

**Investigating the Discursive Interplay of Discourses of (New)
Multiliteracies:
A Bakhtinian perspective**

by

SHAHBAZ TABYANIAN

B.A. in English Translation, Allameh Tabataba'i University, Tehran, Iran 1993
Diploma in Education, Teaching English as a Second Language, The University of
British Columbia, 1999

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Abstract

Information and communication technologies (ICTs) have given rise to many distinct discourses in the field of literacy studies. The present study examined the discursive interplay between two of these discourses, namely the practical discourses of those who see themselves as empowered by ICTs and the theoretical discourses of theory and research literature on the notions of multiliteracies. Drawing on the emergent discourses from the interview data, this study explored the practitioners' underlying beliefs and their assumptions about technology-mediated new multiliteracies as opposed to traditional print-based literacy. As such the study also argued for a sustainable dialogue between the discourses of practice and discourses of theory and research, suggesting that the discursive interplay between these two discourse communities would contribute to the application of the complex theoretical notions to multiliteracy pedagogy.

Employing a qualitative approach, the study drew on Bakhtin's (1986) notion of primary/secondary genres to depict the relevance of the notions of discourse in arriving at the underlying assumptions about the nature of multiliteracies and its implications. This study was broadly framed within a critical social research perspective (Fairclough, 2003). The notion of multiliteracies was explored from the standpoint of the New London Group (1996). Grounded Theory procedures (Strauss & Corbin, 1998) were also employed to identify major themes in the data, while general content analysis method was used to interpret the interview data.

The main question that guided this investigation was as follows: How do expert practitioners' perceptions of new multiliteracies and their implications map onto their practices with new multiliteracies?

The findings of this study pointed to the practitioners' willingness to implement new approaches in their literacy practices. Moreover, these findings highlighted the importance of a sustainable dialogue between the discourses of theory and practice to enhance literacy educators' pedagogical choices. The researcher hopes that the findings of this study contribute to the future teacher education policy and curriculum development in such a way that current pedagogical practices are expanded to include multiple literacies.

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I dedicate this work to teachers
the actual and potential participants of this study
whose work and dedication we are never able to appreciate enough
and to whom we trust those we hold the most dear,
our children.

1

Introduction

1.1 The Research Problem

The point of departure for the present study involves assuming a binary opposition between the theoretical discourses about new multiliteracies on the one hand, and the discourses of the practitioners who are engaged in pedagogical choice-making within emerging technology-mediated educational sites on the other hand.

There is a gap between the discourses of information and communications technologies (ICTs) and perception of those discourses by communities of practice. Even people who see themselves as empowered by these technologies, have difficulty understanding the complexity of the changes that technological discourses might entail (Kellner, 2002, p. 154). This study's principal premise is that in order to fully understand the success and shortcoming of the current educational institutions to incorporate the changes that (ICTs) have brought to the field of literacy education, research needs to bring the discourses of the practitioners to the fore by juxtaposing the theoretical discourses which are capitalized on by the literature and the conceptions of these discourses by literacy practitioners.

It is now a commonsensical assumption to heed the literacy practices associated with the use of new technologies as essentially different from those in which the goal has

been “teaching and learning to read and write in page-bound, official standard forms of the national language” (The New London Group, 1996, pp. 60-61). While the positive effects of using technology are conceptualized in the literature, teachers’ attempts to incorporate computers in the school system have not led to productive outcomes in terms of teaching and learning. The following excerpts are reported as “unexpected outcomes” of computer use in classrooms by Cuban (2001):

Unexpected outcome: In the school we studied, we found no clear and substantial evidence of students increasing their academic achievement as a result of using information technologies....

Unexpected outcome The overwhelming majority of teacher employed the technology to sustain existing patterns of teaching rather than to innovate.

Unexpected outcome Only a tiny percentage of high school and university teachers used the new technologies to accelerate student-centered and project-based teaching practices (pp. 133-134).

Without practitioners’ understanding of the critical issues in the field of literacy education and pedagogy and without expanding their theoretical perspectives pertaining to the use of ICTs, any attempt at implementation proves unproductive at the very least. Instead of expanding the concept of literacy to new multiliteracies and adopting creative means to utilize its conceptions, most literacy educators try to adapt the old ways to accommodate new tools in their practices:

.... analyses have demonstrated that there is little or no association between spending on IT and increased productivity and profitability. ...Rather than rethink schooling, schools have adapted the technologies to make them school-like. (Snyder, 2002a, pp. 9-10)

The speed with which technology and its related discourses change demands a more thorough examination of literacy educators' perceptions of the notions pertaining to the field of multiliteracies and the implementation of these notions by literacy practitioners. Studies in the field of technology-mediated new multiliteracies comprise a diverse range of methodological and theoretical approaches, from postmodernist interpretations of the field's conceptions to quantitative studies to measure the success of the technologically equipped learning environments. This diversity also holds true in the context of the research orientation focussing on either macro genres or discourses, (e.g. the new knowledge economy, the new work order, the new communication order, etc.) or micro genres (e.g. effects of technology on specific schools, visual vs. multimedia, etc.).

The present study is based on the assumption that in order to understand the pedagogical implications of the new multiliteracies and the related issues, research should be informed by and through the dialogic interplay of voices from both discourses, i.e. discourses of the practitioners (including educators and experts) and discourses emanating from theory and research. The field of educational technologies and new multiliteracies needs studies in which a discursive interplay of the discourses from the two sides is utilized in some form of discourse analysis.

1.2 Purpose of the Study

This study is based on the problematics of educators' perceptions not only about the educational implications of the new technological developments, but also, and more importantly, of the discourses and dialogues produced as a result of research and theoretical investigations in the field of educational technology and multiliteracies.

By drawing on the Bakhtinian notions of primary and secondary genres to juxtapose the discourses of two distinct discourse communities, i.e. discourses of theory and research versus discourses of practitioners (literacy educators, teachers) in the field of new multiliteracies, this study aims at bringing to the fore the way practitioners perceive the issues and notions called forth by theory and research. This study does not aim at reporting any results through comparing and contrasting of the individuals' interpretations, but seeks to bring the two above mentioned voices side by side as a way of bringing fresh perspectives to the discussions of the fundamental notions in the field.

It is hoped that by raising some of the pressing issues in the field, and inviting the participants to reflect on those issues, the study will promote a dialogue between the above mentioned discourse communities. The researcher also hopes that the findings of this study motivate a theoretically sound and sustainable model of dialogue between the discourses of theory and practice in the field of multiliteracies in general, and technology-mediated literacies in particular.

1.3 Questions Guiding the Study

The following questions guided this investigation:

1. How do expert practitioners' perceptions of the new multiliteracies literacies and their implications map onto their practices?
2. What are experts' understandings of pedagogical differences between traditional print-based literacy and new multiliteracies?
3. What can the discourse produced by these expert practitioners tell us about how they perceive their own role as educators amid these technological changes? What does this

discourse reveal about the likely changes that our educational institutions might be forced to implement?

General content analysis method will be used to address these research questions through samples from the interview data. Although the above questions will all guide this study, the last two will be of secondary relevance and will indeed serve to further reveal the answer to the first, and primary, question. The notions embedded within research questions serve as reference points to stack and restack data to extract new sub/themes to further the analyses.

1.4 Significance of the study

Educators' understanding of the issues pertaining to ICTs is an important and rather pressing issue primarily due to the fact that technological advances progress at an incredibly fast pace. For research to keep up with such a phenomenon and its continually changing concept is of utmost importance to the lives of students in educational institutions. As Snyder, (2002b) posits:

We live in a constantly changing world that continues to be shaped and mediated by the new information and communication technologies. Speed, instantaneity, flexibility, mobility, on-the-spot readjustment, perpetual experimentation, change devoid of consistent direction and incessant reincarnation are some of the hallmarks, not only of Web literacy practices, but also of real-life social and cultural practices (p. 173).

Although this study is small in scale, it can demonstrate how a study of a greater scale can help reveal the practitioners' underlying assumptions about and their perception of the prevailing issues pertaining to multiliteracies. These are issues that according to the

dominant discourses are of critical import to the lives of those who are and continue to be affected by them: the students.

1.5 Thesis Organization

In this section, I present the structure of this thesis. The thesis is organized into five chapters. Chapter one serves as an introduction, providing the rationale for the selection of the research problem, purpose of the study, research questions leading this study, and significance of the identified problem. It concludes by providing an outline of the thesis.

Chapter two lays out the theoretical as well as methodological background for the present study. It highlights the strands of the ideological and methodological ideas by which this study is framed. It includes accounts of the different intellectual movements emanated from the recent development in ICTs and their ramifications, as well as an account of the Bakhtinian School as the theoretical background of this study's main approach to discourse. It also touches upon Grounded Theory (Strauss & Corbin, 1998) as a framework for data analysis.

Chapter three highlights the procedures of data collection including the recruitment of participants, and data analysis procedures. It also provides the rationale for some of the methodological choices the researcher made.

Chapter four presents the reader with the findings of the study and provides the discussions of the findings organized in relation to the second and the third research questions. While presenting the aggregated data, this chapter also interprets the findings in the light of the relevant literature.

Chapter five focuses on the implications of the findings for pedagogy and research. It also contains comments about the limitations of the study and ways to improve on those limitations, and it provides some suggestions for further research. Chapter five also includes some concluding remarks.

2 Review of Literature

2.1 Conceptual Foundations of the Study

The notion of multiliteracies encompasses all the discussions in the present study, and it has had a determining role in the theoretical and methodological foundations on which this study rests. Thus this section is structured around the construct of multiliteracies. The perspective of new multiliteracies that this study is concerned with is the one introduced to the field of literacy studies by the New London Group (1996). The following sections of the chapter attend to the theoretical foundations of the present study.

The current section is included in the review chapter to provide the reader with a general orientation to the New London Group's perspective. The New London Group comprised scholars with different educational expertise, interests and backgrounds in education who met in 1994 in New London, New Hampshire (hence the name of the group) to share their professional and ideological concerns about the future of literacy in terms of the inevitable changes that rapid technological advances could bring to the future of educational institutions and the students' lives. The article entitled 'A pedagogy of Multiliteracies: Designing Social Futures', published in the *Harvard Educational Review* in 1996, was the outcome of the group's meeting which is considered to be the manifesto of the multiliteracies movement. The paper provoked international interest around the notion of the changing face of literacy in new times. Later in 2000, a book

entitled 'Multiliteracies: Literacy learning and the design of social futures' edited by Bill Cope and Mary Kalantzis, was also published by the New London Group. The contributors to the book elaborated on the points raised in the original article published in the Harvard Educational Review.

The New London Group's work and the works motivated by their insights have generated a lot of interest and have been influential in raising concerns and interests in the field of educational technology and new literacy pedagogy. As an encompassing concept to represent the outcomes of their discussions, the group chose the term "Multiliteracies" to highlight the literacy-related nature of their efforts. In the following sections I will try to render a brief account of the "Multiliteracies Project", as the group's work has come to be known, in terms of its ideological frameworks and the factors that motivated their initiatives. Along the way, the relevant theory and research pertaining to the present study will also be presented. I will first introduce an account of Multiliteracies project based on their manifesto article I referred to above. Then I go over some relevant notions including views of language, and discourse in which literacy studies in general and multiliteracies in particular are conceptually framed.

2.1.1 Multiliteracies

The emergence of the multiliteracies construct* is based upon a number of major social and theoretical interdisciplinary developments in the last few decades. (Graff, 1991, Lankshear, 1999)

To explain their decision to “encapsulate” the results of their discussions in the word 'multiliteracies', members of the New London Group maintained:

... because it [multiliteracies] describes two important arguments we might have with the emerging cultural, institutional, and global order. The first argument engages with the multiplicity of communications channels and media: the second with the increasing salience of cultural and linguistic diversity. (Cope & Kalantzis, 2000, p. 5)

2.1.2 Theoretical foundations

The above claim for what the term “multiliteracies” represents, presumes two distinct and at the same time related developments in the last decade. They are distinct, because the first involves text whereas the second indicates social changes. But they are also connected because as I will try to show later, eventually they both involve discourse(es) which is/are textual in nature and social in orientation, or at the very least they have an

* The notion of causal relation between the social, and material requisites and the theoretical foundation of multiliteracies is an important topic in its own right and indirectly relevant to the present study, but is too broad a topic to be pursued in this space. For further discussion of this topic particularly the causal relations between different elements of social change, refer to the discussions of the effects of discourse on social change cf. Fairclough (2003, p. 8).

inherently textual element built into them, i.e. the semiotic element of discourse as a social construct. Fairclough (2003) highlights the semiotic element of discourse in social transformation as follows:

One argument might be that since these changes are transforming many aspects of social life, then they are necessarily transforming language as one element of social life which is dialectically interconnected with others. ... The more significant point is that the language element has in certain key respects become more salient, more important than it used to be, and in fact a crucial aspect of the social transformations which are going on-one cannot make sense of them without thinking about language. (p. 203)

The two developments that the New London Group put forth as their motivation to propose multiliteracies project are outlined in Figure 2.1 below.

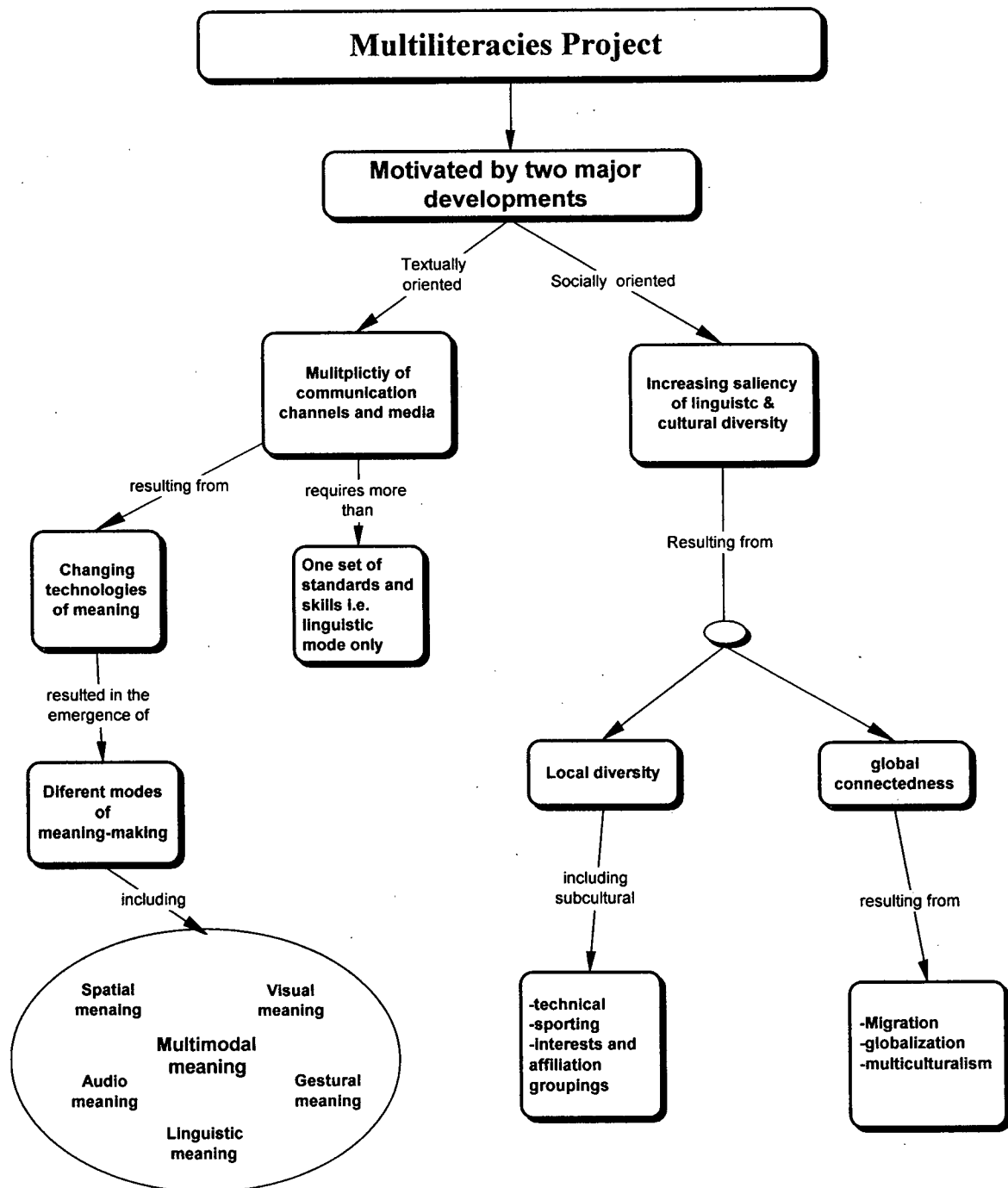


Figure 2.1 Outline of the two developments which form the basis of the multiliteracies project. (Based on the New London Group, 1996)

The first argument on which the multiliteracies project is built involves the multiplicity of communication channels and media. This aspect is the most material and apparent aspect of new literacy environments. It points to the recent advances in educational technologies, particularly information and communication technologies (ICTs) including the World Wide Web. It has now become a commonsensical attitude to try to formulate the demands of the society of educational institutions and policy in terms of these technological advances. As Kellner (2002) maintains:

A dramatic technological revolution, centered on computer, information, communication, and multimedia technologies, is changing everything from the ways people work, to the ways they communicate with each other and spend their leisure time. ...it is often interpreted as the beginnings of a knowledge or information society, and therefore ascribes education a central role in every aspect of life. (P. 154)

What these advances in technology bring to literacy education relates primarily to the variety of meaning-making modes they provide for the act of communication. Here lie the arguments for a need for new sets of standards and agenda for pedagogical practices, because the very material of literacy, namely its textual substance has changed. The very argument of the substance of literacy being language cannot be taken for granted and requires some elaboration here. For the multiliteracies project, the reduced saliency of language per se does not entail that language should be, or could be, assigned a lesser status in the new literacy learning environments; nor does it mean that the current literacy practices should be dismissed. Indeed, the New London Group manifesto underscores the supplementary nature of their proposed multiliteracies enterprise, although they hasten to label the traditional practice, “mere literacy”:

The notion of multiliteracies *supplements* traditional literacy pedagogy by addressing these two related aspects

of textual multiplicity. What we might term “mere literacy” remains centered on language only, and usually on a singular national form of language at that, which is conceived as a stable system based on rules such as mastering sound-letter correspondence (The New London Group, 1996, p. 64 emphasis mine)

The multiliteracies argument is based on the premise that the traditional views of language cannot account for the demands facing students in today’s rapidly changing, technology-oriented societies. Indeed, despite their differences and feeling of “unease”, the single most fundamental problem the group members all agreed on was that:

“... the disparities in educational outcomes did not seem to be improving. We agreed that we should get back to the broad question of the social outcomes of language learning, and that we should, on this basis, rethink the fundamental premises of literacy pedagogy in order to influence practices that will give students the skills and knowledge they need to achieve their aspiration”. (Cope & Kalantzis, p. 4-5)

This view of inadequacy of print-based literacy practices is shared by a number of disciplines within the field of literacy studies. Barton (2001), in his overview of the field of literacy studies, lists a number of leading authors who voiced their concerns about the prevalence of particular conceptions of reading and writing in literacy pedagogy:

In many ways Literacy Studies grew out of dissatisfaction with conceptions of reading and writing which were prevalent in education in all areas ... these were conceptions of reading and writing which were based on over-simplistic psychological models. The critique has been made from a range of disciplinary vantage-points and in a range of ways: it can be found in Giroux (1983), Willinsky (1990), Bloom & Green (1992), Gee (1990), Barton (1994), Baynham (1995), as well as in the work of Scribner and Cole (1981), Heath (1983) and Street (1984), which have become classic studies in the field. (p. 93)

Despite the arguments which call for the redefinition of print-based literacy practices due to presumed limitations of the traditional literacy pedagogy to account for the new modes of meaning-making, there have been a number of bases to question the attempts to impose new agenda on literacy studies. Beavis (2002) warns:

“Questions about the implications of the new technologies for literacy, literacy teaching and literacy practices provoke diverse and contradictory responses in the media, in policy documents, in state and national literacy assessment surveys and amongst teachers.Fears attached to the redefinition of literacy to include visual and digital forms suggest such expansion will lead to the embrace of anything digital at the cost of critical thinking and of values associated with print literature and literacy. (p. 47)

In her account of the comparison between traditional and new approaches to literacy, however, Beavis fails to render a causal relation between the traditional values, e.g. “critical thinking” and print-based literacy practices.

The fear voiced by Beavis mentioned above, has also been articulated on a number of other grounds, including political and economical. Boshier & Mun Onn, (2000) caution against the proponents of web learning and “anarchist-utopians” notion of “deschooling”: “[we] caution readers about pitfalls associated with zealotry or utopian claims about *paradigm shifts*, *information highway*, *empowerment*, and other trendy terms” (p. 1, emphasis original). “For entirely different reason anarchist –utopians like the Web because it enables them to subvert unequal power relations that infest much of formal education” (p. 3).

Moreover, the dismissal of the traditional literacy practices on the basis of their limiting focus on reading and writing is challenged by the proponents of Systemic Functional Linguistics (SFL) on an entirely different ground. Halliday (1996), for

instance, questions the very premise that a linguistic basis for literacy studies *has* been properly established. He asserts:

... literacy has come to mean many different things. The concept of literacy is incorporated into the framework of various disciplines: psychology,- and these new senses of literacy are sometimes contrasted with a 'traditional, purely linguistic' conception. But I would argue that in fact literacy seldom has been seriously investigated as a linguistic phenomenon. It has not typically been interpreted, in the terms of a theory of language, as a process that needs to be contextualized on various linguistic levels, in ways which bring out something of the complex dialectic relations within and between them. To cite one piece of evidence for this, it is my impression that in university linguistics courses, if literacy is dealt with at all then the level of *conscious* understanding that is brought to the discussion of it is below even the level of *unconscious* understanding which must have been reached when language was first written down, some two hundred generations ago. And which the 'literacy debate' has moved on to higher, more rarefied levels, it tends to be forgotten that reading and writing are activities constructed in language. Yet it is impossible to explain these activities, no matter how we relate them to other theoretical concerns, without reference to language as the source from which they derive their meaning and their significance. (p. 340, emphasis original)

One specific strand of SFL which relates closely to new socially based approaches to literacy pedagogy including the multiliteracies approach is the genre based writing movement led by James Martin. While criticized for being prescriptive in orientation, the genre-based approach has been taken up by some socially-driven approaches because of its attunement to the notion of literacy being a discourse based enterprise as opposed to being linguistically driven (Hasan & Williams, 1996).

Despite all the arguments for reaffirming the traditional approach to literacy education, the need for putting forward the literacy enterprise for discussion and reassessment seems to be inevitable. As Snyder (2002) pictures it:

... in 1997, we were still talking about technology enthusiasts and technology demonisers- those who celebrated the new textual practices and those who deplored them. But we have since moved beyond such simplistic bifurcations. It no longer matters to which extreme position we might be more sympathetic: literacy practices in electronic environments are different. (p. 174)

And this is the New London Group's point of departure to argue for a new agenda for literacy practices, i.e. multiliteracies. The multiliteracies project asserts that: 'When technologies of meaning are changing so rapidly, there cannot be one set of standards or skills that constitutes the ends of literacy learning, however taught' (Cope & Kalantzis, p. 5).

On a macro scale, media of meaning-making include mass media, multimedia and electronic hypermedia. The multiliteracies project recognizes six modes of meaning making: Linguistic meaning, Visual meaning, Audio meaning, Gestural meaning, Spatial meaning and Multimodal meaning that is a combination of other five modes (see Figure 2.1). To account for these emerging meaning modes, they talk about multimodal literacies, which relates to the first argument of multiliteracies project, namely the multiplicity of communication channels and media. As mentioned before however, there is also a second motivation for the arguments of multiliteracies.

The second argument concerns the increase in local diversity and global connectedness resulting from the emerging social changes in the last few decades. Although it could be argued that these changes are also related to the advances in ICTs,

their implication for literacy education and pedagogy are of a different nature. The increasing saliency of linguistic and cultural diversity on which the second argument rests is the result of drastic changes we are all witnessing in our working and community lives requiring a new language of communication. Although these changes affect our lives in a variety of ways, the communication aspect of these changes is what concerns literacy education. One of the terms used to describe this phenomenon is the new communication order (Street, 1998). These technological changes are of both global and local origin and they affect people in their working environments, community lives, and private lives. As the New London Group (1996) puts it: "The languages needed to make meaning are radically changing in three realms of our existence: our working lives, our public lives (citizenship), and our private lives (lifeworld)" (p. 65).

The emergence of these 'languages' is partly the result of global connectedness, which itself is caused by globalization, migration, and multiculturalism.

Dealing with linguistic differences and cultural differences has now become central to the pragmatics of our working, civic, and private lives. Effective citizenship and productive work now require that we interact effectively using multiple languages. Multiple Englishes, and communication patterns that more frequently cross cultural, community and national boundaries. (Cope & Kalantzis, p. 6)

In addition to the global connectedness, local diversity also requires different communication skills:

Subcultural diversity also extends to the ever broadening range of specialist registers and situational variations in language, be they technical, sporting, or related to groupings of interests and affiliation. When the proximity of cultural and linguistic diversity is one of the key facts of

our time the very nature of language and learning has changed. (ibid)

Based on the two developments pointed to above and their corresponding outcomes, the multiliteracy project argues for a social rather than individual authoritative view of language for literacy purposes. This view is based on the premise that a formal and standard national language cannot account for the communication demands of today's world. It asks for a shift to: "an open-ended and flexible functional grammar which assists language learners to describe language differences (cultural, subcultural, regional/national, technical, context-specific, and so on) and the multimodal channels of meaning now so important to communication" (ibid).

To set out an agenda for changing literacy pedagogy, the multiliteracies project claims social change as the starting point and as such proposes the notion of Design to shape the social changes. Based on this view, the role of students and teachers changes to "active participants" in social change, and "active designers", and "makers" of social futures. This participatory design conception of the substance of literacy, lends itself to viewing the meaning-making process (now replacing the language model), as (collaborative) Designs. The concept of design implies the changing and fluid nature of the text as substance of literacy. It also calls for the involvement of the teachers and students in co-construction of meaning, thus bringing in the metalanguage of meaning making instead of the traditional sense of grammar, which has been considered to be prescriptive and authoritarian. The following table sums up the three aspects of the 'meaning-as-design':

Meaning-as-Design	Description
The Designed	The available meaning-making resources; patterns and conventions of meaning.
The Designing	The process of shaping emergent meaning which involves re-presentation, and recontextualisation. Never repetition of the Designed.
The Redesigned	The outcome of designing, something through which the meaning-maker has remade themselves, a new meaning-making resource. We transform or recreate meaning all the time. It is in this sense that we are truly designers of our social futures.

Table 2.1. Designs of meaning. Based on Cope & Kalantzis (2000).

As noted above, the New London Group argues for six design elements (modes) in the meaning-making process: Linguistic meaning, Visual meaning, Audio meaning, Gestural meaning, Spatial meaning, and the Multimodal patterns of meaning that relate the other first five modes of meaning (see Figure 2.1). According to the group's conceptualization of the pedagogy of multiliteracies, this design model forms the "What" of literacy, which then leads to the "how" (pedagogy) of multiliteracies. The multiliteracies project then proposes four components of literacy comprising, Situated Practice, Overt Instruction, Critical Framing, and Transformed Practice. Table 2.2 outlines these pedagogical components:

Components of Pedagogy	Actions involved	Substance
Situated practice	Immersion in the designed, intuitive meanings, scaffolding students' struggle in meaning making	Students own experiences, background knowledge, available designed meanings
Overt Instruction	Developing and presenting metalanguage of design, communicate the redesigning process and resources	Available patterns of designs of meaning, resources of meaning-making,
Critical Framing	Interpretation of the design to suit different contexts, description of social context, interpretation of design purposes	Working on the features of the designed which indicates how and what and why and who in social, local and global context
Transformed practice	Application of the design to new contexts, creating new design, customizing the design; owning it, connecting different designs (intertextuality)	All the available designs and meanings

Table 2.2 Elements of pedagogy. Based on Cope & Kalantzis (2000).

Having described most of the basic notions of multiliteracies, I now move to other theoretical foundations on which this study rests.

2.1.2.1 Literacy as Discourse

In previous sections I highlighted the significant premises the multiliteracies project is built upon, including its view of language and elements of the new multiliteracies pedagogy. As illuminating these notions are for any discussion of literacy and literacy pedagogy, they do not have as direct a relevance to the methodological approach of this study as does the notion of 'Discourse'.

Despite the distinctions to which I may have made reference in the previous sections of this thesis regarding the nature of new multiliteracy practices and their fundamentally different conception of the substance of literacy, it would still make more

sense from this study's theoretical and methodological standpoints to view the substance, the 'what', of new literacy practices as language, as textual. I hasten to add that my intention to use language as a point of departure is primarily based on the premise that any account of the changing nature of literacy would necessarily be an account of the multisemiotic texts of literacy. Fairclough (2000) asserts:

Given that one of the core concerns of the [multiliteracies] project is to address the increasingly multisemiotic nature of texts in contemporary society and how they draw upon and articulate together different semiotic modalities, ... the issue is not simply how one theorises language, but how one theorizes semiosis more generally. However, it is important to address specifically the question of language within this broader perspective, because how language is conceptualized has a pervasive influence both on theories of semiosis and on views of literacy and literacy education. (p. 162)

Adopting a language based approach to the changing nature of literacy in today's societies would be also in line with the trajectory of what language has historically meant to literacy and literacy pedagogy. I will present some evidence from research literature in the following section, but before that I need to assert that this attachment to semiotic views of literacy for the purpose of this study is based on the observation that every worthwhile theorization (and application insofar as they have been deployed in different parts of the world) of new literacy practices seems to have made use of discourse theory in which language plays a significant role. In other words, discourse is the most useful notion to bring the sociocultural conditions and the textual/communication demands of today's world together.

As I mentioned above, there is evidence from the literature for the argument that the evolution trajectory of literacy studies indicates a move from the conception of

learning by individual mind toward learning through social interaction. Since 1950s the notion of literacy emerged from 'reading', 'writing', 'composition', 'rhetoric', to become a cross-disciplinary focus of research (Lankshear, 1999). "The New Literacy Studies (NLS) was one movement among many that took part in a larger "social turn" away from a focus on individual and their "private" minds and towards interaction and social practice" (Gee, 1998, p. 1).

The 'social turn' movement alluded to by Gee (1998), is central to the view of literacy taken by this study in terms of the study's methodological approach. The sociocultural orientation which affected most disciplines in humanities*, resulted in a shift in approaches to literacy practices including the emergence of theories of discourse, which according to Fairclough (2000) is " a social theory of language in use", and this is the main view of the language most useful to the analyses of this study.

The notion of "Discourse" is conceptualized differently in different disciplines, and even by different authors in a given field of study. It is one of the most controversial and difficult-to-grasp concept. In her seemingly exhaustive treatment of the term, Sara Mills (2004) acknowledges:

The term 'discourse' has become common currency in a variety of disciplines: critical theory, sociology, linguistics,

* Gee (1998) lists 13 interdisciplinary movements, including ethnomethodology and conversational analysis, modern composition theory, cognitive linguistics, and poststructuralist and postmodernist thought which contributed to the 'social turn' away from individual to social aspects in different disciplines including literacy studies. For the last movement, Gee also refers to Bakhtin's contribution which is of most relevance to the present study.

philosophy, social psychology and many other fields, so much so that it is frequently left undefined, as if its usage was simply common knowledge. It is used widely in analysing literary and non-literary texts and it is often employed to signal a certain theoretical sophistication in ways which are vague and sometimes obfuscatory. It has perhaps the widest range of possible significations of any term in literary and cultural theory and yet it is often the term within theoretical texts which is least defined. (p. 1)

In terms of the conception of discourse adhered to in the present study, a personal note seems to be in order here: Although as a novice researcher I might not be in a position to differentiate between the different conceptions of the term 'Discourse', I prefer Fairclough's (2003) version of discourse analysis for the following reasons:

I find Fairclough's views on language and discourse more inline with the practical applications of a literacy agenda. I ascribe this to his distancing himself from extreme claims of postmodernist ideas about the role of language in 'constructing' the world. His views about the dialectical relations between language and social life, for instance, depict a realistic version of discourse:

...This means that one productive way of doing social research is through a focus on language, using some form of discourse analysis. This is not a matter of reducing social life to language, saying that everything is discourse-*it isn't*. (p. 2, emphasis mine)

Another consideration that makes Fairclough's ideas on language and discourse a good candidate for this study is his critical orientation on discourse and discourse analysis as well as his emphasis on the causal relation between discourse and social change. Since I consider the issues concerning the multiliteracies and the changes that the current educational system eventually must prepare to undergo as social in nature and

critical in orientation, I believe a study of this sort, albeit on a greater scale, would benefit from Fairclough's approach to discourse. Indeed I consider the present study as part of critical social research, because this study maintains that establishing a dialogic negotiation including critiquing our own practices as well as the popular notions upheld by the research discourses (including both discursial and non-discursial element) results in a better understanding which in turn results in change in discourses of both sides of the dialogue. In his manifesto for critical discourse analysis (CDA), Fairclough maintains:

... this book has been concerned with just a small part of what I see as a larger project-... CDA as a form of critical social research.... The aim of critical social research is better understanding of how societies work and produce both beneficial and detrimental effects, and of how the detrimental effects can be mitigated if not eliminated.
(Fairclough, 2003, pp. 202-203)

As mentioned earlier the emergence of 'Discourse' as a construct which could redefine literacy marks a new era in literacy studies which began with 'social turn' movements. Indeed, one of the leading authors has rendered a complete conceptualization of literacy by defining literacy in relation to Discourse. Using the notion of discourse, Gee (1996) has sketched a coherent picture of literacy practices which has been influential in new literacy studies and related disciplines. His view is particularly relevant to the present study because of his use of primary and secondary discourses, which corresponds with Bakhtin's notions of primary and secondary speech genres. Bakhtinian (1986) notion of secondary and primary speech genre is of a significant relevance to this study's theoretical and methodological approaches. I will come back to Bakhtin's notions in the later section of this chapter.

Gee (1999) renders a comprehensive treatment of the notions of D/discourse. The following quote is an outline of the distinction that he assumes between 'little d' and 'big D':

We ... are interested in how language is used "on site" to enact activities and identities. Such language-in-use, I will call "discourse" with a "little d." But activities and identities are rarely ever enacted through language alone. To "pull" off being an "X" doing "Y" ... it is not enough to get just the words "right" thought that is crucial. It is necessary, as well, to get one's body, clothes, gestures, actions, interactions, ways with things, symbols, tools, technologies, and values, attitudes beliefs, and emotions right as well, and all at the "right" places and times. When "little d" discourse (language -in-use) is melded integrally with non-language "stuff" to enact specific identities and activities then I say that "big D" Discourses are involved.
(p. 7)

2.1.2.2 Bakhtin and Speech Genres

One of the significant contributions of Bakhtin School to the views of language is that for Bakhtin, the very substance of language is social rather than material or linguistic. The point of departure for Bakhtin is the social event that is *then* realized in linguistic structures and in words. He calls these social events "utterances". It is from this view of language that the notion of discourse emerges. As I described in the previous section of this chapter, discourse is one of the theoretical foundations on which this study is built. Bakhtin's notion of utterance as "a moment of discourse" (Lemke, 1995, p. 22) has implications for meaning making which is one of the main concerns of literacy education in general and multiliteracies in particular. Since the basic unit of language is a social event the meaning of it should also be the result of an activity, a social activity. Bakhtin maintains that all meanings are constructed through the interaction of utterances in the same sphere that is to say, similar utterances.

The linguistic significance of a given utterance is understood against the background of language, while its actual meaning is understood against the background of other concrete utterances on the same theme, a background made up of contradictory opinions, points of view, and valued judgements. (Bakhtin 1935/ 1981:281 quoted in Lemke, 1995, p. 23).

Bakhtin asserts that all meanings are made intertextually. This means that every voice makes meaning only when it comes in contact or recognizes another voices. In other words, for Bakhtin any form of meaning making is through dialogue. The notion of dialogue is central to this study as one of the purposes of this project is to demonstrate the significance of a sustainable dialogue for multiliteracies pedagogy.

Also central to this study is the notion of primary and secondary speech genres. Being considered primary or secondary for Bakhtin is based on the degree of authority and complexity. Originally applied to literary genres, mainly the novel and poetry, secondary and primary genres are assigned different social status and authority. Bakhtin refers to 'primary genres' as simple genres while 'secondary genres' refer to the more complex discourses in society. The interactions between the two genres, result in richer meanings which, depending on the nature of interaction, may also result in the primary genre being drawn into or transformed by the secondary genres.

Applied to different social processes and activities, this conceptualization of discourses can have significant implications. In the context of this study for example, the discourse of the teaching community is considered as a primary genre while the discourse of the literature and research is considered as a secondary genre. Depending on the nature of the interaction, this can have positive implications for the integration of these two

genres. By creating positive dialogues between the two, they can get closer in status. In case of a positive dialogue the primary genre would be encouraged to enhance its meaning potentials by absorbing the new meanings which are created intertextually.

Having established the theoretical foundation for the study, I will now proceed to describe the method of inquiry in the following chapter.

3

Method of Inquiry

The purpose of this chapter is to present the design and procedures of this study. The chapter is organized into the following three main sections:

- 1) Design of the study
- 2) Data collection strategies
- 3) Data analysis strategies

In addition to describing the design of the study, this chapter, section three in particular, is primarily focussed on the application of discourse analysis methods discussed in the previous chapter to the interview data. The method of discourse analysis comprises a combination of Grounded Theory approach (Strauss & Corbin, 1998) and informal content analysis. While, the former was employed to identify significant pattern within the data, the latter was used to interpret and discuss those themes in terms of this study's concerns.

Apart from the methodological approach of the study itself, there is yet another somehow different theme to be discussed in this chapter. Based on my observations early in the course of data collection, I decided to change the format of the interview sessions from a structured to a semi-structured, conversational interview format. I hope that explaining the circumstances that resulted in arriving at this decision will make a methodological contribution to the research in which ethnographic interview methods are employed (Refer to section 3.2.1 for details).

3.1 Design of the Study

The design of the present study falls under the category of qualitative research methodology. A qualitative design best suited this study because of the following factors described in Denzin and Lincoln (2003): The study “involves an interpretive, naturalistic approach to its subject matter”; phenomena under investigation are interpreted “in terms of the meanings people bring to them” (p. 2). Creswell’s (1998) definition of qualitative research also contains direct reference to some of the procedures utilized in the present study:

Qualitative research is an inquiry *process of understanding* based on distinct methodological traditions of inquiry that explore a *social or human problem*. The researcher builds a complex, holistic picture, *analyzes words*, reports *detailed views of informants*, and conducts the study in a natural setting. (p. 15 emphasis mine)

Moreover, Creswell (1998), emphasises several attributes of the qualitative approach which are agreed upon by most “leading authors” in the field. Among these attributes are “outcome as process rather than product”, “analysis of data inductively”, “attention to particulars”, “focus on participants’ perspective, their meaning”, and “use of expressive language” (p. 15) most of which speak to the methods and procedures deployed in the present study.

In terms of data collection methods, the present study used semi-structured, conversational ethnographic interviews to address the research questions. Literature in the field of educational research posits:

Ethnographic interviews are conducted with individuals or small groups to capture participants’ perspectives of their world and how they make sense of important events. Most

ethnographic interviews are essentially unstructured and open-ended to provide the participants with every opportunity to describe and explain what is most salient to them. (McMillan & Schumacher, 1997, p. 41)

In order to analyse the data, thus accessing the underlying assumptions of the participants through their discourse, design of this study combined qualitative ethnographic interviews with discourse analysis techniques. Since qualitative methods use data in the form of discourse, and discourse analysis methods can accommodate the kind of interpretive task that characterizes qualitative methods, combining qualitative methods and discourse analysis seemed a logical methodological approach.

3.2 Data Collection

3.2.1 Ethnographic Interviews

Semi-structured, conversational ethnographic interview data are the main source of data collection in this study. According to McMillan and Schumacher (1997) Ethnographic interviews are:

Open-response questions to obtain data of *participant meanings*-how individuals conceive of their world and how they explain or “make sense” of the important events in their lives. Interviews may be the primary data collection strategy or a natural outgrowth of observation strategies. (p. 447 emphasis original)

Although “open-response” is a common characteristic of ethnographic interview questions, depending on the degree of structure and planning ethnographic interviews can be divided into different categories. The following table was adapted from McMillan and Schumacher (1997, p. 447).

Types of Interviews	Description
Informal conversation	Questions emerge from the immediate context. There are no predetermined topics or wording.
Interview guide	Topics are outlined in advance. Researcher decides the sequence and wording during the interview. Interview probes can increase comprehensiveness.
Standardized open-ended	The exact wording and sequence of questions are predetermined. Questions are completely open-ended.

Table 3.1. Types of ethnographic interviews.

This table clearly illustrates the difference between “standardized open-ended” and “interview guide” formats. Although the interview questions in the present study were originally designed to be asked of the interviewees with more or less predetermined wording and in fixed sequence, in the course of data collection this format transformed into the “interview guide” type. Next, I am going to lay out the observations that led to this change in orientation.

As a novice researcher to the field of qualitative ethnographic research, I naively assumed that I would elicit clean data by asking direct questions about the notions and issues I wanted to investigate. As it turned out that was not the case at all.

During the course of the interview, I realized that the questions I had prepared^{*} were problematic in two respects: content and context. Due to the sophisticated nature of

^{*} Original Interview question sample:

1. What is your understanding of new multiliteracies and how it compares to traditional, print-based literacy?
2. What are the implications of new multiliteracies for literacy education?
3. How does the new information & communication technologies bear on those implications?
4. What are the effects of the new multiliteracy pedagogy on the present curricular schooling? For example, is the status of teachers as authorities in knowledge and learning likely to change in the light of new multiliteracies? How?
5. How do you see the role of language in multimedia/modal literacies compared to its role in traditional, print-based literacy?

the issues regarding multiliteracies and new educational technologies, it requires a fairly strong grasp of the theoretical knowledge about the field to be able to sustain a dialogue about the topics involving multiliteracies and their pedagogical implications. Moreover, in order to gain access to the practical knowledge and insights of the participants without affecting them, I had to prevent my own biases and opinion from interfering with the dialogue as much as possible. I realized that throwing the questions at the participants and leaving them to deal with complex notions would put the participants in an uncomfortable position and may render the data less reliable.

I also realized that in order to talk about the questions, these practitioners needed some kind of tangible medium to hang the question on, some sort of context. So I decided to borrow the context from participants themselves by asking the interviewees to talk about their experiences: 'Tell me about your experience with multimedia and what you've been doing in your classroom'. This then set the stage for talking about their theoretical and practical understanding of the issues relevant to the research questions.

Based on these observations made during the first interview, my approach with regard to the interview questions was dramatically changed, i.e. from semi-structured to conversational or "interview guide" to use McMillan and Schumacher's term (p. 447). It is important to note that although the questions became longer and the interview became more conversational, I indeed had to try to remain disinterested toward the distinctions and dichotomies I presented to the participants in order to invite them to voice their opinions and to bring surface their conceptions to the surface. It was crucial to remain unbiased throughout the interviews to put the participants at ease to take whatever stances

they wished irrespective of the interviewer's ideological and practical conceptions and biases.

The conversational format also helped the interviewer to clarify the terms and jargon and to talk with clarity and precision about the new discourses of technological literacies and multiliteracies. Instead of waiting for the interviewee to ask about certain terms and definitions, I tried to cover them in my question to ensure that we were talking about the same issues.

A further issue of some relevance to the methodological approach of the present study is the inclusion of the data from the first interview in the corpus. Since the format of the first interview started as structured with direct questions, the answers were very short and dry. I realized that the questions were loaded with content of a sophisticated nature and could not be answered directly. However, I decided to include the resulting data in the corpus. The decision was based on two considerations. Firstly, due to some practical reasons and the scope of the study, I had to work with a relatively limited corpus of data, and I did not want to lose any data from my already small corpus. * The second and more important consideration was that the participant was extremely knowledgeable about the field of multimedia literacy and had extensive experience in technology-mediated educational environments where she was actively engaged in the implementation of an educational technology program for teacher education. The decision to include the first interview data was based on the premise that every discourse

* Administrative restriction on approaching human subjects after a certain amount of time into the project prevented me from approaching the participants to collect more data.

as contested and distorted as it may have become voices a belief system, and it can render an account of the mindset of its source. Moreover, since the design of the data analysis did not include a comparative analysis of the discourse of each interviewee, the data resulting from this interview could prove as useful as any other.

3.2.2 The researcher's Role

Ethnographic interview data are considered by most researchers as a shared construction between interviewer and interviewee. Block (2000) maintains that, "Interview data are not seen as the production of an individual interviewee but as the co-construction of interviewer and interviewee" (p. 759). This characteristic of ethnographic interview data, however, does not necessarily require the interviewer to assume the role of an active participant. In other words, the extent to which an interviewer chooses to contribute to the discussion depends also on other elements of the design, such as the researcher's emphasis on selective inclusion of certain categories of data and the exclusion of others, including his/her own, in order to accommodate certain purposes specified in the design of the research.

Although practically it was not possible to prevent my own voice to enter the discussions about the topics and issues in question, I preferred to stay a silent observer as much as my role as interviewer allowed. The reason behind this was that for analytical purposes, I needed two distinct sets of voices in my pool of discourses representing practitioners on the one hand and theory and research on the other hand. I was hoping to ensure the integrity of data in terms of its representation and agency by keeping my own voice out of this discursive interplay.

3.2.3 Participants of the Study

3.2.3.1 Selection Criteria

As implied in the research questions, in order to qualify for being a participant in this study, the participants had to have certain characteristics. This study sought to investigate understandings and conceptions of expert practitioners about the new multiliteracies discourses and practices. This required people who: 1) see themselves as empowered by ICTs discourses, 2) were engaged in educational settings where non-traditional literacies were involved, and 3) were articulate enough to voice their opinions and concerns and to engage in an intellectual dialogue around the issues under discussion.

It should be noted here that the term “empowered” has a specific significance. To choose participants for this study, I was not seeking candidates who were considered skilful merely due to their intensive experiences with aspects of educational technologies such as programming or application software or any other special skills with computers. My experience as a teacher as well as a student in the areas of educational technology indicates that what makes people feel empowered around technology is not simply a matter of technique but rather their willingness to enter uncharted territories and to venture into new discourses in education by critiquing their own practices and accommodating new discourses in their learning environments.

3.2.3.2 Recruitment of Participants

My interest in the idea of investigating expert practitioners’ conceptions had started long before the inception of the present study. To pursue this interest, I developed a keen eye to take note of the individuals who could be potential candidates for the line of research that I had in mind at the time. In fact I kept a journal of the description of the people

whose description matched the criteria of the present research to a greater or lesser degree. *

During my several years of study at the University of British Columbia I had the privilege of meeting a number of scholars, graduate students, and individual educators who fit the profile of the potential candidates for this study. In cases where the contact information of the prospective participants was not publicly available, I requested their contact information in person for the purpose of a possible future contact.

After submitting an application to the university's Human Subject Ethical Review Board and receiving the approval, the individuals who fit the profile of the potential candidates for the present study were asked to participate in the study by an email that stated the purpose of the contact and included two attachments which contained the details of the study as well as a consent form (See Appendices 1 & 2).

3.2.3.3 Description of Participants

The participants were all people whom I met at conferences or other relevant occasions where I had the opportunity to observe them as they were either engaged in discussions related to multiliteracies and/or educational technologies, or were practically engaged in settings where multiliteracies of some sort was involved such as a multimedia lab or a course where educational technologies and their application was the subject. Apart from

* The original plan included interviewing 18-20 individuals, but that proved to be very ambitious for a study of this scale.

one of the participants who attended a graduate course with me, I had no direct contact of an intellectual nature with any of the participants before the inception of this study. This ensured that the participants had no way of knowing my viewpoints about the topics discussed during the interviewee sessions.

The participants of this study consisted of six people from very different backgrounds. Table 3.2 summarizes the participants' description:

	Capacity	Background
Interviewee #1	Instructor and researcher	Extensive background in educational technology implementation and involved in pre-service teacher education
Interviewee #2	Instructor and teacher librarian	Director of a multimedia resource lab, teacher librarian instructor
Interviewee #3	Instructor, multimedia program developer	Instructor in and developer of large multimedia/educational technologies courses
Interviewee #4	Instructor, researcher	Instructor of a special-needs high school where multiliteracies pedagogy is being extensively implemented
Interviewee #5	Instructor, researcher	A highly articulate proponent for the implementation of new technologies and multiliteracies
Interviewee #6	Instructor, researcher, policy maker	Teachers' professional organization official, a teacher advocate who pioneered the implementation of new technologies in classrooms

Table 3.2 Participants' description

One of the candidates differed from others in an important respect. He was involved in a program where intellectually-challenged, at-risk secondary school students were being presented with new approaches to literacy development. In this unique setting new literacies, primarily initiated by the students themselves, were encouraged and their uses was enforced and supported by the teachers to accommodate each student's style of

literacy development. The significance of this participant's contribution is that the site of learning that he has provided his students utilizes multiliteracies that are not necessarily technology-driven. He allowed and embraced student-initiated modes of expression such as woodcarving, and rock painting to engage them in learning activities which eventually also led to more conventional literacies such as reading and writing.

The significant difference in orientation of this participant's background has methodological implications for research of this scope. Although he brought a fresh perspective to the discussion of the issues called forth by interview questions, the fact that his insights were not ubiquitous within the corpus rendered his contribution less fruitful for the purpose of this inquiry. It would have been more useful in terms of data aggregation and theme-extraction if larger number of participants of a similar background could be interviewed, and their discourses could be interpreted in the context of and against the background of the discourses of a mainstream category of participants.

3.2.4 Materials

Materials used for this study consisted of a set of interview questions originally prepared to be asked of the participants directly.

The following questions are the original interview questions:

1. What is your understanding of new multiliteracies and how it compares to traditional, print based literacy?
2. What are the implications of new multiliteracies for literacy education?
3. How does [the new information & communication] technologies bear on those implications?

4. What are the effects of the new multiliteracy pedagogy on the present curricular schooling? For example, is the status of teachers as authorities on matters of knowledge and learning likely to change in the light of new multiliteracies? How?
5. How do you see the role of language in multimedia/modal literacies compared to its role in traditional, print based literacy?

Based on the observations made during the first interview session, the above questions were used only as a guiding framework for the interviewer to raise the issues and notions relevant to the research questions for the interviewees to comment on.

3.2.5 Procedures

The main source of data for the present study came out of the interviews with six participants. The data used for this study was collected in a four-month period. Although there were only six interview sessions, because of limitations in participants' availability, it took a relatively long time for the interview sessions to be scheduled and conducted. The fact that most of the participants were busy educators with tight schedules also contributed to the difficulty of scheduling and recruiting.

Whenever possible (in three cases) the participants were approached by phone or in person before receiving the initial email. In the email messages that went out to all the six participants, they were asked to indicate their preferences with regard to time and place of the interviews. My program supervisor had kindly agreed to provide me with his office on campus for conducting the interviews. All participants agreed to be interviewed in the office with the exception of one of the participants who wanted to be interviewed in his own office. They were told in advance that the interview would be 20-30 minutes long and that the sessions would be audio-taped.

Since I was not acquainted with the participants and had only one hour with each participant at the most, I tried to build up a rapport by offering them coffee or tea and by engaging in a short conversation before the beginning of the interviews. This paved the way to creating a comfortable atmosphere that allowed for a smooth and relaxed conversation. During these short conversations at the beginning of each interview session, I recounted what the interview would be about in case they did not have a chance to read through the email attachments. I also provided them with a brief background about my own interest in the topic of the study. I tried to avoid demonstrating any biases toward the issues and concepts to be discussed during the interviews.

With the exception of the first interview which began by directly entering the previously prepared questions, all the interviews started by asking the participants about their experiences with regard to literacy and new technology-mediated educational environments. While listening to their background information, I took note of the points to which I could hang the main questions. I then moved to the simpler, more common issues based on what they told me about their background. At this point in the interview the conversational format helped to develop a shared language in which I tried to clarify terms, and throw in points to invite the interviewees' comments and reflections. Then toward the end of the session I would build up to the more sophisticated and more fine-tuned questions. Most of the interviews went over 45 minutes. Except for one case, the interviewees continued over 45 minutes and I was the one who had to somehow bring the discussion to its end. Most of the participants when asked at the end of the interview whether they had anything to add took up on my offer and continued to talk about the points previously called forth. Indeed, my contact with three of the participants continued

in the form of exchanging information and research articles, and one of the participants borrowed a book to follow up on some of the points raised during the interview. At the end of the interviews I thanked them for their participation and we departed. The interviews on audiotapes were then transcribed and saved on Microsoft Word documents.

3.3 Data Analysis Procedures

The data of this study comprised interview data which were transcribed and saved in Word documents. Grounded Theory procedures were used to aggregate and categorize the data. Grounded Theory is defined by Strauss and Corbin (1998) as a:

Theory that was derived from data, systematically gathered and analyzed through the research process. In this method, data collection, analysis, and eventual theory stand in close relationship to one another. A researcher does not begin a project with a preconceived theory in mind ... Rather, the researcher begins with an area of study and allows the theory to emerge from "reality" than is theory derived by putting together a series of concepts based on experience or solely through speculation. Grounded theories, because they are drawn from data, are likely to offer insight, enhance understanding, and provide a meaningful guide to action. (P.12)

Grounded Theory is sometimes referred to as an "approach" parallel to, for instance, ethnographic, and phenomenological approaches. Although the aim of the grounded theory is to generate or discover a theory (Creswell, 1998), due to the limited scope of the present study in terms of variety and volume of available data as well as the purpose of this inquiry, grounded theory procedures were used as a method to generate and to code categories for analysis rather than to generate a theory. Strauss and Corbin (1998) refer to this level of analysis as "Conceptual Ordering":

The chief reason to discuss conceptual ordering here, however, is because this type of analysis is a precursor to theorizing. ... What we call conceptual ordering also is the desired *research end point* of some investigators. One example of conceptual ordering in the social sciences is in the form of some ethnographic accounts. Ethnographies differ in the extent of their conceptual ordering and degree of theorizing ... However, for our purposes, the main point about many ethnographies is this: They reflect attempts *to depict the perspectives and actions of the portrayed actors*, combined with a explicit ordering of those into plausible nonfictional accounts. The final presentation is organized around well-developed and ordered themes, but the themes are not connected to form an integrated theoretical scheme. (p. 20, emphasis mine)

The data analysis procedures are as follows:

Data from all the interviews were transcribed into a single Word document. Due to the relatively small size of the corpus, it was decided not to use any data analysis software. Instead I devised a plan to code the data on paper. As a navigational device, all the lines in the corpus were numbered using Microsoft Word's line numbering. In order to provide ample space for comments and to mark categories and sub-categories, the document was given a wide 2.5 inches of margin on the right side.

The major themes emerging from the interview data corresponded to the data emanated from the talk around major topics and themes embedded within the research questions, e.g. print-based literacy versus new literacies, status of language, teacher's role, schooling, multimedia technology, etc. First the entire corpus was marked for these primary themes. Sections of data marked by each of these themes were then highlighted and were copied into a separate Word document, marked with the original line numbers as navigational references (see Appendix 5). Special attention was given to including big

stretches of surrounding text along with each highlighted sections in order to contextualize the highlighted sections of data.

The resulting smaller and more focussed corpus then was screened for sub-themes and new patterns. For example in the sections related to Teachers' role, secondary themes of teacher as mentor, teacher as collaborator, and teacher as authority were marked by writing notes and comments in the margin. After all the secondary themes were identified, a one-page theme/sub-theme list containing all the themes and sub-themes was generated (see Appendix 4 for a sample of such lists). The same procedure was repeated for each topic and theme emanated from the research questions or emergent from the discussions.

In this chapter, I described the qualitative design and method of analysis of this study. The next chapter includes descriptions and interpretation of the data and the discussions of the findings of the study.

4 Findings and Discussion

4.1 Analyses

As mentioned in the previous chapter, the interview data were organized and aggregated in relation to the topics and themes embedded in the research questions (and not in the interview questions). As such, the main categories in data analyses were the main issues embedded in research questions while the secondary themes and sub-themes were other theoretical or practical items which were either raised by the interviewees or identified by the interviewer, from the participants' accounts of their experiences.

For this reason, the analyses of the data from this study are organized around the two research questions which are instrumental to answering the first research question.

Throughout this chapter, the reader will notice that text (data) samples from the two discourses mentioned previously will be juxtaposed. In addition to serving as an analysing device, the juxtaposition strategy deployed here serves to demonstrate a dialogical model of discursive interplay between the two discourses in question. I now begin with the analyses of the issues pertaining to the second research question.

Research questions are listed here for the ease of access:

1. How do expert practitioners' perceptions of the new multiliteracies literacies and their implications map on to their practices?

2. What are experts' understandings of pedagogical differences between traditional print-based literacy and new multiliteracies?

3. What can the discourse produced by these expert practitioners tell us about how they perceive their own role as educators amid these technological changes? What does this discourse reveal about the likely changes that educational institutions might be forced to implement?

After presenting the emerging themes from data related to each research question, the disparities and similarities of those themes compared with the corresponding views from the relevant research literature will be discussed in 'Discussion' sections. The findings of the analyses will then be presented in the 'Summary' section at the end of the chapter.

4.1.1 The Second Research Question

In this section, I will discuss the emerging themes pertaining to the issues guided by the second research question: "What are experts' understandings of pedagogical differences between traditional print-based literacy and the new multiliteracies? What are their conceptions about the status of language in new literacy pedagogy?"

Using the emergent themes, sections of the data from the participants' discourses will be juxtaposed with related discourses from the theory and research in the field of new multiliteracies.

4.1.1.1 Emerging Themes

4.1.1.1.1 Conceptions about Multiliteracies Pedagogy

Postmodern conditions have been the preferred frame of reference for most North

American and Australian contribution to the discourses formed around issues of

“multiliteracies”. As noted in Chapter Two, the term gained its present status after it was

proposed by the New London Group (1996) as a new approach to literacy pedagogy. It

was claimed to be a supplementary approach to traditional literacy education which had

been centered exclusively on teaching language related skills, namely reading and writing

in standard languages: “Literacy pedagogy has traditionally meant teaching and learning

to read and write in page-bound, official, standard forms of the national language” (The

New London Group, 1996, pp.60-61).

In order to juxtapose the emerging themes from the data of this study with the

corresponding issues from theory and research in the field, I review some of the key

concepts of multiliteracy project from the previous chapter here (also see Figure 2.1).

Multiliteracies pedagogy argues for two overarching roles: first to “account for

the context of our culturally and linguistically diverse and increasingly globalized

societies”, and second to account for the “burgeoning variety of text forms associated

with information and multimedia technologies” (p. 61). Assuming this dual role for

pedagogy of literacy, the concept of multiliteracies claims to encompass a more expanded

agenda than teaching only how to read and write in a standard language.

The first role mentioned above, i.e. accounting for the diversity of cultural and

linguistic contexts, entails allowing for new modes of expression based on the learners’

national, cultural, or subcultural backgrounds. An example would be to create a learning

environment that allows an aboriginal student to retell the story of a book through a series of carvings instead of writing a summary (This example came up in one of the interview sessions of the present study). Having the concept of multiliteracies in mind, one might think that the above example suggests carving skill as one of the literacies (hence the prefix multi) to be included in multiliteracies programs. According to the New London Group's literature, however, the diverse modes of expression that the students use to make meaning, including the use of semiotic modes, count as resources not as a fixed repertoire of abilities to be implemented in literacy programs. *

..... A pedagogy of multiliteracies, by contrast, focuses on modes of representation much broader than language alone. These differ according to culture and context, and have specific cognitive cultural, and social effects. In some cultural context-in an Aboriginal community or in a multimedia environment, for instance-the visual mode of representation may be much *more* powerful and *closely related to language* than "mere literacy" would ever be able to allow. Multiliteracies also creates a different kind of pedagogy, on in which language and other modes of

* In order not to disturb the chain of arguments, I exclude from the discussion here, the ramifications of adopting multiliteracies approach for practical considerations such as the complexity of evaluation practices, including official standardized testing. It suffices to mention two points which may address these practical concerns: 1) that the concept of multiliteracies is a starting point and related literature does not seem to present a solid proposal for what the current school system can do to accommodate this approach and 2) by looking at the research proposals and the number of projects underway, it seems that the field is taking up fairly quickly on these aspects of the multiliteracies project. For more information the readers are referred to different research initiatives in Canada with major sections assigned to examining evaluative concerns, cf. students portfolios, etc. (see online references)

meaning are dynamic representational *resources, constantly* being *remade* by their users as they work to achieve their various cultural purposes. (P.64, emphasis mine)

In addition to the first role, multiliteracies project also sets out to account for the variety of texts associated with new information and multimedia communication technologies. This aspect of multiliteracies highlights the use of technology in text production. Examples include using PowerPoint slide shows for presenting stories and Microsoft Words for editing students' writing and other task characteristic of language based literacies. While this second aspect of multiliteracies is a significant factor in justifying the arguments for the implication of new text forms emanated from these digital electronic technologies for literacy education, the skills required to operate those technologies is not what multiliteracies pedagogy aims for as the subject of literacy education. Interestingly, this does not change the fact that discourses related to the field of multiliteracies mostly point to this aspect as being the main strand in multiliteracies agenda. Lankshear and Knobel (2001), for example, maintain: "There is now a plethora of people with literacy research credentials investigating and writing about all manner of themes concerning new communications and information technologies. Our problem is that much of it we don't find very helpful" (Electronic version).

We are mainly interested here in two broad ideas of new literacies. The first is well known, even if it is often not well-defined or understood—viz., literacies associated with new communications and information technologies or, more widely, the digital electronic apparatus. The second is a less obvious, less "tight", and somewhat *ad hoc* idea. It straddles literacies that are comparatively new in chronological terms *and* literacies that are new to the formal study of literacy—that are new to being recognized as literacies. These latter may include examples that have

little or nothing to do with use of (new) digital electronic technologies. ... (§ 2, emphasis original)

One of the dominant themes in the discourse of the participants in this study was that they also tended to apply the term new literacy, technological literacies, and multiliteracies, merely for the presence of some sort of digital technology application, mostly computers, in their classrooms. While acknowledging the importance of new multiliteracies, discourses of the practitioners point to the ability to use computer technologies as being the main indication of new multiliteracies practices.

Interviewee #2

There is nothing more important than having a grass root change, in other words teachers helping teachers and wanting change to happen and pushing it forward. That's coming from top-down and from bottom-up. So giving teachers release time and training them and showing the power of, ... importance of teaching new literacies and the computer is essential

To these practitioners, mere use of any of the ICTs e.g. computers, CD ROMs, in their classes was an indication of a new literacy environment. In most cases the technology they talked about was computers, and the most common use of the technology was limited to using keyboarding skills for writing related purposes. For example, in response to this question: "Do you give them [pre-service teachers] some activities that similarly they can use in class for literacy purposes?" one of the interviewee responded:

... for example, I ... [first] brainstorm with them on paper. And they write about it on paper.... And then we go to the computer and I say ok I want you now to edit;. ...then I said ok now I want you for the next fifteen minutes keep going but I want you to go back and remove things and move things and cut and paste; do whatever you normally do, how does that feel? ...But each one of these activities helps encourage them to see for example the saliency of text and the recursiveness of text on a computer. *One thing*

computer allows you to do is go back and correct easily. Children often are frustrated on paper ... but in the second activity when they can go back and remove and cut and paste, this tool, computer, allows my pre-service teachers to see that the text on the computer is not thought of as being something stuck in time; it can be changed at any time...(emphasis mine)

Although this teacher obviously aimed at making some important pedagogical points with regard to the use of educational technologies (saliency of text and the recursiveness of text), as it can be inferred from the above excerpt, the computer has brought in to help with the print-literacy agenda. The following is also excerpts from data depicting how these practitioners conceive technology mostly computers as a tool to enhance their traditional literacy practices.

Interviewee #2

So it was more for *writing* tool and a research tool when I first began...and it's only in the last 6-7 years that ...I've been exploring and recommending ways to use, for example, looking at *language* on laser disc so you're not only getting just the *textual* but you're also getting the visuals as well and so playing with things like that. And now with grad students I'm getting involved in Macintosh and FireWire technology to explore *language*. (emphasis mine)

Here this teacher used technology to solve a reading problem. He clearly asserts that use of technology should be encouraged because it helped to solve the problem encountered in the process of helping the student read:

Every management techniques that I tried with him [the student], ...encouraged him to participate in the group, reading of a book just didn't work. He would stand up and flip the pages, he was off running around somewhere, he wouldn't follow with the pointer he was running somewhere. And then, when I took that same book and put it on a CD ROM ... , he sat down and started reading and

comprehending, and he sat still for the entire book, that's when I went "that's a good use of the tool".

And when the teacher realize that, and not use technology for the sake of technology but [because] that tool will help that child learn to comprehend, slow down and read etc. then that's an effective use of technology.

Here as well the use of computer by teachers is emphasised:

Teachers have to be trained, ... because they [teacher education programs] felt that it's extremely important to help teachers learn how to use computer tools above and beyond writing to help them be more effective users of this tool.

Even in expressing their scepticism about the relevance or the effectiveness of the new multiliteracies enterprise, some of the participants primarily used ICTs to make their points. It seems as if the inefficacy of technology would questions the basis of the arguments for the new multiliteracies

Interviewee #3

I mean without pre-empting what the rest of discussion might have to say I'm very sceptical about the efficacy of any particular application and I'm much more interested in why we believe that this things are efficacious in any particular bit of empirical research than to say that this particular technique or technology works better than that one.

The term multiliteracies itself was a point of confusion for a number of participants. The prefix "multi" seemed to convey a reference to hard skills (mostly technological) with different applications rather than an approach. Interestingly, when asked the following question, one of the participants expressed concerns about the way I phrased the concept:

Interviewer

“By asking this background question I was trying to get at the question of your perception of multiliteracies and I don’t know if you consider your experiences which all involved online, information technology ... Do you consider them as new literacies as opposed to traditional literacy which involves writing and reading...?”

Interviewee #3

Yeah, but I’d take issue in the way you phrase that as new “literacies” plural which in my mind implies that you can take a particular technology, digital video for instance and say “that’s a new literacy” and you can take something else like email or online conferencing and say “that’s a new literacy”... I don’t think I’d say that! I think that those are ... those sorts of more fine-grained divisions are too *ephemeral*. I don’t think they gather enough *tradition* within themselves to sort of qualify with as big a word as literacy (emphasis mine).

The italicized words in the above excerpt relate the previous discourse with the next one in that they both assume that the literacy skills that multiliteracies arguments advocate involve the operational abilities to work with technology, be it hard or soft, and most often they do not take into account the second goal of multiliteracies arguments as mentioned at the beginning of this section. The following question and answer is brought here to illustrate the point:

Interviewer:

...my focus on this one is mostly on the skills to *access* those sources of knowledge instead of the design and the structure of the knowledge that is already available. So constructing the knowledge has a lot to do with new literacies and the way we approach literacies, ... and the contrast I’m making is between print literacy and the new literacies. How do you see the new literacies and multimodal literacies being built into literacy education?

Interviewee #5

The focus you have on skills, on the skills that students need to acquire, I think is...could be short sighted in the sense

that the environment is going to change. And that any skill you provide now, will not be necessary skills; it's like keyboarding there is a good chance that keyboarding wouldn't be necessary in ten years, because they're all be voice activated. And so there is a real chanciness in focusing on skills now.

As the answer clearly depicts, the notion of "new/multiliteracies" is generally conceived as being technology-driven hard skills. It is important to point out that this often exclusive association between multiliteracies skills and technological tools does not mean that these practitioners are not aware of critical skills of the multiliteracy pedagogy as indicated in the theory and research literature. The awareness that was illustrated in the case of the interviewee #2 (saliency and recursiveness of texts on computers) is also apparent here in the next excerpt by another participant.

Interviewee #5

So the ability to contextualize and to situate the knowledge that they're engaging, the ability to search accurately for this kind of reliable resources, the ability to bring together multiple perspectives that are available on the web, rather than to simply following a single biased orientation towards and idea that follows these biases, would all be skills that the students should be introduced to.

So the literacy skills that the students need on one level are very much the same [as in traditional literacy]. They need to be able to read critically, they need to be able to ask question about the sources they need to think about and look for alternative sources in both print and in online.

The point illustrated here is that for some of the participants, these high order, and high quality skills are not necessarily conceptualized under the new multiliteracies framework whereas the operational skills with new communication technologies are.

4.1.1.1.2 Conceptions about Language

One of the topics embedded in the research question of the present study was the status of language as the main component of traditional print-based literacy as well as the way language figures in the design and implementation of multiliteracies programs. It is a common notion that historically language as a semiotic system with all its linguistic features has been considered the primary mode of meaning-making in literacy practices (Cope & Kalantzis, 2000, Halliday, 1996, Kress, 2000, Rothery 1996). The discourses of multiliteracies, however, draw upon different conceptions of language for literacy practices and pedagogy. Based on what I reviewed in previous section about the dual goals of the multiliteracies project, the view of language underlying multiliteracies approach is fundamentally significant to its arguments for the proposed changes to literacy practices and pedagogy. Based on this view of language, texts of contemporary society comprise more than just language, rather they have become “multisemiotic” e.g. linguistic and visual (Fairclough, 2000). This change in semiotic modalities of meaning making, the multiliteracies literature suggests, is based on the second role I pointed to above, i.e. to account for the multiplicity of texts associated with new information and multimedia communication technologies. In order to understand the complexities of the effects of such shift in the material subject of literacy practices, it is therefore important to establish conceptions of both language and the new emergent multisemiotic modalities of meaning-making. This is particularly significant for designing purposes in literacy programs and research, and it has profound implications for pedagogical choices.

... the issue is not how one theorises language, but how one theorises semiosis more generally. However, it is important to address specifically the question of language within this broader perspective, because how language is

conceptualized has a pervasive influence both on theories of semiosis and on view of literacy and literacy education (Fairclough, 2000, p. 162).

Compared to the emphasis of the multiliteracies literature on language and its related notions, discourses produced by the participants of this study represent a diverse pattern in terms of their conceptions about language and its related notions. In most cases there is a mismatch between what they actually do with the new communication technologies (based on their own accounts of their classroom activities) in terms of helping their students to improve their "language skills" and how they conceive the notion of language in relation to new communication and information technologies. In other words, although they demonstrated, in their conversation, some understandings about the fundamental differences between language as a monosemiotic element and the complexity and multiplicity of the texts mediated by new ICTs, when it came to the accounts of their practical deployment of ICTs, it became all about language and not text. As noted in previous section, indeed a common strand in the data pointed to the use of the new communication and information technologies to mainly troubleshoot the reading/writing problems encountered in literacy environments. The following extracts, for example, depict the apparent contradictory conceptions about the nature of text in literacy practices of these practitioners.

Interviewee #2

... I vowed, when I started on my own class, I would use the computer room much more powerfully, so I started exploring with my students reading and writing programs...

... for example, looking at language on lazar disc so you're not only getting just the textual but you're also getting the visuals as well and so playing with things like that.

As we can see, making the distinction between language and text is not a determining factor for this participant. While in the first instance he refers to the powerful use of computer room for print based literacy agenda, in the second he loosely talks about textual and visual (so visual is not considered text). As the next excerpt illustrates, this seemingly interchangeable use of text, language, visual, etc is not indicative of the participants' lack of knowledge about the textual nature of their literacy practices, rather it seems that they do not assume these differences to be of determining significance in their day to day classroom pedagogical choices:

But each one of these activities helps encourage them [the student] to see, for example, the saliency of text and the recursiveness of text on a computer.

For example the ability to read is an important, and to write are extremely important skills. Although there is now more emphasis towards reading information text as opposed to reading narratives. A lot of our learning takes place in early years as narratives, as stories, family stories.

Generally most of the participants of this study believe that despite all technology-mediated text forms, language forms a major component of their literacy practices.

Interviewee #3

I mean in order to do justice to the sort of the range of media that people have to deal with in contemporary society. The other way to look at it would be to say that these are different kind of things, that traditional print-based literacy is still a topic area in its own right and I don't believe it is diminished.

Here again we can see that the boundaries between language and other multisemiotic modes of meaning making get fuzzy.

So, I mean, I tend to think of, you know, of visual literacies whether we're talking about, you know, image or moving picture or whatever or even ... I tend to throw those underneath a rubric or basic model and metaphor of language ... And it's [contemporary text variety] about the use of language in a fundamentally new way, but I still think that ... it's language at heart. ... Yeah, it's all discourse it's all text.

4.1.1.2 Discussion

As was mentioned in "Conceptions about Multiliteracies" section, the notion of multiliteracies is conceived very differently by these educators. Even when their discourses emphasise the importance of certain high order thinking qualities and skills, they do not position those skills in the new multiliteracies agenda. To illustrate this point, I juxtapose here two section of the same interview which depicts how this participant's assumptions about what should be included in literacy pedagogy, enters a complex discursive interplay with how he perceive the role of teachers in literacy classrooms. It also demonstrates how his perception about teacher's role downplays the students' capacity in critiquing and intellectually assessing knowledge on their own.

Commenting on the skills expected of literacy education:

So the literacy skills that the students need on one level are very much the same. They need to be able to read critically, they need to be able to ask question about the sources they need to think about and look for alternative sources in both print and in online.

Commenting on teachers' role:

The student lead in their use of the technology, perhaps, but they *certainly* don't lead in my experience in their ability to think critically and logically and to see through an issue and produce something that is comprehensible by their classmates even as well as by other people outside the class (emphasis mine).

Another point to be made about the interplay between the discourses presented by the participants of this study and the corresponding notions from the multiliteracies literature involves the dual role of multiliteracies project as elaborated in section 4.1.1.1.1. Drawing on the discourses of the participants, content analysis of the data indicates that for this practitioners, what constitutes a multiliteracies learning environment relates primarily to the second argument of the multiliteracies project, namely the multiplicity of text forms associated with ICTs. This holds true to the extent that when it comes to rendering accounts of their actual practices, they mostly consider the operational skills associated with new technologies as either being the very subject of new literacy practices or as being instrumental in achieving the goals of (traditional) literacy practices.

A divergence to this argument presented itself in the discourses of a few of the participants who seemed to conceive the notion of multiliteracies almost exclusively as a sociocultural phenomenon rather than practices defined by their textual content. This puts their conceptions more in line with the first goal of the multiliteracies project alluded to above.

Interviewee #6

What it did was to essentially give a way to students whose literacy in print was less well-developed places to have self-expression and one particular student, just being pushed through the system until he was in grade nine at the time that I taught him. Well, I gave him a sixteen mm camera what he produced was essentially an abstract film which won a prize at the provincial level all of which was really dramatic in terms of his self-concept and how the other students looked at him. And it was a case of somebody who had a very powerful way of looking at the world and seeing the world but it wasn't one that print was a part of.... and really who'd be probably barely literate in

the end in terms of what he really was but very powerful communicator when he had the right tool to use to try to communicate.

Interviewee #4

I'm not seeing literacy as only English, or only as communications, and there is literacy of science and he [Jessie] needs to understand scientific reasoning and the scientific process and formulation of a thesis and an argument and hypothesis. So Jessie needed to write an essay on continental drift and forcing Jessie through the mill of writing an essay and research based on using the Internet and all that... that technology wasn't working for Jessie. so a simple change to that was to get jess to develop three cartoon strips illustrating different aspects of the theory of continental drift and proving that theory.

One observation relevant to this strand within the discourses of this study is that the above discourses tend to lean toward the problematic of literacy endeavours rather than a substitute or an expansion of literacy practices. The function they presume for the multiliteracies pedagogy is that it helps their students to overcome certain difficulties in fulfilling the traditional expectation of literacy goals. They do not consider the difficulties faced by their students as disabilities (although in some cases it involved learning disabilities), but they ascribe them to certain social differences rooted in their students' cultural background, for instance. These practitioners allowed the students to choose the mode of expressions which suited their style and built on their strength to make up for their problems with mainstream literacy practices, e.g. using cartoon strips to talk about continental drift, or retelling a story through series of wood carving. Although this approach to multiliteracies is accounted for in the multiliteracies literature, it does not represent the mainstream teachers' perception about multiliteracies.

With regard to the role of language in new multiliteracies agenda, the discourses produced in this study indicated that the majority of teachers assume a very significant

role for language, particularly for writing in literacy education. They feel that despite the claims of the new economy literature, e.g. the new work order and the new communication order, which tend to undermine the role of writing in the students' success in today's societies, writing as the main mode of communication particularly in official and employment contexts plays a significant role in the students future.

4.1.2 The third Research Question

In this section, I present the discourse produced in response to the third research question: what can the discourse produced by these expert practitioners tell us about the ways they perceive their own role as educators amid these technological changes? What does this discourse reveal about the likely changes that our educational institutions might be forced to implement?

Before I proceed with this section's findings, it would be useful to elaborate on the distinction implied in the research question and the discussion that follows, namely schooling vs. education, or to put it in more descriptive terms, "The curricular learning paradigm" vs. the "interactive learning paradigm" (Lemke, 1998).

The curricular paradigm assumes that someone else will decide what you need to know, and will arrange for you to learn it all in a fixed order and on a fixed schedule. ...It is widely refused and resisted by students, and its end results provide little more of demonstrated usefulness in the non-academic world than a few text literacies and certification as a member of the middle class.

The *interactive learning paradigm* dominates such institutions as libraries and research centers. It assumes that people determine what they need to know based on their participation in activities where such needs arise, and in consultation with knowledgeable specialists; that they learn in the order that suits them, at a comfortable pace, and just in time to make use of what they learn. (pp. 293-294)

A practical note for the readers of this chapter also seems to be in order here. In the process of laying out the findings and discussing the findings of the study the term schooling and phrases such as 'distributed learning', distance education', and 'traditional learning environments' all refer to the above mentioned paradigmatic distinction.

4.1.2.1 Emerging Themes

4.1.2.1.1 Teachers' Roles

As mentioned in the method chapter, all of the individuals who have been interviewed in this study are educators who see themselves as empowered (not necessarily knowledgeable) by the changes technology-driven literacies have brought into their teaching environments and their pedagogical practices.

The learning and teaching environments in which these practitioners have been involved ranges from lower secondary classes up to teacher education courses and graduate level courses about technology related topics or courses in which teaching new technologies has been the subject. Some of these practitioners, however, talked about challenges new literacies, whether the technology- driven ones or other non-traditional modalities of expression deployed by their students have presented to them:

Interviewee#2

Well, it's my experience, and speaking with teachers and in their conversations in the classroom, that teachers fear computers, because the very nature of computers and activities on computers often leave the teacher out as being the authority....

...if a teacher is very traditional and very teacher oriented, and I'm thinking about Internet and learning language on the Internet, it's going to be extremely difficult for them to use computers and develop these new literacy skills if they cannot give up ownership to the students.

The data indicated that the majority of these practitioners felt comfortable teaching in classes where new literacies are present in the form of technology-driven skills or other modes of meaning-making that their students chose to deploy. At the same time they mentioned some factors that hindered the integration of information technology in their practices such as lack of time, management problems with the use of the Internet, lack of technological support, and lack of training.

Interviewee # 2

... they're [teachers] not given the time, they're not given training to help themselves, help the students in traditional way. Managing a class of 20 students professionally all day long is hard enough without computers crashing, not being reliable not having tech support. It's really hard to teach another person how to speak English when you can't speak it correctly yourself, and it's really hard to teach them these new literacies if you haven't been taught yourself or you are not fluent.

In terms of being in control of the learning processes, however, these educators all agreed that non-traditional literacy classes particularly where the Internet was involved or when their students chose non-traditional modes of meaning-making might present challenge to their sense of authority and control.

Interviewee #2

Teachers don't like it when they don't have control over the body of the info that the students are going to use. ...

That's kind of scary for many teachers not all.

4.1.2.1.2 Education Philosophy

Having said that, these experts are all in agreement on the reason behind the sense of being challenged and the threat some teachers may feel in technology-driven teaching environment. They believe that their educational philosophy/pedagogical conceptions, particularly the notion of teacher centeredness has a lot to do with what they sense when it comes to their students' involvement with the learning resources with which the teachers find themselves in unfamiliar territories (e.g. where the students prefer to express themselves by means of other modalities rather than writing, for instance, or when it comes to accessing the Internet for information).

Moreover, these teachers assert that the question of teachers' authority is not a new one, but have been around for a long time even before the advent of new ICTs.

Interviewee #2

And the constructivist approach where students take control of their learning etc. has not been around long enough to allow it to permeate through all the schools.

But it's my philosophy that you let student teach you. ... As teachers are being challenged to give up their control and power over to the students to teach the teachers and the [other] students; so the teacher becomes a learner in amongst all.

Interviewee #3

... if you define education in terms of some other philosophical kinds of ways of looking at it like knowledge transfer, things like that, if it's about knowledge transfer then yeah, the teachers are irrelevant and, you know, has always been replaceable by a machine.

An interesting point raised by one of the interviewee was that, compared to traditional literacy classes where the teachers could keep all aspects of learning and teaching under control, the new literacies environment makes the outcome of assuming

an authoritative role for the teachers more drastic and more threatening. He believed, that this was because the students have access to more means to investigate different aspects of the issues and problems discussed in class.

Yeah, I really don't see very many teachers who see themselves like that [as authorities]. Because they're setting themselves up for failure; and particularly with adolescent kids; they're [the teachers] going to be taken down!

4.1.2.1.3 Re/defining Teachers' Role

Discarding the notion of teacher's irrelevance to the context of multiliteracies education on the basis of ascribing the authoritarian tendency on some teachers' part to their pedagogical conceptions, these educators emphasised the importance of re/defining the schooling model of education as well as teacher's role as the key element of any educational system. Downplaying the authoritarian role of teachers, the interviewees all put emphasis on the unique contribution of teachers in managing learning environments, facilitating, directing and scaffolding the students' learning process, and mentoring the students in their educational endeavours.

Directing and managing the student's exploration was considered vital to the students' learning process by most interviewees. These practitioners did not believe that the vast array of information available on the Internet makes accessing, constructing and retaining knowledge any easier without the teachers' monitoring and mentoring of the students in their intellectual engagement. Indeed, one of the interviewees asserted:

Interviewee #5

I think there is very much a role for the teacher to encourage and challenge the students thinking about what

is sufficient and adequate, what is a sound argument what is a good source of information.

The students lead in their use of the technology, perhaps, but they *certainly don't* lead, in my experience, in their ability to think critically and logically and to see through an issue and produce something that is comprehensible by their classmates even as well as by other people outside the class (emphasis mine).

... but the teacher's role again is to stay focussed on, if you'd like, the intellectual elements of the literate engagement rather than the technical ones.

Interviewee #6

... they [the students] don't necessarily have the capacity to be reflective about their own learning in general and specifically around the new technologies that are available.

4.1.2.1.4 Teacher as Mentor

The notion of teacher as mentor was frequently raised by the interviewees, and mentorship was considered both an indispensable requirement for the young students' development and most efficacious to new multiliteracies learning objectives.

Interviewee #4

... so what bring the education system into disrepute is teachers who see themselves as an authority rather than a mentor of the student's learning. The uses of technology for the kids to jump on the web to find out something about eclipses or some piece of additional information, which the teacher doesn't have, that's awesome. And the teachers should be constantly setting that kind of thing up.

I think the teachers are facilitator and the mentor. Kids, young people still need a mentor. And they find that mentorship in different ways. And some of that would be through teacher. Some of the kids will find their mentors from each other at different times and different part of their day. But for sure, when the kids walk into the classroom door, then, as far as I read it, they are accepting the possible mentorship that I can give, and which they can give each other in the classroom environment.

Interviewee #3

I think education is about a social communal process of people learning from, you know, from their elders in some kind of sense of the word, and it has to do with some kind of artful balancing of passing tradition of whatever, and we can argue for as long as we want about whose tradition and all that kind of thing, but it is about passing traditions down and yet doing it in some kind of way that accommodates innovations, creativity, and debate and all other kinds of things, and I think that's what education is about.

4.1.2.1.5 Irrelevance of Schooling and Critical Implications

When asked to comment on their understanding of the distinction made in the relevant literature and research about the irrelevance of schooling versus online learning/distance education, some of the interviewees made reference to the importance of public education as a democratic right of people to affordable education:

Interviewee#3

...I hang on to that [idea of public schooling] because I'm so far afraid of the alternatives. The alternatives to that scare me. I mean I think the alternatives to that you end up getting something that looks a lot more like a feudal system, or you've got people who are in a position to have education and to control power and wealth, and the rest of the people who create value for them.

This suggests that attempts to dismiss the current schooling system and replacing it with online/distant education, thus eradicating the teaching element from education, is not an indicative of the irrelevance of the teachers but is part of the corporate agenda to deny the public of its most reliable and affordable education system.

Interviewee#4

That [distant education] can happen. But that's not undermining the system because of the teachers; that's undermining the system because of the conservative right-wing agenda. I wouldn't be surprised if the system, the education system, is dismantled over the next twenty years and completely privatized. But that dismantling is not because of technology and teaching; that's because of the

right wing corporate agenda which wants to dismantle public education.

Some of the participants felt that software companies are also responsible for the tendency to portray teacher's job as irrelevant by promoting instructional technologies such as intelligent tutoring software and computer assisted learning systems. Research supported by these software companies are mainly interested in making money rather than improving the quality of literacy education.

Interviewee#3

...given that you know [1] you've got budget problems and funding problems and all of this sort of things, and [2] you've got software vendors saying we've got this fabulous new system that makes the teachers' job... easier, more efficient, less necessary, not needed at all, you put those two things together in a fairly right wing political climate, and it starts to look like oh why are we spending money on teachers.

4.1.2.2 Discussion

A close examination of the interview data relevant to the research question three (experts' perception of the teachers' role in technology driven classrooms) resulted in the following observations:

First, I will focus on two related and, at the same time, different issues raised by the third research question in this study:

- 1) The schooling system, more specifically curricular learning and
- 2) The role of teachers in curricular learning paradigm

It is useful to note here that, as mentioned at the beginning of this section, research and theory in the areas of ICTs and new multiliteracies including multimedia/modal literacies are focused on arguing for a paradigmatic shift in literacy

education from curricular learning paradigm to interactive learning paradigm, and assert that the advances of educational technology and the emergence of new literacies warrants a transition toward interactive learning paradigm. Some researchers go even so far as to blame the unwillingness of the schools to incorporate the technology-mediated information literacies on the fundamental conflict between these two learning paradigms (Hodas, 1994). Assuming such shift, then, entails a fundamental change in our educational infrastructure in general and literacy education and literacy pedagogy in particular.

Although assuming this paradigm shift questions the relevance of schooling system, it does not particularly and clearly address the teacher's role and what it could be transformed into to accommodate the proposed new paradigm. Lemke (1998), for instance, after assertively arguing for the interactive learning paradigm, immediately recognizes the position of an element within the interactive learning paradigm, which clearly indicates teachers, or, at the very least, teachers as mentors:

It [interactive paradigm] assumes that people determine what they need to know based on their participation in activities where such needs arise, and in consultation with *knowledgeable specialists* ... (p. 294, emphasis mine).

Similarly, Lankshear, and Knobel (2001) view "deep grammar of schooling" as a barrier for the new literacies to be integrated in the school system thus dismissing the curricular learning paradigm:

Unfortunately, this doesn't alter the case that schools/classrooms are about the last place we should be looking for "new literacies". The idea of the deep grammar of school makes it clear why this is so.

The “deep grammar” of school constructs learning as teacher-directed and “curricular”.

- Schooling operates on the presumption of the teacher as ultimate authority on matters of knowledge and learning.....
- Learning as “curricular” means that classroom learning proceeds in accordance with a formally imposed/officially sanctioned sequenced curriculum which is founded on texts as information sources (Electronic version, third section, ¶ 7).

However, these authors, too, treat the teacher’s role in a different manner within this discourse:

Of course, it is important to approach description and critique of classroom constructions of technological literacy and technology-mediated pedagogy *not* as critique of individual teacher adequacy and performance (Electronic version).

The above reflections from research literature in the field of multiliteracies with regard to schooling is in complete contradiction with the discourses of the participants of this study. The participants of this study do not believe that the ICTs learning environment makes teachers’ job any different than what it has been in traditional classrooms. While some of these educators voice concerns about the challenges they face when it comes to non-curricular learning endeavours by their students, the prevalent discourses emanating from data of the present study assert that the educators philosophy of teaching and the theories of learning they adhere to are the determining factors in whether or not they feel threatened by challenges these new teaching environments present to their authority as teachers.

The apparent dichotomy in the literature, which attempts to render the schooling system irrelevant and still assumes some kind of role for teachers within the new

paradigm, speaks to what the discourses of this study demonstrated. As we showed through the discourse of the participants in this study, teachers believe that their contribution is as vital to new multiliteracies education as it has been to traditional literacy education.

These practitioners see their role as mentors and facilitators of their students' learning irrespective of the kind of literacy/multiliteracies pedagogy they deploy. Comparing the knowledge transfer model of teaching to the actual complexity of teachers' role in learning environments, these practitioners suggest that they would never be irrelevant to learning context because no artificial tutoring system, however intelligent, can replace the role teachers play in monitoring and mentoring the intellectual engagement of the students' learning endeavours.

The main findings of this section suggest that practitioners who consider themselves as empowered by ICTs and have a positive attitude towards implementing the new literacies in their learning environment raise the issue of the importance of revisiting and redefining the role teachers actually play. They call for an appreciation of teachers' role as the unique element of the current curricular learning as well as of any educational system in which an expanded concept of literacy is utilized. All the claims about the advances of educational technology rendering the teaching profession obsolete was rejected on the premise that the theory and research in the field of educational technology and multiliteracy has reduced the role of teacher to merely a link in the chain of knowledge transfer.

4.2 Summary of Findings

"... there can be neither a first nor a last meaning; [anything that can be understood] always exists among other meaning as a link in the chain of meaning, which in its totality is the only thing that can be real. In historical life this chain continues infinitely, and therefore each individual link in it is renewed again and again, as though it were being reborn."

M. M. Bakhtin, "from Notes Made in 1970-71"
Quoted in Holquist, (1986)

The most significant task for this study was that it tried to bring two of the most fundamental and influential discourses of multiliteracies practices together to demonstrate, through juxtaposition of data representing both sides, that how complex, versatile, and illuminating the discursive interplay between these discourses could be.

Without pre-empting what the implication of the discussion in the previous sections of this chapter might seem to the reader, I would call this interplay indeed fascinating and full of wonder; and wonder has been a major force in any scientific endeavour particularly in education where access to hard evidence is scarce.

As fascinating as the interplay I alluded to above might be, it has also harsh and unpleasant aspects to it. I have a lot of positive things to narrate about the quality of the ideas presented by the participants and the depth of the knowledge I came to contact with during this research. I have also developed a greater appreciation for what my colleagues and fellow educators do to enhance their students' learning experiences. In this sacred space, however, I also need to talk about the problematic nature of this interplay.

According to Bakhtin (1986):

Secondary (complex) speech genres, all kinds of scientific research, major genres of commentary, and so on arise in more complex and comparatively highly developed and

organized cultural communication (primarily written).... During the process of their formation, they absorb and digest various primary (simple) genres that have taken form in unmediated speech communion.

The very interrelations between primary and secondary genres and the process of the historical formation of the latter shed light on the nature of the utterance (and above all on the complex problem of the interrelations among language, ideology, and world view). (p. 62)

As demonstrated in the discussion of teacher's role, and the way it was conceived by the two discourses, and the delicacy of the points of view regarding schooling and teachers' role, the current language is not a common plane for both discourse communities. Much should be done to bring them together. This study is a sample of the kind of space where the language of hetroglossia can help create shared meanings, shared understandings, and where the discursive interplay between these at-times-contesting discourses can meld together for 'a greater common good', as one of the participants put it.

The research questions in this study aimed at eliciting practitioners' understandings of, and beliefs and conceptions about the issues pertaining to the notions within multiliteracies approach to new literacy practices and pedagogy. Since this study is not merely concerned with the assumptions of the participants about the notions of multiliteracies per se, the main goal of this section would be to demonstrate the discursive relations between these assumptions voiced by the practitioners and the corresponding voices from theory and research literature in the field of multiliteracies.

This study relied on the work of Bakhtin (1986) primarily for its analytical foundation. However, the significance of the study would not be realized without resorting to what Bakhtin's notions of intertextuality, hetroglossia, and most importantly

primary and secondary genres have brought into the discourses of this project (in terms of their implications and instrumentality to conceptualize further research plans of the similar nature). So in addition to summarizing the discussion of the individual research questions, the summary of the discussion in this section would be, in a way, a recapitulation of the findings in Bakhtinian terms. As discussed in Chapter Two, the most significant contribution of Bakhtin's theory of semiosis is his conceptualization of meaning of utterances. Considering "event" as the basic element of language, Bakhtin goes on to distinguish between two distinct types of "meanings." For Bakhtin, meaning does not only come of the linguistic structure of utterances, but also and more importantly it is the outcome of social interactions which occur between (secondary and primary) speech genres. In his view, linguistic meaning, or a semantic view of linguistic structure only provides the meaning 'potentials': what an utterance *could* mean.

The notions of heteroglossia and primary/secondary genres are particularly relevant to the discussion here. "Each separate utterance is individual, of course, but each sphere in which language is used develops its own *relatively stable types* of these utterances. These we may call *speech genres*" (Bakhtin, 1986, p. 60, emphasis original). Bakhtin emphasises the role of interrelation between primary speech genres (simple) such as everyday talk, and secondary speech genres (complex) such as ideology to determine the dialogical meanings that would arise as a result of the discursive interplay between the two discourses. Based on the assumptions on which this study is built, the data of this study implies two distinct voices at work. On the one hand there is the complex theoretical discourses voiced in the literature related to the field of new multiliteracies,

and on the other hand there are practitioners who need to realize these theoretical discourses in their day-to-day practices.

The idea of primary and secondary speech genre and the dialogic nature of their discursive interplays can be useful in establishing a foundation for a dialogue between the two to enhance teachers' understanding, in Bakhtinian term connecting the primary genre to the secondary. In the context of the present study, the analyses of this study, which are the result of juxtaposing the two secondary and primary speech genres or discourses, reveal different, and at times, obscure aspects of the two genres. This revelation resulting from the dialogic interplay between the secondary and primary speech genres or discourses, take the shape of a heteroglossic discursive interaction between the two genres, which in turn can result in a shared meaning, in its true sense. This shared meaning is the second type of meaning Bakhtin refers to which only emerges out of heteroglossic dialogues chosen from the linguistically oriented resources of potential meanings. As Rogers, et al, (in press) puts it: "Bakhtin describes the dialogic and multi-voiced relationship of everyday speech genres with and among people as heteroglossia, noting that primary genres give life to secondary genres and secondary genres get folded back into, resisted or transformed in primary genres" (p. 3).

Bringing together Bakhtin's notions and this study's discussions, it can be argued that a constructive dialogue established between the secondary (authoritative, complex, etc.) discourses of theory and research and the primary (shaping, transitional, etc.) discourses of practice can contribute to practitioners' understandings and can inform the applications of the secondary discourses, hence bringing the two discourses together.

Wrapped in the data were a lot of themes and points of views which seemed self contradictory at times: Ideas about the use of technology in literacy practices were presented by some of the participants without any recognizable traces to be found in their representation of their actual acts of literacy teaching; that is, in what they said they did in class. Critical thinking for example was claimed to be a characteristic of teachers' role, but the examples of the actual class activities had very little to do with promoting high level thinking. I hasten to add that this in itself is not an indication of ineffectiveness on teachers' part, as one could see a lot of high order thinking activities in their practices. But what is important for the purpose of this study is that they could not relate their literacy activities to the different notions of multiliteracies, technology-related or otherwise. The ramification of the lack of a social dialogue (cf. Bakhtin's living dialogues) between the two discourses, namely practice and theory, would result in, for example, mistaking the mere deployment of communication technology for the practices associated with the concepts of multiliteracies.

The two discourses juxtaposed in the analyses of this study need to be integrated in a living dialogue, in a constant process of rejecting, affirming contesting and reaffirming if they want to attain a shared understanding based on the true realities of today's literacy classrooms. In the discussions of this project's findings in relation to each research question, I came across many strands of themes and topic raised by these expert practitioners. The participant's understandings of these themes and topics differed from the way these topics are conceptualized in the literature.

Moreover, the theory and research in the field do not seem to be well informed about the way the practitioners conceive the literacy related notions emanated from the

advances of technology and local and global changes. In most cases this does not seem to be indicative of the participants' lack of theoretical knowledge, nor does it imply any assignment of the "truth" for any side of the equation. What it implies is that without closing or at the very least reducing the gap between these two major communities of discourse, two speech genres, the current educational system will continue to lose its credibility to provide the students with all the advantages of what technology-mediated multiliteracy practices have to offer.

..... This task falls on the shoulders of us as researchers and as educators.

5 Conclusions and Implications

In this chapter I first render a summary of the study, followed by a brief summary of the findings discussed in the previous chapter. I then present the theoretical and methodological implications of the study. In the following two sections, I will discuss the implications of as well as its limitations in terms of scope and generalizability. After offering some suggestions for further research, I will conclude the chapter with some personal reflection on the process of this research project.

This study set out to explore expert practitioners understandings about some fundamental concerns regarding the new multiliteracies through raising questions about a number of key notions with some frequency in the related literature. These notions were embedded in the interview questions which eventually took an open-ended, conversational format. I list the research questions here to make it easier to follow the discussions.

1. How do expert practitioners' perceptions of the new multimodal literacies and their implications map onto their practices?
2. What are experts' understandings of pedagogical differences between traditional print-based literacy and the new multimodal literacies? What are their conceptions about the status of language in new literacy pedagogy?"
3. What can the discourse produced by these expert practitioners tell us about how they perceive their own role as educators amid these technological changes? What does this

discourse reveal about the likely changes that our educational institutions might be forced to implement?

As mentioned in the Introduction Chapter, the first question: How do expert practitioners' perceptions of the new multimodal literacies and their implications map on to their practices? was included to guide the study, as it was broad enough to be the topic of the study rather than a research question. The issues embedded in the second and third questions, however, were asked of the participants through conversational interviews: the participants were asked to give a brief background about their work or teaching, and then they were asked to talk about the issues in the context of their own teaching or other experiences with multiliteracies.

The research questions functioned as a guideline to help me raise relevant notions from the context provided by the participants' background experiences and in responses to my follow up questions. The discussion section and summary of finding in the previous chapter depicted how complex it was to venture into the spaces of heteroglossia and read through the intertextual voices of the discourse communities examined in this study.

5.1 Implications of the Findings

The preset study was an exploratory project. It set out to explore the participants' understanding about the notions emanating from the recent developments in economical, technological, and global domains and the implication of these developments for literacy practices. The main task of this study was to demonstrate how bringing the two major discourses together in a discursive interplay would illuminate practitioners'

understandings about multiliteracy practices. Although the scope of this study was very limited, but the finding of the study revealed some interesting aspects of the practitioners' attitude towards the issues pertaining to new multiliteracies: The participants' contribution to the discussions about their own role in the present educational system, for example, demonstrated an awareness of the significance of the teachers' role in education. They also demonstrated the willingness to take on the challenges that some technological development presented them with.

In terms of curriculum planning, these findings have significant implications for teacher education programs. They set the agenda for the courses in teacher education programs and teacher development initiatives to equip the teachers with what they need to meet the challenges of the new times.

As for the research, the findings of this study call for a sustainable dialogue between the discourses of theory and practice. Moreover, there is also a methodological contribution to the field of qualitative research in general and ethnographic interview in particular. The shift that the process of interview took, revealed that because of the complexity of the notions in the field of multiliteracies, an open-ended, conversational format is more likely to render reliable data and better experiences for the participants.

In sum, despite its critical tone and tendency to raise differences rather than similarities, creating a space for an ongoing dialogue between the discourse communities of theory and practice will result in the expansion of the traditional notions of literacy to include new multiliteracies.

5.2 Limitations of the Findings

In a sense, the word “How” is not a suitable word to lead the main research question of this study. The “How” of mapping the participants’ understanding onto their practices can be answered with very little certainty by any project of this scale. Considering its scale, the present study succeeded in depicting the complexity of the discursive interplay between the voices of the discourse communities in question. The task of bringing the two discourse communities together through a substantive discursive dialogue requires a bigger corpus of data in which more topics and sub-topics could be categorized and coded to make the juxtaposition of the points of view more comprehensive and more telling.

Another limitation resulted from the sampling of the participants. Although it is more an issue of scale, had I known what I do now, I could have chosen, even the same number of participants with a more rigorous set of criteria in order to make the questions and the topics embedded more streamlined. I should note here that I consider this issue as a matter of data aggregation and theme extraction not an issue of generalizability; this study inherently seeks disparity to make its points. It is by means of finding a contesting voice, among others, that improvement, elaboration, collaboration and transformation enter the primary discourses and elevates it to secondary ones or at the very least bringing them closer.

Further, interview data was the only source of investigation in this study. Due to practical reason mentioned in the Method chapter, I did not have continued access to the participants for follow up questions. Nor did I have any direct observation in a class or

institutional settings. So the validity of the findings is limited to my own value judgement.

5.3 Suggestions for Further Research

The difficulties I encountered in analysing the data of this research suggest that research of this nature need a more comprehensive coverage of the discourses involved in order to generate enough data to provide the chain of utterances needed to establish revealing dialogues between the discourses in question. Such research should seek a more efficient context as well. By context I mean the actual situation in which the understandings of the participants could be examined in the context and against the background of their actual practices.

In order to access literacy teachers' conceptions about the theoretical notions of multiliteracies and to be able to establish a discursive dialogue of the sort that this study argued for, I would suggest that future research should aim for a variety of data types to accommodate the ethnographic nature of investigations with wider scope. For such research, pre-service teacher education and in-service professional development programs seem to be optimal research sites for data collection.

A more rigorous research should include data of different types including:

- A) Descriptive data about the context of situation and the context of culture (Halliday, 1999).
- B) Ethnographic interview data about literacy related theoretical notions and how the practitioners position their practices in relation to theory (Discourse of Reflection, Mohan, 2003).

C) Classroom observation notes, video taping of the literacy activities, course outlines, classroom handouts, etc.

D) Interview data eliciting the practitioners' commentary about their own observed/recorded practices (Discourse of action, *ibid*).

5.4 Concluding Remarks

Any conclusion implies a beginning. As it is the case with any project motivated by personal interest, this one also started with curiosity, with a question. I wanted to know whether the basic uses I was making of the technology that was available to me, mainly a computer with basic application software, was all I could get out of this magic box. As a bilingual language learner, I had already taken advantage of a lot of software for reading, writing, spelling, and so on. I felt very lucky and privileged when I found out that a professor at the University of British Columbia shared my passion and was willing to take me with him on an exploratory journey into the intersections of technology and education. He also shared my interest in applied linguistics, so it was a perfect match. In my statement of intent to apply for the graduate program, I tried enthusiastically to convince the admission committee that developing software for educational purposes was the way to go for second language learning and teaching. To cut a long story short, I have come a long way to see the enormity and significance of the interplays between technology and education, and my supervisor still patiently observes and scaffolds my wandering efforts in this bewildering territories as he perhaps has a better grasp of where I am headed for.

Exploration is the operating concept for this study. The field of multiliteracies is too young to provide a novice researcher with any well-established foundation to build

on. In its initial stages, the word 'exploring' was the only certain concept I could hang my scattered thoughts on: 'exploring pre-service teachers' knowledge about technology', 'Exploring the effects of multimedia on the students' learning ...' and so on. Along with my bewilderment as to how to go about exploring, I continued to explore the vast array of literature on the topic, mostly theoretical. At the same time, due to my expertise in working with communication and information technologies, and with the help of my graduate program supervisor, I was invited to work with pre-service teachers and graduate students who were interested in taking advantage of the educational technologies available to them through the faculty of education. I had the privilege of spending time with these teachers as technology lab assistant, and to observe them at their best times and at their difficult times working with ICTs. I observed them during their intellectual engagement with technology as well as during the time when they could not make any more effective use of a computer than they could with pen and paper. I also witnessed their struggles with learning those technologies, and their hopes for becoming better teachers than their own teachers. I witnessed their progress day by day and at the end of each term, I could see more smiles on their faces.

These observations coupled with my indulgence in the relevant literature presented me with a somehow alarming understanding about the big picture of the education and educational technology, and literacy education in general.

I read about a number of different perspectives on the issues concerning technology and education, pessimistic and optimistic, power and technology, New capitalism, New work order, and the list goes on. But one observation seemed pervasive, and that was that the teachers' conceptions and understanding about the issues pertaining

to literacy and technology seemed to be very different and, at times, uninformed about the complex interplay among the discourses of the new literacy practices portrayed in the literature and research.

Although I was not in a position to talk, with any degree of scientific certainty, about the complexity of the interplay between the two discourses investigated in this study, what seemed commonsense to me was to engage these two discourses in an inclusive dialogue in the hope of gaining shared understandings about some of the pressing issues which in some cases might have detrimental effects on the learners' lives. At the time I did not have the language to talk about the discourses of multiliteracies and the intertextual characteristic of the dialogic interactions that I was hoping to create through this project. But I knew for certain that I was on a right path of exploration, however more complex this exploration seemed compared to my initial sense of bewilderment.

This project has been a struggle, perhaps not different than what I alluded to above when I talked about the student teachers' struggle with technology. However, I believe that this is a productive one, because all the difficulties and messiness of the initial stages of setting up the project are weaving together in an encouraging clarification of the strands of difficulties. Now it seems more manageable to stay at the sites of struggle.

This by no means should be interpreted as a claim that the findings of this study are all in line with what I expected, and I can present you with the perfect research. This is not the case at all. The insights I have attained through the process of this project, however, indicate that today's practitioners are determined to make it work. Through the

participants' comments, particularly on teachers role in the future of our educational institutions, I could clearly see that they would succeed in preserving the best of the past and in combining them with the best of the future, and that they seemed confident.

Our teacher population is a hopeful one. Their professional sensitivities to equity and other social justice issues are greater than ever. As a researcher, I believe we can contribute to the teachers' development, personal as well as professional, by engaging them in constructive dialogues. Even in the small and limited context of this study, the dialogue initiated through the short interview sessions created a space of inquiry and shared understanding between the researcher and one of the participants which expanded beyond the research space to friendship and cooperation in seeking knowledge and deeper understanding. I would like to think that this study has had its own contribution to this hopeful image of future, however small it may be.

References

- Bakhtin, M. (1981). *The Dialogic Imagination*. Austin, TX: University of Texas Press.
- Bakhtin, M. (1986). *Speech Genres and Other Late Essays*. Austin: University of Texas Press.
- Barton, D. (1994). *Literacy: An Introduction to the Ecology of Written Language*. Oxford: Blackwell.
- Barton, D. (2001). Directions for literacy research: Analyzing language and social practices in a textually mediated world. *Language and Education*, 15(2-3).
- Baynham, M. (1995). *Literacy Practices*. London: Longman.
- Beavis, C. (2002). Reading, writing, and role-playing computer games. In I. Snyder (Ed.), *Silicon Literacies: Communication Innovation and Education in the Electronic Age* (pp. 47-61). London: Routledge.
- Block, D. (2000). Problematizing interview data: Voices in the mind's machine? *TESOL Quarterly*, 34, 757-763.
- Bloom, D., & Green, J. L. (1992). Educational contexts of literacy. *Annual Review of Applied Linguistics*, 12, 49-70.
- Boshier, R. & Chia, M. O. (2000). Discursive constructions of Web learning and education. *Journal of Distance Education*. Vol. 15, No 2, 1-16.
- Casanave, C. P. (1995). Local interactions: Constructing contexts for composing in a graduate sociology program. In D. Belcher & G. Braine (Eds.), *Academic Writing in a Second Language* (pp. 83-110). Norwood, NJ: Ablex Publishing Corporation.
- Cope, B. & Kalantzis, M. (Eds.). (2000). *Multiliteracies: Literacy Learning and the Design of Social Futures*. London: Routledge.
- Creswell, J. (1998). *Qualitative Inquiry and Research Design: Choosing among Five Traditions*. Thousand Oaks, CA: Sage.

- Cuban, L. (2001). *Oversold and Underused: Computers in the Classroom*. Cambridge: Harvard University Press.
- Denzin, N. K. & Lincoln, Y. S. (Eds.). (2003). *Collecting and Interpreting Qualitative Materials* (2nd ed). Thousand Oaks: Sage.
- Fairclough, N. (2000). Multiliteracies and language: order of discourse and intertextuality. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy Learning and the Design of Social Futures* (pp. 162-181). London: Routledge.
- Fairclough, N. (2003). *Analysing Discourse. Textual Analysis for Social Research*. London: Routledge.
- Gee, J. P. (1990). *Social Linguistics and Literacies: Ideology in Discourses*. London: Falmer Press.
- Gee, J. P. (1998). The new literacy studies and the 'social turn'. *Madison: University of Wisconsin-Madison Department of Curriculum and Instruction* (mimeo). Available at: <http://www.schools.ash.org.au/litweb/page300.html>
- Giroux, T. H. (1983). *Theory and Resistance in Education: A Pedagogy for the Opposition*. Bergin and Garvey.
- Graff, H. (1991). *The Literacy Myth: Literacy and Social Structure in the Nineteenth-Century City*. (2nd Ed.). New Brunswick and London: Transaction Publishers.
- Halliday, M. A. K. (1996). Literacy and linguistics: A functional Perspective. In R. Hasan & G. Williams (Eds.), *Literacy in Society* (pp. 339-376). London: Longman.
- Halliday, M. A. K. (1999). The notion of 'context' in language education. In M. Ghadessy (Ed.), *Text and Context in Functional Linguistics* (pp. 1-24). Amsterdam: John Benjamins Publishing Company.

- Hasan, R. & Williams, G. (1996). Introduction. In R. Hasan & G. Williams (Eds.), *Literacy in Society* (pp. xi-xxi). New York: Longman.
- Heath, S. (1983). *Ways with Words: Language, Life and Work in Communities and Classrooms*. Cambridge: Cambridge University Press.
- Hodas, S. (1994). Technology refusal and the organizational culture of schools. In *Cyberspace Superhighways: Access, Ethics, and Control (Proceedings of the Fourth Conference on Computers, Freedom, and Privacy.)* pp. 54-75. Chicago: John Marshall Law School.
- Holquist, M. (1986). Introduction. In C. Emerson & M. Holquist (Eds.) *Speech Genres and other Late Essays* (V. W. McGee, Trans., pp ix-xxiii) Austin, TX: University of Texas Press.
- Kellner, D. M. (2002). Technological revolution, multiple literacies, and the restructuring of education. In I. Snyder (Ed.), *Silicon Literacies: Communication Innovation and Education in the Electronic Age* (pp. 154-171). London: Routledge.
- Kress, G. (2000). Design and transformation: new theories of meaning. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy Learning and the Design of Social Futures* (pp. 153-161). London: Routledge.
- Lankshear, C. (1999). Literacy Studies in Education: Disciplined Developments in a Postdisciplinary Age. In Peters M. (Ed.) *After the Disciplines: The Emergence of Cultural Studies*. Greenwood Press. *Linguistics* 12, 49-70.
- Lankshear, C. & Knobel, M. (2001). Mapping postmodern literacies: A preliminary chart. In Suoranta, J., Ylä-Kotola, M. & Inkinen, S. (Eds.) *The Integrated Media Machine*, Vol. 2. Hämeenlinna: Edita & University of Lapland. Retrieved August 23, 2005 from:
<http://www.literacyandtechnology.org/v1n1/lk.html>
- Lemke, J. (1998). Metamedia Literacy: Transforming Meanings and Media. In D. Reinking, M. C. McKenna, L. D. Labbo, & R. D. Kieffer (Eds.) *Handbook*

- of Literacy and Technology: Transformations in a Post-Typographic World.* (pp. 283-301). Mahwah, NJ: Erlbaum.
- McMillan, J. H., & Schumacher, S. (1997). *Research in Education: A Conceptual Introduction* (4th ed.). New York: Longman.
- Mills, S. (2004). *Discourse*. London: Routledge.
- Mohan, B.A. (2003, December). *Social Practices in a Multilingual, Multicultural Learning Organization*. Paper presented at the 30th International Systemic Functional Linguistics Congress, Lucknow, India.
- The New London Group. (1996). A pedagogy of Multiliteracies: Literacy Learning and the Designing Social Futures. *Harvard Educational Review*. 66 (1): 60-92.
- Rogers, T., Marshall, E. & Tyson, C. (in press). Narratives of literacy, teaching, and schooling: Preparing literacy teachers for diverse settings. *Reading Research Quarterly*.
- Rothery, J. (1996). Making changes: developing an educational linguistics. In R. Hasan & G. Williams (Eds.), *Literacy in Society* (pp. 86-123). London: Longman.
- Scribner, S. & Cole, M. (1981). *The Psychology of Literacy*. Cambridge, MA: Harvard University Press.
- Snyder, I. (2002a). Silicon literacies. In I. Snyder (Ed.), *Silicon Literacies: Communication Innovation and Education in the Electronic Age* (pp. 3-12). London: Routledge.
- Snyder, I. (2002b). Communication, imagination, critique-literacy education for the electronic age. In I. Snyder (Ed.), *Silicon Literacies: Communication Innovation and Education in the Electronic Age* (pp. 173-183). London: Routledge.
- Spradley, J. (1979). *The Ethnographic Interview*. New York: Holt, Rinehart & Winston.

Strauss, A. & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks: Sage.

Street, B. (1984). *Literacy in Theory and Practice*. Cambridge: Cambridge University Press.

Street, B. (1998). New literacies in theory and practice: What are the implications for education? *Linguistics and Education* 10, 1-24.

Willinsky, J. (1990). *The New Literacy*. London: Routledge.

Online Sources

Literacy section of Canadian Education Association:

<http://www.cea-ace.ca/foo.cfm?subsection=lit&page=map>

Department of Education, Tasmania:

<http://www.education.tas.gov.au/english/liteng.htm>

A paper presented at the National Educational Computing Conference 2005

Philadelphia, PA. Retrieved August 23, 2005 from:

http://center.uoregon.edu/ISTE/uploads/NECC2005/KEY_6820721/DiBeneditto_NECC_Paper_RP.pdf

Appendix 1

LETTER OF INITIAL CONTACT

Appendix 2

Informed Consent Forms

APPENDIX 3

INITIAL INTERVIEW QUESTIONS

INTERVIEW QUESTIONS

Original Interview questions

1. What is your understanding of new multiliteracies and how it compares to traditional, print-based literacy?
2. What are the implications of new multiliteracies for literacy education?
3. How does the new information & communication technologies bear on those implications?
4. What are the effects of the new multiliteracy pedagogy on the present curricular schooling? For example, is the status of teachers as authorities in knowledge and learning likely to change in the light of new multiliteracies? How?
5. How do you see the role of language in multimedia/modal literacies compared to its role in traditional, print-based literacy?

Appendix 4

List of Themes/sub-themes for the “Teacher’s Role” component of ~~the~~ second research
question

Educators' perceptions of their roles in new literacies classrooms

Themes:

Teachers' role

1. Managing the students' exploration of technology/online learning
2. Directing and scaffolding the students' learning of new literacies
3. Facilitating and mentoring not authority

Issues

1. Teachers' authority threatened not because of the nature of technology/new literacies but because of their pedagogical assumptions/ educational philosophy.
2. Losing control of the learning processes.
3. Teaching philosophy [student vs. teacher centred etc.] as determining factor in assuming a particular role.
4. Teachers' attitude towards technology/new literacies.
5. Intelligent tutoring systems as threat to teaching profession.
6. The inefficacy of teacher training in enhancing teachers' role.
7. Redefining the complexity of teachers' role [innovation, creativity, debate, etc.] to determine teachers' contribution as a unique element of education system.
8. Acknowledging teachers' role in the schooling model of education to protect public education from the sources of power to take over/ corporate agenda & distance education/ privatization.
9. Young people's need to see teachers (and fellow students) as mentors.
10. Managing technological aspects of new literacies not being as important as mentoring students on the intellectual engagement of their learning process
11. Constraints on teachers' role coming from testing regimes rather than the focus on print based literacy per se
12. Building new literacies into curriculum rather than eradicating the schooling system

Appendix 5

Sections of data aggregated based on the “Teacher’s Role” component of the second research question. Line numbering is a locating device to reference the occurrences of the theme in question in the main corpus. Ample margin provides space to mark additional sub-themes and emerging issues.

Sections related to "Teachers' Role"

Interview #2

53-59

1 I don't know what the difference was between the book and
2 that tool but I believe that for some children there is a difference.
3 And when the teacher realize that and not use technology for the sake
4 of technology but that tool will help that child learn to comprehend,
5 slow down and read etc. then that's an effective use of technology.
6 The entire time, all my teachers, I'm asking them too: is this the best
7 use of this tool?

Tech management

8 111-117

9 For example if they're in grade 10-11-12, and they are doing
10 Shakespeare, they might find some sites that have relative
11 information on Shakespeare, and a question might be for their
12 students: Was Shakespeare a hero or a rogue. In other words was he a
13 writer that was respected during his time or not. They go off different
14 sites, they're not lost on the web but they're focusing on different site
15 to bring back information to answer that question.

*Directing & Scaffolding
is learning*

16 123-143

17 Well, it's my experience and speaking with teachers and in
18 the conversations in the classroom, that teachers fear computers,
19 because the very nature of computers and activities on computers
20 often leave the teacher out as being the authority. For example,
21 teachers back in the seventies as I experienced it had a textbook that
22 had everything in it. A chemistry textbook that if you'd learned
23 everything in it, and the teacher knew everything in the textbook,
24 only stayed one week ahead of them, then you knew it all. But on the
25 Internet, it's not that way. As I was telling you earlier about
26 recursiveness, it changes. Recursiveness of the Internet is incredible;
27 how quickly people can change things without you knowing about it,

*Threatened Ts'
authority*

28 how often things are added, many different viewpoints, opinions,
29 hearsays, facts, etc can be changed very quickly. Teachers don't like
30 it when they don't have control over the body of the info that the
31 students are going to use. So teachers, its my experience with
32 teachers and their report that they fear that to allow their student to
33 get out into the Internet or the CD ROM where they don't have
34 control over the information, they cannot guarantee that the students
35 will be reaching the exact same level and in the same universal body
36 of information. That's kind of scary for many teachers not all.

lose cont

*Threatened
authority*

37 148-178

38 Yes and yes: it's a little of both. Whoever the assessor and the
39 assessee is in any situation there is a power differential right away,
40 and in most cases in education the person who is doing the assessing
41 has the power and it will determine what criteria and what abilities,
42 that the student or knowledge the student has to have to be able to
43 pass. And often the students are let in on that. It's my experience that
44 traditional teaching has not encouraged that as well. Someone told
45 me a long time ago that there is research that shows we teach the way
46 we're taught. And the constructivist approach where students take
47 control of their learning etc. has not been around long enough to
48 allow it to permeate through all the schools. And there are so many
49 things that teachers have to do in a day that... the time that it takes
50 to be able to assess to coordinate upgrade yourself to learn new skills
51 to be able to teach the student this new constructivist approach or
52 student centered approach... It's very difficult specially in their realm
53 when there is unlimited information to access and you haven't got
54 the time where student or teacher waste looking at 400 sites when
55 there is really only 3 that are pertinent to your topic.

Teaching philosophy

TS' assumption about

56 So power and also philosophy of power, belief philosophy,
57 teaching philosophy, but also the amount of information that comes
58 out on the Internet or on CD ROMs. And skills you need to get to
59 that information is another factor that hinders teachers. They don't

60 have the time to upgrade their skills to be able to help their students.
61 But it's my philosophy that you let student teach you as teacher so in
62 computers as teachers are being challenged to give up their control
63 and power over to the students to teach the teachers and the student;
64 so the teacher becomes a learner in amongst all. And that's difficult
65 for many teachers that have problems with management; not
66 everyone have problems with management, but teachers ...any
67 teacher who has management issues is going to have problem.

68 363-384

69 No....other than the only thing that I can see that's going to
70 hinder changes or the possibility of changes are teachers' negative
71 attitude towards this particular tool. And they have every reason to be
72 negative about it; they're not given the time, they're not given
73 training to help themselves, help the students in traditional way.
74 Managing a class of 20 students professionally all day long is hard
75 enough without computers crashing, not being reliable not having
76 tech support. It's really hard to teach another person how to speak
77 English when you can speak it correctly yourself, and it's really hard
78 to teach them these new literacies if you haven't been taught yourself
79 or are not fluent.

80 And the last thing is if a teacher is very traditional and very
81 teacher oriented, and I'm thinking about Internet and learning
82 language on the Internet, it's going to be extremely difficult for them
83 to use computers and develop this new literacy skills if they cannot
84 give up ownership to the students; and have the student lead the way
85 with them, like become a partner in learning, because you can't
86 control information or how the language is going to be learned or
87 experienced.

88 So those are the major challenges; cost, time, computer
89 reliability and then philosophy of teachers if it doesn't change. Those
90 are the real challenges.

Teaching philosophy
Power issues

T's attitude
toward Tech.

T. philosophy

Teacher/student
Centeredness

91 Interview #3

92 260-300

93 Yeah, I mean, this is, one of the thing that has been really
94 driving my work here, has been role of the teachers in all of this,
95 because you run across different thread of discourse within
96 educational technology. One really really obvious one is, you know,
97 computer aided instructions and those kind of intelligent tutoring
98 systems and all of that sort of thing which replace the teacher, make
99 the teacher obsolete, make the teachers' job easier and all of these
100 kinds of things, which, I mean, you can take that as a pretty serious
101 threat to the sense of professionalism of the teacher's ? pension? It's
102 a threat to the teaching profession, I think, or you can definitely take
103 it as such. So there's sort of respond to that. There is a lot of talk
104 from, you know, teacher's Federation and the people like that, "we
105 need to train the teachers we need professional development for the
106 teachers." In my view those efforts to, you know, let's get the
107 teaching profession up to speed with all this stuff so that we're still
108 relevant with all of this technologies have been, you know,... well
109 I'd go so far as to say pretty much unsuccessful. I don't think that
110 that has worked in terms of trying to take something and, you know,
111 suddenly transform the teaching profession so that it make sense with
112 computer aided instruction or whatever. And the reasons for that are
113 interesting and, you know, I'm going to go off and write a thesis on
114 that, or something around that, but to get back to what the driving
115 question there is, is that are we in a situation where given that you
116 know you've got budget problems and funding problems and all of
117 this sort of things, and you've got software venders saying we've got
118 this fabulous new system that makes the teachers' job you know
119 easier, more ^② efficient, less necessary, not needed at all, you put those
120 two things together and in a fairly right wing political climate and it
121 starts to look like oh why are we spending money on teachers so I
122 think that somewhere lurking in all of this a fairly sort of real

Different Ds.

Threats of Tech.

* Intelligent tutoring
system

Teacher ed.
to promote T's role

① Funding limit

123 practical threat that the role of the teacher in the whole thing gets
124 undermined because the teacher become more and more irrelevant,
125 so what do you do about that? I meant one of the things you have to
126 do about that is maybe professional development for teachers which
127 is to, you know, just hit that problem head on and try to, you know,
128 put sandbag up against it, I think maybe more fruitful but maybe
129 optimistic, on my part, approach is to go back to what's the teacher
130 really doing. If the teachers role is to ... can be reduced to what the
131 software is doing, are we really doing justice to what the teacher role
132 really is, or is the teachers' role actually whole lot more interesting
133 and complex?

*redefining/understanding
what teaching is all
about*

134 333-363

135 Yeah, and ok, and that boils down to, I mean, you're right.
136 You're exactly right in pointing that as my point of departure; yeah, I
137 will, I own that point of departure on, I don't know, some kind of
138 ideological, philosophical basis, that yeah, I think education is about
139 a social communal process of people learning from, you know, from
140 their elders in some kind of sense of the word, and it has to do with
141 some kind of artful balancing of passing tradition of whatever, and
142 we can argue for as long as we want about whose tradition and all
143 that kind of thing, but it is about passing traditions down and yet
144 doing it in some kind of way that accommodates innovations,
145 creativity, and debate and all other kinds of things, and I think that's
146 what education is about, and I think that if that's philosophically
147 where you take off about what education is for and about I don't
148 think anybody has come up with anything better than students and
149 teachers. It's easier to talk about instructional technologies, I think,
150 as a global kind of a term, if you define education in terms of some
151 other philosophical kinds of ways of looking at it like knowledge
152 transfer, things like that, if it's about knowledge transfer then yeah,
153 the teachers are irrelevant and, you know, has always been
154 replaceable by a machine. Yeah, I'll own that, that I do, you know,

Teachers as mentors

*what are the
alternatives
Teacher's role as a
unique element of
ed.*

155 I'm a ... I grew up in Trudeau era Canadian and I still hang on to that
156 Canadian liberal tradition of a common good. As historically
157 contingent as that might be, I still think that's where we are. I mean,
158 and to go so far as to say maybe I'm really, ... hang on to that *Alternatives?*
159 because I'm so far afraid of the alternatives. The alternatives to that
160 scare me. I mean I think the alternatives to that you end up getting
161 something that looks a lot more like a feudal system, or you've got *power issue*
162 people who are in a position to have education and to control power
163 and wealth, and the rest of the people who create value for them. And *public rights*
164 that seems just a funny place to be after a couple of centuries of *protected only in*
165 social movement. It's interesting; I sound like a real modernist here! *Schooling parad.*

166 **Interview #4**

167 I don't think that technology will question the schooling *schooling*
168 system. I think what'll bring the schooling system into disrepute is *facilitator &*
169 teachers who see themselves as authority. We shouldn't see ourselves *mentor,*
170 as authority- with technology or without it- in any case. Because the *No authority*
171 students' lives are always more, way more, rich than ours. If you've
172 got twenty four kids sitting in your classroom, there is twenty four
173 bits of richness going on. Whereas there is only one teacher with
174 only one bit of lifetime. The teacher might be thirty years old. That
175 might be shorter lifetime, but that's already richer so what bring the
176 education system into disrepute is teachers who see themselves as an
177 authority rather than a mentor of the student's learning. The uses of
178 technology for the kids to jump on the web to find out something
179 about eclipses or some piece of additional information, which the
180 teacher doesn't have, that's awesome. And the teachers should be
181 constantly setting that kind of thing up. I think most teachers do. I
182 think teachers do that in any case. And relatively few teachers in my
183 experience that I chat to really see themselves as the sole authority in
184 the classroom. Yeah, I really don't see very many teachers who see
185 themselves like that. Because they're setting themselves up for

186 failure, and particularly with adolescent kids; they're going to be
187 taken down!

188 How important teachers' role really is?

189 It's vital. I think it's vital. I think the teachers are facilitator

190 and the mentor. Kids, young people still need a mentor. And they

191 find that mentorship in different ways. And some of that would be

192 through teacher. Some of the kids will find their mentors from each

193 other at different times and different part of their day. But for sure,

194 when the kids walk into the classroom door, then, as far as I read it,

195 they are accepting the possible mentorship that I can give, and which

196 they can give each other in the classroom environment. So I don't see

197 new media and new technology as being a huge threat to real

198 teaching and learning. I think it can only enhance that.

199 Distant, and online learning, distributed learning that's going

200 to sure happen; kids are going to go for that, people would go for

201 that, schools would go for that. It's cheaper. There's economy of

202 scale there. It's delegating the responsibility back to the individual.

203 It's part of the kind of newer ethic? agenda. That can happen. But

204 that's not undermining the system because of the teachers; that's

205 undermining the system because of the conservative right-wing

206 agenda. I wouldn't be surprised if the system, the education system,

207 is dismantled over the next twenty years and completely privatized.

208 But that dismantling is not because of technology and teaching; that's

209 because of the right wing corporate agenda which wants to dismantle

210 public education.

211 Interview #5

212 186-205

213 I think teachers' role is just as vital. And it's around the same

214 issue. Even though the medium has changed from the pencil on the

215 page to the cursor on the screen. I think there is very much a role for

216 the teacher to encourage and challenge the students thinking about

*TS' role vital
for young adult
as mentor*

*positive eff.
of Tech. on TS
role*

*Distance ed
as part of corporate
agenda*

*TS' role as
director of the
S's exploration
management*

217 what is sufficient and adequate, what is a sound argument what is a
218 good source of information. The student lead in their use of the
219 technology, perhaps, but they certainly don't lead, in my experience,
220 in their ability to think critically and logically and to see through an
221 issue and produce something that is comprehensible by their
222 classmates even as well as by other people outside the class. So the . *Ts. as*
223 role of the teacher as someone who acts as a surrogate public or a *mentors*
224 tutor in the very process of thinking is every bit as important. And
225 the fact that the student come to class with a certain technical finesse
226 or ability, I've always argue there is something that the teacher
227 should take advantage of and not to see themselves as somehow at a
228 deficit with regard to but, the students can help the teacher with the
229 technology and can provide some leadership in the class around
230 putting up the webpages or whatever, but the teacher's role again is *Ts. as mentor*
231 to stay focussed on, if you'd like, the intellectual elements of the *in management of*
232 literate engagement rather than the technical ones. *the intellectual*

233 **Interview #6**

234 **54-61**

235 As I said at that stage it was pretty open and there wasn't
236 anything that we've got now as IRP that are mandatory learning
237 outcomes and whole structure that are ??? So from my own teaching
238 experience, I wasn't constrained by the curriculum. Teachers at this *Ts' role*
239 stage are very much constrained by the externalities of a variety of *constrained*
240 sorts one be the testing regime, you know, and as well as the *more by testing*
241 curriculum. That really really limits substantially the autonomy the *regimes than tech.*
242 teacher has.

243 **71-80**

244 The way in which information is chunked as opposed to sort
245 of a more coherent structured kind of approach that's implicit in
246 print. So I think there are definitely something to learn that are
247 perhaps picked up by students who spend a lot of time on the

248 Internet, but maybe not, they don't necessarily have the capacity to
249 be reflective about their own learning in general and specifically
250 around the new technologies that are available. On the other hand, *TS role as*
251 I'm among those who think that there isn't really very much impact *mentor & intellectual*
252 that the technology has had on the school and the classroom *commentator*
253 experience. *Downplaying Tech's*

254 256-265 *impact*

255 I guess that I see schooling covering a number of social
256 objective that I'm not sure can be done by pulling kids out or there is
257 certainly some of that happening. But I guess that even though the
258 testing regime and the curricular regime really focus on some *advantages &*
259 particular sets of the literacy issues ... that ... there is a whole lot of *disadvantages*
260 things that are going on in the school that go well beyond that.

261 I guess people who present this view or make this distinction
262 [school learning vs education] are not for the eradication of schooling *schooling*
263 but rather to save it by implementing more new literacies into our *verified*
264 curricular learning by building those new literacies into our
265 curriculum.

266

267