog. Instead of filling his blog only with words, he also included other kinds of multimodal texts such as an online quiz (Friend Text), as shown in Figure 4.14. It was also characteristic of him to add photographs to his blog posts, such as the food he ate for lunch or the enticing chocolates he saw in the department store. He also liked to include a tag board to interact with his readers or peers in his blog.

Figure 4.14. 'Cooling Down' Jay's blog



My interviews with Jay show he was presenting himself as particular kind of person. I understood Jay to be a teenager who liked to listen to music, including Chinese, Japanese and English songs. He shared his knowledge about contemporary music, such as what was popular and topping the billboard. His knowledge of contemporary music was evident based on the songs he played and the blog posts and tags he wrote about pop songs and pop stars. Such topics also became conversation themes in his off-task talk with his group members during the school collaborative text production.

For both the Flash and MediaStage productions, Jay was the one who took charge of choosing the background music. He had a repository of songs to choose from. He knew the lyrics of the songs that he liked well enough to be able to select songs that were appropriate for the productions. Based on his blogging practice, he knew that the use of music would appeal to adolescents like him. It could also be argued that Jay had acquired knowledge of 'cooling down' the media by engaging in interactions with his viewers; in his

blogs, he included an online friendship test, photographs and a tag board whereas in the Flash presentation, there were dialogues to interact with the viewers, photographs, and music to act on the target viewers. Similar techniques for 'cooling down' the media in their text productions in and out of school were also found amongst the other research participants who blogged.

4.5 Summary

In this chapter, I have described the collective assembly that constituted my research participants' multimodal textual repertoires in and out of school. My data suggest that the collective assembly can be understood as shared authorship and remix practices. In the ethnographic accounts that I have provided in this chapter, I have shown that my research participants drew on their out-of-school literacy practices to engage in collective assembly when they participated in their school productions. My data also suggest that shared authorship and remix practices are more complex than envisaged by their school teachers.

This chapter paves the way for my discussions in Chapter 8 where I consider the pedagogical implications for the students' learning in school when there was no clear understanding of how collective assembly was enacted in my research participants' out-of-school literacy practices. In the next chapter, I build up my arguments that I posited in Section 4.3.3 to describe and explain what I call the *production-on-the-go* practice in my research participants' shared authorship.

CHAPTER FIVE

PRODUCTION ON THE GO

“Mainly we were just slacking around.”

- Sally

5.1 Introduction

The previous chapter provided an analysis of collective assembly as part of the adolescents' multimodal textual repertoires inside and outside school. I argued that collective assembly could be understood as shared authorship and remix in text productions. When discussing shared authorship as their crunch-time behaviour, in Section 4.3.3, my data suggest that the adolescents approached storyboarding as a meaningless literacy activity in text production.

In this chapter, I take my argument further to show that it was their practice to engage in *production on the go*, rather than in storyboarding as an activity that preceded actual production. In this second of four chapters that address my first research question, I describe the metaphor and highlight that storyboarding was not part of how they usually engaged in text production in their out-of-school literacy practices. As pointed out in the previous chapter, it was difficult to identify a producer when there was shared authorship and this problem was exacerbated when my research participants engaged in production-on-the-go practice.

5.2 Storyboarding: A Retrospective and Redundant Literacy Activity

As a school literacy practice, storyboarding was intended by my research participants' teachers to be a literacy activity that preceded the actual text production in school. My data, however, suggest that my research participants were capable of creating productions whilst exploring ways of leveraging the affordances of Flash and MediaStage. They also show that experimentation with digital media took precedence and that their text productions could be completed without using a storyboard. I describe such a practice as production on the go to show how the adolescents engaged in production on a trial-and-error basis and let the effects of their production choices on the spot guide their actions.

On the first day of creating the Flash presentation, the teacher showed Class 2F samples of work done by Class 2J. While she was doing that, Xin passed the blank storyboard template to Wendy who then passed it on to Sally. Sally passed it back to Wendy who in turn passed it back to Xin. No one wanted to take charge of the storyboarding activity. As pointed out in Chapter 4, Group 6 did not produce and submit their storyboard by the end of the lesson.

On the second day of creating the Flash presentation, the teacher reminded the students that there were still some groups that had to hand in the storyboards from the week before. Wendy reminded her friends that they had to start their storyboard activity and hand it in to their teacher on the second day. At one point, she asked Jay to work on the storyboard according to what Sally had already done with Flash (see Excerpt 5.1).

Excerpt 5.1. Storyboarding as a Retrospective Activity

Wendy: And Jay, can you draw out what she ((refers to Sally)), what she, what she did?

Jay: Oh, do you have a pencil?

Wendy: Never mind, use a pen. It's the same.

Jay: Can I draw on the computer instead?

Wendy: No, you have to draw it on the paper, we have to hand in to her ((refering to the teacher)) and she has to mark it.

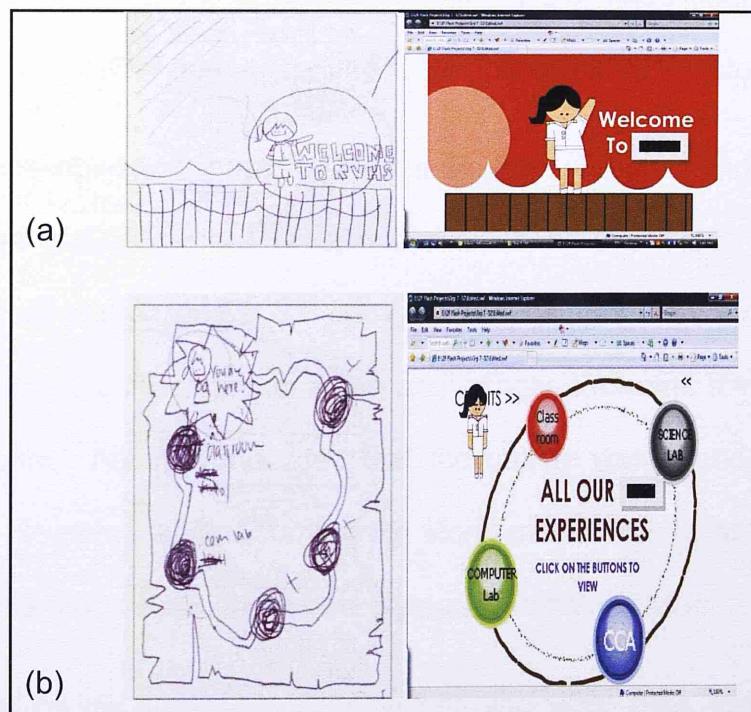
Jay: Yah.

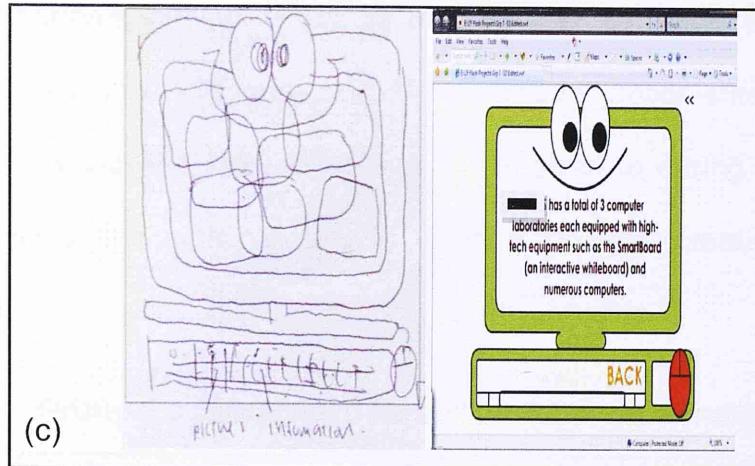
When Jay started drawing on the storyboard based on what Sally had drafted, it was done retrospectively. Kress and van Leeuwen (2001) state that “designs underspecify elements and structures relative to what is to be produced and performed” (p. 55). For this group, what was produced became a design for the storyboard itself though the storyboard was intended to serve as a design for the actual production of the Flash presentation.

Similarly, for the Group 7 students, production of the Flash presentation had already begun before they started storyboarding; Yenny had already completed an animated word “Welcome” and scripted the motion for its appearance on one screen while the teacher was still briefing the class about the Flash production project. As described in Chapter 4, Tiffany led the discussions on the storyboard. However, she tested out her ideas on the computer screen using Flash and drew them on the storyboard template after she was sure that they could be materialised using the software.

Based on my participant observations and video data, no reference was made to the storyboard when the students were producing the presentation. They were busy producing different parts of the presentation on the second day of creating the Flash presentation. Their talk focused on production choices which indicated that they were making their choices on the spot as they progressed with their production work. When I compared their storyboard with all the nineteen screens produced in their final Flash presentation, only three similar screens were found (see Figures 5.1a to Figure 5.1c). This meant that the rest were created during the production work and little of the storyboard was adhered to. As with the other figures, the name of the school is covered to ensure anonymity.

Figure 5.1. Similarities between the Storyboard (Left-Hand Side) and Three Screens in Group 7's Flash Presentation (Right-Hand Side)





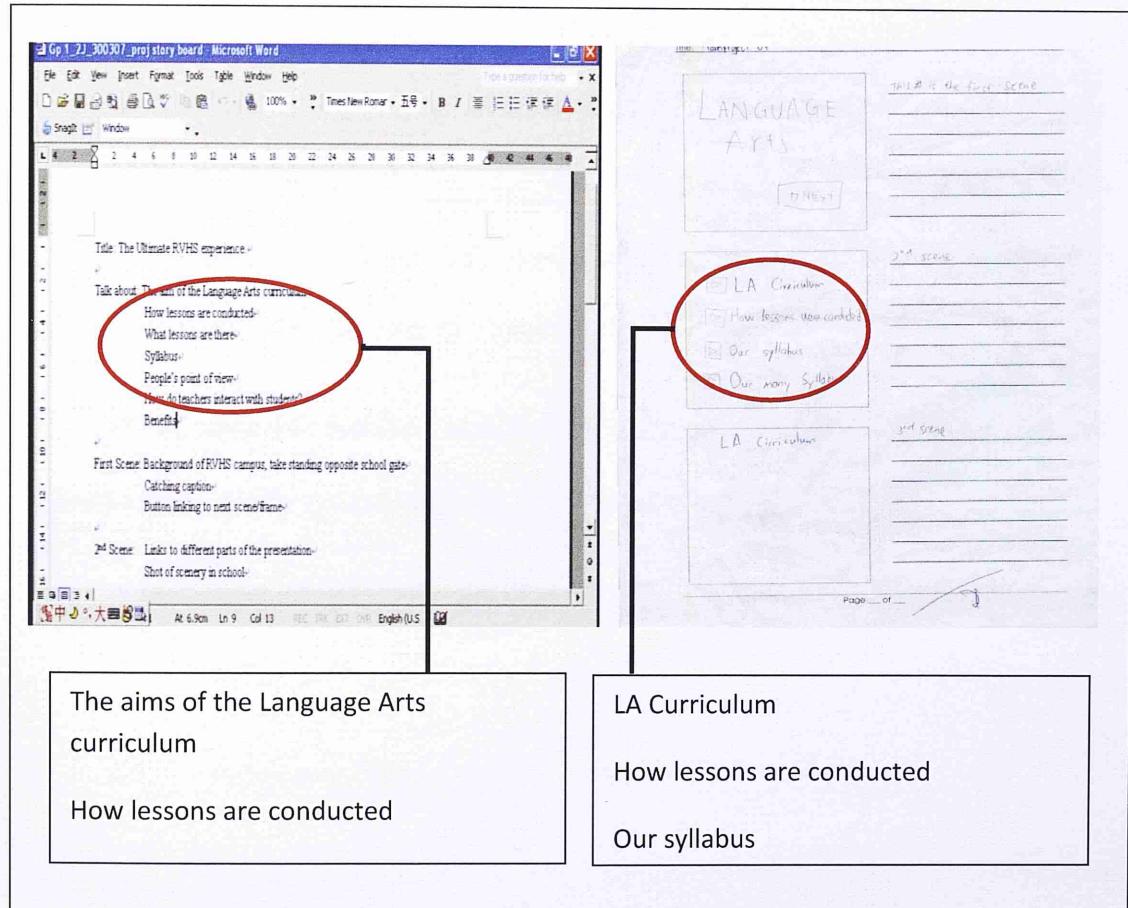
Group 7's storyboard was lacking in material aspects of the production such as colour choice, typology, choice of music and sound, dialogues, written text to go with the pictures from other school web pages and the yearbook, transition from one screen to another and special effects. The final presentation also had more screens than indicated on the storyboard. All this suggests that many of the production choices were made during the actual production work, rather than according to the "blueprint" of the storyboard.

As described in Chapter 4, Amanda from Group 1 single-handedly produced an outline for her group's presentation. She typed it out using Microsoft Word and passed a soft copy to Brian using a memory stick so that he could create the Flash presentation accordingly. From the file name "Gp 1 proj storyboard", Amanda indicated that the outline was intended to be the storyboard. However, a hard copy of the storyboard template had been given to them by the teacher and they were supposed to hand that in.

Based on my participant observations and video data, the other girl in the group produced the storyboard, based on Amanda's outline, when it was time to submit it to the teacher. The storyboard only had three screens and

parts of Amanda's outline typed in Microsoft Word were similar to the storyboard, as shown in Figure 5.2. My participant observations and video data also show that the storyboard was not referred to during production. It was the outline that was referred to when Brian was creating the Flash presentation.

Figure 5.2. Group 1's Storyboard Based on Amanda's Outline



Group 8's way of working was a counter-example. The storyboard was not done retrospectively. The girls in the group spent one lesson discussing the storyboard. However, as I shall discuss in Section 5.2.2, the storyboarding was redundant for them because Flash could not technically afford all their design ideas as represented on the storyboard. As described in Chapter 4, the

technical difficulties they faced led them to make production choices on the spot.

In the evaluation report on the Becta Digital Video Pilot Project, storyboarding was one of the strategies used in teaching young people video production (Reid et al., 2002). Making movies from a storyboard and writing storyboards were also highlighted as two of the list of key knowledge domains suggested for video production (*ibid*). Although the Becta study recommended storyboarding as a desirable school literacy practice that would enable “students to think through the overall shape of their production in a systematic way” (Buckingham, 2003, p. 133), my data suggest that it may be worthwhile to rethink the meaningfulness of storyboarding for adolescents.

In the sections below, I suggest that my research participants engaged in production-on-the-go practice for the following reasons:

- (a) Experimentation with digital media was an indispensable way of participating in text production;
- (b) Technical affordances shaped their production;
- (c) It resonated with the way they participated in text production outside school.

Sections 5.2.1 and 5.2.2 illustrate production-on-the-go practice and the reasons underlying it.

5.2.1 Experimentation with Digital Media: An Indispensible Way of Participating in Text Production

As described in previous chapters, my research participants had had formal lessons on how to use Flash. In comparison, MediaStage was relatively unfamiliar to them and only four of them had attended the 3-hour training on how to use the program. The need to experiment with digital media as an indispensible way of participating in text production is best illustrated in my data on how my research participants created their MediaStage productions.

All my research participants left the storyboard blank when they were asked to plan their MediaStage productions before starting to use the software. Although Groups 1, 7 and 8 attempted to state the theme, the genre for their productions and their reasons, the characters needed, the plot and the possible settings and actions to be included, not all complied with what they wrote on the planning sheets. Group 6 lost their planning sheet and, in my interview, they claimed that they could not remember what they had written. A comparison between the planning sheets and the submitted MediaStage productions shows that only Group 1 had stuck to their original plan to produce a short film. As I shall illustrate in the remaining parts of this chapter, production choices such as genre and the reasons for it, characters, plot and scenes were decided on the spot and there was no reference to what they first intended and articulated on the planning sheets. My data suggest that these production choices could only be made after they had experimented with MediaStage.

I draw upon my data from Group 8 to provide an illustrative example of how time was spent on familiarising themselves with MediaStage during my

participant observations. In Group 8, Melissa wanted to find out how to use the software from her group member, Heng, who had attended the training. Hence during the first lesson set aside for them to use MediaStage, she spent the entire lesson exploring the software with guidance from Heng who was by her side.

Based on Group 8's planning sheet, they had in mind creating a debate in the form of a variety show and their main message was to communicate that being ambitious had its good and bad sides. They wrote that their first scene would show the news about a manager who framed his Chief Executive Officer (CEO) in order to take over his position. Immediately after the news, they wanted an advertisement that showed a debate on whether the manager was right or wrong. By the end of the first day, Melissa had created the first scene (a news studio with characters).

Like the other groups, Group 8's intention to stick to their plan was challenged when they realised that they could not make certain actions work. Their lack of experience of using MediaStage impeded what they intended to represent. For instance, Melissa was not able to script the movement of the characters so that two characters could sit on one sofa at the same time. This was technically feasible in MediaStage but Melissa and the other students in her group did not know how to do it.

In the group interview, the students claimed that the scripting feature (a feature in MediaStage that synchronised movement, emotive and acting states, as well as speech of the characters according to a timeline) was hard to use. Although some actions were technically feasible and afforded by the

digital media, the students were not savvy enough to create certain effects that they wanted. Time was a major problem as they were not given enough time to familiarise themselves with the various functions of MediaStage.

Experimenting with MediaStage enabled Melissa to leverage the affordances of the software. For instance, Melissa did not know that there was a text-to-speech feature (written texts were read out either as dialogues or a narrative) in MediaStage. From my participant observations and video data, when Melissa realised that there was such a feature, she volunteered to craft the speech for the newscaster. The speech had not been planned and it was produced on the spot. Once the speech was produced, they went on to produce the emotive and acting states of the characters when they were speaking. That was also done on the spot. By the end of the first day, Melissa was happy with what she had created for their first scene and wanted to move on to the second. When I reminded her to save her work, she commented: “But it’s nothing to do with that. We’re just trying out.”

When I studied their interactions on the second day, I realised that Melissa and her group members had changed their original intent. As they were exploring more of what was available within MediaStage, they were using what was available to narrow down their choice of genre – a news flash or a chat show. My audio data suggest that they were choosing props for the mis-en-scène (creating a scene by including elements such as setting, costumes, lighting, camera positioning) but without a confirmed genre. They were so caught up in choosing props rather than discussing and justifying their choices for the news flash or chat show. In other words, they were using what was available to decide which genre would be feasible for their production.

Although experimentation with the software was necessary for all four groups of students based on my participant observations and video data, my group interview data suggest that it was perceived by Amanda as “fooling around”. Sally and Wendy from Group 6 also expressed a similar view in the group interview when they said that they were slacking around (see Excerpt 5.2).

Excerpt 5.2. “Slacking Around” when Experimenting with MediaStage

Wendy:	Uh, the lesson, ah, mainly we were slacking around. (<i>Laughter by Wendy and Sally</i>).
Lynde:	Huh? What?
Sally:	Mainly we were just slacking around.
Lynde:	Just slacking around.
Wendy:	Because she was experimenting with the different, different sounds, lah. ((<i>Lah is a particle used in Singlish; Wendy used it to emphasise the point she made in the particular instance of talk.</i>))
Sally:	Yeah, lor. Yeah and [the actions].
Wendy:	[Yeah, so]. Yeah.

In sum, experimentation with the digital media in use took precedence in my research participants’ text production. Without this experience, they were not able to leverage the technical affordances to create what was feasible. In Section 5.2.2, I continue to stress this point to show that their experimentation with the digital media made them aware of what was not technically possible as well. Hence, their production was shaped by the technical affordances of the digital media in use.

5.2.2 Production Shaped by Technical Affordances

In this section, I highlight two points about the technical affordances of digital media that made storyboarding a redundant literacy activity in text production and made production on the go a more sensible practice for my research participants. First, digital media allows production to be edited on the spot; thus, my research participants could conveniently shape and edit their productions as they explored what could and could not be done with the digital media at their disposal. Second, production using those digital media entailed *transduction* or shifts across modes (Kress, 2003) which could not be as neat and straightforward as the print-based storyboard.

5.2.2.1 *Digital editing affords production-on-the-go practice.*

In this section, I use an illustrative example from my data on Group 6's production in their Flash presentation to put forward my argument that digital editing affords production-on-the-go practice. To put it differently, digital media technically affords a trial-and-error method of production. The example I provide here epitomises my point not only for the Flash presentations but also for the MediaStage productions for all my research participants.

In Group 6, Sally started drafting a schoolboy while Xin and the rest were still discussing the plot outline for their production. The material production of the schoolboy did not depend on the outline. Instead, the meaning-making process was situated in my research participants' interactions with one another. When Sally was drafting out a figure with various shapes and lines using the software, she could easily change what the

schoolboy looked like, visually, based on the comments she received from her peers. Excerpt 5.3 shows that details about the dimensions of the schoolboy were editable and materialised based on the students' interactions during the production process itself.

Excerpt 5.3. Digital Editing Affords Production-on-the-Go Practice

Sally: Let's change the dimension. Oh my god! Oh my god!

Wendy: (Oh my god!)

Sally: He's still not. He should be 15 like that. Eh no::o!

Wendy: I can't even see that guy. Oh my god. Wait wait wait. Close this (1.0) okay already.

Sally: Oh my god, Wendy. He's short and stout.

Excerpt 5.3 epitomises the way my research participants from all groups interacted to edit, (re)shape and materialise their productions as they watched the effects of what was created and decided on them on the spot. Citing Grahame's study of photo-story productions by 11-year-olds, Buckingham (2003) argued that storyboarding was redundant when young people preferred to engage in a "more inductive, 'trial-and-error' approach" of using digital still cameras to create their photo stories (p. 133). He claimed that the young people in the study found it difficult to follow their plans closely and would rather draft and redraft their production, a process easily afforded by the technology.

A similar argument was also put forward by Burn (2009) in his study of the digital editing of a horror film by a group of young people. In the study, the

young people engaged in such an activity as part of their Media Studies coursework assignment. Burn (2009) claimed that the digital-editing software allowed for “real redrafting, reconsidering, continual remaking, experimentation, shaping, polishing” (p. 49). Such “provisionality and plasticity” of the digital media enabled the students to see the effects of their production, such as the pace of a moving sequence on screen; this could not be accomplished through storyboarding (Burn, 2009, p. 49).

As in the studies cited by Buckingham (2003) and Burn (2009), my research participants had difficulty in following their storyboards closely for their Flash presentations and ended up producing on the go for most parts of their productions. By this, I mean that they too were producing by a trial-and-error method, on the spot, without a pre-set plan on the specific details that were needed to materialise their productions. Like the young people in the two studies, production on the go enabled them to see the effects of their production choices which immediately guided their further actions during the production work. Therefore, it might not make sense to follow their storyboards blindly when some of their earlier ideas were clearly not workable. The flexibility in redrafting and drafting their production was an affordance of the digital media. Like the two studies, the technical affordances of digital media made storyboarding a redundant activity for both their Flash presentations and MediaStage productions when they could work and rework out their ideas directly using the different digital media.

5.2.2.2 *Transductive work necessitated production-on-the-go practice.*

When my research participants had to create both their Flash and MediaStage productions, the nature of their productions involved transduction (Kress, 2003). Transduction took place when they had to actualise their verbal work (their talk) to the material form of their production. It also happened when they had to translate what was written and drawn from the storyboard to the actual production in multisemiotic modes. However, my data suggest that it was more meaningful for my research participants to think in terms of sounds, images, words and gestures when working directly with the digital media, rather than on the storyboard.

For instance, Group 8 started their storyboarding by passing the template around which showed their initial struggle to represent their ideas on the storyboard. In Excerpt 5.4, this struggle to represent their ideas on a storyboard is also suggested by the pauses in their interactions. The transductive nature of the production work required them to think in terms of various semiotic modes and they were not used to making explicit how they intended to represent their ideas in extra-linguistic modes on a storyboard.

Excerpt 5.4. Thinking Beyond the Written Mode

Jane:	But mine cannot draw one ((But mine cannot be drawn.)) (2.0)
	Mine how to draw? ((How do I draw my ideas?)) (2.0)
Melissa:	Use pic like that (3.0)
Elisa:	Mine, got no pictures one ((I have got no pictures in mind.)) (2.0)

Melissa: Then you use words words.

Elisa: Give me give me. I draw. I () draw first. (6.0)

Buckingham (2003) argues that storyboarding is part of professional media practice. He adds that when students engage in such a practice, they may benefit from it by being able to visualise their production in terms of the shots needed or the sequences of their media representations (ibid.). However, he also forewarns that storyboarding may also be inhibiting to younger students when they are not sure how to go about writing and drawing in a storyboard.

My data suggest that this could also happen to adolescents who were new to representing their ideas beyond the written mode on a storyboard. Moreover, transduction in text production was not as neat as what was represented on storyboards and was shaped by the affordances of the digital media. For my research participants, it was more meaningful to engage in transductive work by using the digital media directly, a point that I shall illustrate below.

I continue to draw on the data collected from Group 8 to illustrate the arguments I make here. When creating their Flash presentation, Group 8 was the only group that switched off their computers on the first day allocated for their production. They spent the entire lesson working on the storyboard as instructed by the teacher. However, they were not able to follow their storyboard except for the main menu (akin to a contents page) due to the

technical challenges they encountered during production. Excerpt 5.5 shows an example.

Excerpt 5.5. Difficulties in Animating Characters Using Flash

Melissa: A::ah, where is the delete thing? (3.0) Remove key frame¹. (2.0)
Err! Remove key frame 应该可以. ((**Should be able to remove the key frame.**))

Elisa: Delete the whole thing.

Melissa: Delete this whole layer huh. Err (1.0) Wait wait wait.

Elisa: I think better don't anyhow delete.

Melissa: (*Melissa laughed.*) This one is the hand moving only.

Elisa: Okay okay.

Melissa: Okay. It's still it's still here. (2.0) (*Melissa laughed*). Why it's so static huh?

Elisa: Can lah. ((**It's good enough.**)) Waving waving then wait wait then in the end (3.0)

Melissa: We are hopeless already.

In this excerpt, the girls were trying to create students walking, speaking and waving hands. Although they could create animated figures using Flash, the effect they achieved was much less than they could accept. In the group interview, they claimed that the students in their Flash presentation looked as if they were floating, the movement of the lips would

¹ A key frame in animation and filmmaking is a drawing that defines the starting and ending points of any smooth transition. They are called "frames" because their position in time is measured in frames on a strip of film. (Retrieved from http://en.wikipedia.org/wiki/Key_frame).

not synchronise with the words in the speech bubbles and their hands were too stiff to look as if they were waving.

In Chapter 1, I cited Orlowicz's (2010) claim that Flash has simplified the process of animation for the average user. Nonetheless, in my study, all my research participants suggested that it was tedious, time-consuming and difficult to animate objects although Tiffany and Yenny showed that they were able to handle the animation (Yenny had help in using Flash at home from her mother who was a software engineer during my data collection. I return to the point on Yenny's competence in using Flash in Chapter 8.). My audio data do not suggest that the software was user-friendly or easy to use. The Flash presentation submitted by the Group 8 students suggests that the students had had to change their intended meaning-making because of the difficulties they encountered in animating characters using Flash. With time running out, they aborted their ideas and ended up submitting a multimedia presentation that was dominated by words.

Similarly, in the MediaStage productions, there was evidence from all groups that the transductive work in text production necessitated production-on-the-go practice because of the technical affordances of the digital media. I draw on Group 6's data to illustrate how they had to change their meaning-making because of the affordances of MediaStage.

Excerpt 5.6. Transductive Work Shaped by Technical Affordances

Sally: Put her in the window. (*Sally chuckled.*) Oh my god! (Very difficult lah.)

Jay: Just put her in some house.

Sally:	It's like even if you put her//
Wendy:	//If you click on the window, then //
Sally:	//there
Wendy:	Then we just put her in the house.
Sally:	You just put her here and then definitely she (will walk in) (6.0)
Wendy:	Mrs Toh, how do we make a character go into the house?

In the excerpt, my research participants in Group 6 were thinking about ways to get the animated MediaStage character known as Charlotte to travel from one spot to another. They wanted their production choices in their MediaStage production to depict realistic actions as much as possible. They wanted Charlotte to walk through a door into her house but they realised that they were unable to do it. On that day, Wendy asked me (indicated as Mrs Toh in the excerpt) how to script such a movement but this was technically impossible in MediaStage.

Because of this limitation, Jay suggested putting Charlotte in front of the door in Scene 1 (not shown in the excerpt). In this way, it was a more natural depiction and would lead the viewers to think that she was about to go into the house. Coupled with the next scene that showed Charlotte inside the house, they had led the viewer to think that Charlotte had gone through the door into the house.

In sum, my data suggest that creating a multimedia production involved transductive work and that the nature of such work was shaped by the technical affordances of the digital media. As such, it was more meaningful to

engage in such transductive work directly by exploring what was technically feasible and afforded by the digital media, rather than being driven by a print-based storyboard. As a result, my research participants would rather engage in production-on-the-go practice than following a pre-set plan blindly. In the next section, my data also suggest that a possible reason for engaging in production-on-the go practice was that it was already an inherent practice that they brought with them from their out-of-school literacy practices.

5.3 Production on the Go as an Out-of-School Literacy Practice

In this section, I discuss how my research participants who blogged and wrote fan fiction engaged in production-on-the-go practice when they were producing different texts such as blog skins, blogs, photos and fan fiction in their out-of-school literacy practices. In Chapter 4, my data suggest that the computer and language arts teacher intended for my research participants to engage in text production in a linear and structured manner in their school literacy practices, i.e. there was technical training followed by planning and storyboarding, and then the actual production which ended with report writing to reflect upon production choices. Although I did not observe how my research participants engaged in text productions outside school, I have drawn upon my interview data to gain insights into their production-on-the-go practices outside school.

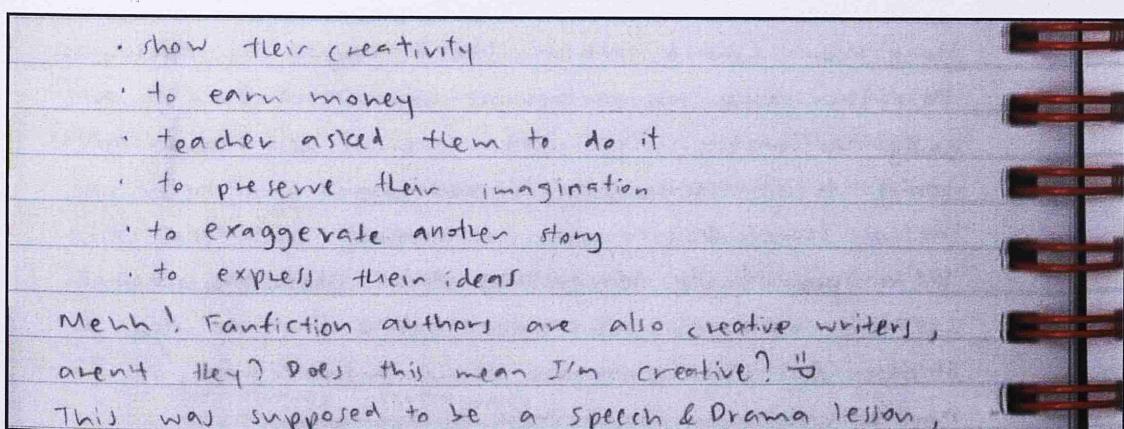
5.3.1 Writing Fan Fiction

Black (2009b), known for her work on adolescents' fan fiction writing, describes fan fiction as:

... a unique form of writing in which fans base their stories on the characters and plotlines of existing media and popular culture. When creating fan fiction, fans extend storylines, create new narrative threads, develop romantic relationships between characters, and focus on the lives of undeveloped characters from various media. (p. 398)

I first learnt about fan fiction, not from Black's reputable work, but from Amanda's research diary. On 29 June 2007, Amanda forgot to bring her school notebook for note-taking in her speech and drama lessons where the discussion topic was about creativity. She used her research diary to jot down her ideas on what creative writing was, a question posed by the language arts teacher. In addition to her responses to the list of teacher-initiated questions about creative writing, Amanda added her own personal thoughts. In her research diary, she claimed that fan fiction authors were creative writers and she wondered if that made her a creative person as well (see Figure 5.3).

Figure 5.3. Extract from Amanda's diary on Fan Fiction



In my interview with Amanda, her understanding of fan fiction was close to that offered by Black (2009b). She described fan fiction in the following way:

Excerpt 5.7. Amanda's Understanding of Fan Fiction

Fan fiction is like based, is like based on a show or book or movie then it's like sometimes people are just bored lah. (). So they'll create like their own story but using the characters from the story ah. Then they can like, for example Star Wars, you can place it in a Star Wars setting or like bring the characters to the high school setting. Yah, then you evolve your own story.

Her knowledge of fan fiction was gained from her personal experience as a fan fiction writer. She started writing fan fiction in April 2007. Her sister introduced fan fiction to her when she complained that she was feeling increasingly bored with watching Hong Kong movies at home. She started looking for more information on fan fiction, starting from a website, fanfiction.net. Since then, reading and writing fan fiction had been her dominant out-of-school literacy practice.

Amanda gave herself a name, Sundowners, when she published her fan fiction on the fanfiction.net website. When I studied her fan fiction stories, I learnt that they were based on an anime (Japanese animation), Gundam Seed, which was an award-winning production. The anime was based on a mixture of science fiction and romantic genre. When Amanda wrote her two fan-fiction stories based on Gundam Seed, the first one was only one chapter long (763 words as indicated on her fan fiction), and the other one had twenty-one chapters (11,252 words as indicated on her fan fiction). The former had four reviews and the latter had eighty-four reviews by mid-January 2008.

Amanda wrote both stories in English, in the romantic genre. She rated them K+, which meant that there was mild violence and they were suitable for older children but with no age group stated.

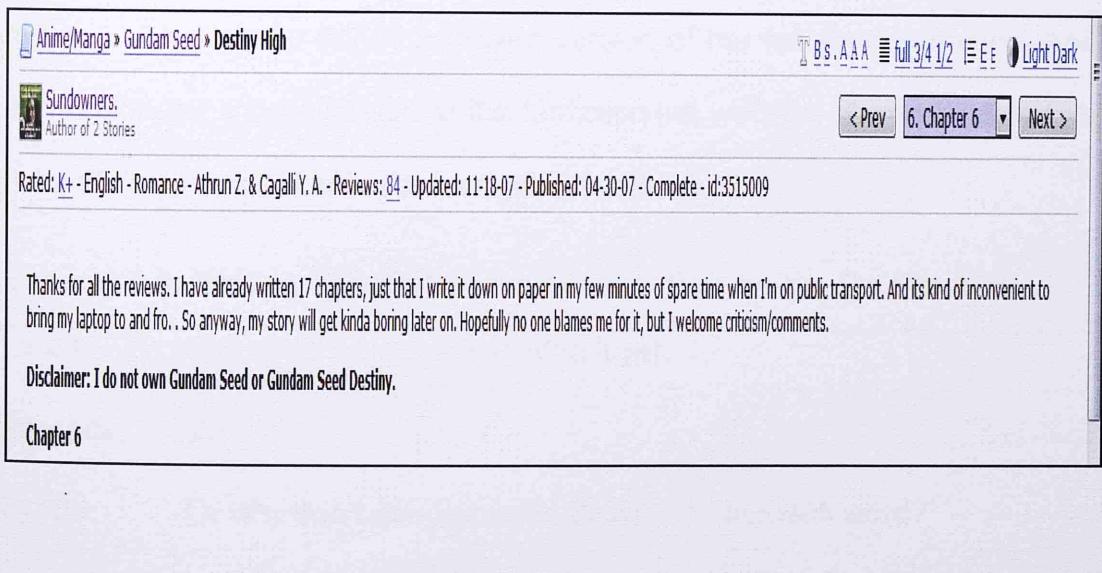
Amanda continued to write even during the examination period although she was struggling to sustain her writing at this busy time. It was apparent to me that she was mindful that there were people waiting to read the following chapter of her fan fiction. As shown in Figure 5.4, Amanda made it known to her readers that she was trying to update her fan fiction during her the examination period.

Figure 5.4. Amanda's Notes to her Fan Fiction Readers

(a) Note to readers at the end of Chapter 3

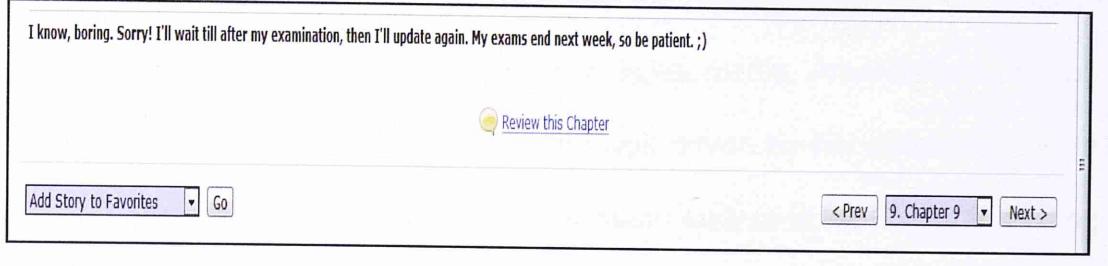
End of chapter 3.
I might not update, cause I have examinations, but we'll see how it goes.

(b) Note to readers at the end of Chapter 6



The screenshot shows a fan fiction story page. At the top, there are navigation links: 'Anime/Manga' with a dropdown arrow, 'Gundam Seed', and 'Destiny High'. To the right are icons for 'B6', 'AAA', 'full 3/4 1/2', 'EE', and 'Light Dark'. Below these are author information ('Sundowners, Author of 2 Stories'), a chapter navigation bar ('< Prev', '6. Chapter 6', 'Next >'), and a rating section ('Rated: K+ - English - Romance - Athrun Z. & Cagalli Y. A. - Reviews: 84 - Updated: 11-18-07 - Published: 04-30-07 - Complete - id:3515009'). The main content area contains a note from the author: 'Thanks for all the reviews. I have already written 17 chapters, just that I write it down on paper in my few minutes of spare time when I'm on public transport. And its kind of inconvenient to bring my laptop to and fro. So anyway, my story will get kinda boring later on. Hopefully no one blames me for it, but I welcome criticism/comments.' Below this is a disclaimer: 'Disclaimer: I do not own Gundam Seed or Gundam Seed Destiny.' and the text 'Chapter 6'.

(c) Note to readers at the end of Chapter 9



I know, boring. Sorry! I'll wait till after my examination, then I'll update again. My exams end next week, so be patient. ;)

 [Review this Chapter](#)

[Add Story to Favorites](#)

[9. Chapter 9](#)

In order to find time writing during the examinations, Amanda would also write whenever and wherever she could. In a note to her readers, she told them that she was even writing while she was on public transport (see Figure 5.4b). Writing on public transport suggested that she was engaging in text production on the go where she did not have to plan, draft and then publish. When I interviewed her about how she went about writing her fan fiction stories, Amanda said she wrote her fan fiction on paper whenever she could. She then typed out what she wrote and uploaded it to the fanfiction.net website on a separate occasion (also known as updating). In response to the reviews she got, she edited a printed version of her fan fiction chapters and then uploaded a new version to the fanfiction.net website. Excerpt 5.8 shows Amanda's account of how she went about writing her fan fiction.

Excerpt 5.8. Writing Fan Fiction as a Production-on-the-Go Practice

Lynde: You write it but not uploaded it yet.

Amanda: Ya.

Lynde: Or why don't you just write straight in Microsoft word?

Amanda: 'cause it's like (1.0) I move around then I write it ().

In short, Amanda was determined to find time to write and update her fan fiction because she knew her fans were waiting to read the next chapter of her writing. Unlike in school practices where the production-on-the-go practice was partially a result of the affordances of digital media, Amanda's fan fiction writing as a production-on-the-go practice was driven by her determination to sustain her publication by maximising her spare time to do so, including using travelling time on public transport.

5.3.2 Producing Blogs, Blog Skins and Photographs

Amongst my research participants, all had been bloggers since they were 13 years old except for Sally, Brian, and Wendy. When I asked my research participants how they went about creating their blogs and their blog skins, none of them had to plan before they started production. It was apparent that they made their production choices on the spot. These choices included decisions such as what and how to write a blog post (the font colours, font styles, and posting of multimedia or multimodal texts like music files, video files, or online quizzes). From the interviews I had with them individually, it was evident that they depended on their mood or feelings to make production choices. Excerpt 5.9 is an example from Melissa:

Excerpt 5.9. Blogging as a Production-on-the-Go Practice

For me, when I design a blog skin, I go according to what I feel at the moment. Then I will type the key word into the search engine to search for related blog skins. I think most teens like to choose blog skins that are related to what they like and what they feel during that period of time.

Melissa's words resonate well with what the other bloggers shared with me during the interviews. For instance, Jay and Xin liked to put up pictures that they took from their mobile phones onto their blogs. Such spontaneous photo-taking using their mobile phones was never planned but occurred on the spot when something caught their attention or interested them. This practice contradicted the school literacy practices where they were instructed to plan before engaging in actual production.

Potter (2010) explains that when editing images using Photoshop, the user can "change an image in some way, to crop it, to resize it, to remove red-eye and blemishes, to change lighting, to adjust colour, lighting, or contrast, to apply finishing effects to regions or to the whole image, to amplify details in pursuit of an aesthetic effect, or to change its meaning-making properties" (p. 115). When Pamela, Xin, and Tiffany edited photographs taken with their mobile phones or digital cameras using Photoshop, there was no hint that planning preceded the actual production. I draw on my data collected from Pamela to illustrate this point.

In my interviews with her, Pamela claimed that she used Photoshop to create blog skins and to make a face look more perfect. When requested by her friends, she would edit images for her friends too. There were two occasions that her classmates had asked her to create cards, once a Teacher's Day card for their language arts teacher and a birthday card for their classmate.

During my interview conversations with Pamela, I noted that she could not trace her exact actions taken to edit an image using Photoshop. She

claimed that she usually browsed through many images from an art website and, intuitively, she chose an image that she deemed suitable for her to use as a blog skin. When I tried to elicit how she went about creating special effects with Photoshop, she was not able to describe to me the specific steps she took. It seems to me that Pamela had reached a certain level of fluency in using Adobe Photoshop. Hence, it was hard for her to deconstruct the steps she took to edit and remix an image. I would also argue that such fluency was attained from her hands-on experience in using the software where actions taken were intuitive and did not need any planning before production.

Like Flash, the technical affordances could be the reason that supported such production on the go for Pamela. Manovich (2001) argues that new media, such as Photoshop, “naturalizes” the model of authorship” (p. 129) where the user does not need to start text production from scratch and every stage of production follows a “logic of selection” (p. 129) from libraries of predefined objects readily available from accessible websites and within a range of repositories within the software. By leveraging the technical affordances to digitally (re)edit and remix on the spot, Pamela could learn how to use digital media and achieve the image she wanted to produce by simply “evaluating the results and making adjustments” on the spot (Ang, as cited in Potter, 2010, p. 113).

I would like to suggest that the notion of produsers (Bruns, as cited in Lankshear & Knobel, 2010, p. 10) seems to embrace the notion of production on the go where the digital media afford ready access and mobilisation of resources on the Web to carry out “innovative explorations, experimentations, and purposeful tinkering that often form the basis of a situated understanding

emerging from action" (Hagel & Brown, 2005, p. 30). In line with this argument, I argue that production-on-the-go practices were inherent in my research participants' digital literacy practices where "plans develop[ed] within activity" and they sought out "materials that they need in the course of acting" (Leander, 2007, p. 47). Such way of acting and reacting in a habitual manner or, using Bourdieu's (1991) term, as their *habitus*, had been acquired in the way they consumed and produced texts in their out-of-school literacy practices. It occurred before instructional plans were implemented for them to learn to be text producers in their language arts curriculum. In the next section, I continue to highlight the tension between school literacy practices and out-of-school literacy practices by arguing that design and production were inseparable processes for my research participants in their out-of-school literacy practices.

5.4 Design vis-à-vis Production in Production-on-the-Go Practice

In this last section, I address two related points about my research participants' multimodal textual repertoires. First, my data suggest that design did not necessarily under-specify and precede production when my research participants proceeded with their text production without having a storyboard or making reference to it. Second, when design did not precede production, it was difficult to identify the producer in collaborative text production.

In this thesis, I turn to Kress and van Leeuwen's (2001) notions of *design* and *production* in order to establish a starting point for discussing

these issues. According to Kress and van Leeuwen (2001), design is uses of “semiotic resources, in all semiotic modes and combinations of semiotic modes” (p. 5) and it is “separate from the actual material production of the semiotic product or event, and uses (abstract) semiotic modes as its resources. It may involve intermediate productions (musical scores, play scripts, blueprints, etc.) but the form these take is not the form in which the design is eventually to reach the public, and they tend to be produced in as abstract a modality as possible, using austere methods of realization that do not involve any form of realistic details, texture, colour and so on” (p. 21).

In contrast, production refers to “the organization of the expression, to the actual material articulation of the semiotic event or the actual material production of the semiotic artifact. A whole other set of skills is involved here: technical skills, skills of the hand and the eye, skills related not to semiotic modes, but to semiotic media” (p. 6), and it “not only gives perceivable form to designs but adds meaning which flows directly from the physical process of articulation and the physical qualities of the materials used, for instance from the articulatory gestures involved in speech production, or from the weight, colour and texture of the material used by a sculptor” (p. 21).

Kress and van Leeuwen’s (2001) notions of design and production imply that, in a text production, a two-step process is entailed. That is, design is followed by production. However, as illustrated in the previous sections in this chapter, my data suggest that text production did not necessarily need this two-step process. When storyboarding was done as a retrospective activity, my research participants basically produced and let the design emerge from their production. In their production-on-the-go practice, design

did not under-specify and precede production; my research participants did not have or follow a pre-set plan and relied on a trial-and-error method of production. This was also prevalent in their reported ways of text production in their out-of-school literacy practices. Such ways of participating in text production made it difficult to identify a producer in their shared authorship at school. In the remaining parts of this section, I draw mainly upon Group 6's data as anchoring points to illustrate the arguments I make here.

I would argue that the Group 6 students were involved in design work when they were producing a script for their Flash presentation. It was notable that their final script (see Figure 5.5) focused on what to represent and what media would be needed, i.e. pictures and videos. The mode the students emphasised was largely the written mode when they paid attention to possible dialogues spoken by the school children in their presentation. By introducing pictures and videos, they were also paying attention to the visual aspect. The choice of music was not reflected in their outline but music was included in the final production. In short, the script was a design as it indicated the different modalities to be used to represent the language experience in the school. They also had in mind the discourse of schooling at Lakeshore as they planned the messages for the dialogues of the characters in the presentation and the choice of images to appear.

Figure 5.5. Designing Group 6's Flash Presentation

Characters (possibilities):

-a boy and a girl

Settings (possibilities):

-at home

-in school – classroom, hall, library, canteen, track

Plot (possibilities):

- a boy and a girl –

The boy ask the girl: which school do you want to go to?

The girl answers: Maybe █

The boy says: yes, me too. Let's visit the school.

Pictures of █ will appear (include facilities)

- (possibilities) a scene on our school campus with many doors. Each door leads to a different part of school. E.g. Com lab .When clicked, the door will open and zoom in and pictures of that place will appear.

The boy and girl then appear again

The boy say: it looks good.

The girl: I agree. Let's now see their daily activities.

Show videos of our daily activities

- videos: videos during computer lesson

videos during English lesson(mediastage)

The girl: they have exciting lessons.

The boy: look at that program! It looks so fun. I have never used media stage before

School awards

The girl: wow! █ has won so many awards!! It must be a good school!

The boy: yes! I think so too.

The girl (face audience) _so... why don't you join us at █?

Playback button

When the group agreed that that there would be a schoolgirl and schoolboy in their Flash presentation, Sally had to realise the group's design choice using Flash in a way she could imagine and knew. No one told her exactly what the schoolboy and schoolgirl should look like. It was when she started drafting the character that different individuals began to give their opinions of what was acceptable visual representation. As discussed in

Chapter 4, the problems set in when Xin, Jay and Wendy, involved in design work (crafting the outline) told Sally, the producer, the steps to take when drafting a character or object. Excerpt 5.10 shows an example of how a producer could be a group member who knew how to realise the material aspects of the production without having to use the computer mouse to use Flash.

Excerpt 5.10. Being a Producer without Using the Computer Mouse

Wendy: Wait, wait, wait, wait. Wait, wait, wait, wait. No, you can, you can free transform². Oh, my god!

Sally: 哪里？这个啊？((**Where? This one?**))

[...]

Wendy: 这样 twist 来 twist 去 better not ah, better not. ((**If you were to twist it in this way, it'd be best not to do it.**)) (Wendy laughed.) 弄到 这中地步 better not. ((**Look at what you did, better not.**)) Oh my god! (Sally laughed.) (1.0) Err, cancel.

Jay: I mean hand got 这样的 meh? ((**Is this how a hand should look?**)) Hands 不是 这样的，为什么有 you 这样的？((**Hands don't look like these. Why are you like that?**))

In the excerpt, only Sally was controlling the computer mouse because she was taking on the producer's role. However, a close study of the group interactions shows that Wendy was directing Sally's steps when she was telling Sally how to free-transform (a feature in Flash to scale and change shapes) the hand. It could be argued that Wendy was involved in the material

² The free transform feature in Flash Macromedia allows the students to change and scale shapes.

production of the presentation even though she was not directly controlling the computer mouse.

This way of engaging in the technical aspect of the production work was evident in my data. There were a few instances where Sally had a tendency to ask Wendy to tell her what to do so that she knew exactly what needed to be done. An example is shown in Excerpt 5.11.

Excerpt 5.11. Sally’s “Tell-Me-Then-I-Do” Way of Participation

Sally: Err faster, tell me then I know what to do.

Wendy: Yah.

Sally: You tell me then I do. Tell me what to do.

Wendy: We all haven’t even finished discussing.

In sum, while I identified a producer as the one who used the computer mouse to actualise the material production in Chapter 4, a close study of my research participants’ interactions show that it might be deceiving to think of the producer in this way. It could be argued that it was possible that the producers included those surrounding the person with the computer mouse and that those people gave specific instructions on the actions to be taken in order to materialise a production. Hence, when Sally engaged in the “tell-me-then-I-do” way of participating, she was actually the scribe except that she was using the visual mode instead of the written mode, as in the case of Xin taking notes of the group’s ideas for the plot narrative (see Section 4.3.1 in Chapter 4).

A similar way of participating in collaborative text production was also noted in Group 7 when Yenny was guided by her group members on how to create a masking effect (a way to selectively hide objects in Flash), motion ‘tweening’ (a way to create animation in Flash) and sprays (a way to create graffiti-style airbrush effects in Flash) during the production work. In Group 1, although Brian was the one using Flash to materialise Amanda’s outline for their presentation, a close study of their interactions shows that Amanda was also dictating the exact lines to be typed for the written text on a particular screen. In such instances, Amanda was involved in production since she had articulated exactly how to phrase the written text and Brian, though he was using the computer mouse and typing on the keyboard, turned out to be the scribe.

As discussed in Chapter 4, the evolving roles in shared authorship made it difficult to distinguish a producer from someone who was involved only in the design work. This problem was exacerbated when my research participants participated in their production-on-the-go practice. In such practice, my data suggest that design did not necessarily have to precede production; given the way my research participants engaged in text production, the two-step process might not be necessary.

5.5 Summary

This chapter has described and explained the production-on-the-go practice that constituted my research participants’ multimodal textual repertoires. It illustrates how my research participants participated in

storyboarding as a retrospective and redundant literacy activity in their school literacy practices. When they tried to participate in text production as they did in their out-of-school literacy practices, my data suggest that it was not their inherent practice to engage in a two-step process in text production, i.e. design intended to precede production. When that happened in school, it was problematic to identify the producer simply by noting which student was controlling the computer mouse.

CHAPTER SIX

MULTITASKING

“Till now, my mother still cannot believe that I can multitask.”

- Wendy

6.1 Introduction

This chapter is the third of four chapters that describe and explain what constituted the adolescents' multimodal textual repertoires in and out of school. In this chapter, I analyse multitasking as an inherent practice for all my research participants whenever they used a computer. By multitasking, I refer to adolescents' participation in schoolwork and unofficial literacy activities at the same time (Leander, 2007). I also describe how varied multitasking can be in different contexts and study the social affordance that it brought for these research participants.

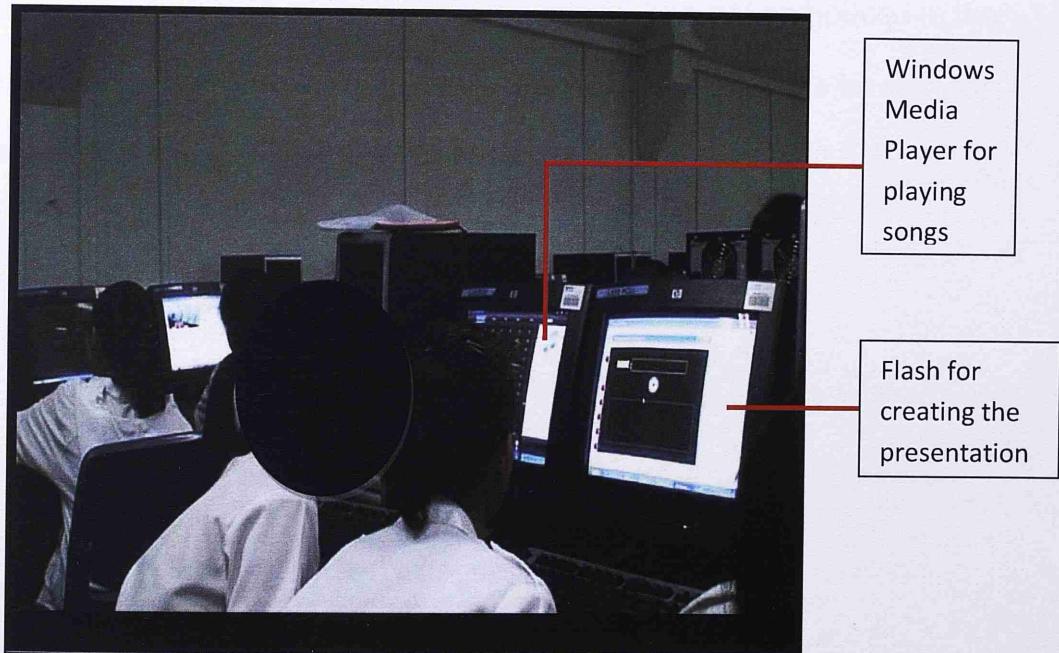
6.2 Multitasking In and Out of School

In this chapter, I discuss how multitasking took place amongst my research participants' school and home literacy practices when they engaged in on-and-off task activities. Multitasking is ubiquitous amongst adolescents (Jenkins, 2007; Lankshear & Knobel, 2007; Tapscott, 2009). Lankshear and Knobel (2007) claim that multitasking is “widely seen as a way of operating that applies generally in everyday life at home, at school and at play” (p. 15). What is evident in my analysis is that multitasking is a practice the

adolescents brought from home to their school literacy practices. During my participant observations of their school collaborative text productions, it was common for my research participants, except for Melissa and Yenny, to engage in off-task activities such as listening to music played from Windows Media Player, downloading songs, instant messaging, reading and tagging blogs, and reading fan fiction when they were using computers. In this chapter, I draw upon my data to suggest that these students could be making attempts to change their formal school literacy practices by enacting their everyday practice of multitasking whenever they used the computers.

Multitasking took place in two ways at school, based on my participant observations and video data. First, one computer was used for off-task activities while the other was for using Flash. Figure 6.1 shows an example on how one computer was used to play songs while the other was for creating the Flash presentation.

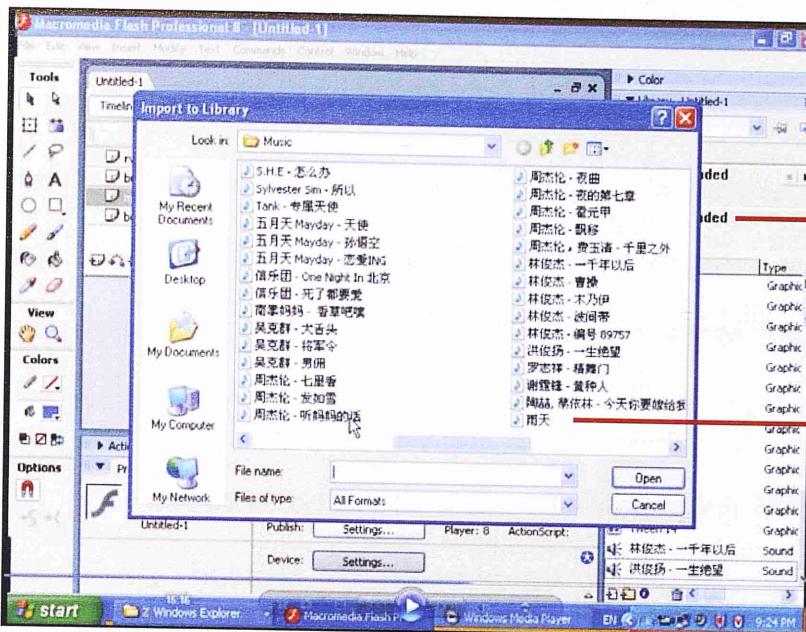
Figure 6.1. Multitasking using Two Computers



For instance, Sally was listening to a song playing from another member's computer who came to the computer laboratory with a memory stick that contained a repository of music files. She was listening to the songs and singing while she was drafting the characters using Flash. Jay was like a watchdog when that happened; he reminded the other group member that the music was getting too loud and reminded Sally that she was singing too loudly when she was not supposed to sing in the first place. This was also common in Group 7.

Second, a single computer might have multiple windows so that my research participant could engage in off-task literacy activity such as accessing and playing songs from Windows Media Player while using Flash to create a presentation. For instance, Figure 6.2 shows one occasion where Brian was looking for songs while working on the Flash presentation. However, my video data show that the songs were not intended for the Flash presentation; he switched from one song to another as background music while working on the Flash presentation. The songs were not embedded in the presentation and, from their Chinese titles, they did not appear to be relevant to the theme of the presentation which had to be done in English.

Figure 6.2. Multitasking on Brian's computer



According to my research participants, their computer teacher knew how to block the Internet. She had blocked some entertainment websites such as You Tube while they were creating the Flash presentations. However, there were music files available in the students' shared folder on the computer they were using. My research participants also had their peers bringing in their own memory sticks of music files.

It appeared to me that when my research participants were multitasking during their Flash production, they tended to listen to songs using Windows Media Player. When they were allowed to look for resources including music for their Flash presentation, these were opportunities for them to multitask, i.e. listening to music and working on the task at the same time. As I shall illustrate later, such a way of working with the computer was an everyday practice for them at home.

In comparison, my research participants who multitasked during the MediaStage production engaged in more varied off-task activities while simultaneously working on their productions. According to Sally in the group interview, this was because the language arts teacher who took charge of them did not know how to block the Internet. During my participant observations when I had to be the substitute teacher, I also did not stop them from multitasking.

For instance, on the third day of creating the MediaStage production, Wendy was choosing, downloading and listening to songs from Imeen (the website where songs could be downloaded for free; it was a commonly-used website, as shown by my research participants' blogs) while typing the MediaStage report. From the video recording, Wendy was also seen toggling between different blogs and the MediaStage report that she was typing. On the last day of creating the MediaStage production, Wendy was listening to other songs again but from another website (www.haoting.com) while also paying attention to what Sally and Jay were doing with MediaStage.

This, however, did not suggest that when the Internet was completely unblocked, the way my research participants multitasked during their Flash production was no longer observable. For instance, on the same day of creating the MediaStage production, Sally was singing and working on her MediaStage production at the same time but the songs were not played from her computer but from Wendy's computer. What my data suggest is when the Internet was completely unblocked, there were more instances of students accessing different websites while using MediaStage at the same time.

Although I was impressed with how resourceful the students were when I saw the range of websites they visited, I did not observe any use of such resources for the production work at hand. Jenkins (2007) argues that multitasking is “the ability to scan one’s environment and shift focus onto salient details on an ad hoc basis” (p. 34). He also claims that multitasking “often is confused with distraction” and he argues that it is an important 21st century literacy skill that “involves a method of monitoring and responding to the sea of information around us” (p. 36). My data suggest that multitasking could be constructive for my research participants in the sense that it had made their school literacy activities pleasurable and enabled them to participate in text production in the same way as their out-of-school literacy practices whenever they used a computer.

I would argue that when my research participants were multitasking between off-task and on-task literacy activities, they were making attempts to change the social interactions in their formal school literacy practices. In the group interviews, my research participants shared with me that, in class, there were not many opportunities to chat with their friends. To be specific, I would think that my research participants were referring to lessons where the teacher had more control of classroom interactions. Hence, when they found opportunities to multitask and change the social interactions in the collaborative text production, they were showing a contrast with the monochronic orientation in school practices where one is expected to “spend time on a particular task until it gets done” (R. H. Jones, 2005, p. 150).

To support my argument, I have drawn on my interview data to gain insights into how multitasking took place in my research participants’ out-of-

school literacy practices. My interview data suggest that there were common ways of multitasking amongst my research participants outside school. Multitasking was engaged in when they were doing schoolwork at home. This meant that when they were working on print-based worksheets at home, or using their home computer to write a report or prepare a PowerPoint presentation, they were also busy with sending instant messages through MSN.

For instance, when they were doing their schoolwork at home, all of my research participants, except for Brian, Xin and Sally, would be sending instant messages simultaneously. For Amanda, Tiffany and Pamela, they liked to play songs from Windows Media Player in addition to sending instant messages through MSN while doing their schoolwork. Jay listened to songs while doing his schoolwork at home too, but he did that by playing songs directly from his blog. For Tiffany, multitasking could include several activities such as listening to songs using Windows Media Player while working on the computer, watching television programmes, and sending instant messages through MSN. She even claimed that sometimes she could eat dinner while doing all these activities simultaneously.

There were five discrepant cases (Cohen et al., 2007) found from Melissa's, Yenny's, Sally's, Xin's and Brian's data. For Melissa and Yenny, I did not observe them multitasking during their school literacy practices but they too would send instant messages while using their home computers to do their schoolwork. For Sally, Xin and Brian, multitasking did not happen when they were using the computer to do schoolwork at home. For instance, Sally could only use the computer about three to four times according to a rule laid

down by her mother. In addition, these instances of computer use could not take place on any consecutive days. Her mother expected her to complete her schoolwork first before she could use the computer. When she had the opportunity to use the Internet, she would use it to search for the lyrics of her favourite songs because she loved to sing. Nonetheless, when she used the Internet to search for lyrics, she would also be sending instant messages to her friends simultaneously. Multitasking between off-task literacy activities and schoolwork (that required the computer) did not favour her as she would be seen using the computer for too long. This could shorten her subsequent access to the home computer in a particular week.

Xin, like Sally, would only use the computer for leisure activities after she had done her schoolwork at home. For her, there was no one to curb her use of her home computer; rather, it was her choice to complete her schoolwork before engaging in her out-of-school literacy activities, such as reading and writing blogs, and sending instant messages at the same time. When I studied Xin's blog, I learnt that she had the same habit of embedding her favourite music in her blog and then listening to it directly from her blog. However, when schoolwork required the computer and it had to be done at home, she too would be sending instant messages and doing work with her computer at the same time. Like the rest, she would sign into their MSN account whenever the computer was switched on. This explained why sending instant messages and doing other work on the computer was a common way of multitasking for my research participants.

As for Brian, his mother did not like him to engage in out-of-school literacy activities such as reading and writing blogs. He was allowed to use the

computer at home only for schoolwork and reading online stories. Multitasking was not part of his practice until near the end of 2007. According to Brian, he was under the influence of his buddy at school. As a result, he set up his first MSN account after the year-end examinations. Once the examinations were over, he could use the home computer to play online games through MSN, and read and tag other people's blogs. In short, for Brian, he was observed to multitask once at school when he was creating the Flash presentation. This could be due to the influence of the same buddy who sat beside him when he was working on the Flash presentation.

Following Lankshear and Knobel's (2007) study, when my research participants were multitasking across online and offline tasks, or across a few online activities, it could be seen as "a way of operating that applies generally in everyday life at home, at school and at play" (p. 15). I would like to suggest that multitasking was acquired over time, through participation in my research participants' out-of-school literacy practices, and it was their habitus.

Nonetheless, I would argue that my research participants had a shared understanding that multitasking was not an acceptable way of participating in literacy activities for their teachers and parents. For instance, in my group interview with the Group 6 girls, Sally and Wendy were exchanging tips with Xin on how to access the Internet for off-task activities without getting caught by the computer teacher who knew how to block the Internet access. Sally claimed that if she got into the computer laboratory early and accessed the Internet before the computer teacher blocked it, she would be able to search the Internet while working on the Flash presentation. Wendy said that she managed to do so because she typed the URL in the search field when she

went to "My Computer" instead of using the Internet browser. Sally also explained how many windows should be opened all at once so that when she closed these windows, all that the teacher could see was the number of groups opened up but not the specific websites that were accessed.

At home, Sally had to strategise how to gain access to her home computer because her mother refused to let her use it on consecutive days. In my final individual interview with her, she said that she looked for ways to read and tag her friends' blogs and Friendsters while doing her work at school so that there would be no need to do so at home. When her mother saw that she was not using the computer at home, her mother would be pleased. Once she had appeased her mother, she would be able to use the computer the following day solely for her out-of-school literacy activities.

Amanda too had to strategise when she multitasked at home. She liked to send messages through MSN in her out-of-school literacy practices. In addition, she liked to chat with her friends in Habbo (a chat room), write fan fiction , read blogs, search for pictures for her MSN profile, listen to songs using Windows Media Player, play games and do her schoolwork all at the same time. In my individual interview with her, she claimed that she would open up all these multiple websites and collapse them in time when her mother walked into her room. This was similar to the strategy Sally adopted at school. For Amanda, it was to assure her mother that she was concentrating on her schoolwork at home.

All these multitasking strategies shared by my research participants were similar to what R. H. Jones (2005) argued about his Hong Kong

secondary school students' digital literacy practices at home. He argued that "students must often perform conflicting orientations towards time simultaneously, acting polychronically in virtual spaces while performing a monochromic orientation for their parents" (R. H. Jones, 2005, pp. 150 - 151). Building on R. H. Jones' (2005) argument, Leander (2007) argues that while school practices constitute one dominant single space for each mono-spatial task for these young people, "multiple spaces are their norm of practice" in their everyday online practices. This argument, offered by Leander (2007), is a useful notion to explain how my research participants' multitasked in and out of school.

6.3 Summary

While Jenkins (2007) argues for the pedagogical value of multitasking, my data do not suggest that this was the reason that compelled my research participants to multitask, as part of their multimodal textual repertoires. My data suggest that multitasking was not perceived to be an acceptable way of being by the adolescents' teachers and parents. Nonetheless, they found ways to engage in such a practice both in and out of school as a way of constructing their social interactions both online and offline.

When it happened in school, I would argue that they were attempting to change their school literacy practices, testing the boundary and negotiating the domains of practices while rooted in the physical site within the computer laboratory. In Chapter 7, I argue that they were having fun while they were

participating in text production. I then move on to consider the affordances of digital media in constructing such a practice in Chapter 8.

CHAPTER SEVEN

HAVING FUN IN TEXT PRODUCTION

"And you cannot just write I had fun these days, I bonded a lot with my friends and stuff. You cannot. You have to write something very, very profound, very, very profound then the teacher will like it."

- Wendy

7.1 Introduction

In the previous three chapters, I described and analysed the collective assembly, production on the go and multitasking as practices that constituted my research participants' multimodal textual repertoires in and out of school. In this last of the four chapters that seek to address my first research question, I describe how having fun was integral to my research participants' multimodal textual repertoires. Specifically, I would like to suggest that whilst meeting the literacy demands of completing the school productions, my research participants constructed their moments of fun, which might be drawn from their everyday practices whereas participation in using digital media for text production outside school was simply driven by fun.

During my participant observations of my research participants' collaborative text production at school, I inferred that they were having fun when they were multitasking, switching between on-task and off-task literacy activities, and when they were experimenting with ways to use the digital media to represent their ideas. However, having fun was not consistently observed throughout my participant observations. As I shall illustrate in the

following section, disputes could also happen in the course of creating their productions. When fun took place, it was observable as laughter and playful talk were heard in their interactions with one another. In this chapter, I draw on my data that suggest having fun was part and parcel of my research participants' multimodal textual repertoires at school. I then use Tiffany's data to provide illustrative examples that it was an integral part of their everyday practice; specifically, having fun was the impetus for participation in using digital media for text production outside school.

In my participant observations of my research participants' school literacy practices, having fun was inferred from their engagement in playful talk during their collaborative text production. Drawing on Lytra's (2008) definition of playful talk, I use playful talk to include "a wide range of verbal activities and routines, including teasing, joking, humour, verbal play, parody, music making, chanting that can emerge in learners' talk" (p. 185). I also follow Wegerif's (2005) argument that playful talk can be broadly categorized as *off-task* and *on-task playful talk*. I describe and offer illustrative examples from my data on each type of playful talk in Sections 7.2 and 7.3, below.

7.2 Engagement in Off-Task Playful Talk

When my research participants were multitasking, engaging in on-and-off-task literacy activities as described in Chapter 6, there was a tendency to engage in off-task playful talk. By off-task playful talk, I refer to talk that was not related to the task set (Wegerif, 2005). For Group 1, this happened when Amanda was searching for music, reading blogs and fan fiction while talking to

the girl next to her during the Flash production. For Groups 6 and 7, this usually happened when they were listening to songs played from Windows Media Player. The songs they were listening to led to conversation topics about the lyrics, the singers and the latest release from a singer. Excerpt 7.1 shows an example of such off-task playful talk that occurred in Group 6.

Excerpt 7.1. An Instance of Off-Task Playful Talk

Jay:	Zac, 很大声. ((Zac, it's very loud.))
Zac:	没有 ((No!)), I don't like 飞轮海, 飞轮海 ((the name of a Chinese pop group) sucks.)
Xin:	You go and die (1.0) you. (<i>Xin is laughing.</i>) ((My video data show Zac pulling Xin's pony tail playfully.))
Jay:	好 端 端 的 问 到 飞 轮 海. ((Why must you mention the pop group out of the blue?))

This instance of off-task playful talk took place when Sally was drafting the schoolboy using Flash, while Xin was typing the plot outline for their Flash presentation. There was music playing from Zac's computer and it created opportunities for off-task playful talk, as shown in the excerpt. Subsequently (not shown in this excerpt), Xin was asking Zac whether she could 'rip' the songs from his memory stick.

Wegerif (2005) explains that children often cannot get straight into the task at hand but will rhyme and break into song and play around with language when they are doing group work. Similarly, my research participants in Group 6 were punctuating their Flash production with laughter, playful acts

and off-task playful talk as they were meeting the literacy demands of completing their Flash presentation. My data suggest that Windows Media Player socially afforded fun and laughter to their schoolwork when deadlines for completing their school productions and examinations were closing in. The same argument could be made for the other three groups of my research participants when they multitasked between off-and-on-task literacy activities during their text productions.

However, there was a negative case where a dispute happened and being seen to be having fun was not appreciated by other students. It took place on the last day for submitting the MediaStage production. On that day, Jay asked Sally the producer to insert the sound of a door opening from the MediaStage repository of sounds but Sally ignored him on three occasions. Subsequently, Sally had problems creating a bathroom using the walls made available in the MediaStage repository of objects. Although Jay gave her advice on how to manoeuvre the walls to create a recognisable bathroom, Sally did not want to listen to Jay. Jay wanted to take over the production work from her but Sally refused. The tension between Sally and Jay built up as they got closer and closer to the end of the lesson. Finally, they got into a dispute because Sally simply refused to act according to Jay's instructions (see Excerpt 7.2).

Excerpt 7.2. An Instance of Dispute

Sally:	(Sally sighed.) Just delete it or something. I'm getting very short-tempered now.
Jay:	Because you are not doing anything.

Sally:	I am <u>not</u> doing anything? I am <u>not</u> doing anything? Then what am I doing now?
Jay:	You are moving walls around.
Sally:	If I am not doing anything then what am I doing now?
Jay:	You are <u>singing</u> !

On the last day of creating the MediaStage production, Sally told Wendy to play some songs. While Sally was using MediaStage to create different scenes, Wendy was downloading songs from the Internet. Even though she was trying hard to complete the MediaStage production on that day, she was caught singing as she was working on the production. However, as shown in Excerpt 7.2, the tension began to build up in the last hour of the lesson and this could be seen when Sally herself noticed that she was losing her patience. By then, Jay was really fed up with Sally for not being able to orientate the walls to create a bathroom and finally criticised Sally for not doing anything productive. The direct confrontation between the two also showed that Jay did not think that it was productive of Sally to sing and work on the MediaStage production at the same time.

7.3 Engagement in On-Task Playful Talk

In contrast with the off-task playful talk, Wegerif (2005) explains that there is a kind of child talk that is much neglected in schools and that is on-task playful talk. He explains that when children engage in such talk, the talk is oriented to finding the best possible solution to the problem set, and yet,

injecting fun and creativity while doing so. When engaging in on-task playful talk, the children are heard building on one another's suggestions in their creative play. My data also exhibit such on-task playful talk amongst my adolescent research participants, such as that shown in Excerpt 7.3.

Excerpt 7.3. An Instance of On-Task Playful Talk

Sally: Hey! Look at that. Look like a durian head.

Wendy: Wait wait Zac! The boy look like you.

Wendy and (Wendy and Sally laughed.)

Sally:

Sally: Err () how do you draw square face?

In the excerpt, Sally was reshaping the schoolboy that she had drawn. Wendy thought that the boy Sally had drawn looked like Zac, the other member in Group 6. Hence, the playful talk occurred when Sally had not achieved the effect she intended and what was created reminded Wendy of Zac. Although Sally laughed along with Wendy, she remained on task as she returned to finding out how best to draw a square face using Flash.

Their playful talk was their way of talking about what they were doing and was located within their own informal everyday language, rather than in academic language. This was at first deceiving for me as an adult (who was once a school teacher) as I almost assumed that it meant they were not being serious with their work. Such on-task playful talk is noted by Wegerif (2005) who argues that playful talk has been neglected in classrooms where it is a characteristic children's way of talking and interacting during group work.

Similarly, in Group 6, the laughter and fun Sally had in producing the boy led Wendy to think that Sally was not doing her work, as shown in the excerpt below:

Excerpt 7.4. Sally Having Fun and Not Doing Her Share of Work

Wendy: Okay I think we better start our Flash while Sally can have fun there.

Sally continued to laugh as she edited the schoolboy she had drafted using Flash. Seeing that, Wendy told Xin to open up Flash on her computer so that they could start the proper work (see Excerpt 7.5):

Excerpt 7.5. Taking Over Sally's Producer Role while She Continued to Have Fun

Wendy: You open the Macromedia.

Xin: 等一下等一下等一下 ((Wait for a while. Wait for a while. Wait for a while.)) ((Xin was typing the plot outline while Wendy waited for her to start the Flash programme at Xin's computer.))

Wendy: Because Sally was having fun there.

The laughter amongst the group and the music in the background gave me the impression that the students were enjoying themselves. My group interview with these girls indicated a mixed response. On the one hand, the girls indicated that they did not enjoy using Flash to produce the presentation because it was tedious to draft a character or object using Flash. On the other hand, the girls indicated that they liked the production experience.

Sally said that it was unlike a normal lesson where they sat at their tables with a book and listened to their teacher. Xin said that she liked it because they were using the computers rather than working from books in a lesson. Sally and Wendy also elaborated that they liked the production experience because it was hands-on. Lastly, Wendy cited the group work as the reason for enjoying such a production experience as it alleviated boredom. Experimentation with digital media introduced fun and the importance of such experimentation could not be underestimated, a point I discussed previously in Chapter 5.

Through playful talk, my research participants figured out how to draft objects and characters or use the semiotic resources available in the digital media to create their productions for their schoolwork. Excerpt 7.6 shows how, through playful talk, the Group 1 students found out what was available and could be done in MediaStage. From the excerpt, it is evident that the students were having fun animating the movements of the MediaStage characters. Laughter accompanied such on-task playful talk; the playing around thus served a role for them, which was to make them familiar with MediaStage.

Excerpt 7.6. Learning to use New Digital Media while Engaging in Playful Talk

Amanda: Err (2.0). (*Amelia was laughing.*) They ((referring to the MediaStage characters)) are turning round and round. (2.0) I press play (12.0) ((*Amelia was laughing.*))

Sheng: Hey, wait!

Amanda: What? Hear what? (3.5) () ((The automated speech by the MediaStage characters were heard but not audibly and clearly.))

(All were laughing as they listened to the automated speech.)

[...]

Amanda: *(Amanda was laughing.)* What, what he say her name was? (3.0)
(Mad cow) *(All were laughing.)* Oh my god!

On-task playful talk was inevitable when the students engaged in such creative production. I noted that Amanda would be excited and get carried away when she wanted to contribute her ideas to the plot, selecting characters from the MediaStage repository and choosing names for the characters. In this excerpt, it is obvious that they were playing the fool when they gave one of the MediaStage characters the name of “Mad Cow”. On-task playful talk was also heard as the students watched what they had created. Although not shown in this excerpt, more instances of on-task playful talk occurred when they were deciding who should be the voice for various characters in their plot and were trying out different voices which they deemed suitable for their MediaStage characters. Similarly, there were common occurrences of on-task playful talk when my research participants from other groups were exploring MediaStage.

In my group interviews, the students said they had fun learning how to control the movements and speech of the MediaStage characters. They could laugh about technical glitches. For instance, MediaStage could not recognise expressions like “Hmm” which was read as “H-M-M” in the automated speech.

Warner (2004), in her study of synchronous computer-mediated communication amongst second language learners of German, contends that

play “can no longer be regarded as an anomaly or exceptional form of communication, but must be acknowledged as a legitimate and conventional use of language” (p. 80). However, my research participants did not think that having fun experimenting with digital media was related to learning or being serious with the schoolwork. It could be inferred that fun is not part and parcel of learning. For instance, in my individual interview with Wendy, she said that when writing the reflection reports, fun should not be mentioned, otherwise her teachers would think she and her friends had wasted their time (see Excerpt 7.7).

Excerpt 7.7. Fun is not Part of Learning

Wendy:	Then in reflections, you cannot write that you never learn anything.
Lynde:	Um.
Wendy:	Because they will probably, they'll probably have said you have wasted your time.
Lynde:	Oh!
Wendy:	And you cannot just write I had fun these days, I bonded a lot with my friends and stuff. You cannot. You have to write something very, very profound, very, very profound then the teacher will like it.

As shown in Excerpt 7.7, Wendy could have implied that learning must be serious, formal and not fun. Although Wendy and my research participants did not think that fun and learning could be associated with each other, my data in this chapter have illustrated how having fun was integral to the way

they learnt to use the digital media for text production. The argument I put forward here resonates with Maybin's (2007) study of 10-to-11-year-olds' children's literacy practices in two British primary schools and supports the argument I make in this chapter.

In her study, Maybin (2007) problematises the divide between vernacular and school literacies; she argues that "official literacy activities were not necessarily 'schooled' and unofficial activities were not completely 'vernacular'" (p. 517). Her analysis of children's literacy activities suggests that children's unofficial activities sometimes index official disciplinary knowledges and the institutional order they relate themselves to. On the other hand, Maybin (2007) also notes that official activities are found to be interpenetrated with informal practices in children's school literacy practices.

Hence, when my research participants engaged in playful talk, it was hard to demarcate a school literacy event clearly because of the constant shift between school and out-of-school literacies at any given point (see the next section on having fun in their out-of-school literacy practices). Nonetheless, I am more certain that by defining school and out-of-school literacies based on their attributes (rather than by the physical domain), it had sensitised me to my research participants' identity construction through their playful talk. In my study, tension in identities was observed. On the one hand, my research participants from Groups 6, 7 and 1 appeared to be positioning themselves as fun learners (i.e. they could have fun and work at the same time) when they made explicit that their Flash presentations represented learning as fun and Lakeshore High School as high achievers; on the other hand, they did not seem to believe that school was fun for them in their school life. In the next

section, I turn my attention to the importance of having fun when participating in my research participants' out-of-school literacy practices.

7.4 Fun as the Impetus for Participation in Out-of-School Literacy Practices

In my individual interviews with them, fun was a common impetus for engaging in their range of out-of-school literacy practices. Such motivation for participation in out-of-school literacy practices was repeatedly heard from all of my research participants when I interviewed them about their 'Pseudo Venn Diagram' mapping artefact. It was also heard when they talked about the differences between their school and out-of-school literacy practices in their group interviews. For instance, Pamela claimed the reading and writing activities they did in school were based on educational purposes whereas those outside school were for fun and leisure. She also claimed that, outside school, these leisure activities involved more multimedia and more multimodal texts. Her viewpoint was consistent with what the rest shared with me in the group and individual interviews.

A common example cited by my research participants was the use of movies in school by their teachers after their school examinations. They told me that their teachers liked to keep them occupied with documentary movies during class time so that they could mark or attend to examination-related matters while they watched movies. The point my research participants were making was that movies shown in school were documentary and educational whereas those they watched outside school were for entertainment. Hence,

participation in a seemingly similar literacy practice in school and outside school saw a contrast in the purposes of such participation. Although fun (synonymous with recreation, entertainment or leisure when used by my research participants in the individual interviews) was a compelling reason for their participation in out-of-school literacy practices, I would argue that they were learning in their out-of-school literacy practices while having fun. Tiffany is a good illustrative example.

Tiffany created blog skins for fun when she first started blogging at the age of 13 (see Figure 7.1). She also loved to take part in the online blog-skin-creation competitions. By participating in such competitions, she claimed that, “every time [she] do something, [she] learn something new.” In her first attempt, she modified someone else’s blog skin and then created a montage using pictures from web pages such as Deviant Art. When she became more skilled and more familiar with programming language, she created a blog skin from scratch and added more special effects in buttons and other parts of the blog skin.

Figure 7.1. Tiffany’s Blog Skins



My research participants learnt basic programming language in their computer literacy lessons at school when they were in Year 1. That was the time Tiffany started blogging. Tiffany could have learnt the programming language from school instruction and perfected it as she used it for her out-of-school production of blog skins. She could have learnt how to make fanciful blog skins from each of her attempts. She claimed that over time, she learnt what kinds of blog skins could win the best blog skin award and she strived towards that goal as she challenged herself to create as many different types of blog skins as possible.

Although creating blog skins was time-consuming and tedious, Tiffany enjoyed doing it. For one of her blog skins, her theme was rabbits. She claimed that she made a lot of effort to crop out all the rabbits from a source and using the cropped image for her blog skin. In her words, she said, “I never win anything but I had fun making it.” Tiffany tried to diversify her styles of blog skins on her own. Eventually, her work was so well received that her peers would request her to create skins for their blogs. The recognition she received became more evident when the blog skins she created were used by her friends for their blogs and she eventually became such an expert that she won an online best-blog-skin creation competition for 10 consecutive rounds.

In this example, it could be argued that having fun with learning in out-of-school literacy practices showed learning to be “passion-based” (Lankshear & Knobel, 2010, p. 20). Lankshear and Knobel (2010) argue that youth’s participation in do-it-yourself text production outside school displays a “passion-based” learning where it is “motivated by the learner either wanting to become a member of a particular community of practice or just wanting to

learn about, make or perform something" (p. 20). In such "passion-based learning", Tiffany was also learning to be a blog-skin creator as she participated in the blog-skin creation competition for a year. Such "learning to be" was authentic learning as young people learn to be a certain kind of text producer through "enculturation into a practice" (Brown and Adler, as cited in Lankshear & Knobel, 2010, p. 20). It is the same essence of playfulness that Jenkins (2007) argues for when he claims that play is important in the 21st century learning; By play, he refers to "the capacity to experiment with one's surroundings as a form of problem-solving" (p. 22).

7.5 Summary

In this chapter, I have argued that introducing fun into their schoolwork and everyday literacy practices was my research participants' way of being. It also suggests that although they did not associate fun with learning, their participation in out-of-school literacy practices showed that having fun was the impetus for participation in their out-of-school literacy practices and was ingrained in the way they learnt in school, such as through playful talk and their everyday literacies. Despite my research participants' viewpoints that learning was serious and formal, I further my argument that there was pedagogical value in having fun in Chapter 9 where I discuss the varied ways they learnt in and out of school.

CHAPTER EIGHT

THE RELATIONSHIPS BETWEEN SCHOOL AND OUT-OF-SCHOOL LITERACY PRACTICES

“There are some things which you do in school which can ... have it outside school too ... Outside school, you just do it for leisure but like in school, there’s like this educational purpose.”

- Pamela

8.1 Introduction

In Chapters 4 to 7, I put forward the argument that my research participants' multimodal textual repertoires permeated between school and out of school, thus suggesting a relationship between their two domains of literacy practices. When exploring this relationship, I ask: When adolescents use digital media for creating multimodal and multimedia productions for schoolwork, how do they construct a relationship between school literacy practices and those they are developing outside school? This is my second research question, which serves as the focal point of this chapter.

In response to this question, I argue that the adolescents in my study constructed a relationship with their school literacy demands, their everyday practices, and technology affordances; this relationship could be observed when they drew on their cultural knowledge from their school and everyday practices and when they made use of the competencies acquired from their out-of-school literacy practices to cope with the school literacy demands

during collaborative text production. The relationship amongst their school literacy demands, everyday practices and technology affordances also suggests that adolescents' literacies might be better understood as a nexus of school and out-of-school literacy practices when seeking to understand the relationship between the two domains of literacy practices. In the remaining parts of this chapter, I draw upon my data and provide illustrative examples to explain what I mean by a nexus of school and out-of-school literacy practices and support the arguments I advance in response to my second research question.

8.2 Drawing on Cultural Knowledge from School and Everyday Practices: The Experiences and Knowledge Gained through Family and Community Membership

When making production choices, my research participants were mindful of what was favoured and sanctioned in their school literacy practices. For Flash presentations, my participant observations and video data show that they checked against the assessment criteria given by their computer teacher, i.e. there must be evidence of interactivity, use of an Action Script, functionality and referencing. My data from Group 7 suggest that besides being shaped by the assessment criteria, their production choices were also influenced by their knowledge of the computer teacher's personal preferences; such knowledge could be gained, over time, through their membership of her class. When the Group 7 students were deciding whether or not to create a moving spotlight (see Figure 5.1a, in Chapter 5), the girls were advised by another group member, whom I have called Adrian, to create as many layers

as possible. A layer in Flash refers to a separate level where the user can draw, insert sounds, images or written texts so that all the levels, or layers, can share the same timeline and be produced simultaneously using different frames. This, in his opinion, would gain them more marks. Adrian also suggested choosing Century as the font type because he had discovered that the computer teacher liked this particular font.

Similarly, for their MediaStage production, their language arts teacher made it clear that their MediaStage production had to be aligned with the themes they had learnt in Macbeth. Group 1's data show that while they were having fun experimenting with MediaStage, Amanda censored the plot as a way of ensuring that their production was suitable for their schoolwork. She made it clear that their MediaStage production must stay clear from the topic of sex when they portrayed the theme of love versus loyalty. From my participant observations, their working versions of their MediaStage production that showed a gay friendship were also deleted. Although she did not explain the reason for this in the interview, her membership of her class and her participation in school literacy practices could have provided her with the knowledge of what would be regarded as a text that could be sanctioned by the school.

My research participants also drew on their experiences and knowledge gained through their membership of their families to address the target audience for their Flash presentation. My interview data show that my research participants had invoked the attributes of a parent and an adolescent when deciding on their production choices for their Flash presentations. Excerpt 8.1 is an example drawn from Group 6's data.

Excerpt 8.1. Invoking the Attributes of Parents and Adolescents

Xin: It's just like () brochure. You tell them ((referring to the parents)) everything.

Lynde: So that was the impact. Flash? Flash is for students.

Sally: Um. Yeah.

Lynde: So what's the impact?

Sally: To let us, let them know that Lakeshore is (2.0), has a lot to offer for them and then ask, let them (2.0) like persuade their parents to let them come to Lakeshore lah.

In this interview conversation, the girls were relating to me the importance of communicating essential information about the school to parents. This was because they had shared knowledge that the adolescents' job was to make use of the information provided in promotional texts to persuade their parents to let them choose Lakeshore High School as the ideal choice for their children's post-primary school education. They attributed parents as being people who loved information, as shown in Excerpt 8.2.

Excerpt 8.2. Attributing Parents as Information Lovers

Xin: It's just like () brochure. You tell them everything.

Wendy: Feelings.

Lynde: So just pack them with information?

Wendy: Yes.

Lynde: Because () when you say//

Wendy: //Parents love information, man!

Lynde: (Lynde laughed).

Wendy: You cannot believe how much they love it.

Keeping in line with the topic of what they knew about parents, Xin and Wendy continued the interview conversation by contrasting that with what they knew about adolescents. Excerpt 8.3 shows how Xin and Wendy associated adolescents with texts that were moving and attention-grabbing. This was similar to the point I raised in Chapter 4 when I discussed my research participants' intention to 'cool down' the media when engaging in remix practices. The interview data suggest that the adolescents valued interactive texts that were attention seeking.

Excerpt 8.3. Texts that Appeal to Adolescents

Xin: It, no matter what, it's still moving, ah. Now ()//

Wendy: //It grabs their
attention, lah

Lynde: So mainly to grab attention?

Xin: Yeah.

Lynde: Is it so difficult to get teenagers' attention?

Wendy: Yes.

Xin: Yes.

Lynde: Why?

Xin: It's like if you just walk and we just give you a brochure, we just, oh, and then you don't, you won't even know they throw it in the dustbin.

Wendy: They won't even look at it, ah.

In sum, the girls' perceptions in the interview suggest that they had drawn on their experiences and knowledge of the kind of literacy practices that adolescents about their age engaged with when choosing a school for the adolescent(s) in the family. This was a common practice for the other groups too. For example, Group 1 students had in mind that some parents might not be computer-savvy. Hence, they were deliberate in producing a Flash presentation (or what they called as video in the report) that was easy to navigate (see the screen capture of their report in Figure 8.1).

Figure 8.1. Drawing on Parents' Reading/Viewing Practices

The design of our video is simple because we do not want to confuse the viewers, especially those who are not computer savvy. Although this is the twenty-first century, there are still many adults who do not work in offices and do not know much about computers. With this consideration in mind, we designed our video so that people of all ages would be able to view it with ease.

Bearing in mind that Brian was the producer of the Flash presentation for Group 1, I noted that the easy-to-navigate production choice might have been greatly influenced by him. In my personal interview with Brian, he claimed that he had to help his mother with online forms because she did not know how to use a computer. Similarly, in Ito et al.'s (2008) study, they claimed that adolescents could act as a technology "expert" or "broker" (p. 20) when they had to interpret web-sites and other information for their parents. Although Brian did not see himself in the same light as Ito and her colleagues (2008) would suggest, he acknowledged that this was part of his everyday

reading and writing activities at home when describing his role as a son during the “Captain of my Life” mapping activity.

Similarly, when the Group 6 students were deciding how to represent the theme of ‘fate versus free will’ in their MediaStage production, they drew on their cultural knowledge of what Wendy called “a normal teenager” with dreams. In their MediaStage production, the students narrated how a teenage girl struggled to be a professional singer. In my interview with the girls, Wendy explained that many parents did not like the idea of their children having a singing career. It could be inferred that being adolescents themselves, the cultural knowledge that they displayed came from their observations of their own lives. This knowledge was commonsensical, tacit and shared as together they accounted for the production choices underlying their Flash presentation. The adolescents had identified what sorts of plots and characters would be believable and appear authentic to other adolescents.

In Dyson’s (2001) study of 6-to7-year olds’ writing, she argued that the children in her study adapted cultural resources from their out-of-school experiences, such as being radio singing stars in their role plays, for their school writing; such adaptation of cultural resources led to ways of appropriating and recontextualising texts to enact childhoods in ways that were valuable to these children. In Potter’s (2005) case study of two 11-year-old children in London, he studied how two boys participated in a digital video production in their final year of primary school. Their task was to “create a piece of digital video which would celebrate their time at primary school and represent aspects of their experience of one phase of their life before embarking on a new one” (p. 6). In his study, Potter (2005) claimed that the

two boys “chose to represent themselves in the way that the rest of the class knew them” (p. 19). In a similar vein of argument, Moje et al. (2004), in their study on constructing a third space in content area literacy, claimed that Latino young people of 12-15 years old knew how to “draw upon many different funds, particularly outside of school” (p. 65) and these included “funds of knowledge” (p. 41) from their families, communities, peers and popular culture.

The findings from these studies resonate with my analyses of how my research participants’ cultural knowledge of parents and other adolescents became resources and assets in their multimodal textual repertoires at school. Their everyday lives or lived experiences became texts for their school productions (Erstad, Gilje, Sefton-Green, & Vasbo, 2009; Mahiri, 2004; Wallace, 2006). From their everyday practices, they knew what was appropriate to be mobilised as resources for their school production. Such knowledge was appropriately drawn upon to create texts that would appeal to both parents and adolescents in terms of media, information, plot and characters that adolescents could identify with. When their lived experiences were mobilised, appropriated and recontextualised as school productions; these showed traces of their literacy practices that shifted from their home to their school literacy practices (Pahl & Rowsell, 2005).

8.3 Drawing on Cultural Knowledge from School and Everyday Practices: The Adolescents' Media Experiences

In Chapters 4 to 7, I contended that my research participants' multimodal textual repertoires were drawn from their out-of-school literacy practices when they participated in similar text production using digital media in school. To put it differently, they were drawing on their media experiences in their out-of-school literacy practices to cope with the demands of school text production. For instance, in Chapter 4, the remix practice observed in school was used to 'cool down' the media so as to attract the target audience's attention. Their Flash reports suggest that this production choice was also selected to suit the target audience's reading or viewing practices. For instance, in Group 8's report, they implied that their production choice was guided by teenagers' love for interactive games (see Figure 8.2):

Figure 8.2. Drawing on Teenagers' Reading/Viewing Practices

Movement/Animation: We wanted to include walking "tour guides" to lead the student who is viewing the presentation around. We wanted a more animated and interesting presentation. However, due to time constrain, we did not manage to make the "tour guide" move. We ended up without a tour guide. We thought that a tour guide might be more visually appealing rather than plain buttons. Teenagers love interactive games, so they are bound to be more receptive to animation and interactive presentation.

Another way in which my research participants drew on their media experiences was observed when they drew on their knowledge of texts of similar genres to their MediaStage production from their everyday lives. For

instance, Melissa and her friends drew on their cultural knowledge of news media, specifically from the daily news broadcasts in Singaporean television programmes. Below is an excerpt showing how they crafted the opening lines of a MediaStage character by mimicking how the local newscaster would usually start reporting the news.

Excerpt 8.4. Mimicking a Local Newscaster

Melissa:	Good afternoon, good, good evening everyone, I'm Mina Meirara from News 5 tonight.
	[...]
Elisa:	But it's not good evening everyone. But every time you watch news it's not like that one.
	[...]
Melissa:	Good evening everyone, welcome to News 5 tonight.
Jane:	News 5.

In the excerpt, the students were trying to create their own voice recording for their MediaStage character (a newscaster). In the excerpt, Elisa and Jane were trying to help Melissa with the exact lines so that they could mimic how the local newscaster would introduce herself at the beginning of the news telecast. The girls even used the exact name of the local newscaster in their script. In the group interview, Melissa admitted that she made use of the daily news as her source of ideas for their MediaStage production, as shown in Excerpt 8.5:

Excerpt 8.5. Melissa Drawing on the Daily News for her MediaStage Script

Then the, for the last scene, ah, when she say goodnight. Then we also imitate the, the real life news ... Because they normally at the end, they will just from far angle like goodbye then they gone, the shot gone.

My interview data show that Melissa relied more on her everyday knowledge of which camera angles were used in daily news broadcasts for their MediaStage production (see Excerpt 8.6):

Excerpt 8.6. Melissa Drawing on the Daily News for the MediaStage Shot

Like we want to imitate the real chat show ... So when someone talks, it will zoom into that person.

Although my research participants had a lesson on how camera angles and shots directed their gaze, Melissa claimed that they did not discuss these during their production work; this explicit instruction was thus not applied. Instead, she claimed that she had drawn on her knowledge of how news was produced as her reference point when creating the MediaStage production. Melissa's viewpoint was shared by my other research participants, except for Wendy who claimed that she had first learnt about how her gaze could be directed by camera angles and shots from her language arts teacher.

8.4 Competences from Out-of-School Literacy Practices for Schoolwork

In this section, I discuss how my research participants drew on the competences they acquired from their out-of-school literacy practices to help them accomplish their schoolwork. My data example comes notably from my interviews with Amanda and my study of her two fan fiction stories (which were first discussed in Chapter 5). Amanda's fan fiction was based on the Japanese anime "Gundam Seed", and was a mixture of science fiction and romantic genre. In both her fan fiction stories, she focused on a couple, Athrun and Cagalli.

Black (2009a) explains that fan fiction writers "take up the characters and plotlines of the original media and creatively rework them by developing new relationships between characters, extending plot and timelines, creating new settings, and exploring novel themes" (p. 688). In Amanda's second fan fiction entitled "Destiny High", she featured the romantic relationship between Athrun and Cagalli. Omitting the science-fiction genre, she cast the love story in a high-school setting. She injected humour into her story and reset it to reflect more of the adolescents' world in contemporary contexts. For example, Amanda admitted in her research diary that she liked to have new clothes. In her fan fiction, Cagalli seemed to take on the same liking as Amanda. From her research diary and interviews with me, I learnt that Amanda interacted with her friends through MSN frequently. In her fan fiction, MSN was mentioned as one way for the couple to interact with each other. In short, Amanda brought the adolescent world into her fan fiction.

In her fan fiction, Amanda retained Athrun's and Cagalli's personalities, Athrun as a quiet and reserved person with Cagalli as a stubborn and rebellious 'gal'. According to her, she changed her plot from a theme based on machines fighting to one that revolved around school life. Her setting was thus changed to a contemporary one, a high-school setting with her plot centering on teenage troubles. She also paired up Athrun and Cagalli though they were never together in the original anime.

When I first read her fan fiction entitled "Destiny High", it had some 73 reviews. Her reviewers liked her funny plot and how the couple developed their love relationship over time. It was common for her reviewers to urge her to update or post the next chapter soon. Many commented that her stories were good but short. Briefly, it could be argued that her fan fiction was well received by her readers. Figure 8.3 shows some of the comments about Amanda's fan fiction from her reviewers.

Figure 8.3. Reviews of Amanda's Fan Fiction

Reviews for: Destiny High - Page 3 of 6 Show all chapters

marawrawr 2007-07-27 . chapter 18
kyal that was totally fluffy! damn right, fluffy. gawd, i wish you writers would write a lot more of these. hiihi.
i lurve your story, really. except for the fact that it's too short!

mishakokoro 2007-07-25 . chapter 18
I love this story so good keep up the story love ya all xoxox

monkey-101 2007-07-24 . chapter 18
what's going to happen in the next chapter? when is the next chapter going to be up? when will Athrun and Cagalli get to together? And what chapter is it?
umm...sorry for all the questions i really didn't mean to ask that many questions i just really wanted to know some stuff anyway i hope you update soon
cant wait to find out what happens next.great job congrats.

Jade Valentine 2007-07-24 . chapter 18
Great story, update please...

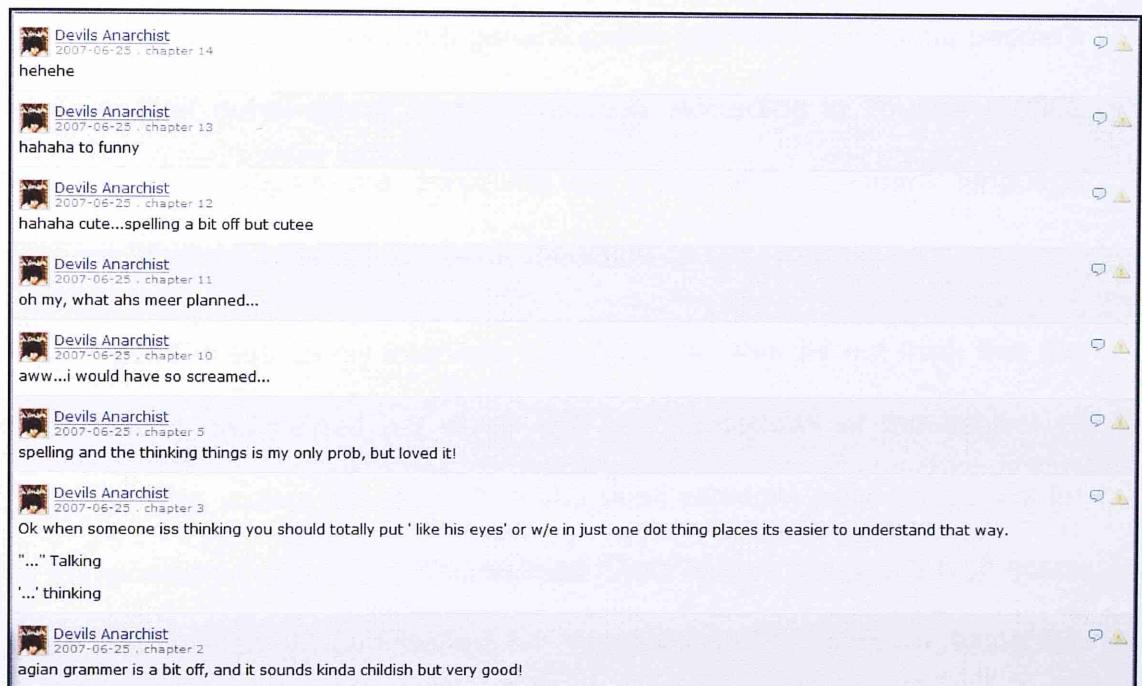
Hades.Throne.Heiress 2007-07-23 . chapter 18
HOOT HOOT! Athrun is such a bad convincer, even to himself. lol Update soon =)

Devils Anarchist 2007-07-23 . chapter 18
OH...omg. whats gunna happen now? i would laugh so hard if Kira came around the corner.

Devils Anarchist 2007-07-23 . chapter 18
awsome chapter!

Black (2009a) argues that fan fiction writing helps to develop both print (particularly writing skills) and other 21st century literacy skills such as visual literacy, information literacy and technological literacy amongst young people. From my study of the reviews that Amanda received, I noted that there was one particular reviewer, named Devil Anarchist, who would constantly look out for Amanda's grammatical and spelling mistakes. Figure 8.4 shows Devil Anarchist's reviews as areas of improvement for Amanda.

Figure 8.4. Reviews from Devil Anarchist



I am inclined to follow Black's (2009a) argument that fan fiction writing has pedagogical value in helping to develop writing skills amongst young people. For instance, in my interview with Amanda, I noted that she would pay attention to grammar and punctuation when she read others' fan fiction, as Devil Anarchist did for her (see Excerpt 8.7).

Excerpt 8.7. Amanda Drawing on her Fan fiction Writing Competence

And like see how the person types () if like the person like no capital letters at the top and like no full stop all these and they spell horribly then I won't read it anymore.

Being corrected for her grammar and spelling in her fan fiction as well as being particular about other fan fiction writers' standard of English suggests that Amanda valued correct grammar and spelling in fan fiction writing. Amanda's viewpoint contradicted general public opinion about young people's writing in their out-of-school literacy practices. According to Thurlow (2006), emerging technologies are perceived as a threat to standard language practices in young people's computer-mediated communication.

Nevertheless, in my interview with Amanda, she did not think that fan fiction writing had helped her at all with her schoolwork or the subject of Language Arts, except for once when she used someone's fan fiction plot for her composition examination; she claimed it had helped her gain a high score in that examination. When I studied her interactions with her peers during the MediaStage production, there was evidence that Amanda had used her fan-fiction skills to facilitate the group discussions on MediaStage production. Amanda was heard chatting with Dawn about manga art, Gundam Seed and other interests of hers in popular culture while the boys were busy figuring out what to do with MediaStage productions. The discussions on MediaStage production reminded her of her own fan fiction writing outside school. Hence, for the MediaStage production, Amanda left the production work to the boys.

She meanwhile played a supervisory role, checking that the boys were on task and giving her critique of what was created, when needed.

She continued her practice of editing the boys' work: editing their plot, correcting their grammar, giving the boys the exact dialogues for the characters, correcting the way the boys represented the emotional states of characters, the setting and the names of the characters. For instance, on the first day of creating the MediaStage production, Amanda insisted on creating a textual context for the identity of the gang leader through their choice of language (see Excerpt 8.8). She corrected Sheng's (Sheng was the other boy in Amanda's group besides Brian) use of the adverbial phrase "as your subordinate" which suggested a relationship in the workplace rather than in a gang. She suggested "as your gang leader" or "as your leader" to Sheng which was more appropriate for the conversations in their production, rather than the phrase "as a member in your gang".

Excerpt 8.8. Amanda Correcting Sheng's Language Choices

Amanda:	Hey! They are in a gang! 'As your subordinate' is in office terms lah.
Brian:	Then as your what?
Sheng:	As your what lah?
Brian:	As your servant.
Amanda:	As a member in your gang? ((Amanda was reciting what was written in the text-to-speech box on the computer screen.))
Sheng:	No?
Amanda:	Actually that's quite straightforward right. You want to picture them in a gang right. How are you going to tell them that you're in

a gang? How are you going to tell them that they're in a gang? Can't always say as a member of your gang, like 'cause you're my leader or something like that, 'cause you're the gang leader. Whatever.

Sheng: As what? As your what? Hey!

Amanda: As you are my gang leader. As you are my leader.

Sheng: Ya.

On the second day of creating the MediaStage production, Amanda asked Sheng to create an alley which she regarded as an appropriate setting for the gang's meeting. On the third day of creating the MediaStage, she continued to correct Sheng's language choices so as to make it more informal and conversational. Although Amanda spent most of her time chatting with the other girl in the group, I noted that when deciding on the setting, characters' names and plot, and creating dialogues, she would be actively involved. She focused on the production choices that were pertinent to creating a parody when the students recast Macbeth in contemporary times - the genre, theme, mis-en-scène (setting, characterisation and so forth) - and creating realistic effects that represented how real people interact with one another (through the use of voice, emotions and expressions in speech). In short, she exhibited her knowledge of mis-en-scène and characterisation which I would argue as critical to recast Macbeth in contemporary times, using MediaStage. Based on my participant observation, Amanda's group was praised by her language arts teacher for completing a production that could recognizably personify the characters and theme from Macbeth.

I would suggest that she was familiar with such production choices when she wrote her fan fiction in her out-of-school literacy practices and thus her competences in this area were tapped into for the MediaStage production in school. Her “funds of knowledge” (Moje, 2008, p. 342) from fan fiction writing outside school was a resource for her peers during the school collaborative production. In line with Moje’s (2008) argument, Comber and Kamler’s (2006) claim that children have “virtual schoolbags” (p. 23) packed with resources that can be used to connect them to school learning. My data suggest there could be a similar case for Amanda when she applied her competences in writing fan fiction to the MediaStage production. I align myself with Dowdall’s (2009) suggestion that children’s online text production outside school should be reframed from an asset perspective when teachers are exploring ways of connecting the school curriculum with children’s masteries of text production outside school. The same argument is, I contend, equally relevant to adolescent literacies.

My data also indicate that Amanda and Jay could have drawn on their past experiences with similar software when they first experimented with MediaStage. For instance, when Amanda first experimented with MediaStage, she referred to her past experience with SIMS (a life-simulation computer game) to guide her actions when using MediaStage. She could intuitively choose, drag, move and delete objects from the repository to the scene she was creating.

Similarly, Jay also did not attend the MediaStage training session but could pick up how to use MediaStage during production. In my interview with Jay, he claimed that he had not used such software before but that it was not

difficult to learn how to use it. Based on the self-taken photographs of Jay for my research, I noted that he played Audition Online, an online multiplayer-rhythm game. As with MediaStage, Jay would need to know how to manoeuvre the actions and movements of the avatars in Audition Online. However, MediaStage required more technical scripting of the 3D characters' movements. Similar experience in controlling 3D characters in Audition Online might have helped Jay to orientate himself when experimenting with MediaStage characters for his schoolwork.

Another noteworthy data example was the informal learning that Yenny had at home. Yenny's mother was a computer engineer. Before the computer lessons on Flash, Yenny's mother had already taught her how to use the program for fun. When the girls in Group 7 were working together on the Flash presentation, Tiffany called her a "pro in Flash" which meant she was the group's expert. Excerpt 8.9 shows Yenny's viewpoint on learning Flash at home.

Excerpt 8.9. Yenny's Viewpoint on Learning Flash at Home

I think it was just for an exposure to a new software because my mum installed the software into the computer and so by the way show me how to use it. I just played with the software for fun then. Even till now, I didn't really use it for any purpose other than the Flash projects. For the Flash project, she did help me at times when I didn't know how to do certain animations or effects.

Although Yenny was perceived as the "pro in Flash" by Tiffany, it was actually Tiffany who impressed me as being the most tech-savvy student amongst my research participants. When my research participants from

Groups 6 and 8 encountered technical difficulties during my participant observations, it was Tiffany who resolved their technical issues. As described in Chapter 7, Tiffany was capable of creating blog skins from scratch, unlike the others who chose blog skins from a common Internet source (www.blogskins.com). This suggests that she was not only technically savvy but had also attained a competent level of technical skills when using digital media.

My interview data also confirm that my research participants' out-of-school literacy practices were resources for their schoolwork when they claimed that they had relied more on their tacit knowledge from their everyday practices to cope with the school productions. Group 6's interview data epitomise the viewpoints of my other research participants, as shown in Excerpt 8.10.

Excerpt 8.10. Reliance on Tacit Knowledge for School Production

Lynde:	Okay, but in terms of the techniques used? Like, oh, your, your certain colour means certain things, certain font means certain things. Did you learn them from school? Madam Choo's ((referring to the language arts teacher)) lessons? No? No? Mrs. Wang's ((referring to the computer teacher)) lesson? Nope? Nope? Then where, where did you learn from?
Tiffany:	Need to learn, meh? (((Do we have to learn these techniques?))
Yenny:	Yah?
Lynde:	No [need to learn.]
Pamela:	[It's quite common] sense.

All agreed that it was their tacit knowledge from their everyday lives that guided their production choices. The only exception was Wendy who remembered what the language arts teacher had taught them about how the gestures and camera angles used by producers could guide her gaze when viewing a multimodal and multimedia text.

8.5 The Relationships amongst School Literacy Demands, Everyday Practices and Technology Affordances in a Nexus of Practices

When thinking about how my research participants appropriated their out-of-school literacy practices into their school collaborative text production, I found myself sharing the same concern as Bloome (2008) in his study of classroom literacy practices; Bloome (2008) asks, “How do teachers and students take hold of these literacy practices and change, and adapt them to new situations and goals?” (p. 252). However, my focus for this thesis centres on the students. In the remaining parts of this section, I return to the points I raised in each of the previous chapters to suggest that the adolescents constructed a relationship amongst the school literacy demands, everyday practices and technology affordances when they were using digital media for creating multimodal and multimedia productions for schoolwork.

In Chapter 4, I contended that remix practice was integral to my research participants’ everyday practices of text production. This was evident in the out-of-school literacy practices of my research participants who blogged and enjoyed editing images using Photoshop to create blog skins and other purposes. As shown in Chapter 4, to meet the literacy demands of creating an

appealing and persuasive presentation, they engaged in remix which was drawn from their everyday practices of creating blogs and their intent was to 'cool down' the media. Such intent was afforded by Flash that, technically, provided the means for them to create animated figures and objects such as actionable buttons, and embed sounds and videos in their presentations. As illustrated in this chapter, my research participants drew on their remix practices because they wanted to cater to the reading and viewing practices of adolescents and augment their home literacy practices when they involved their parents in seeking information about choosing a school. Hence, they also drew on their cultural knowledge of the literacy practices of adolescents (and their parents) as observed and experienced in their everyday lives.

In Chapter 4, I also raised the concern that remix practices might stifle creativity in school when my research participants could only make use of the images available on the school website. For Class 2F, it was more stifling when they only had two 2-hour lessons to remix and create resources for producing a multimedia presentation. Nevertheless, this did not stop Jay from engaging in remix in the same way as he did in his everyday practice. He discreetly went around the school premises after school to take photographs with his mobile phone for his Flash presentation. In his everyday practice, he enjoyed taking photographs with his mobile phone as he travelled, ate his meals, shopped and for other reasons, taking photographs just about anytime anywhere. His mobile phone always went with him so he could take pictures with it whenever he wanted.

Although the school regulations did not permit him to use his mobile phone in school, he chose to draw on his everyday practice of taking

photographs with it to meet the literacy demands of creating an appealing and persuasive presentation. This again was technically afforded by his mobile phone that enabled him to upload his pictures immediately onto the school computer after taking them. Because his group completed their Flash presentation after school hours, Jay was also able to access the Internet to find free downloadable music files for the Flash presentation. This was his everyday practice of sourcing his favourite songs and downloading them so that he could have them play from his blog. Jay would not have been able to leverage the technical affordance of the Web to gain quick access to resources, including music files, if the computer teacher had denied him access to the Internet.

In Chapter 5, I argued that my research participants could successfully produce texts without having to plan them; planning was not part of their practice of text production in their everyday lives, such as in the way my research participants created their blogs and how Amanda wrote her fan fiction. As discussed in Chapter 5, it was not necessary to plan using a storyboard when (re)editing and (re)drafting were technically afforded by digital media. It was more crucial to engage in production-on-the-go practice where the effects of what they created could be observed, edited, revised and improved on the spot.

Moreover, meaning-making could be changed because the digital media in use could not technically afford certain actions to be carried out, such as a MediaStage character walking through a door; hence, working on a trial-and-error basis enabled my research participants to find out what was technically feasible for their literacy tasks. Such a way of text production,

drawn from their everyday practices, proved to be more productive when coping with the literacy demands of engaging in transductive work at crunch time. When they were obliged to create and submit storyboards for the Flash presentations, storyboarding lost its meaningfulness; it was done as a retrospective literacy activity which meant that what was produced became a design represented on the storyboard when rightfully it was intended to be the other way around.

In Chapter 6, I raised the point that when my research participants multitasked, they proved that they could get their schoolwork done while engaging in unofficial literacy activities, such as blogging and listening to songs using Windows Media Player. This observation was akin to Leander's (2007) study of adolescents in a wireless networked class where the adolescents were able to "maintain one eye on the class work" and they engaged in unofficial literacy activities for their "self-selected purposes" at the same time (p. 15). Although my research participants implied that the teachers and adults did not perceive multitasking as an acceptable behaviour when engaging in literacy events, my data suggest multitasking was integral to my research participants' literacy practices whenever they used their computers at home. It was part of their practices to multitask when using the home computer and this included doing schoolwork on their home computers while engaging in other out-of-school literacy activities, such as chatting on MSN.

While meeting the demands of completing their productions at crunch time, they did not use digital media (Flash and MediaStage) for the sole purpose of creating their productions. They also leveraged the social affordances of digital media to inject fun into their schoolwork, such as blogs

and MSN to communicate with their friends, and web pages that offered free downloadable songs so they could listen to while working on their productions. In short, they continued to engage in their everyday practice of multitasking whenever they used the computer whilst simultaneously coping with the literacy demands in the school computer laboratory, and all this was afforded technically and socially by the digital media they used. Finders describes such engagement in unofficial literacy activities by young people in school as having a “literate underlife” (as cited in Bulfin and North, 2007, p. 254).

Creating productions using digital media also afforded social interactions which the adolescents enjoyed, i.e. playful talk as well as laughter. Moreover, as I pointed out in Chapter 7, having fun was also the impetus for learning the use of digital media in my research participants’ out-of-school literacy practices. Although having fun was perceived as not being serious about a particular literacy activity, the assumption that fun and learning were mutually exclusive could be challenged. Yenny’s knowledge of Flash first came out of fun at home; Tiffany honed her skills in using Photoshop and programming languages at home when she started creating blog skins for fun; Amanda honed her language skills in grammar, spelling and writing narratives when she started writing fan fiction for fun at home. All these competences, acquired from their everyday practices, became instrumental in coping with the literacy demands of creating their school productions, as discussed in this chapter.

Sefton-Green (2005) argues that there are several learning effects when using digital media. Of these, the comparative effect, defined as “similar processes applied to different media” (p. 99), is one of them. For Yenny,

learning how to use Flash at home gave her a head-start when she had to use the same software for different purposes at school. She had already learnt from her mother how to leverage the technical affordances of Flash to create animated objects. For Tiffany, I would argue that working with Flash at school drew on the same competences she developed at home when using Photoshop to edit and remix images, and html language to create animated objects. This is evident in Group 7's Flash presentation when they showed their capability to 'tween' objects (create motion and animate objects) such as, creating a moving spotlight and creating visuals such as a graphical computer, as shown in Figure 5.1. In my group interview with the girls in Group 7, Yenny claimed that Tiffany even cropped parts of her blog skin to frame one of the photographs shown in their Flash presentation. In short, Tiffany transferred her competences in text production when the technical affordances of different digital media resulted in similar processes and competences being required.

For Amanda, her competences in writing fan fiction were evident in creating the MediaStage production which, it could be argued, is a form of media writing. Although the form and genre of text were different, the composition process was similar pertaining to generation of the plot, characters, and the mis-en-scène for their MediaStage production. The same creative and expressive processes needed in fan fiction were afforded technically by MediaStage, which provided the basic repository of props, characters, lighting, settings, sounds, camera angles and facilities to manipulate the movements, moods and gestures of the characters. Nonetheless, as discussed in Chapter 5, transductive work in MediaStage production made it different from print-based literacy.

All these arguments point to the importance of the relationship amongst the school literacy demands, everyday practices and technology affordances when considering how the pedagogy of multiliteracies can be implemented in school literacy practices. In terms of situated practice, the importance of integrating the adolescents' everyday practices and the competences they acquired outside school cannot be underestimated. My data suggest that the adolescents had already been participating in multimodal textual repertoires, long before they occurred in the school curriculum, and their way of participating in text production in their everyday practices did not fit that intended by the teachers in school literacy practices. When their everyday practices were not considered, literacy activities could be meaningless, as illustrated by the storyboarding activity and remix using only images from the school's web pages.

In terms of overt instruction, my research participants (except for Wendy) claimed to rely on their tacit knowledge acquired from their everyday practice of text production, and other media experience, more than the overt instruction they had as part of their multiliteracies curriculum. This emphasises the importance for teachers of knowing how much experience and competences adolescents have acquired from their out-of-school literacy practices, rather than relying on assumed needs, before designing any pedagogy of multiliteracies.

In terms of critical framing, there is not much evidence in my audio data that show the adolescents engaging in sustained conversations that addressed issues relating to critical framing in text production. This could be because, given the relatively short period of time they had to complete both

productions, they were more concerned with solving technical problems when using digital media than discussing the best ways to target viewers. Creating productions was time-consuming, not only because experimentation with digital media was necessary, but because transductive work was not as straightforward as seeking resources to cut and paste, as discussed in Chapter 5. Ample time was required for such critical framing to take place in the interactions amongst the adolescents during text production. Otherwise, the kind of talk the students engaged in focused only on the technicalities of production, rather than on the critical framing which was the intent of them engaging in multiliteracies in production work. As a result, the educational affordance of using Flash and MediaStage production was also compromised.

In terms of transformed practice, the pedagogy of multiliteracies is a rallying call to teachers and other educators who are interested in designing social futures through literacy pedagogy. Hence, there is an implication that transfer in meaning-making practice takes place from school to other contexts through the pedagogy of multiliteracies (Cope & Kalantzis, 2000). My data, however, suggest that a transfer is possible, moving from home to school with several tensions arising when out-of-school literacy practices are appropriated in school.

In Chapter 2, I pointed out Schultz and Hull's (2002) argument that "the distinction between in school and out of school sets up a false dichotomy" (p. 12). A few positions are established when literacy researchers call for an examination of the relationships between school and out of school. These various positions offer dissenting views when examining the long-held distinctions between school and out-of-school literacy practices.

There are those who follow Bernstein's (1999) argument that the knowledge that one learns in non-institutionalised settings, where learning takes place without being explicitly taught, cannot be integrated into formal learning in institutionalised setting. For instance, Moss (2001) contends that young people's literacy competences in the use of media in informal contexts remain undervalued in schools because their expert knowledge cannot be organised and judged in graded sequences as it is in schools; there is no standard that can be used to monitor and judge their expertise in the same manner that schooled knowledge is appraised. Gee (2004) argues that the dichotomy between school and out-of-school literacy practices is due to the use of "the types of language associated with academic content areas" (p. 3). He further argues that learning academic varieties of language and thinking in school is "not sufficient for success in modern society" (p. 5) and children "are having more and more learning experiences outside of school that are more important for their futures" (p. 5).

A. Luke (2002) argues that the dichotomy between school and out-of-school literacy practices is perpetuated by policy-makers who "lack the necessary designs, expertise, and generational orientations" (p. 190) to realise new literacies, that are more evident in youth's everyday lives, in school. In line with A. Luke's (2002) argument, King and O'Brien (2002) argue that teachers play a part in translating policy that privileges print into classroom practices that devalue youth's expertise with language and literacy associated with technology use outside school. Teachers, thus establish a dichotomy between school and out-of-school literacy practices, when they use technology as 'old wine in new bottles' (Lankshear & Knobel, 2006, p. 55). By

this, Lankshear and Knobel explain that classroom practices continue to stress the role of the teacher as knowledge provider and the “officially sanctioned sequenced curriculum that is founded on texts as information sources” (p. 56).

Ito et al. (2008), on the other hand, emphasise that in this digital age, young people are acquiring social and technological skills necessary for participation in contemporary society while participating in friendship-driven and interest-driven online participation. They further argue that contrary to the perceptions held by educators, parents and policy-makers, young people’s online participation has given them access to different forms of learning. The young people in their study learnt from their peers and on their own, without teachers or adults; such ways of learning challenge the traditional understanding that expert knowledge is imparted by teachers only.

More recently, these literacy researchers who hold the dichotomous view of literacy practices and others are beginning to discover ways of introducing out-of-school literacy practices into school literacy practices. These studies are interested in suggesting how out-of-school literacy practices can reorient school curriculum and pedagogy. For instance, Moje (2008) argues that schools should take account of students’ everyday “funds of knowledge” (p. 342) and connect them to literacy learning. However, this position is often interpreted as finding students’ interests and prior knowledge and using them to fit the teachers’ instructional goals (Comber & Kamler, 2006; Teo, 2008). J. Davies and Merchant (2009) are interested in applying the communication uses of Web 2.0 outside school to develop literacy activities for teachers in their classroom practices. A similar approach is also

adopted in Carrington and Robinson's (2009) work that focuses on the use of digital media for social learning in the classrooms, based on the social view of literacy.

Elsewhere, a body of studies such as Pahl and Rowsell (2005), Mahiri (2004), and B. Street (2005) aim to apply NLS within school curriculum to enable learners to better understand the uses and meanings of literacy in their everyday lives while enabling teachers to stay relevant to teachers' work in school. Hull and Schultz in many of their works, such as Hull (2003) and Hull and Schultz (2001), are keen on developing after-school programmes that enable young people to engage in literacy activities meaningfully through multimedia composition, such as digital storytelling. Gee (2010) is interested in examining the relationship between digital media and learning with a particular focus on popular culture. Specifically, Gee (2010) argues that children acquire specialist varieties of language and their concomitant ways of thinking while participating in their popular culture; mastery of such specialist varieties of language prepares them for participation in many "modern professional and work practices" (p. 62).

There are also studies of literacy that take the position that school and out-of-school literacy practices are permeating boundaries (e.g. Bulfin & North, 2007; Hull & Schultz, 2001; Ivanič et al., 2009; Leander, 2007; Moje et al., 2004; Rowsell, 2006). As pointed out in Chapter 1, this is the position that my thesis takes. What my data suggest is that bridging school and out-of-school literacy practices requires teachers to bring in more than digital media that are similar to those used in adolescents' out-of-school literacy practices. The relationship amongst the school literacy demands, everyday practices

and technology affordances suggests that the adolescents in my study were capable of constructing a bridge between school and out-of-school literacy practices. This also meant that from their perspective, literacy practices were permeable between school and out of school; it thus suggests that adolescents' literacies may be best understood as a complex configuration of home and school practices which cannot be easily disaggregated into separable home and school practices. I would refer to this as a nexus of school and out-of-school literacy practices, using the term in a slightly different way from Scollon (2001), when seeking to understand the relationship between the two domains of literacy practices. My data, discussed in Chapters 4 to 7 and in earlier sections of this thesis, point to this underlying argument about adolescent literacies.

I suggest the use of a nexus of school and out-of-school literacy practices as a way to denote the connection that the adolescents themselves emphasise between school and their home literacy practices. Rather than perceiving school and out of school as clearly bounded domains of literacy practices, my study suggests that the adolescents are able to construct a relationship between them. This finding is similar to that of Bulfin and North (2007) who claim that "[y]oung people's language practices and their engagement with various forms of digital culture do not belong to separate domains" (p. 248). Elsewhere, Ito and her colleagues' (2008) claim that African American young people in the sixth to eighth grades "were found to spontaneously transfer certain digital practices from school to home contexts, such as creating media products for family and friends" (p. 253).

Although the adolescents in my study constructed a relationship between the two domains of literacy practices, there were also ways in which they thought that the two domains remained disconnected. Based on my interview data about their pseudo Venn diagrams, all of my research participants thought of literacy activities in school as being for educational purposes while those outside school were mainly for fun, leisure and recreational purposes. They also stressed that they had the freedom to choose the kinds of literacy activities they wanted to engage in outside school. Additionally, they stressed that there were more people whom they interacted with online whereas, in school, there were fewer opportunities for social interactions, except for typical teacher-student talk or group discussions.

My point in attending to a nexus of school and out-of-school literacy practices does not pretend to ignore the tensions that I also pointed out in Chapters 4 to 7. Ivanič et al.'s (2009) use of the term *resonance* accords with my view when they conceptualise the links between the relationship between college students' (aged between 17 and early twenties) everyday literacy practices and the literacy practices in their curriculum. According to Ivanič et al. (2009), the notion of resonance is useful in examining the relationship between everyday practices and curriculum literacy practices as it embraces both *consonance* and *dissonance*, with the former referring to aspects of literacy events or practices that coincide and the latter to refer to those that are in tension. These aspects of literacy events or practices in students' everyday lives and curriculum literacy practices include the content in texts (languages, genres, styles and designs as well as modes and technologies), purposes of the literacy events (flexibility and constraints, actions and

processes), the audience of their text production (roles, identities and values as well as ways of participating in text production) (Ivanič et al., 2009, p. 50). In other words, similar to the argument put forward by Bulfin and North (2007), students work out what can be brought from home and other contexts to school in complex ways.

In addition to the illustrative examples provided in the preceding chapters, I cite another example to show how meaningless the literacy activities in school could be when the teacher was not aware of the relationship that the adolescents in my study had constructed between school and out-of-school. The language arts teacher wanted to use blogs as a means to interact with her students from Classes 2F and 2J outside class time. Specifically, she instructed them that they could use the class blog to ask questions related to their lessons, recommend a book or share an article that they had read. A study of my research participants' blogs shows such purposes for blogs did not match their out-of-school literacy practices (I provide a detailed example of Pamela's blog in the next chapter). My study of my research participants' blogs and class blogs also shows that the class blogs were inactive and were used for posting announcements, such as class gatherings and homework during the school holidays.

Class 2F, of their own volition, nominated Tiffany to start a new class blog, in addition to the one that the teacher imposed. The reason they gave was that their friends from other classes had started such a practice as well. Their self-generated class blog was evidently more like their personal blogs when they included pictures and informal conversations in blog posts and tags. However, this was not as well maintained as their own blogs. According

to them, blogs were personal and they could not write their opinions on blogs when they were not sure if their opinions would represent those of others in the class. In the end, Class 2F created links from their self-generated class blog to their individual blogs as a way to keep in touch outside class time.

While I have used the idea of a nexus of literacy practices to draw attention to how the adolescents in my study drew on their cultural knowledge and competences from their everyday practices to cope with their school literacy demands, elsewhere, other terms have been used to address the same issue. Some specific examples include: Bulfin and North's (2007) *negotiated practice*; Ivanič et al.'s (2009) notion of resonance discussed above; Pahl and Rowsell's (2005) *traces of social practices* (p. 20); Leander's (2003) *travelling practice* (p. 392); and Maybin's (2006) *hybrid practices* (p. 166);

In the following chapter, I discuss how my research participants learnt in their literacy practices with the understanding that they were situating themselves in a nexus of practices. In the next chapter, I pay attention to how my research participants would “flow and fuse” (Leander, 2003, p. 392) their practices when learning how to use digital media for text production in and out of school. My inquiry about their learning in and out of school builds on the arguments advanced in this chapter; succinctly, it suggests a view that “understanding the technology of practice is more than learning to use tools; it is a way to connect with the history of the practice and to participate more directly in its cultural life” (Lave and Wenger, 1991, p. 100).

8.6 Summary

This chapter has contributed to the current interest in searching for an effective relationship between school and adolescents' everyday lives. It has suggested that the adolescents I studied were capable of bridging their school and out-of-school literacy practices, and of forming a relationship amongst their school literacy demands, everyday practices and technology affordances. This relationship that they constructed also suggests that the adolescents situated themselves in a nexus of school and out-of-school literacy practices.

In this nexus, they constantly drew on their cultural knowledge and competences, from their everyday lives, to cope with the school literacy demands when using digital media for text production. The connection between the two domains of literacy practices would not have been feasible without the affordance of the digital media they used in school and their everyday lives. This chapter also highlights that implementing multiliteracies in the school curriculum is not as straightforward as "importing an array of digital literacies holus bolus into classrooms on the grounds that they are 'engaging'" (Lankshear & Knobel, 2008b, p. 9). Rather, it suggests that when the relationships that the adolescents constructed between their school and out-of-school literacy practices were not understood by their teachers, several literacy activities in school could be meaningless for them.

CHAPTER NINE

LEARNING IN LITERACY PRACTICES

"We are doing a Flash. We are doing a movie. We are doing a play ... They want to train us to be artists."

- Pamela

9.1 Introduction

In the preceding chapter, I suggested that my research participants had constructed a relationship amongst their school literacy demands, everyday practices and technology affordances as a way of negotiating their school literacy practices with those they were developing outside school. This finding led to an important understanding that literacy practices might be more aptly viewed as a nexus of practices, between school and outside school, when considering the relationship between these two domains of literacy practices. Building on this understanding of literacy practices, this chapter addresses my third research question: What do adolescent students' multimodal textual repertoires in and out of school suggest about their ways of learning?

My data suggest that literacy and learning are inseparable in social practice regardless of the sites where they are situated. Specifically, when participating in literacy practices in and out of school, the adolescents in my study engaged in learning by doing and social learning as their salient ways of learning. Contrary to the New London Group's (Cope & Kalantzis, 2000) argument that multiliteracies are paramount in this digital age, this chapter argues that traditional print-based literacy in language learning remains key to

the social futures of the adolescents in my study. The chapter ends with a discussion of how the adolescents might have developed their own sense of personal pedagogy as a way of directing their learning in and out of school when participating in literacy practices.

9.2 Learning by Doing

In Chapter 2, I emphasised the participatory culture (Jenkins, 2007) in adolescents' diverse and rich literacy practices. In adolescents' participatory culture, their identities as text consumers have been downplayed; instead, they engage in such a culture as text producers or produsers (Bruns, as cited in Lankshear & Knobel, 2010, p. 10). There is also an established body of literature that describes how adolescents learn by doing in their participatory culture while creating texts using digital media (e.g. Lankshear & Knobel, 2010). For instance, the young people in Lankshear and Knobel's (2003) study learnt about Microsoft's 3D Moviemaker and FrontPage, and how to use these applications, while using them to create web pages. Similar to the production-on-the-go practice in my study, Lankshear and Knobel (2003) argue that "learning by doing" and "learning as you go" are the norm in young people's participatory culture when they experiment with digital media (p. 188).

In my study, the ethnographic accounts I provided in Chapter 5 show similar finding in that the adolescents learnt to use MediaStage by experimenting with it on a trial-and-error basis. Learning by doing is exemplified in these accounts, as the adolescents in my study showed that

they would rather experiment with the digital media than engage in storyboarding before the actual production began. My interview data with the adolescents also confirm that learning by doing was their way of learning how to use new digital media for text production. Yenny's viewpoint is a good illustrative example (see Excerpt 9.1):

Excerpt 9.1. Yenny's Viewpoint on MediaStage Production

We didn't follow our plan is because we find it too tedious and also we didn't get a feel of how using MediaStage is like before the planning. While doing the actual movie, we found out more and better approach to doing our task. If we had a chance to explore the functions in MediaStage more before planning, maybe we could come out with ideas and a more ideal and realistic plan and thus follow our plan.

My data suggest that learning by doing did not occur only as a 'crunch-time' behaviour in school literacy practices (see Chapter 5). There was evidence that learning by doing was integral to my research participants' out-of-school literacy practices. This was first noted when none of my research participants had to refer to any form of training manuals to learn how to use a range of digital media to engage in out-of-school literacy practices, such as creating their own emails, instant messages on MSN, blogs and blog skins, fan fiction , and personal profile pages on social-networking sites such as Friendsters. These out-of-school literacy practices were learnt by what Ito et al. (2008) describe as "tinkering and exploration" with the new digital media. Some of my research participants did, however, seek their peers' help when they first started participating in such out-of-school literacy practices. I address this point in Section 9.3 where I discuss how they engage in social learning.

I draw on Tiffany's interview data to illustrate that learning by doing was part and parcel of my research participants' out-of-school literacy practices. As discussed in Chapter 7, Tiffany started blogging when she was 13 years old. She first learnt how to use html language in her computer literacy class when she was in Year 1, in 2006. Although she had learnt how to use html language from the explicit instruction received at school, my interview data suggest that she relied more on self-exploration when using it to create blog skins in 2007. In my individual interview with Tiffany, she explained to me how she first started using html language, Photoshop and Adobe Image Ready to create her blog skins from scratch (see Excerpt 9.2):

Excerpt 9.2. Tiffany's Viewpoint on Experimenting with Digital Media

I wasn't really familiar with html at that time. You must you must like, you must I mean you must know that programme well in order to create better, better products. Then you must explore (on your own) ...Er they are not very easy to use. You try, if possible you try to see some works of others, then you try to follow and you must try it out frequently like almost every day. Then from there, after you know how to use the tools. Yah, then you can try making your own [sic].

In short, learning by doing, in the sense of learning how to "first and foremost engage with the software" (Sefton-Green, 2005, p. 100) was my research participants' way of learning how to use digital media for text production, both in and out of school. My data also show that learning by doing also meant participating in the actual practice of a media expert (Burn, 2009). Although they were all students, their participation in text production, using digital media in and out of school, was akin to what Gee (2008) would

describe as producing “mushfaking,” (p. 180), as discussed in Chapter 2. In other words, learning by doing in the context of my study was similar to learning to be a text producer through “enculturation into a practice” (Brown and Adler, as cited in Lankshear & Knobel, 2010, p. 20). For instance, in Chapter 4, I discussed how they took on the various roles needed for text production that are comparable to the practices in the media industry in their shared authorship, and made production choices that could act on their target audience by ‘cooling down’ the media; in Chapter 5, I discussed how they engaged in transductive work when they made use of semiotic resources which involved them in plot generation, characterisation, creating mis-en-scène and digital editing, all of which are indispensable to the practices of film production.

Nonetheless, the impetus for learning by doing, in school and out of school, was different. In out-of-school literacy practices, learning by doing was self-directed. Taking Tiffany and Amanda as examples, this was evident as they explored “specialized and niche interests” in ways that gained acknowledgement from their network peers (Ito et al., 2008, p. 1). As discussed in Chapter 7, it was also “passion-based learning” (Lankshear & Knobel, 2010, p. 20), as the learning was driven by their self-generated interest, purely for fun. While learning to use digital media to create blog skins and fan fiction , Tiffany and Amanda were learning to be a blog skin creator and a fan fiction writer, respectively, in the online community that they participated in. In contrast, coping with the demands of completing and submitting their schoolwork to meet a deadline appeared to be the impetus for

learning by doing in school, as discussed in Chapter 4, even though it was their inherent way of learning, in their literacy practices, in and out of school.

9.3 Social Learning

As discussed in Chapter 4, creating a multimodal production as group work required the students to collaborate. Hence, their meaning-making process was situated in talk and involved the negotiation of roles, interests and ideas. Following the argument of Lave and Wenger (1991), learning was thus fundamentally social in the school literacy practices for my research participants. Excerpt 4.1 in Chapter 4 is an example that illustrates how Jay and Xin were guiding Sally in how to go about controlling the camera angles for a scene in their MediaStage production. This is an example of social learning in school literacy practices. Social learning was also observed when giving feedback was evident amongst the adolescents during collaborative text production in their school literacy practices.

Excerpt 9.3 shows how Sally's peers gave her feedback on what she had drafted using Flash. Without it, the final product might have looked less presentable. This excerpt also shows that giving feedback took place while they were engaged in on-task playful talk. Sally learnt how to perfect her drawing, using Flash, based on her peers' feedback, as shown in this excerpt.

Excerpt 9.3. Feedback Giving in On-Task Playful Talk

Wendy	It looks like egg now! (Xin laughed.) 鸡蛋好不好? 鸡蛋头好不好? 鸡蛋头! ((Is the egg-shaped head okay? Is the egg-shaped head okay? Egg-shaped head!))
-------	--

Sally	Err 真的. ((It's true.)) Forget it.
	[...]
Wendy	Look like some kind of 扫把 ((It looks like some kind of a broom.)) like that. (Wendy laughed.)
	[...]
Jay	不要不要不要! ((No, no, no!)) 要不要? ((Do we want this or not?))
Wendy	I will pity a girl who look like that. I would (1.0) I seriously would (2.0) 你可以 不要在 折磨 那个女生吗? 太狠 can? ((Can you stop torturing the girl you are drawing now? It's too cruel!)) (The group laughed.) She look like a witch!
Sally	Okay what! ((It looks okay to me!))
Wendy	我 宁愿 你 放 大 放 两 条 这 个. ((I would rather you enlarge this and put these two lines.))
Sally	Oh my god.
Wendy	See ah, 像不像 witch? ((Doesn't it look like a witch?))
Sally	Aiyah, can what. Aiyah. ((This is okay.)) (Sally laughed.)
Jay	You would want a girl like that?
Xin	你们 看 你们 看 Tiffany 男 的? ((You look. You all take a look at Tiffany's male character?))
Wendy	Yah lor, yah lor, you look at Tiffany one lah. ((That's right. You should look at Tiffany's drawing.))
Jay	你 看 Tiffany 的, 你 有 没 有 看? ((You take a look at Tiffany's drawing. Did you see it?))

Sally	Aiyah, then you all do lah, so clever. ((Since all of you are so clever, why don't you do it?))
Jay	I draw. Then you, you assist me.

In this excerpt, Sally's peers were giving her feedback on the girl she had drawn using Flash. Their feedback was guiding her actions so that she could draw a pleasant-looking girl for their presentation. When Sally could not meet her peers' expectations, they asked her to refer to Tiffany's drawing (Tiffany was from Group 7). Sally left the group to observe how Tiffany drew a schoolgirl. Meanwhile, Jay volunteered to take over the production work, provided the rest helped him. As discussed in Chapter 7, the adolescents showed that learning could take place alongside having fun during production.

Seely Brown and Adler emphasise how young people participate in Do-It-Yourself media creation through social learning which they define as "learning based on the assumption that our understanding of concepts and processes is constructed socially in conversations about the matters in question" and "through grounded [and situated] interactions, especially with others, around problems or actions" (as cited in Lankshear & Knobel, 2010, p. 19). Group 6's interactions, as shown in this excerpt, are a case in point. Their interactions also show how social learning was integral to their participatory culture (Jenkins, 2007) as they provided strong support for their shared authorship; they peer tutored one another, generated ideas and solved technical problems together, and gave feedback to one another on their ideas, production choices and actions. These educational affordances of using digital media for text production in school literacy practices are not only illustrated in

Excerpt 9.1 but also elsewhere in this thesis, such as in their collective assembly and production on the go (see Chapters 4 and 5).

Such interdependence in collaborative work helped the adolescents to engage in problem-solving, which Sheridan and Rowsell (2010) advocate as essential learning dispositions for the 21st century. As discussed in Chapter 7, I extend the argument advanced by Wegerif (2005) and Dyson (2003) on children's playful talk to argue that it is also part of adolescents' multimodal textual repertoire and brings fun and learning to their meaning-making processes while building their social relationships with one another at the same time.

My interview data also show that my research participants enjoyed creating the Flash and MediaStage productions because it was group work. Their viewpoints suggest that social learning is a social affordance of using digital media in collaborative text production at school. The excerpt below comprises some illustrative examples:

Excerpt 9.4. Social Learning as a Social Affordance in Collaborative Text Production

Wendy: Group work (1.0) it's much easier to think of ideas and such a production by Flash and Mediastage is too complicated to do individually.

Yenny: Group work will lessen our burden of doing the movie and at the same time give us the benefit of the thinking process. Also, as we are new to using MediaStage, group work will allow us to explore the feature of the programme more quickly such that we can complete our task on time.

Sally: I prefer group work because it's good to listen to others' opinions and ideas once in a while so as to get different views. Also, sometimes when you can't decide the design choices by yourself, you can let others take a turn at putting in their own choices. It'll be good to explore new and different possibilities anyway.

J. Davies (2009) argues that social learning not only offers pedagogical value but also finds "relevance to the ways in which people tend to operate in out-of-school domains" (p. 38). As discussed in Section 4.3.5, in Chapter 4, my research participants made use of their home practices of instant messaging to help get their schoolwork done. This finding resonates with Greenhow and Robelia's (2009) claim that adolescents in their study also used a social networking site, MySpace, for social learning, such as "chatting online to mitigate school-related stress, asking questions about instructions or deadlines, planning study groups, broadcasting or requesting educational resources from the network" (p. 1148).

In my research participants' out-of-school literacy practices, social learning was evident when the bloggers amongst my research participants claimed that they learnt about blogs from their peers who blogged. These peers taught them what a blog was and how to blog. For instance, based on my individual interview with Melissa, Melissa reported that she learnt how to create blogs from her classmate, called Beatrice, in Class 2F when she was 13 years old. She had seen Beatrice blogging at school (but outside school time) and was interested to learn how to blog. Beatrice guided her in her search for a free blog-creation tool called blogger and sat down beside her to

show her how to go about creating a blog, step by step. After Beatrice had introduced her to blogskin.com, she learnt how to change her blog skin on her own.

It is interesting to know that Melissa then taught Yenny how to create blogs. Yenny read her friends' blogs when she was 13 years old, but she approached Melissa to guide her through the steps needed to create her first blog, from choosing a template from blogger.com, to adding a tag board, creating links to other people's blogs, and publishing her first blog post. After Melissa did an example for her, she later picked it up on her own.

As in Greenhow and Robelia's (2009) study, both these girls started using their blogs not only to keep themselves updated on each other's lives, but as sites of learning about schoolwork. For instance, Melissa once wrote on Yenny's blog post to ask her for help in using Flash. A similar instance was found in Tiffany's blog posts when she wrote to another girl twice to ask her for help with a particular mathematics homework problem.

Whilst school literacy practices tend to foreground the educational affordance of social learning when using digital media for text production, I would like to suggest that its educational affordance might not have been observed without the social alliance the adolescents fostered in their out-of-school literacy practices. By social alliance, I mean staying connected with their friends. In my data, the common way to do this was to switch their MSN on the minute they started using their home computers for various purposes, as discussed in Chapter 6. The other way was to link their personal blogs to their peers' blogs.

Towards the second half of 2007, Sally, Amanda and Jay started to participate in a social network site called Friendster. This site allows the user to connect with their friends. I draw on Sally's data to contend that building on the social alliances she fostered outside school made sense for her to engage in social learning when she continued to interact with her peers at school.

Sally started participating in Friendster in the middle of August 2007. She gave in to peer pressure when her friends asked her to start a Friendster account. For Sally, participating in Friendster expanded her current media for fostering social alliances beyond MSN and blogs. She claimed that socialising was an important part of a teenager's life and, at that point of her life, she needed a lot of friends. She added that because she spent more time with her friends than her parents, her friends knew her better than they did. She would feel left out if she did not use Friendster.

In my study, Sally did not hide her gender or ethnicity on her Friendster homepage but had to lie about her age in order to be able to extend her social interactions with her peers online. This was because the minimum age for joining Friendster was 16 years old and she was only 14 years old in 2007. She also lied about her address, stating that she was staying in Old Trafford (Manchester, UK) to show her support for Manchester United Football Club. Nonetheless, these lies did not confuse her friends because they knew who she was and, apparently, it was common practice amongst her peers.

After the year-end examinations, Sally was preoccupied with reading testimonials about herself and writing testimonials about her friends on Friendster. Testimonials are intended for people to write what they like about

their friends on Friendster. However, Sally used it like a chat box to leave messages for her friends. She said that, unlike blogs, her friends' "testimonials" about her kept her "Friendster alive". She also added that Friendster's testimonials gave her more space to leave messages for her friends, compared to the small space on the tag boards found on many blogs. She was so engrossed in it that she claimed that, after the examinations, all she wanted to do was "wait for people to come and talk to [her]" on Friendster. This was in addition to reading and tagging her friends' blogs and sending instant messages to her friends via MSN. At the point of interviewing Sally, she already had 100 friends connected to her through Friendster.

Based on my interview data, it could be argued that joining Friendster not only extended Sally's social interactions with her peers online but mediated her friendship with her peers in her offline world as well. It could be said that joining Friendster marked her membership in her social group of friends and gave her a shared conversation topic to enable her to participate in her social interactions with them in her offline world too. Sally's reason for joining Friendster echoes Boyd and Ellison's argument that on many of the social network sites, "participants are not necessarily "networking" or looking to meet new people; instead they are primarily communicating with people who are already a part of their extended social network" (as cited in Lister et al., 2009, p. 215).

Ito et al. (2008) contend that one of the key genres of online participation by adolescents is a friendship-driven genre of participation, i.e. "the dominant and mainstream practices of youth as they go about their day-to-day negotiations with friends and peers. These friendship-driven practices

centre on peers whom youth encounter in the age-segregated contexts of school but might also include friends and peers whom they meet through religious groups, school sports, and other local activity groups" (pp. 9-10). For Sally, she had learnt how to foster social alliances in her out-of-school literacy practices. Such socialisation was instrumental to her as she learnt to collaborate with her peers in the school productions. As discussed in this and preceding chapters, Sally would not have been able to be the producer for both Flash and MediaStage productions without the contributions of her peers in their shared authorship.

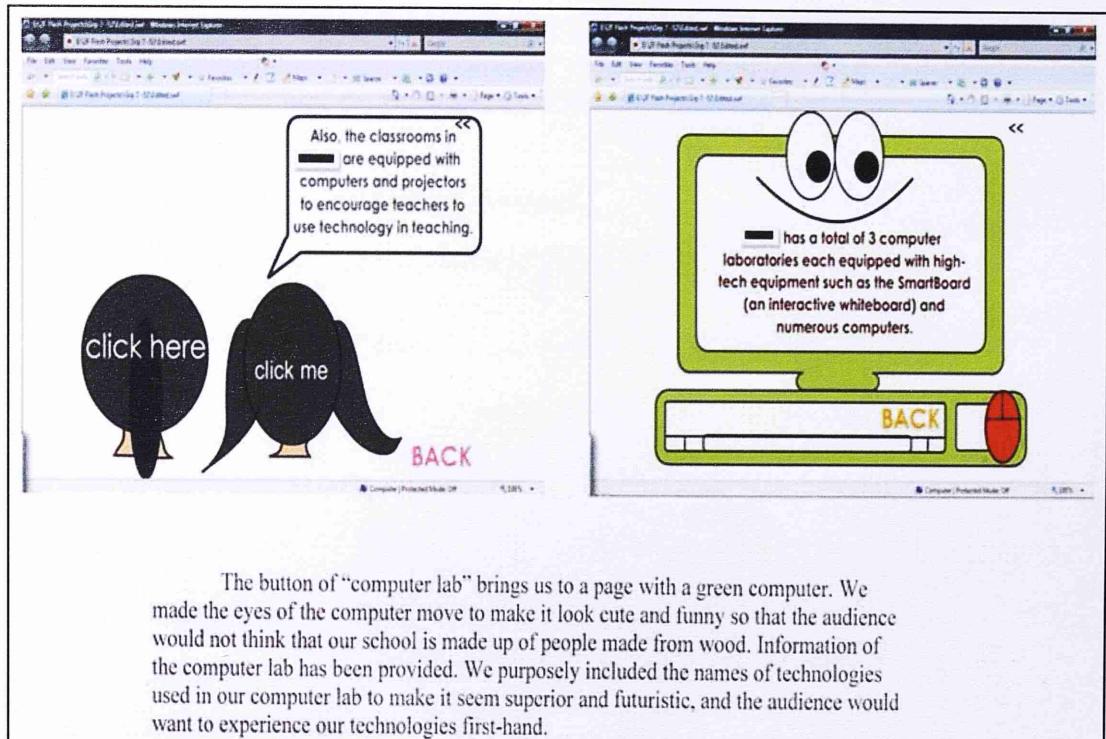
9.4 Identity and Learning

Citing Brown and Duguid, Greenhow and Robelia (2009) claim that social learning becomes meaningful when learning involves "developing a social identity that shapes what people come to know, feel and do and how they make sense of their experiences" (p. 1136). My data suggest that identity in learning is a *negotiated experience* where "[w]e define who we are by the ways we experience our selves through participation, as well as by the ways we and others reify ourselves" (Wenger, 2008, p. 105). When there was tension between the identities that the adolescents in my study performed in their school and out-of-school literacy practices, the meaningfulness of using digital media for text production in school literacy practices was questioned by the adolescents themselves. Specifically, with the exception of Tiffany, the other adolescents had doubts that participation in collaborative text production in their school literacy practices would help with language learning and building a better future. I return to discuss Tiffany's case in the next chapter.

My data suggest that the adolescents' engagement in their school literacy practices had given them certain experiences of participation. Being members of the school community, these lived experiences had positioned them to be a certain kind of student. My analyses of their Flash presentations and interactions suggest that the identity constructed through their participation in school literacy practices was mobilised as a resource to construct acceptable discourses communicated through their Flash presentations. I draw on Group 7's data to provide illustrative examples of this.

In the Group 7 Flash presentation, the adolescents positioned the school as a futuristic school. Although they did not label the school as one of the Lead ICT schools (see Chapter 1 for the background of the school), they stressed the availability and use of technology in their school literacy practices. Figure 9.1 shows two screens that emphasise the school as a futuristic school. I also include an extract with the same message from their written report.

Figure 9.1. Being a Futuristic School



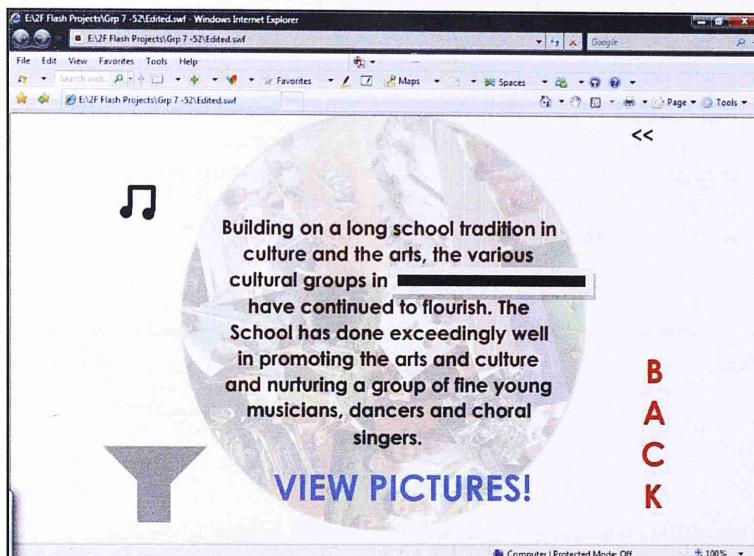
The Group 7 students also emphasised the range of co-curricular activities (CCAs) offered by the school. There were many pictures of the various co-curricular activities in the presentation. Figure 9.2 shows a screen capture of their written report which indicates their intention to include CCAs in their Flash presentation.

Figure 9.2. Being a Successful School

We chose to include CCAs because we feel that it brings out the best in students. In addition, CCAs are what might attract students, because if our record is good, students would want to join our success and become a success themselves too.

While promoting the school's wide range of CCAs, the Group 7 students were also positioning the school as one that knew how to nurture students' talents. This was made explicit on one of the screens they created (see Figure 9.3).

Figure 9.3. Being a Nurturing School



In short, while they were promoting their school as a futuristic, successful school capable of nurturing talents, they were constructing their identity accordingly as students of Lakeshore High School. This was evident in their Flash report that shows them identifying themselves as high achievers. Figure 9.4 shows the screen capture of different parts of their report that emphasise their identity as high achievers with good performance, successful and particularly good at Science. Such student identity coheres with their school vision which states: A community of Achievers: Rooted in Tradition, Equipped for the Future.

Figure 9.4. Being High Achievers

After clicking the button of “classroom”, it brings the audience to a classroom with 2 students. At mouse over, the audience gets to see the thoughts and views of the students. This brings the audience to understand what our classrooms are like and how well received they are by students. Our group feels the classroom is one of the most essential places that we must introduce, as it is where a student is likely to spend most of his time in, and its environment must be suitable to ensure students perform well.

understanding of what the CCA is going to bring them. There are also pictures provided upon clicking the button. The pictures serve as a visual aid in showing the audience how our CCAs are like. These pictures depict the happier times and the audience will feel tempted to join them. Furthermore, the dotted border around the pictures brings the focus to them, and not anywhere else. We chose to include CCAs because we feel that it brings out the best in students. In addition, CCAs are what might attract students, because if our

record is good, students would want to join our success and become a success themselves too.

on the various aspects of science. We decided to include science as it is what our school has performed consistently well in. The audience is likely to hear of our name and will like to know how good our science programme is that enables students to achieve such high standards.

Such choice of language to describe themselves was not surprising as, in the group interviews, many of them expressed that they themselves came to the school because they had heard that the school was recognised to be in the top 10% of schools in Singapore. The same public discourse about the school attracted them to it, and they in turn reify such an identity as participants in their school literacy practices to reproduce the same discourses in their Flash presentation.

Similar discourses were constructed by the other groups when they used images to show a list of awards attained by the school. Furthermore, through a range of semiotic resources, Group 1 promoted the school as one

that made learning fun; Group 6 presented the school as a ‘brilliant’ school with high achievers; and Group 8 wanted the school to be known as one that was conducive to learning and preparing them to “face the world”. The discourses they constructed were similar to the ones that were dominant in their school literacy practices when they appropriated texts from the school web pages in their remix practices. The compelling reason for doing so was suggested by Amanda when she commented that it was important that their target audience knew that Lakeshore High School was not just another “common school” in Singapore. In her words, “... we are like the one of the top 10 schools in Singapore. Let it be known.”

The central argument that can be made here is that learning to be someone or do something is thus situated in participation within a social practice (Larson & Marsh, 2005; Moje & Lewis, 2007). At Lakeshore High School, this meant that learning to be a text producer required the students to situate themselves in the school literacy practices by representing discourses that were dominant, sanctioned and accepted as instantiations of their role as a student within the school community. Gee (2005) would argue that the adolescents’ Discourse was their way of being a Lakeshore High School student. Elsewhere, Wenger (2008) prefers to use *identity in practice* to refer to the “way of being in the world” (p. 106). Like the adolescents in Erstad et al.’s (2009) study, who made use of their identities to create “narratives of the self” in their digital media productions, the adolescents in my study showed that they knew how to mobilise their identities to shape what counts as sanctioned discourses for their productions.

Again within the context of my study, while the school's literacy practices were shaping the adolescents to be a certain kind of student and text producer, their out-of-school literacy practices were shaping them to be something else. As discussed in this and preceding chapters (see Chapters 6 and 7), their out-of-school literacy practices foregrounded the social affordances of using digital media with an emphasis on using them for fun, recreation and fostering social alliances. These motives for engaging in out-of-school literacy practices were similar to the young people in Ito and her fellow colleagues' (2008) Digital Youth project, and Lewis and Fabos' (2005) study on young people's instant messaging practices. When their identity as a text producer in their out-of-school literacy practices was shaped by the social affordances of the digital media, it made it difficult for them to believe in the social futures of being a digital producer, as suggested in the pedagogy of multiliteracies (Cope & Kalantzis, 2000). I draw on Pamela's data to advance this argument in the remaining part of this section.

In the research on out-of-school literacy practices, a blog is often cited as a medium for the presentation of the self in everyday life (Bortree, 2005; Buckingham, 2008b; Lam, 2000; Walker, 2000). These studies cite Goffman's (1959) argument that the self is presented to create an impression that achieves the desired goals of the blogger. For instance, Bortree's (2005) in-depth ethnographic study of six teenage girls' blogs reported that the blog was a medium for the girls to present a certain kind of self to maintain close ties with their friends. Walker (2000) surveyed people's home pages and discussed how they scripted their presentation of self so that their voice came through in this medium.

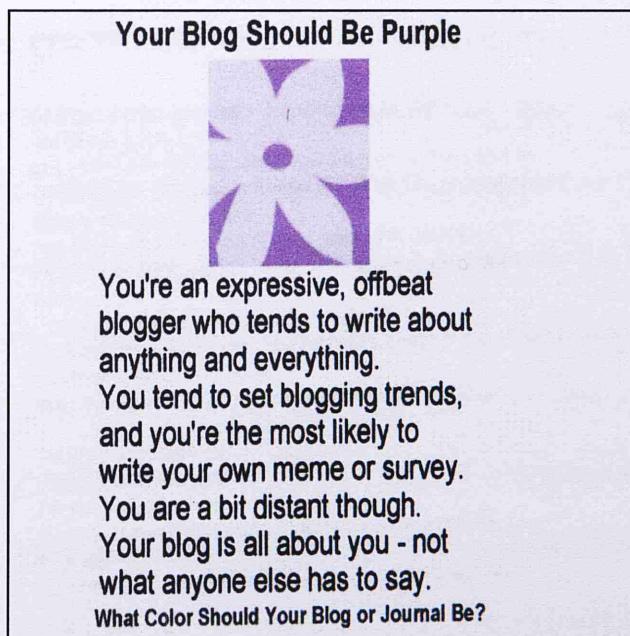
For Pamela, she learnt to be a blogger but not for any pedagogical reasons. She claimed that she blogged because she wanted to use it like a diary (see Excerpt 9.5):

Excerpt 9.5. Pamela's Viewpoint on her Blog

My blog is like a storybook of my life. People could just go read it up themselves if they feel like it. They do not have to find it out through me personally. Though like real authors, they could always give me comments or ask me questions [sic].

In her blog, she identified herself as a particular kind of blogger by posting her profile from an online quiz that she did. This was common in Yenny's, Jay's and Xin's blogs as well. After completing the quiz, Pamela would know the recommended colour for her blog and how that colour symbolized the kind of blogger she was. Figure 9.5 shows the online quiz she used to construct her identity as a blogger.

Figure 9.5. Pamela's Blog should be Purple



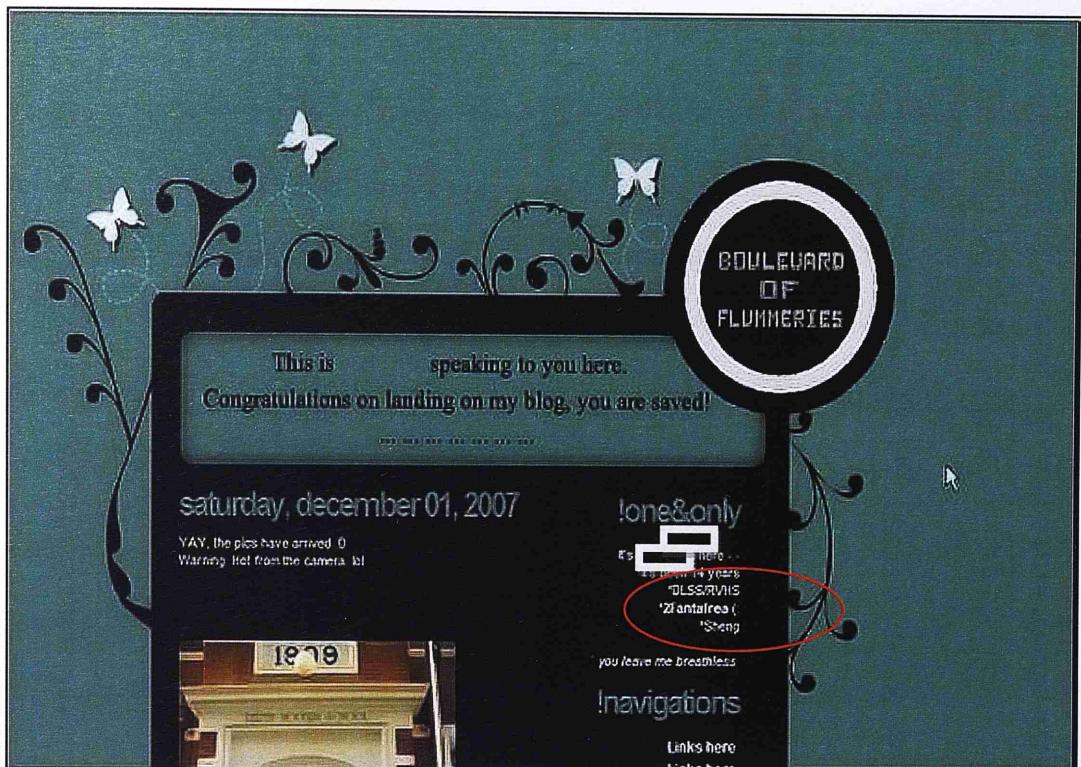
Like the adolescents in Bortree's (2005) and Walker's (2000) studies, Pamela's use of the online quiz was an example of how one performs the self in blogs. Holland, Lachicotte, Skinner & Cain (2001) use a Bakhtinian concept, *authoring self*, to explain the meaning we make of ourselves. They stress that "in order to be known, to be perceived as a figure that can be 'seen,' a person or thing must be put into the categories of the other, categories that reduce, finish, consummate" (p. 173).

In Pamela's blog (see Figure 9.6), she positioned herself as a member of her school communities, i.e. her primary school and current school, in the right-hand corner of her blog post. Specifically, with her current school community in mind, she highlighted the two specific communities that she belonged to – 2Fantafrea (her classmates from class 2F; this was also the name of the blog Class 2F created for themselves, as pointed out in Chapter 8) and Sheng (her fellow members from the Chinese Orchestra group who played the musical instrument called Sheng, translated from Mandarin).

For Pamela, blogging afforded a way of maintaining her social relationships with her friends. These social communities that she associated herself with could be the main audience of her blog. My analysis here resonates with Ito et al.'s (2008) argument that adolescents usually have a "full-time intimate community" (p. 15), the main audience for the "storybook of her life". Pamela's "storybook of her life" or blog resonates with Wallace's (2006) argument that "our lives are made up of texts" which are "woven into the stories we tell to make sense of everyday experiences" (p. 75). These stories can also be called "literacy stories" (Harste, Woodward & Burke, as cited in Wallace, 2006, p. 75). In Pamela's blog, her identity as a blogger was

not only drawn from school life but also other texts such as friendships, family, food and popular culture. These were the common texts found in the blogs of the other adolescents in my study.

Figure 9.6. Self as a Member of a Community



My data suggest that social alliance and social identity are related, a similar argument is advanced by Lewis and Fabos (2005). By keeping her friends posted about her ins and outs, in her blogs, Pamela was seeking to include her peers into her private “thought” world. She was hoping to build more intimate relationships with them through her personal sharing of what happened in her life, a common reason for blogging amongst teenagers (Bortree, 2005; Walker, 2000). In other words, the blog served as a diary and, by mentioning people who experienced school events with her, Pamela was attributing importance to the relationships they had with their peers. The

arguments advanced here are equally relevant for the other adolescents in my study who blogged.

Besides creating narratives or literacy stories about herself in her blog, Pamela also published her media interests, e.g. embedding music files of the songs she listened to and the videos she watched. She also put up posters of the singers whose songs she was listening to or posters of the movies or TV dramas she watched. When Pamela published her media interests in these ways, she was sharing her media interests and tastes with her peers. This was a common practice amongst the adolescents in my study who blogged. In the interviews, they claimed that they used these media interests to establish conversation topics during chit chat and to have quick access to what they liked without having to download these media items from the Internet. Wendy claimed that she could tell what kind of people her friends were by studying their reading and listening interests, through their blogs, over time. As discussed in Chapter 4, I would contend that it was also their way of 'cooling down' the media to attract readers to their blogs.

Although my analyses of Pamela's blog and interview suggest that social affordances were foregrounded while learning was not mentioned at all, I hold the view that learning and her sense of identity were inseparable, following the argument put forward by Lave and Wenger (1991). Pamela learnt to be a text producer when she became a blogger – she learnt to write "literacy stories" (Harste, Woodward & Burke, as cited in Wallace, 2006, p. 75) that could gain readership of her blog; she learnt to keep her blog alive through these "literacy stories" (*ibid.*), online quizzes, posters, music and other media. Through her choice of multimodal and multimedia texts, she learnt how

to gain her readers' attention. Participating in such blogging practices was no different from that in her school collaborative text production, as discussed in Chapter 8. However, this was not the kind of identity that Pamela associated with learning.

On 11 September 2007, during the computer teacher's briefing on the Flash project requirements, Pamela was indirectly questioning the purpose of such production work, as shown in the excerpt below.

Excerpt 9.6. Pamela Questioning the Purpose of Participating in Text Production in School

Pamela: We still have MediaStage to complete.

Tiffany: Yah.

Pamela: We are doing a Flash. We are doing a Flash. We are doing a movie. We are doing a play. Crazy!

Tiffany: (*Tiffany laughed.*)

Pamela: How do you all feel? (3.0) They want to train us to be artists.

Her thoughts about the value of participating in text productions at school did not appear in the report she wrote and submitted to her teacher. She was however able to articulate the rationale for the production choices made by Tiffany and Yenny for their Flash presentation. In my group interview with Pamela and her Group 7 peers, Pamela's viewpoint about participating in text productions at school suggests that only businessmen need knowledge of meaning-making through various semiotic modes (see Excerpt 9.7):

Excerpt 9.7. Pamela's Viewpoint on Text Production

Like if you are a businessman, you would, you may want to use these kinds so as to attract more people into reading. But if maybe you want to do like some other jobs like lawyer, you don't really need all these kind of information.

Although I do not agree with Pamela, her viewpoint implies that it was not meaningful for her to participate in text productions at school in the context of the multiliteracies curriculum that was integrated into their language arts lessons. In my group interview with the girls, Yenny said that the only language learning component of the production work was writing the report. Tiffany and Pamela did not think that there was any language learning component in the production work. They did not identify production work as a means of using language or other modalities to persuade and communicate a constructed message, as intended by their multiliteracies curriculum. Their identity, associated with learning language arts, did not cohere with the multiliteracies curriculum, even though they could articulate how different production choices might direct the attention of a viewer.

Similarly, Amanda acknowledged that such Flash and MediaStage productions were related to persuasion and communication skills though she would expect English classes to concentrate on reading and composition writing. Melissa claimed that there was no point in communicating what they knew about school in their Flash presentation, which implied that text production would be more meaningful for her if she was tasked to represent her subject content knowledge. Brian said that he was not very sure whether he would be using Flash in the future and did not know why he had to learn it

in the first place. However, he claimed that participation in MediaStage production would “make [them] know more about Macbeth more easily”. His viewpoint reiterated the adolescents’ shared viewpoint that learning should be tied to learning a particular content area.

The adolescents’ viewpoints resonate with Wortham’s (2004) argument that “all learning necessarily involves social identification” (p. 731), where social identification refers to the “process through which individuals and groups become identified as publicly recognized categories of people” (p. 716). This is similar to the arguments I raised earlier, that learning and identity are not separable (Lave & Wenger, 1991; Wenger, 2008). Of interest to me is Wortham’s (2004) argument that learners develop one kind of identity that is tied to curricular content. By this, my interview data suggest that the adolescents in my study viewed good English learners as those who are good at reading comprehension, writing and grammar, rather than the kinds of text productions they participated in outside school.

The group interviews with them suggest that they related their production work to the learning of English not in terms of multimodal literacies but in terms of the traditional print literacy skills. For instance, Xin claimed that digital media production could hone her composition writing skills; she suggested that creating a MediaStage production was like writing a composition because she had to think about ways to affect people’s perspectives when constructing the message. She also claimed that by creating the MediaStage production, she had understood the Macbeth text better. Writing a report on how the group made their production choices was like the other report-writing she did for her English lessons. She had to be

accurate in her grammar and know how to put her thoughts into words appropriately. From the floor plan mapping activity, the adolescents' viewpoints also show that they were focusing on being text consumers when they were describing the kinds of literacy activities that took place in the various sites in school, such as viewing/listening to PowerPoint presentations, reading and listening to the teacher.

I would not claim that their school literacy practices were monomodal and that the dominant site of learning took place only in the classroom, although these would have been my research participants' contentions if I had not probed them in my interviews. A study of all my research participants' mapping artefacts clearly shows that their school literacy practices were multimodal. The point to make here is that my research participants did not relate multimodal literacy practices with learning in school. Although the adolescents in my study had experienced multiliteracies in their curriculum, the dominance of literacy being print-based literacy remained key in the adolescents' school practices.

Building on Wenger's (2008) argument about identity as negotiated experience, I suggest that they were negotiating their "ideological becoming" of an adolescent student, to use Bakhtin's words (Freedman & Ball, 2004). By ideological becoming, Bakhtin refers to how we develop our ways of viewing the world and our system of ideas (*ibid.*). Citing Bakhtin/Medvedev, "human consciousness does not come into contact with existence directly, but through the medium of the surrounding ideological world" (Freedman & Ball, 2004, p. 14). In other words, ideological becoming occurs within ideological environments. The illustrative examples provided in this thesis suggest that

learning involves shifting identities between in school and out of school. In other words, my research participants positioned themselves differently and were positioned in particular ways within their Discourses in and outside school. Hence, it was evident that they might embody a Discourse at one point in time and resist it at another. Although I claim that learning was integral to their literacy practices in and out of school, the adolescents in my study tended to think of learning as school learning and, with respect to language learning, the focus on traditional print-based literacy and content instruction remained.

9.5 Emergence of a Personal Pedagogy

In the preceding sections of this chapter, I set out to illustrate that learning was inseparable from literacy practices, despite the sites where they were situated. This viewpoint follows the argument from Lave and Wenger, and Banks et al. (2007), that learning is situated, i.e. it takes place in the context in which it is enacted. It also resonates with Hamilton's (2006) argument that "[e]veryday activities can at any moment present an opportunity for learning" (p. 125). Although learning might not be intended or perceived by my research participants, the data discussed in this thesis point to the central argument that the adolescents in my study learnt from their multimodal textual repertoires in and out of school.

Drawing on McLaren's broader definition of pedagogy as the "introduction to, preparation for, and legitimation of particular forms of social life" (as cited in Vasudevan & Hill, 2008, p. 3), I suggest that the adolescents

in my study were developing their own personal pedagogy as part of their learning enterprise. By this, I mean that they were developing their own ways of introducing themselves to, preparing themselves for, and legitimating their particular forms of social life which might not be enacted in the way the New London Group (Cope & Kalantzis, 2000) had envisioned. Throughout this thesis, my data point to this central argument.

From the perspective of McLaren's definition of pedagogy, a sense of pedagogy was first observed as they constructed their multimodal textual repertoires (see Chapters 4 to 7), and these textual repertoires bore resemblance to the practice of text production in social practices, such as in the film and other media industry, and in everyday practices of using digital media (Burn, 2009; Ito et al., 2008; MacArthur Foundation, n.d.; Sheridan & Rowsell, 2010). It became personal because they had a sense of how to enact their multimodal textual repertoires in a way that was integral to their school and everyday practices, and this involved forming a relationship amongst the school's literacy demands, everyday practices and technology affordances (see Chapter 8). It was also personal because they could learn without a teacher on the occasions when they learnt by doing and from their peers. As shown in this chapter, these ways of learning in school were personal and integral to their literacy practices outside school.

I would like to think that this sense of personal pedagogy was not fixed and was being developed as they negotiated their identities in practice. I suggest that it was emerging because it involved a negotiation with what counted as being a Lakeshore High School student for them, when the dominant discourse of literacy as print literacy remained entrenched in their

ideological environment. It also involved negotiation with what counted as learning, as they took hold of what counted as learning to whom and for whom.

9.6 Summary

This chapter has argued that the adolescents in my study learnt by doing, and from their peers, both in and out of school. Although such learning might not have been acknowledged by these adolescents, it was integral to their school and everyday practices, which thus suggests that learning and literacy practices are inseparable. This chapter also discusses the relationship between identity and learning. It highlights that when there was tension in the adolescents' identities as text producers in their school and everyday practices, multiliteracies were not as important to the adolescents in my study as they were espoused by the New London Group (Cope & Kalantzis, 2000).

CHAPTER TEN

CONCLUSION

“Reading can be in a lot of forms, yah yah like like last time like advertisement all these is all reading.”

- Brian

10.1 Introduction

My ethnographic study has enlightened me in two critical ways. First, it has shaken my worldview that literacy is about the reading and writing skills taught in schools. This was my initial understanding that stemmed from my practitioner's gaze or personal history. Second, it has opened the doors to let me understand the rich and vast array of literacy events and practices in adolescents' lives. It has given me the privilege to understand not only literacy events and practices, but also adolescents themselves. The findings of my study have resonated with recent literacy research whilst extending what other studies have reported as well. In this last chapter of my thesis, I begin by summarising the key findings of my research inquiry and then discuss the significance of my study in terms of its contribution to theory and practice. I then offer a personal critique of my study and suggest possible ways of moving forwards in future research endeavours.

10.2 The Enlightened Eye: Key Findings of the Study

In Chapter 1, I made it known that my research inquiry was driven by the broad question of what counts as literacy and learning for adolescents within the context of language education in Singapore. I framed my inquiry in terms of the following three research questions:

1. What are adolescent students' multimodal textual repertoires in and out of school?
2. When adolescents use digital media for creating multimodal and multimedia productions for schoolwork, how do they construct a relationship between school literacy practices and those they are developing outside school?
3. What do adolescent students' multimodal textual repertoires in and out of school suggest about the ways they learn?

I suggest using multimodal textual repertoires to refer to the diverse ways in which adolescents, as meaning makers, engage in multimodal literacy activities that are learnt from their interactions around texts with others when participating in cultural practices.

As discussed in Chapters 4 to 7, the collective assembly, production on the go, multitasking and engaging in fun constitute adolescent students' multimodal textual repertoires in and out of school. In Chapter 8, I contended that when their multimodal textual repertoires permeated in and out of school, the adolescents in my study constructed a relationship amongst their school literacy demands, their everyday practices and technology affordances. The

relationship also suggests that adolescents' literacies might be better understood as a nexus of school and out-of-school literacy practices when seeking to analyse the relationship between the two domains of literacy practices. Although the nexus shows that the connection between school and out-of-school literacy practices is attenuated by the affordances of digital media, it also entails a contestation between adolescents' ways of participating in text production and those intended by their teachers.

I have also raised the issue of pedagogical implications whilst discussing my findings; these issues culminate in the fundamental question of how learning took place for the adolescents in my study. In Chapter 9, I stressed that learning and literacy practices are inseparable and highlighted that learning by doing and social learning are salient for these adolescents in and outside school. The roles of identity and learning have been also questioned in the chapter. Notably, despite the rich accounts of literacy practices and learning that are evident in the adolescents' school and everyday lives, this study suggests that the adolescents perceive themselves as text consumers in school learning and that their perception of literacy and learning (specifically language learning) remains framed by the dominant discourse of literacy as traditional print-based literacy and learning as the mastery of content subject area. In the context where there are competing discourses of what counts as literacy and learning, this thesis suggests that the adolescents are developing an emerging sense of their own personal pedagogy as they teach themselves what counts as literacy and learning while negotiating their school and out-of-school literacy practices.

10.3 Significance of the Study: Contribution to Theory and Practice

It has been my intention to contribute to the ongoing conversations about 21st century literacy pedagogy by highlighting the importance of designing student-centred literacy pedagogy, starting with the learners and their practices in mind. I see my contribution as being in two parts, in terms of the implications for literacy research and practitioners.

10.3.1 What does It Mean for Literacy Research?

My study contributes to the wide range of studies within NLS that have challenged the “educational gaze” (Maybin, 2006a). It shows the relevance and value of adopting the theoretical framework of NLS to study multimodal and digital literacy practices in adolescents’ lives. Specifically, in response to the “digital turn” in NLS (Mills, 2010), my use of the term ‘multimodal textual repertoire’ provides a way to attend to the ways in which adolescents participate in literacy practices in this digital age.

Furthermore, it also contributes to NLS by bringing NLS back to the pedagogical domain (Ivanič, 2009). This effort has paid off in my study as it has extended the current understanding of literacy practices as a nexus by decoupling literacy practice from the sites of its occurrence. Notably, it has highlighted the capability of adolescents to build bridges between their school and out-of-school literacy practices in ways that practitioners might not have envisioned. This in turn contributes to the current understanding of adolescent literacies, especially in Singapore where there remains a dearth of studies

about adolescent literacies from a social practice viewpoint. My study has paved the way for new research proposals that have shown interest in studying the connection between school and out-of-school learning.

Finally, my study provides insightful ethnographic accounts that could illuminate the arguments put forward in the pedagogy of multiliteracies (Cope & Kalantzis, 2000). Although the pedagogy of multiliteracies (Cope & Kalantzis, 2000) has been widely cited in literacy research, this work remains a seminal piece of work. As discussed in Chapter 8, studying adolescents' multimodal textual repertoires could cast light onto each of the four aspects in the pedagogy of multiliteracies (Cope & Kalantzis, 2000). Reinforced by actual instances of literacy practices in real-world settings, my study has shown what each aspect of the pedagogy entails. Readers of my thesis will understand the complexity of implementing each aspect of the pedagogy of multiliteracies (Cope & Kalantzis, 2000), rather than relying on the seminal work first advanced by the New London Group way back in 1996 (New London Group, 1996).

10.3.2 What does It Mean for Practitioners?

A social practice view of literacy provides explanations to the "digital divide", otherwise understood as the "widening gulf between many young people's experiences of media technology outside school and the ways in which it is currently being employed in the classroom" (Buckingham, 2007, p. 143). This argument resonates with the current work in literacy research that focuses on learning and the use of digital media in social practices in and out

of school (Carrington & Robinson, 2009; J. Davies & Merchant, 2009a; Ito et al., 2008; Lankshear & Knobel, 2008).

The underlying argument of these works is that in order to find ways of bridging school and out-of-school practices, it is essential first to understand how the myriad range of digital media is used for specific purposes in young people's everyday lives. This paramount importance of studying practices is not new and the argument can be traced back to Lave and Wenger's book "Situated Learning: Legitimate Peripheral Participation" in 1991. In their words, technology "cannot be viewed as a feature of an artifact in itself but as a process that involves specific forms of participation, in which the technology fulfills a mediating function" (Lave & Wenger, 1991, p. 102).

My thesis argues that when designing literacy pedagogies, the teacher has to consider not only what technologies are used by adolescents, but also the purposes and ways of participating in social and cultural practices in their everyday lives. This necessitates practitioners first understanding that literacy learning for adolescents is more than learning skills and mastering content subject areas. Adolescents bring with them their "virtual schoolbags" (Comber & Kamler, 2006, p. 23) or "funds of knowledge" (Moje, 2008, p. 342), drawn from their literacy practices in their school and everyday lives to help them connect to school learning. As shown in this thesis, literacy activities in school could be meaningless and stifling to adolescents if practitioners did not draw on adolescents' literacy practices. Practitioners, particularly in Singapore, might want to consider B. Street's (2005a) and Barton, Ivanič, Applyby, Hodge and Tusting's (2007) strong suggestion that literacy curricula and assessments should be designed around adolescents' literacy practices,

taking account of their entrenched beliefs, values and ways of participating in social and cultural practices.

The adolescents in my study have shown their agency to reject school literacy practices and introduce their out-of-school literacy practices into their school collaborative text production. This finding is similar to those of the studies conducted by Bulfin and North (2007) and Ito and colleagues (2008). Practitioners need to understand that learning and literacy practices are inseparable. Although adolescents may have acquired a range of literacy competences from their out-of-school literacy practices, literacy that prepares them for their future jobs remains paramount. Such literacy remains print-based in the eyes of the adolescents which I would argue is largely due to the current language-dominant form of assessment in Singapore that they have to sit to gain entry to university. Although Lakeshore High School had begun its efforts to implement a multiliteracies curriculum, more work was needed to sustain such innovative practice. Furthermore, not all schools in Singapore have the flexibility to design their language curriculum differently to that of the national language syllabus. I would follow Ito and colleagues' (2008) argument that "[r]ather than assuming that education is primarily about preparing for jobs and careers", policy makers in Singapore might want to "think of it as a process guiding young people's participation in public life more generally" (p. 3). To begin with, a literacy curriculum in Singapore needs to incorporate multiliteracies as espoused by the New London Group (Cope & Kalantzis, 2000) and provide opportunities for adolescents to take charge of their ways of participating in text production within the school curriculum.

Finally, integrating text production such as Flash and MediaStage productions into the school curriculum could add value to school learning. Practitioners need to understand the complexity involved in collaborative text production; it is more than a “divide and conquer” or “cut-and-paste” literacy activity, as illustrated in this thesis. They need to be receptive when adolescents introduce popular culture, their media interests and experiences into school learning. The transductive nature of collaborative text production cannot be underestimated. It affords problem-solving, creativity, decision-making, peer learning, media production and learning to use new digital media. These educational affordances resonate with Jenkins’ (2007) and Sheridan and Rowsell’s (2010) arguments about 21st century literacy skills. Pedagogical connections can be more accessible when practitioners understand “the kinds of things young people are doing and being outside school” (Lankshear & Knobel, 2003, p. 206) and then consider ways of integrating “their experiences of learning outside schools with what [practitioners] can and should teach about discrete media” (Sefton-Green, 2005, p. 109) and media production.

10.4 Critique of the Study: Limitations and Possible Future Research

The evidence I have provided in my data is limited by the time period of the study, specifically in two areas. First, I have noted in my discussions of the findings that the adolescents in my study had pre-occupied themselves with talk centering on how to use digital media to get certain actions done. As a result, critical conversations, such as about ways to use camera shots or

lighting to act on their target audience, are lacking. This evidence is limited by the short period of time they had to use Flash and MediaStage to complete their productions. If they had had more time, I believe the adolescents might have engaged in conversations about making critical meaning-making choices using the digital media, rather than on making technical choices.

Second, Tiffany's data suggest that she could have engaged in self-directed learning where her out-of-school literacies could have played a role in her school literacy practice. Towards the end of my study, she was hoping to major in fine arts in Year 3. On her own accord, she showed the teacher-in-charge her CD of the blog skins she had created as a form of portfolio to exhibit her artistic and technical abilities. She had also asked her mother to enrol her for some fine-arts classes at an art institute outside school to pursue her interest in digital art. Potter (2010) notes that people have a sense of curatorship when they store and share their daily images on social networks such as Flickr and Photobucket. Tiffany, my research participant, who won the online blog-skin design award ten times, likewise exhibited a sense of curatorship when she saved the blog skins she had produced onto a CD to pursue her interest in fine arts as an academic subject at school.

As discussed in Chapter 9, the adolescents in my study learnt to use digital media and participated in a range of out-of-school literacies from their peers and by simply trying them out (learning by doing). Learning was not part of their vocabulary when they shared with me their out-of-school literacy practices in the interviews. Without participant observation of their out-of-school literacy practices, I was unable to garner strong evidence of self-directed learning in the lives of my other research participants. By self-directed

learning (SDL), I refer to Gibbons' (2002) definition where SDL refers to "any increase in knowledge, skill, accomplishment, or personal development that an individual selects and brings about by his or her own efforts using any method in any circumstances at any time" (p. 2).

However, I do believe that if they could learn by doing and learn from their peers, then there was no reason why they were not able to self-direct their learning, given their capabilities. Self-directed learning was also absent in the school literacy practices that I observed. Although opportunities were given for the adolescent students to make production choices, these were framed within the curricular themes and agenda. If it did happen, I would argue that it was to a very low degree and perhaps, incidentally.

The evidence provided in my data are also limited by language use in my interactions with the adolescents. As pointed out in Chapter 3, there were many instances where the social language that I used did not match that of the adolescents' literacy practices. Notably, I could not use the word literacy in my interactions and interviews with them. Informed by NLS, I replaced "literacy" with "reading and writing" as a way for me to start a conversation about their literacy practices. In retrospect, my choice of words could have led the adolescents to turn their attention away from practices such as computer gaming. Although computer gaming was mentioned by Sally, Jay, Amanda, Yenny, Wendy and Brian, it did not emerge as a prominent theme in my data analysis.

Pervasive in my research participants' out-of-school literacy practices were social network sites like Friendsters, video-sharing sites like You-Tube,

blogs, fan fiction and online games like Audition, amidst other Internet websites and gadgets such as mobile phones. Although in this thesis my focus is on multimodal textual repertoires involving the use of digital media, it does not mean that printed media such as magazines and other traditional media including television are obsolete in adolescents' lives. It is clear that my research participants were acting within a "textually-mediated social world" (Barton, 2001, p. 100) where texts existed in both printed and digital forms. It is also evident from my data that they participated in what Jenkins describes as a "convergence culture" where convergence represents "content that flows across multiple media channels" (Jenkins, 2006, p. 243). Given the constraint of space in the thesis, I have only been able to focus on what is of current interest and worthy of contribution to NLS.

Hammersley and Atkinson (1995) suggest that one of the ways in which researchers can return the generosity of their participants is to empower them during the research process. I believe I started such an empowering process when I conducted the mapping activities and interviews with the adolescents in my study. Besides aiming to understand their literacy practices at different sites in and out of school, I was hoping that I could help them read their "ideological environments" (Bakhtin/Medvedev, as cited in Freedman & Ball, 2004) and reclaim their sites of literacy practices by broadening their notions of reading and writing.

During the interviews, the adolescents constantly checked with me whether a particular literacy event could be counted as reading and writing. They had the idea that reading and writing were print-based, related to schoolwork, and tied specifically to the classroom. In other words, the skills

view of literacy remained dominant amongst the adolescents in my study, as pointed out in Chapter 9. Nonetheless, towards the end of 2007, Amanda, Xin, Melissa, Tiffany, Wendy and Brian claimed that participation in my research study had broadened their understanding of how reading and writing had occurred in their everyday lives, not just in the classroom.

Our researcher-and-research participant relationship has been reciprocal since 2007. To date, all the adolescents in my study, except for Tiffany, have added me as their friend on Friendsters, IM and Facebook. When they have needed participants for their research, such as respondents for their surveys, they send me instant messages or email me to invite me to be their respondent. Without any hesitation, I have returned their kind deeds by being their research participant.

For future research, I would like to build on my study by focusing on digital media production as learning, playing and performance of self. These areas of interest were inspired by the Media Literacy Conference 2010 that I attended in November 2010. Specifically, in terms of digital media production as learning, I want to understand more about self-directed learning in adolescents' out-of-school literacies and how it can be encouraged in school. Tiffany's CD of blog skins has been a great source of inspiration. Alongside self-directed learning, there is also a possibility of finding out how Potter's (2010) idea of curatorship might shed light into adolescents' way of building their own portfolios to create social futures for themselves.

10.5 Conclusion

In this thesis, I have argued that only when literacy is understood as social practice and the repertoires of the students who use it considered, can a spirit of learner-centeredness be enacted in Singapore's schools. Without a broad notion of literacy, the social outcomes of language and literacy may not be adequately addressed by education. In terms of adolescent literacies, it is likely that their multimodal literacies may be acquired outside school and this gives a strong reason for educators and researchers to consider "the social place, the history and formation of these sign-makers, and in the social environments in which they make their signs" (Kress & Street, 2006). I have argued in this thesis that in order to nurture a child through education, the learners must first be understood, along with all their ideological practices and accompanying cultural meanings (B. Street, 1995). Such a perspective calls for an inquiry into the adolescents' perspectives and the ways in which their literacies are accessed, used and lived in everyday practices, both in and out of school.

BIBLIOGRAPHY

Alvermann, D. E. (2002). *Adolescents and literacies in a digital world*. New York, NY: Peter Lang.

Alvermann, D. E. (2006). Ned and Kevin: An online discussion that challenges the 'not-yet adult' cultural model. In K. Pahl & J. Rowsell (Eds.), *Travel notes from the New Literacy Studies: Instances of practices* (pp. 39-56). Clevedon, England: Multilingual Matters.

Alvermann, D. E., & Heron, A. H. (2001). Literacy identity work: Playing to learn with popular media. *Journal of Adolescent & Adult Literacy*, 45(2), 118-122.

Anderson, K. T., & Chua, P. H. (2010). Digital storytelling as an interactive digital media context. *Educational Technology*, 50(5), 32-36.

Anderson, K. T., & Wales, P. (in review). Can you design for agency?: Exploring the ideological mediation of an out-of-school digital storytelling workshop. *Critical Inquiry in Language Studies*.

Anfara, J. V. A., Brown, K. M., & Mangione, T. L. (2002). Qualitative analysis on stage: making the research process more public. *Educational researcher*, 28-38.

Anstey, M., & Bull, G. (2006). *Teaching and learning multiliteracies: Changing times, changing literacies*. Adelaide, Australia: The International Reading Association & the Australian Literacy Educators' Association.

Bakhtin, M. M. (1986). *Speech genres and other late essays*. Austin: University of Texas Press.

Baldry, A. (2000). *Multimodality and multimediality in the distance learning age* Campobasso, Italy: Palladino Editore.

Banks, J. A., Au, K. H., Ball, A. F., Bell, P., Gordon, E. W., Gutiérrez, K. D., ... Zhou, M. (2007). Learning in and out of school in diverse environments. Retrieved from http://www.life-slc.org/docs/Banks_etal-LIFE-Diversity-Report.pdf

Barton, D. (2001). Directions for literacy research: Analysing language and social practices in a textually mediated world. *Language and Education*, 15(2&3), 92-104.

Barton, D. (2007). *Literacy: An introduction to the ecology of written language* (2nd ed.). London, England: Blackwell.

Barton, D. (2010). Vernacular spaces on the web. In D. Barton & U. Papen (Eds.), *The anthropology of writing: Understanding textually mediated worlds* (pp. 109-125). London, England: Continuum.

Barton, D., Appleby, Y., Hodge, R., & Tusting, K. (2007). *Literacy, lives and learning*. London, England: Routledge.

Barton, D., & Hamilton, M. (1998). *Local literacies: Reading and writing in one community*. London, England: Routledge.

Barton, D., & Hamilton, M. (2000). Literacy practices. In D. Barton, M. Hamilton & R. Ivanič (Eds.), *Situated literacies: reading and writing in context* (pp. 7-15). New York, NY: Routledge.

Barton, D., & Hamilton, M. (2005). Literacy, reification and the dynamics of social interaction. In D. Barton & K. Tusting (Eds.), *Beyond communities of practice: Language, power, and social context* (pp. 14-35). England: Cambridge University Press.

Baynham, M. (2004). Ethnographies of literacy: Introduction. *Language and Education*, 18(4), 285-290.

Baynham, M., & Prinsloo, M. (2001). New directions in literacy research. *Language and Education*, 15(2 & 3), 83-91.

Baynham, M., & Prinsloo, M. (Eds.). (2009). *The future of literacy studies*. London, England: Palgrave Macmillan.

Bearne, E. (2003). Rethinking literacy: communication, representation and text. *Reading, literacy and language*, 37(3), 98 - 103.

Bernstein, B. (1999). Vertical and horizontal discourse: An essay. *British Journal Sociology of Education*, 20(2), 157-173.

Bhabha, H. (1994). *The location of culture*. London, England: Routledge.

Black, R. W. (2009a). English-language learners, fan communities, and 21st-century skills. *Journal of Adolescent & Adult Literacy*, 52(8), 688-697.

Black, R. W. (2009b). Online fan fiction, global identities, and imagination. *Research in the Teaching of English*, 43(4), 397- 425.

Bloome, D. (2008). Literacies in the classroom. In B. V. Street & N. H. Hornberger (Eds.), *Encyclopedia of Language and Education* (2nd ed., Vol. 2: Literacy, pp. 251-262). New York, NY: Springer Science+Business Media LLC.

Bopry, J., & Tan, L. (2008). Final research report: Developing multiliteracies in the language arts curriculum (Project: R59801120). Learning Sciences Laboratory, National Institute of Singapore.

Bortree, D. S. (2005). Presentation of self on the web: An ethnographic study of teenage girls' weblogs. *Education, Communication & Information*, 5(1), 25-39.

Botzakis, S., & Malloy, J. A. (2005). International reports on literacy research. *Reading Research Quarterly, 40*(1), 112-118.

Bourdieu, P. (1991). *Language and symbolic power*. Cambridge, England: Polity Press.

Brenner, M. E. (2006). Interviewing in Educational Research. In J. L. Green, G. Camilli & P. B. Elmore (Eds.), *Handbook of Complementary Methods in Education Research* (pp. 357 - 370). Mahwah, NJ: Lawrence Erlbaum.

Bruce, D. L. (2007). Multimedia production as composition. In J. Flood, S. B. Heath & D. Lapp (Eds.), *Handbook of research on teaching literacy through the communicative and visual arts* (Vol. 2, pp. 13-18). New York, NY: Lawrence Erlbaum.

Buckingham, D. (2003). *Media Education: Literacy, learning and contemporary culture*. Cambridge, England: Polity Press.

Buckingham, D. (2006). Is there a digital generation? In D. Buckingham & R. Willett (Eds.), *Digital generations: Children, young people, and new media* (pp. 1-13). Mahwah, NJ: Lawrence Erlbaum.

Buckingham, D. (2008a). Defining digital literacy: What do young people need to know about digital media? In C. Lankshear & M. Knobel (Eds.), *Digital literacies: Concepts, policies and practices* (pp. 73-89). New York, NY: Peter Lang.

Buckingham, D. (2008b). *Youth, identity, and digital media*. London, England: The MIT Press.

Bulfin, S., & North, S. (2007). Negotiating digital literacy practices across school and home: Case studies of young people in Australia. *Language and Education*, 21(3), 247-263.

Burn, A. (2009). *Making new media: Creative production and digital literacies*. New York, NY: Peter Lang.

Burn, A., & Durran, J. (2007). *Media literacy in schools: Practice, production and progression*. London, England: Paul Chapman.

Cameron, D. (2001). Transcribing spoken discourse. In *Working with spoken discourse* (pp. 31-43). London, England: Sage.

Carrington, V. (2005). The uncanny, digital texts and literacy. *Language and Education*, 19(6), 467-482.

Carrington, V. (2009). From blog to bebo and beyond: Text, risk, participation. *Journal of Research in Reading*, 32(1), 6-21.

Carrington, V., & Robinson, M. (Eds.). (2009). *Digital literacies: Social Learning and Classroom Practices*. London, England: Sage.

Carson, T., Pearson, M., Johnston, I., Mangat, J., Tupper, J., & Warburton, T. (2004). Semiotic approaches to image-based research. In C. Lewin (Ed.), *Research methods in the social sciences* (pp. 164 171). London, England: Sage.

Carter-Bland, V., & Esseen, M. (2004). *MediaStage Teacher's Guide*. Oxfordshire, England: Immersive Education.

Centre of Research in Pedagogy and Practice. (2006). Literacy and language special focus projects in CRPP: A Report (2003 to 2005). Singapore: National Institute of Education.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London, England: Sage.

Charmaz, K., & Mitchell, R. G. (2001). Grounded theory in ethnography. In P. Atkinson, A. Coffey, S. Delamont, J. Lofland & L. Lofland (Eds.), *Handbook of ethnography* (pp. 160 - 174). London, England: Sage.

Cheah, Y. M. (2002). English language teaching in Singapore. *Asia Pacific Journal of Education*, 22(2), 65-80.

Cohen, L., Manion, L., & Morrison, K. (2007). Naturalistic and ethnographic research. In *Research methods in education* (6th ed., pp. 167- 190). London, England: Routledge.

Comber, B., & Kamler, B. (2006). Redesigning literacy pedagogies: The complexities of producing sustainable change. In W.D.Bokhorst-Heng, M.D.Osborne & K. Lee (Eds.), *Redesigning pedagogy: Reflections of theory and praxis* (pp. 19-32). Singapore: Sense.

Cope, B., & Kalantzis, M. (2000). *Multiliteracies: Literacy learning and the design of social futures*. London, England: Routledge.

C Cuban, S., Barton, D., Hamilton, M., Papen, U., & Reder, S. M. (2007). *Outside practices: A social practice of literacy, learners, and educational policies and practices in England and the United States*. Paper presented at the American Educational Research Association.

Davies, C. A. (2008). *Reflexive ethnography: A guide to researching selves and others* (2nd ed.). London, England: Routledge.

Davies, J. (2009). A space for play: crossing boundaries and learning online. In V. Carrington & M. Robinson (Eds.), *Digital literacies: Social learning and classroom practices* (pp. 27-42). London, England: Sage.

Davies, J., & Merchant, G. (2007). Looking from the inside out: Academic blogging as new literacy. In C. Lankshear, M. Knobel, C. Bigum & M. Peters (Eds.), *A new literacies sampler* (pp. 167-197). New York, NY: Peter Lang.

Davies, J., & Merchant, G. (2009a). Negotiating the blogosphere: Educational possibilities. In V. Carrington & M. Robinson (Eds.), *Digital literacies: social learning and classroom practices* (pp. 81-93). London, England: Sage.

Davies, J., & Merchant, G. (2009b). *Web 2.0 for schools: Learning and social participation*. New York, NY: Peter Lang.

Denzin, N. K., & Lincoln, Y. S. (2000). *Handbook of qualitative research*. Thousand Oaks, CA: Sage.

Denzin, N. K., & Lincoln, Y. S. (2008). *Strategies of qualitative inquiry*. Los Angeles, LA: Sage.

Dornyei, Z. (2007). Qualitative data analysis. In *Research methods in applied linguistics* (pp. 163-267). England: Oxford University Press.

Dowdall, C. (2009). Masters and critics: children as producers of online digital texts. In V. Carrington & M. Robinson (Eds.), *Digital literacies: social learning and classroom practices* (pp. 43-61). London, England: Sage.

Dyson, A. (2003). *The brothers and sisters learn to write: Popular literacies in childhood and school cultures*. New York, NY: Teachers College Press.

Dyson, A. H. (2001). Where are the childhoods in childhood literacy? An exploration in outer (school) space. *Journal of Early Childhood Literacy*, 1(1), 9-39.

Dyson, A. H. (2002). Writing and children's symbolic repertoires: Development unhinged. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of Early Literacy Research* (pp. 126-141). New York, NY: The Guilford Press.

Emerson, R. M. (2007). Working with 'key incidents'. In Ricki Goldman, Roy Pea, Brigid Barron & S. J. Denny (Eds.), *Video research in the learning sciences* (pp. 457-472). Mahwah, NJ: Lawrence Erlbaum.

Erickson, F. (2006). Definition and analysis of data from videotape: Some research procedures and their rationales. In J. L. Green, G. Camilli, P. B. Elmore (Eds.), *Handbook of complementary methods in education research* (pp. 177-191). Mahwah, NJ: American Educational Research Association.

Erstad, O., Gilje, O., Sefton-Green, J., & Vasbo, K. (2009). Exploring 'learning lives': Community, identity, literacy and meaning. *Literacy*, 43(2), 100-106.

Everett, A. (2003). Digitextuality and click theory: Theses on convergence media in the digital age. In A. Everett & J. T. Caldwell (Eds.), *New media: Theories and practices of digitextuality* (pp. 3-31). New York, NY: Routledge.

Faggella-Luby, M. N., Ware, S. M., & Capozzoli, A. (2009). Adolescent literacy - reviewing adolescent literacy reports: Key components and critical questions. *Journal of Literacy Research*, 41, 453-475.

Fairclough, N. (1992). *Discourse and social change*. Cambridge: Polity Press.

Fairclough, N. (2003). *Analysing discourse: Textual analysis for social research*. London, England: Routledge.

Fontana, A., & Frey, J. H. (2000). The Interview: From Structured Questions to Negotiated Text. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (Second Edition ed., pp. 645 - 672). Thousand Oaks, CA: Sage.

Freebody, P. (2001). Theorising new literacies in and out of school. *Language and Education*, 15(2 & 3), 105-116.

Freebody, P. (2003). *Qualitative research in education: Interaction and practice*. London, England: Sage.

Freedman, S. W., & Ball, A. F. (2004). Ideological becoming: Bakhtinian concepts to guide the study of language, literacy, and learning. In A. F. Ball & S. W. Freedman (Eds.), *Bakhtinian perspectives on language, literacy, and learning* (pp. 3-33). New York, NY: Cambridge University Press.

Gee, J. P. (1990). *Sociolinguistics and literacies*. London: Taylor and Francis.

Gee, J. P. (2000a). The New Literacy Studies: From 'socially situated' to the work of the social. In D. Barton, M. Hamilton & R. Ivanič (Eds.), *Situated literacies: Reading and writing in context* (pp. 180-196). London, England: Routledge.

Gee, J. P. (2000b). Teenagers in new times: A new literacy studies perspective. *Journal of Adolescent & Adult Literacy*, 43(5), 412-420.

Gee, J. P. (2003). *What video games have to teach us about learning and literacy*. New York, NY: Palgrave Macmillan.

Gee, J. P. (2004a). New times and new literacies: Themes for a changing world. In A. F. B. S. W. Freedman (Ed.), *Bakhtinian perspectives on*

language, literacy and learning (pp. 279-306). New York, NY: Cambridge University Press.

Gee, J. P. (2004b). *Situated language and learning: A critique of traditional schooling*. New York, NY: Routledge.

Gee, J. P. (2005). *Introduction to discourse analysis: Theory and method* (2nd ed.). New York, NY: Routledge.

Gee, J. P. (2008). *Social linguistics and literacies: Ideology in discourses* (3rd ed.). Oxon, OX: Routledge.

Gee, J. P. (2010). *New digital media and learning as an emerging area and "worked examples" as one way forward*. Cambridge, MA: The MIT Press.

Gee, J. P., & Green, J. L. (1998). Discourse analysis, learning and social practice: A methodological study. *Review of Research in Education*, 23, 119-169.

Gee, J. P., Hull, G., & Lankshear, C. (1996). *The new work order: Behind the language of the new capitalism*. Boulder, CO: Westview Press.

Gibson, J. J. (1979). *The ecological approach to visual perception*. Boston, MA: Houghton.

Gillen, J., & Barton, D. (2010). *Digital literacies: A research briefing by the Technology-Enhanced Learning phase of the Teaching and Learning Research programme*. London, England: London Knowledge Lab, Institute of Education, University of London.

Goffman, E. (1959). *The presentation of self in everyday life*. New York, NY: Doubleday.

Goldman, R., Pea, R., Barron, B., & Denny, S. J. (2007). *Video research in the Learning Sciences*. Mahwah, NJ: Lawrence Erlbaum.

Gopinathan, S. (2007). Globalisation, the Singapore developmental state and education policy: a thesis revisited. *Globalisation, Societies and Education*, 5(1), 53-70.

Green, J. (1994). Social construction of classroom life. In *Encyclopedia of English Studies and Language Arts* (pp. 1075-1078). New York, NY: The National Council of Teachers of English.

Green, J., & Bloome, D. (1997). Ethnography and ethnographers of and in education: A situated perspective. In J. Flood, S. B. Heath & D. Lapp (Eds.), *Handbook of research on teaching literacy through the communicative and visual arts* (pp. 181-202). New York, NY: The International Reading Association.

Green, J., & Dixon, C. (2008). Classroom interaction, situated learning. In M. Martin-Jones, A.-M. d. Mejia & N. H. Hornberger (Eds.), *Encyclopedia of Language and Education* (2nd ed., Vol. 3: Discourse and Education, pp. 3-14). New York, NY: Springer Science+Business Media LLC.

Green, J., Dixon, C., L. Lin, Floriani, A., & Bradley, M. (1994). Constructing literacy in classrooms: Literate action as social accomplishment. In H. H. Marshall (Ed.), *Redefining student learning: Roots of educational change* (pp. 119-150). Norwood, NJ: Ablex.

Green, J., & Luke, A. (2006). Introduction: Rethinking learning: What counts as learning and what learning counts. *Review of research in education*, 30, xi-xiv.

Greenhow, C., & Robelia, B. (2009). Old communication, new literacies: Social network sites as social learning resources. *Journal of Computer-Mediated Communication*, 14, 1130–1161.

Gupta, A. F. (2008). The language ecology of Singapore. In A. Creese, P. Martin & N.H.Hornberger (Eds.), *Encyclopedia of Language and Education* (Vol. 9, pp. 99-111). New York, NY: Springer Science+Business Media LLC.

Gutierrez, K. D., & Rogoff, B. (2003). Cultural ways of learning: Individual traits or repertoires of practices *Educational Researcher*, 32(5), 19-25.

Guzzetti, B., & Gamboa, M. (2005). Online journaling: The informal writings of two adolescent girls. *Research in the Teaching of English*, 40(2), 168-206.

Guzzetti, B. J. (2009). Adolescents' explorations with do-it-yourself media: Authoring identity in out-of-school settings. In M. C. Hagood (Ed.), *New literacies practices: Designing literacy learning* (pp. 41-57). New York, NY: Peter Lang.

Hagel, J., & Brown, J. S. (2005). From push to pull: Emerging models for mobilizing resources. Retrieved from http://www.johnhagel.com/paper_pushpull.pdf

Hague, C., & Williamson, B. (2009). *Digital participation, digital literacy and school subjects*. Bristol, England: Futurelab.

Hamilton, M. (2000). Expanding the new literacy studies: Using photographs to explore literacy as social practice. In D. Barton, M. Hamilton & R. Ivanič (Eds.), *Situated literacies: Reading and writing in context* (pp. 16-34). London, England: Routledge.

Hamilton, M. (2001). Privileged literacies: Policy, institutional process and the life of the IAS. *Language and Education*, 15(2&3), 178-196.

Hamilton, M. (2006). Just do it: Literacies, everyday learning and the irrelevance of pedagogy. *Studies in the Education of Adults*, 38(2), 125-140.

Hammersley, M. (2006). Ethnography: problems and prospects. *Ethnography and Education*, 1(1), 3-14.

Heath, S. B. (1983). *Ways with words: Language, life and work in community and classrooms*. England: Cambridge University Press.

Heath, S. B., Street, B. V., & Mills, M. (2008). *Ethnography: Approaches to language and literacy research*. New York, NY: Teachers College Press and the National Conference on Research in Language and Literacy.

Ho, C. M. L., Rappa, N. A., & Chee, Y. S. (2009). Designing and implementing virtual enactive role-play and structured argumentation: Promises and pitfalls. *Computer Assisted Language Learning*, 22(5), 381-408.

Hodge, R., & Jones, K. (2000). Photography in collaborative research on multilingual literacy practices: Images and understandings of researcher and researched. In M. Martin-Jones & K. Jones (Eds.), *Multilingual literacies* (pp. 299 - 318). Amsterdam, The Netherlands: John Benjamins B.V.

Hogan, D., Luke, A., Kramer-Dahl, A., Lau, S., Liau, A., Koh, K., ... Kwek, D. (2006). *Core research program progress report (Year Two)*. Singapore: National Institute of Education.

Holland, D., Lachicotte, W., Skinner, D., & Cain, C. (2001). *Identity and agency in cultural worlds*. Cambridge, MA: Harvard University Press.

Hull, G. (2003). At last: Youth culture and digital media: New literacies for new times. *Research in the Teaching of English*, 38(2), 229-233.

Hull, G., & Schultz, K. (2001). Literacy and learning out of school: A review of theory and research. *Review of Educational Research*, 71(4), 571-611.

Hull, G., & Schultz, K. (2002). *School's Out! Bridging out-of-school literacies with classroom practice*. New York, NY: Teachers College Press.

Hyland, K. (2002). Research cases. In *Teaching and researching writing* (pp. 163-203). Harlow, England: Pearson Education.

Iswaran, S. (2009). Speech by Mr S Iswaran, Senior Minister of State, Ministry of Trade and Industry and Ministry of Education, at the Opening Ceremony of the Second English Language Teaching Seminar on Wednesday, 18 Nov 2009, at 9.15 am, at the Singapore Management University. Retrieved from <http://www.moe.gov.sg/media/speeches/2009/11/18/speech-by-mr-s-iswaran-at-the-7.php>

Iswaran, S. (2010). Speech by Mr S Iswaran, Senior Minister of State, Ministry of Trade and Industry and Ministry of Education, at the Opening Ceremony of the Inaugural APEC-RELC International Seminar held on Monday, 19 April 2010 at 9.00 am at SEAMEO Regional Language Centre. Retrieved from <http://www.moe.gov.sg/media/speeches/2010/04/19/speech-by-mr-s-iswaran-at-the-apc-relc-int-seminar-opening-ceremony.php>

Ito, M., Horst, H., Bittanti, M., Boyd, D., Herr-Stephenson, B., Lange, P. G., ...

Tripp, L. (2008). *White paper - Living and learning with new media*:

Summary of findings from the Digital Youth Project. Chicago, IL: The John D. and Catherine T. MacArthur Foundation.

Ivanič, R. (2009). Bringing literacy studies into research on learning across the curriculum. In M. Baynham & M. Prinsloo (Eds.), *The future of literacy studies* (pp. 100-122). London, England: Palgrave Macmillan.

Ivanič, R., Edwards, R., Barton, D., Martin-Jones, M., Fowler, Z., Hughes, B., ... (2009). Researching literacies for learning. In *Improving learning in college: Rethinking literacies across the curriculum* (pp. 191-196). London, England: Routledge.

Jacobson, M. J., So, H.-J., & Teo, T. (2007). *Teachers' beliefs, leadership, and technology use in Singapore schools: Executive summary of project findings*. Singapore: National Institute of Education.

Jacobson, M. J., So, H.-J., Teo, T., Lee, J., Pathak, S., & Lossman, H. (2010). Epistemology and learning: Impact on pedagogical practices and technology use in Singapore schools. *Computer and Education*, 55, 1694-1706.

Jamaludin, A., Chee, Y. S., & Ho, C. M. L. (2009). Fostering argumentative knowledge construction through enactive role play in Second Life. *Computers and Education*, 53(2), 317-329.

Jenkins, H. (2007). *Confronting the challenges of participatory culture: Media education for the 21st Century*. Retrieved from http://digitallearning.macfound.org/atf/cf/%7B7E45C7E0-A3E0-4B89-AC9C-E807E1B0AE4E%7D/JENKINS_WHITE_PAPER.PDF

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*. London, England: Routledge.

Jewitt, C., & Oyama, R. (2001). Visual meaning: a Social Semiotic Approach. In T. van Leeuwen & C. Jewitt (Eds.), *Handbook of Visual Analysis* (pp. 134 - 156). London, England: Sage.

Jones, K., Martin-Jones, M., & Bhatt, A. (2000). Constructing a critical, dialogic approach to research on multilingual literacies: Participant diaries and diary interviews. In M. Martin-Jones & K. Jones (Eds.), *Multilingual literacies* (pp. 319 - 351). Amsterdam, The Netherlands: John Benjamins.

Jones, R. H. (2005). Sites of engagement as sites of attention: time, space and culture in electronic discourse. In S. Norris & R. H. Jones (Eds.), *Discourse in action: Introducing mediated discourse analysis* (pp. 141-154). London, England: Routledge.

Jordan, B., & Henderson, A. (1995). Interaction analysis: Foundations and practice. *Journal of the Learning Sciences*, 4(1), 39-103.

Kalantzis, M., & Cope, B. (2008). Language education and multiliteracies. In S. May & N.H. Hornberger (Eds.), *Encyclopedia of Language and Education* (Vol. 1: Language Policy and Political Issues in Education, pp. 195-211). New York, NY: Springer Science+Business Media LLC.

King, J. R., & O'Brien, D. G. (2002). Adolescents' multiliteracies and their teachers' needs to know: Toward a digital detente. In D. E. Alvermann (Ed.), *Adolescents and literacies in a digital world* (pp. 40-50). New York, NY: Peter Lang.

Kirschner, P., Strijbos, J.-W., Kreijns, K., & Beers, P. J. (2004). Designing electronic collaborative learning environments. *Educational Technology Research & Development*, 52(3), 47-66.

Knobel, M. (1999). *Everyday literacies: Students, discourse, and social practice*. New York, NY: Peter Lang.

Knobel, M., & Lankshear, C. (1999). *Ways of knowing: researching literacy*. New South Wales, Australia: Primary English Teaching Association.

Koh, T. S., & Lee, S. C. (2008). *Information communication technology in education: Singapore's ICT masterplans*. Singapore: World Scientific.

Koh, T. S., Lee, S. C., & Foo, S. F. (2009). National policies and practices on ICT in education. In T. Plomp, R. E. Anderson, N. Law & A. Quale (Eds.), *Cross-national information and communication technology* (2nd ed., pp. 601-618). Charlotte, NC: Information Age.

Kramer-Dahl, A. (2008). Negotiating what counts as English language teaching: official curriculum and its enactment in two Singapore secondary classrooms. *Research Papers in Education*, 23(1), 85-107.

Kramer-Dahl, A., Teo, P., & Chia, A. (2007). Supporting knowledge construction and literate talk in secondary Social Studies. *Linguistics and Education*, 18, 167-199.

Kramer-Dahl, A., Teo, P., Chia, A., & Churchill, K. (2006). *Three dimensions of effective pedagogy: Preliminary findings, codings and vignettes from a study of literacy practices in Singapore secondary schools (Observation phase)*. Singapore: Centre of Research in Pedagogy and Practice.

Kress, G. (1989). *Linguistic processes in sociocultural practice*. England: Oxford University Press.

Kress, G. (2003). *Literacy in the new media age*. New York, NY: Routledge.

Kress, G. (2007). Thinking about meaning and learning in a world of instability and multiplicity. *Pedagogies: An International Journal* 2(1), 19-34.

Kress, G. (2010). Foreword. In M. P. Sheridan & J. Rowsell (Eds.), *Design literacies: Learning and innovation in the digital age* (pp. ix-xii). London, England: Routledge.

Kress, G., & Jewitt, C. (2003). *Multimodal literacy*. New York, NY: Peter Lang.

Kress, G., & Street, B. (2006). Foreword. In K. Pahl & J. Rowsell (Eds.), *Travel notes from the new literacy studies: Case studies in practice* (pp. vii-x). Clevedon, England: Multilingual Matters.

Kress, G., & van Leeuwen, T. (1996). *Reading images: The grammar of visual design*. London, England: Routledge.

Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. London, England: Arnold.

Kvale, S. (1996). *InterViews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

Lam, W. S. E. (2000). L2 Literacy and the design of self: A case study of a teenager writing on the Internet. *TESOL Quarterly*, 34(3), 457-482.

Lankshear, C. (2003). The challenge of digital epistemologies. *Education, Communication & Information*, 3(2), 167-186.

Lankshear, C., & Knobel, M. (2002). Do we have your attention? New literacies, digital technologies, and the education of adolescents. In D.

E. Alvermann (Ed.), *Adolescents and literacies in a digital world* (pp. 19-39). New York, NY: Peter Lang.

Lankshear, C., & Knobel, M. (2003). *New literacies: Changing knowledge and classroom learning*. Berkshire, England: Open University Press.

Lankshear, C., & Knobel, M. (2006). *New literacies: Everyday practices and classroom learning*. Berkshire, England: Open University Press.

Lankshear, C., & Knobel, M. (2007). Sampling the "new" in new literacies. In M. Knobel & C. Lankshear (Eds.), *A New Literacies Sampler* (pp. 1-24). New York, NY: Peter Lang.

Lankshear, C., & Knobel, M. (Eds.). (2008). *Digital literacies: Concepts, policies and practices*. New York, NY: Peter Lang.

Lankshear, C., & Knobel, M. (2010). *DIY Media: Creating, sharing and learning with new technologies*. New York, NY: Peter Lang.

Lankshear, C., Synder, I., & Green, B. (2000). *Teachers and techno-literacy: Managing literacy, technology and learning in schools*. New South Wales, Australia: Allen & Unwin.

Larson, J., & Marsh, J. (2005). *Making literacy real: theories and practices for learning and teaching*. London, England: Sage.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. England: Cambridge University Press.

Leander, K. M. (2003). Writing travelers' tales on new literacyscapes. *Reading Research Quarterly, 38*(3), 392-397.

Leander, K. M. (2007). "You won't be needing your laptops today": Wired bodies in the wireless classroom. In M. Knobel & C. Lankshear (Eds.), *A New Literacies Sampler* (pp. 25-48). New York, NY: Peter Lang.

Leander, K. M. (2009). Composing with old and new media: Toward a parallel pedagogy. In V. Carrington & M. Robinson (Eds.), *Digital literacies: Social learning and classroom practices* (pp. 147-163). London, England: Sage.

Leander, K. M., & Lewis, C. (2008). Literacy and internet technologies. In B. V. Street & N. H. Hornberger (Eds.), *Encyclopedia of language and education* (2nd ed., Vol. 2: Literacy, pp. 53-70). New York, NY: Springer Science+Business Media LLC.

Lee, C. K.-M. (2007). Affordances and text-making practices in online instant messaging. *Written Communication*, 24(3), 223-249.

Lemke, J. (2006). Towards critical multimedia literacy: Technology, research and politics. In M. Mckenna, D. Reinking, L. Labbo & R. Kieffer (Eds.), *International Handbook of Literacy & Technology* (Vol. 2.0, pp. 3-14). Mahwah, NJ: Lawrence Erlbaum.

Leu, D. J., Jr, Kinzer, C. K., Coiro, J. L., & Cammack, D. W. (2004). Towards 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, NJ: The International Reading Association.

Lewis, C., & Fabos, B. (2005). Instant messaging, literacies, and social identities. *Reading Research Quarterly*, 40(4), 470-501.

Lewis, C., & Finders, M. (2002). Implied adolescents and implied teachers: A generation gap for new times. In D. E. Alvermann (Ed.), *Adolescents and literacies in a digital world* (pp. 101-113). New York, NY: Peter Lang.

Lillis, T. (2008). Ethnography as method, methodology, and "deep theorizing": Closing the gap between text and context in academic writing research. *Written Communication*, 25(3), 353-388.

Lim, C. P. (2006). Supporting strategies for effective integration of ICT in schools. In *The science and art of integrating ICT in Singapore schools* (pp. 85-98). Singapore: iT21.

Lister, M., Dovey, J., Giddings, S., Grant, I., & Kelly, K. (2009). *New media: A critical introduction* (2nd ed.). London, England: Routledge.

Looi, C. K., Hung, D., Bopry, J., & Koh, T. S. (2004). Singapore's Learning Sciences Lab: Seeking transformations in ICT-enabled pedagogy. *ETR&D*, 52(4), 91-115.

Luke, A. (2002). What happens to literacies old and new when they're turned into policy. In D. E. Alvermann (Ed.), *Adolescents and literacies in a digital world* (pp. 186-203). New York, NY: Peter Lang.

Luke, A. (2004). The trouble with English. *Research in the Teaching of English*, 39(1), 85-95.

Luke, A., & Elkins, J. (2000). Special themed issue: Re/mediating adolescent literacies. *Journal of Adolescent & Adult Literacy*, 43(5), 396-398.

Luke, A., Freebody, P., Lau, S., & Gopinathan, S. (2005a). Towards research-based innovation and reform: Singapore schooling in transition. *Asia Pacific Journal of Education*, 25(1), 5-28.

Luke, A., Hogan, D., Gopinathan, S., Freebody, P., Cazden, C., Koh, K., ... Kramer-Dahl, A. (2005b). *Core research program progress report (Year One)*: National Institute of Education.

Luke, C. (1997). Media literacy and cultural studies. In S. Muspratt, A. Luke & P. Freebody (Eds.), *Constructing critical literacies: teaching and learning textual practice* (pp. 19-50). New South Wales, Australia: Hampton Press.

Lytra, V. (2008). Playful talk, learners' play frames and the construction of identities. In M. Martin-Jones, A. M. d. Mejia & N.H.Hornberger (Eds.), *Encyclopedia of Language and Education* (2nd Edition ed., Vol. 3, pp. 185-197). New York, NY: Springer Science+Business Media LLC.

MacArthur Foundation. (n.d.). *Re-imagining learning in the 21st century*. Retrieved from <http://www.macfound.org/atf/cf/%7Bb0386ce3-8b29-4162-8098-e466fb856794%7D/DIGITAL-MEDIA-LEARNING.PDF>

Mahiri, J. (2004). *What they don't learn in school: Literacy in the lives of urban youth*. New York, NY: Peter Lang.

Mahiri, J. (2008). Literacies in the lives of urban youth. In B. V. Street & N. H. Hornberger (Eds.), *Encyclopedia of Language and Education* (2nd ed., Vol. 2: Literacy, pp. 299-307). New York, NY: Springer Science+Business Media LLC.

Mannion, G., Ivanič, R., & Literacies for Learning in Further Education (LfLFE) Research Group. (2007). Mapping literacy practices: theory, methodology, methods. *International Journal of Qualitative Studies in Education*, 20(1), 15 - 30.

Mannion, G., & Miller, K. (2005). *Literacies for learning in further education: promoting inclusive learning across boundaries through students' literacy practices*. Paper presented at the European Conference on Educational Research, University College Dublin.

Marsh, J., & Singleton, C. (2009). Editorial: Literacy and technology: questions of relationship. *Journal of Research in Reading*, 32(1), 1-5.

Maybin, J. (2006). *Children's voices: Talk, knowledge and identity*. London, England: Palgrave Macmillan.

Maybin, J. (2007). Literacy under and over the desk: Oppositions and heterogeneity. *Language and Education*, 21(6), 515-530.

McInerney, D. M., & Liem, A. D. (2007). *Core research program progress report (Year Three)*. Singapore: National Institute of Education.

McLuhan, M. (1964). *Understanding media: The extension of man*. London, England: Routledge.

Merchant, G. (2009a). Literacy in virtual worlds. *Journal of Research in Reading*, 32(1), 38-56.

Merchant, G. (2009b). Virtual worlds in real-life classrooms. In V. Carrington & M. Robinson (Eds.), *Digital literacies: social learning and classroom practices* (pp. 95-111). London, England: Sage.

Merchant, G., & Carrington, V. (2009). Literacy and identity. *Literacy*, 43(2), 63-64.

Merriam, S. B. (1998). Qualitative research and case study applications in education. San Francisco, CA: Jossey-Bass.

Millard, E. (2003). Towards a literacy of fusion: New times, new teaching and learning? *Reading, Literacy and language*, 37(1), 3-8.

Mills, K. A. (2009). Multiliteracies: Interrogating competing discourses. *Language and Education*, 23(2), 103-116.

Mills, K. A. (2010). A review of the "digital turn" in the New Literacy Studies. *Review of Educational Research*, 80(2), 246-271.

Ministry of Education. (2006a). *Nurturing every child: Flexibility and diversity in Singapore schools*. Singapore: The Ministry of Education.

Ministry of Education. (2006b). Recommendations of the English language curriculum and pedagogy review. Retrieved from <http://www.moe.gov.sg/media/press/2006/pr20061005.htm>

Ministry of Education. (2008a). ICT in education, Singapore [Electronic Version], from <http://www.moe.gov.sg/43seameocc/download/SINGAPORE-ICT%20in%20Education%20in%20Singapore.pdf>

Ministry of Education. (2008b). *On2IT*. Singapore: Ministry of Education, Educational Technology Division.

Ministry of Education. (2008c). The third masterplan for IT in education. Retrieved from <http://www3.moe.edu.sg/edumall/mp3/mp3.htm>

Ministry of Education. (2009a). Infosheet on improving language and communication skills. Retrieved from <http://www.moe.gov.sg/media/press/2009/09/improving-language-and-communi.php>

Ministry of Education. (2009b). LEAD ICT. Retrieved from <http://iresearch.edumall.sg/cos/o.x?c=/iresearch/pagetree&func=view&id=51>

Ministry of Education. (2010a). English Language and Linguistics Higher 2 (Syllabus 9727). Retrieved from http://www.seab.gov.sg/aLevel/syllabus/schoolCandidates/2010_GCE_A.html

Ministry of Education. (2010b). English Language Syllabus 2010: Primary & Secondary (Express/Normal [Academic]). Retrieved from <http://www.moe.gov.sg/education/syllabuses/languages-and-literature/files/english-primary-secondary-express-normal-academic.pdf>

Ministry of Education. (2010c). Strengthening language skills to prepare our students well for the future. Retrieved from <http://www.moe.gov.sg/media/press/2010/03/strengthening-language-skills-.php>

Moje, E. B. (2008). Everyday funds of knowledge and school discourses. In M. Martin-Jones, A. M. d. Mejia & N.H.Hornberger (Eds.), *Encyclopedia of Language and Education* (Vol. 3: Discourse and Education, pp. 341-355). New York, NY: Springer Science+Business Media LLC.

Moje, E. B. (2009). A call for new research on new and multi-literacies. *Research in the Teaching of English*, 43(4), 348-362.

Moje, E. B., Ciechanowski, K. M., Kramer, K., Ellis, L., Carrillo, R., & Collazo, T. (2004). Working towards third space in content area literacy: An examination of everyday funds of knowledge and Discourse. *Reading Research Quarterly*, 39(1), 38-70.

Moje, E. B., & Lewis, C. (2007). In C. Lewis, P. Enciso & E. B. Moje (Eds.), *Reframing sociocultural research on literacy: Identity, agency, and power* (pp. 15-48). Mahwah, NJ: Lawrence Erlbaum.

Moss, G. (2001). On literacy and the social organisation of knowledge inside and outside school. *Language and Education*, 15(2&3), 146-161.

Nespor, J. (2006). Finding patterns with field notes. In J. L. Green, G. Camilli, P. B. Elmore, A. Skukaukaite & E. Grace (Eds.), *Handbook of complementary methods in education research* (pp. 297 - 305). Mahwah, NJ: Lawrence Erlbaum.

New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Education Review*, 66(1), 60 -92.

Ng, E. H. (2008). Opening address by Dr Ng Eng Hen, Minister for Education and Second Minister for Defence at the International Conference on Teaching and Learning with Technology (iCTLT) at the Suntec Convention Hall, on Tuesday, 5 August 2008. Retrieved from <http://www.moe.gov.sg/media/speeches/2008/08/05/opening-address-by-dr-ng-eng-h-1.php>

Nixon, H. (2003). New research literacies for contemporary research into literacy and new media? *Reading Research Quarterly*, 38(3), 407-413.

Norman, D. (1993). *Things that make us smart*. Cambridge, MA: Perseus Books.

North Central Regional Educational Laboratory. (2003). enGauge 21st Century skills for 21st Century learners. Retrieved from <http://www.metiri.com/features.html>

O'Brien, D. G. (1998). Multiple literacies in a high-school program for "at-risk" adolescents. In D. E. Alvermann, K. A. Hinchman, D. W. Moore, S. F. Phelps & D. R. Waff (Eds.), *Reconceptualising the literacies in adolescents' lives* (pp. 27-49). Mahwah, NJ: Lawrence Erlbaum.

O'Brien, D. G., Moje, E. B., & Stewart, R. A. (2001). Exploring the context of secondary literacy: Literacy in people's everyday school lives. In E. B. Moje & D. G. O'Brien (Eds.), *Constructions of literacy: Studies of teaching and learning in and out of secondary schools* (pp. 27-48). Mahwah, NJ: Lawrence Erlbaum.

O'Reilly, T. (2005). What is Web 2.0? Retrieved from <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>.

Orlowicz, R. (2010). Flash fundamentals: DIY animation and interactive design. In M. Knobel & C. Lankshear (Eds.), *DIY Media: Creating, sharing and learning with new technologies* (pp. 185-204). New York, NY: Peter Lang.

Ormerod, F., & Ivanič, R. (2002). Materiality in children's meaning-making practices. *Visual communication*, 1(1), 65-91.

Owen, M. (2003). MediaStage: A Futurelab prototype research report. Retrieved from http://www.futurelab.org.uk/resources/documents/project_reports/MediaStage_research_report.pdf

Pahl, K., & Rowsell, J. (2005). *Literacy and Education: Understanding the New Literacy Studies in the Classroom*. London, England: Sage.

Pahl, K., & Rowsell, J. (2006). *Travel Notes from the New Literacy Studies*. Clevedon, England: Sage.

Pakir, A. (2008). Bilingual education in Singapore. In J. Cummins & N.H. Hornberger (Eds.), *Encyclopedia of Language and Education* (2nd ed., Vol. 5, pp. 191-203). New York, NY: Springer Science+Business Media LLC.

Papen, U. (2005). *Adult literacy as social practice*. London, England: Routledge.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

Phelps, S. F. (1998). Part 1: Adolescents and their multiple literacies. In D. E. Alvermann, K. A. Hinchman, D. W. Moore, S. F. Phelps & D. R. Waff (Eds.), *Reconceptualizing the literacies in adolescents' lives* (pp. 1-2). Mahwah, NJ: Lawrence Erlbaum.

Potter, J. (2005). 'This brings back a lot of memories' - a case study in the analysis of digital video production by young learners. *Education, Communication & Information*, 5(1), 5-23.

Potter, J. (2010). Photoshopping/photosharing: New media, digital literacies and curatorship. In M. Knobel & C. Lankshear (Eds.), *DIY Media: Creating, sharing and learning with new technologies* (pp. 103-132). New York, NY: Peter Lang.

Prensky, M. (2001). Digital natives, digital immigrants - part 1. *On the Horizon*, 9(5), 1-6.

Prinsloo, M., & Baynham, M. (2008). *Literacies, global and local*. Amsterdam, The Netherlands: John Benjamins.

Reder, S., & Davila, E. (2005). Context and literacy practices. *Annual Review of Applied Linguistics*, 25, 170-187.

Reid, M., Burn, A., & Parker, D. (2002). Evaluation report of the BECTa Digital Video Pilot Project. Retrieved from http://partners.becta.org.uk/page_documents/research/dvreport_241002.pdf

Roberts, C. (1997). The Politics of transcription. Transcribing talk: Issues of representation. *TESOL Quarterly*, 31(1), 167 - 176.

Robinson, M., & Turnbull, B. (2005). Veronica: An asset model of becoming literate. In J. Marsh (Ed.), *Popular culture, new media and digital literacy in early childhood* (pp. 51-72). London, England: RoutledgeFalmer.

Rowsell, J. (2006). Corporate crossings: Tracing textual crossings. In K. Pahl & J. Rowsell (Eds.), *Travel notes from the New Literacy Studies*:

Instances of practices (pp. 195-216). Clevedon, England: Multilingual Matters.

Royce, T. D., & Bowcher, W. L. (2007). *New directions in the analysis of multimodal discourse*. Mahwah, NJ: Lawrence Erlbaum.

Sarangi, S. (2007). The anatomy of interpretation: Coming to terms with the analyst's paradox in professional discourse studies. *Text & Talk*, 27(5/6), 567-584.

Satchwell, C. (2005). *Literacy around the clock: An examination of the 'clock activity' as a method for identifying everyday literacy practices with further education students*. Paper presented at the What a Difference a Pedagogy Makes: Researching Lifelong Learning & Teaching Conference, Centre for Research in Lifelong Learning, Glasgow Caledonian University/Stirling University.

Schultz, K., & Hull, G. (2008). Literacies in and out of school. In B. Street & N. H. Hornberger (Eds.), *Encyclopedia of language and education* (2nd ed., Vol. 2, pp. 239-250). New York, NY: Springer Science+Business Media LLC.

Scollon, R. (2001). *Mediated discourse: The nexus of practice*. London: Routledge.

Scribner, S., & Cole, M. (1981). *The psychology of literacy*. Cambridge, MA: Harvard University Press.

Sefton-Green, J. (2004). Literature review in informal learning with technology outside school. Retrieved from Futurelab: http://www.futurelab.org.uk/resources/documents/lit_reviews/Informal_Learning_Review.pdf

Sefton-Green, J. (2005). Timelines, timeframes and special effects: Software and creative media production. *Education, Communication & Information*, 5(1), 99-110.

Sefton-Green, J. (2006). Youth, technology, and media cultures. *Review of Research in Education*, 30, 279-306.

Sefton-Green, J. (2007). *Literature review of informal learning with technology outside school*. Bristol, England: Futurelab.

Sefton-Green, J., Nixon, H., & Erstad, O. (2009). Reviewing approaches and perspectives on "digital literacy". *Pedagogies: An International Journal*, 4(2), 107-125.

Sharpe, L., & Gopinathan, S. (2002). After effectiveness: New directions in the Singapore school system? *Journal of Education Policy*, 17(2), 151-166.

Sheridan, M. P., & Rowsell, J. (2010). *Design literacies: Learning and innovation in the digital age*. London, England: Routledge.

Silverman, D. (2010). Choosing a methodology. In *Doing qualitative research* (3rd ed., pp. 117-136). London, England: Sage.

Smyth, J. (2006). Researching teachers working with young adolescents: Implications for ethnographic research. *Ethnography and Education*, 1(1), 31-51.

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.

Sripathy, M. (2007). Cultural scripts and literacy pedagogy: An analysis of the English language syllabus and classroom literacy lessons. In V. Vaish,

S. Gopinathan & Y. Liu (Eds.), *Language, capital, culture* (pp. 73-102). Rotterdam, The Netherlands: Sense.

Staples, J. M. (2008). "Are we our brothers' keepers?" Exploring the social functions of reading in the life of an African American urban adolescent. In M. L. Hill & L. Vasudevan (Eds.), *Media, learning, and sites of possibility* (pp. 57-72). New York, NY: Peter Lang.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Street, B. (1984). *Literacy in theory and practice*. England: Cambridge University Press.

Street, B. (1993). Introduction: The new literacy studies. In B. Street (Ed.), *Cross-cultural approaches to literacy* (pp. 1-21). England: Cambridge University Press.

Street, B. (1999). New literacies in theory and practice: What are the implications for language in education? *Linguistics and Education*, 10, 1-24.

Street, B. (2000). Literacy events and literacy practices: Theory and practice in the New Literacy studies. In M. Martin-Jones & K. Jones (Eds.), *Multilingual literacies: Reading and writing different worlds* (pp. 17-29). Amsterdam, The Netherlands: John Benjamins.

Street, B. (2001a). Introduction. In *Literacy and development: Ethnographic perspectives* (pp. 1-26). London, England: Routledge.

Street, B. (2001b). The New Literacy Studies. In E. Cushman, E. R. Kintgen, B. M. Kroll & M. Rose (Eds.), *Literacy: A critical sourcebook* (pp. 430-442). Boston, MA: Bedford/St. Martin's.

Street, B. (2003a). The implications of the 'New Literacy Studies' for literacy education. In *Language, literacy and education: A reader* (pp. 77-88). Stoke-on-Trent, England: Trentham Books in association with The Open University.

Street, B. (2003b). What's "new" in New Literacy Studies? Critical approaches to literacy in theory and practice. *Current Issues in Comparative Education*, 5(2), 77 - 91.

Street, B. (2005). Introduction: New literacy studies and literacies across educational contexts. In B. Street (Ed.), *Literacies across educational contexts: Mediating learning and teaching* (pp. 1-21). Philadelphia, PA: Caslon.

Street, B. (2008). New literacies, new times: Developments in literacy studies. In B. V. Street & N. H. Hornberger (Eds.), *Encyclopedia of language and education* (2nd ed., Vol. 2: Literacy, pp. 3 - 14). New York, NY: Springer Science+Business Media LLC.

Street, B., & Lefstein, A. (2007). *Literacy: An advanced resource book*. London, England: Routledge.

Street, B. V. (2005). At last: Recent applications of New Literacy Studies in educational contexts. *Research in the Teaching of English*, 39(4), 417-423.

Street, B. V., & Street, J. (1995). The schooling of literacy. In *Social Literacies: Critical approaches to literacy in development, ethnography and education* (pp. 106-131). New York, NY: Longman.

Street, J. C., & Street, B. V. (1991). The schooling of literacy. In D. Barton & R. Ivanič (Eds.), *Writing in the community* (pp. 143-166). Newbury Park, CA: Sage.

Tan, L., Bopry, J., & Guo, L. (2010). Portraits of new literacies in two Singapore classrooms. *RELC Journal*, 41(1), 1-13.

Tan, L., & Guo, L. (2009). From print to critical multimedia literacy: One teacher's foray into new literacies practices. *Journal of Adolescent & Adult Literacy*, 53(4), 315-324.

Tapscott, D. (2009). *Grown up digital: How the net generation is changing the world*. New York, NY: McGraw-Hill.

Teo, P. (2008). Outside In/Inside Out: Bridging the gap in literacy education in Singapore classrooms. *Language and Education*, 22(6), 411-431.

The Partnership for 21st Century Skills. (2004). Framework for 21st Century Learning. Retrieved from http://www.21stcenturyskills.org/index.php?Itemid=120&id=254&option=com_content&task=view

Thomas, A. (2007). *Youth online: Identity and literacy in the digital age*. New York, NY: Peter Lang.

Thornton, R. (1988). Culture: A contemporary definition. In E. Boonzaeir & J. Sharp (Eds.), *Keywords* (pp. 17-28). Cape Town, South Africa: David Philip.

Thurlow, C. (2006). From statistical panic to moral panic: The metadiscursive construction and popular exaggeration of new media language in the print media. *Journal of Computer-Mediated Communication*, 11(3).

Tusting, K. (2008). Ecologies of new literacies: Implications for education. In A. Creese, P. Martin & N. H. Hornberger (Eds.), *Encyclopedia of language and education: Ecology of language* (2nd ed., Vol. 9, pp. 317-329). New York, NY: Springer Science+Business Media LLC.

Tusting, K., Ivanič, R., & Wilson, A. (2000). New Literacy Studies at the interchange. In D. Barton, M. Hamilton & R. Ivanič (Eds.), *Situated literacies: Reading and writing in context* (pp. 210-218). London, England: Routledge.

Tuyay, S., Jennings, L., & Dixon, C. (1995). Classroom discourse and opportunities to learn: an ethnographic study of knowledge construction in a bilingual grade three classroom. *Discourse Processes* (19), 75-110.

Unsworth, L. (2001). *Teaching multiliteracies across the curriculum*. Berkshire, England: Open University Press.

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). New York, NY: Lawrence Erlbaum.

van Enk, A., Dagenais, D., & Toohey, K. (2005). A socio-cultural perspective on school-based literacy research: Some emerging considerations. *Language and Education*, 19(6), 496-512.

Vasudevan, L., & Hill, M. L. (2008). Moving beyond dichotomies of media engagement in education: An introduction. In M. L. Hill & L. Vasudevan (Eds.), *Media, Learning, and Sites of Possibility* (pp. 1-12). New York, NY: Peter Lang.

Walker, K. (2000). "It's difficult to hide it": The presentation of self on Internet home pages. *Qualitative Sociology*, 23(1), 99-120.

Wallace, C. (2006). The text, dead or alive: Expanding textual repertoires in the adult ESOL classroom. *Linguistics and Education* (17), 74-90.

Warner, C. (2004). It's just a game, right? Types of play in foreign language CMC. *Language, Learning and Technology*, 8(2), 69-87.

Wegerif, R. (2005). Reason and creativity in classroom dialogues. *Language and Education*, 19(3), 223-237.

Wenger, E. (2008). Identity in practice. In K. Hall, P. Murphy & J. Soler (Eds.), *Pedagogy and practice: Culture and identities* (pp. 105-114). Los Angeles, CA: Sage.

Willett, R. (2009). Young people's video productions as new sites of learning. In V. Carrington & M. Robinson (Eds.), *Digital literacies: Social learning and classroom practices* (pp. 13-26). London, England: Sage.

Willett, R., Burn, A., & Buckingham, D. (2005). New media, production practices, learning spaces. *Education, Communication & Information*, 5(1), 1-3.

Wolcott, H. F. (2008). A way of looking and a way of seeing. In *Ethnography: A way of seeing* (2nd ed.). Lanham, MD: Altamira Press.

Wolfinger, N. H. (2008). On writing fieldnotes: collection strategies and background expectancies. *Qualitative Research*, 2(85), 85-95.

Wortham, S. (2004). The interdependence of social identification and learning.
American Educational Research Journal, 41(3), 715-750.

APPENDIX 1



Date:

INFORMATION SHEET FOR ADOLESCENT STUDENT PARTICIPANTS

DESCRIPTION OF THE RESEARCH

As part of my PhD studies in the Department of Linguistics and English Language, I intend to carry out a research study about students who have the experience of reading and producing multimodal texts in their language arts classes. I have approached you because I am interested in exploring your ways of reading and writing, both in and outside school. I would like to invite you to take part in the following activities which will be conducted during non-examination/assessment time of your school curriculum:

- (1) 3 group and 3 individual 1-hour informal interviews about yourself, your ways of reading and writing and your multimodal productions (e.g. Flash presentations)
- (2) Journal writing for about 4 months
- (3) 2 one-hour workshops on your ways of reading and writing

To help me understand you better and the ways you read and write, I will be taking notes and recording your lessons using video and audio recorders, reading, tracing and recording your blogs and other multimodal productions (e.g. Flash presentations). I will be transcribing the recordings of your classroom interactions, interviews and participation in the 2 workshops. I will also ask you to give me your works such as compositions, storyboards and multimodal productions.

RISKS AND BENEFITS

There may be some temporary minor class distraction when observations and recordings are carried out. Other than this foreseeable risk, your participation in the research study provides you with the opportunity to research into your own ways of reading and writing as well as designing experiences in the course of learning and using English. Your participation will also be acknowledged in your report book for Year 2007.

VOLUNTARY PARTICIPATION

I would be grateful if you would agree to take part in my research study. Your participation is purely voluntary. If you wish, I can show you my notes and transcripts. You are free to withdraw from the study at any time with no penalty to you.

CONFIDENTIALITY

At every stage, you and your school will be given fake names in the final write-up to protect your anonymity and confidentiality. The data will be kept securely and will be used for academic purposes only.

HOW WILL THE RESULTS BE USED

The results of this study will be used for my PhD thesis and its future publications, conference presentations and journal articles. They will also be discussed with my supervisor in Lancaster University and may be presented to my funding organisations i.e. National Institute of Education and the Singapore Ministry of Education.

MORE INFORMATION

If you have any queries about the study, please feel free to contact myself by phone on +65 96960653 or email me at lynde.tan@nie.edu.sg. You may also write to my supervisor, Dr Uta Papen at u.papen@lancaster.ac.uk.

Ms Lynde Tan

Lancaster University
Lancaster LA1 4YT
United Kingdom

Tel: +44 (0)1524 65201
Direct Line
Fax: +44 (0)1524 843085
<http://www.ling.lancs.ac.uk>
Email: linguistics@lancs.ac.uk

LANCASTER UNIVERSITY

Department of Linguistics and English Language

CONSENT FORM

Project title¹: Adolescents' New Literacies

1. I have read and had explained to me by Ms Lynde Tan the Information Sheet relating to this project.
2. I have had explained to me the purposes of the project and what will be required of me, and any questions have been answered to my satisfaction. I agree to the arrangements for my participation as described in the Information Sheet.
3. I understand that my participation is entirely voluntary. My signature means I agree to participate in this study and that I have the right to withdraw from the project any time.
4. I have received a copy of this Consent Form and the accompanying Information Sheet.

Student Participant's Name: _____

Student Participant's Signature/consent: _____

Date: _____

Parent's/Guardian's Name: _____

Parent's/Guardian's Signature/consent: _____

Date: _____

¹ Please note that the project title is tentative and it is likely to change by the completion of the thesis.