THE THREE Rs OF ONLINE LEARNING:
INTERPRETIVE VIEWS OF THE SOCIAL PRACTICES OF
READING, REREADING, AND REVISITING

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
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Abstract

As participation in formal online learning continues to be more commonplace in higher education, high schools, and middle schools (Means, Toyama, Murphy, Bakia, & Jones, 2010), contextualized explorations of social practices important to learning in discussion-based online learning environments (DBOLEs) are called for. This research combines both online learning and literacy research perspectives by examining quantitative and qualitative data from an interpretive perspective to better understand the less visible, less studied, and typically less instructor-valued practices of reading, rereading, and revisiting (the 3 Rs) in DBOLEs. This study of the behaviours and opinions of 137 students, one instructor, and their 13,754 entries in eight online graduate education courses investigates the social practices of the 3Rs and those practices related to subject titles. Revisiting others’ word-for-word ideas and creating/selecting information by subject titles are new literacy practices taking place in online learning that ordinarily do not have identical practices in face-to-face classrooms. These practices are essential to online learning and are important to understand. An instructor interview contributed thoughtful perspectives while documenting understandings of how learners’ social practices can be supported and valued. Through an explanatory sequential mixed methods design, the findings are presented in three sub-study formats.
This study finds that participants revisit many entries, sometimes multiple times, to further their understandings or seek clarification, or participate socially in the online learning environment. As well, the findings suggest that creating subject titles is an important practice that influences the learning of both the author and the reader. These findings call for consideration of a pedagogical change in the value placed on these less visible practices, supported by instructional design modifications highlighting, for both instructors and students, the importance of reading and revisiting activities.

Finally, it may be valuable to consider more deeply exploring and documenting the social practices taking place in online learning in order to contribute to a potential lowercase theory of new literacies in online learning, under the wings of the evolving uppercase Dual-Level Theory of New Literacies (Leu, Kinzer, Coiro, Castek, & Henry, 2013). This research could be considered a contributing body of work.
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Chapter 1
Introduction

Being able to go back and re-read the notes is helpful to me because I can think about the ideas other students post, and either agree and add resources or ask challenging questions related to other articles I have read to be able to open up the discussion. By being able to re-read a post, it makes it easier to follow the different threads and keep your thoughts about you. With a lot of posts it is easy to get lost in the online posting game. (Marlize)

It’s nice to feel you have access to that prior learning and to be able to bring it back into the discussion and to connect those ideas, ’cause I think it helps to really bring all those ideas together and tie everything up sort of nicely in the end ... and, yeah, I definitely think it has a positive impact there. (Oliva)

This chapter introduces the study, the research purpose, the researcher context, and the potential significance of this research

1.0 Introduction

Online learning is becoming a more common option for high school and post-secondary learners (Allen & Seaman, 2013; Johnson et al., 2016; Johnson, Adams Becker, Estrada, & Freeman, 2015). Learning from a distance may appeal to students who otherwise may be unable to access on-site classes for reasons such as geographic or transportation limitations, family responsibilities, work obligations, health needs, or time restrictions (Wolfe & Gregg, 2015). Since online learning is becoming a site of learning for more and more students, it is important to understand the experiences of those who are participating in interactive learning where technology facilitates human interaction asynchronously, and “learning emerges through interaction” (Means, Toyama, Murphy, Bakia, & Jones, 2010, p. 4) with others within a threaded discussion environment. These types of online learning activities take place in a discussion-based online learning environment, which is referred to as a DBOLE throughout this document.
While face-to-face teaching and learning practices have been studied from the perspectives of a variety of research paradigms, research in online learning has typically been framed within the positivist paradigm (Wang & Torrisi-Steele, 2015). In examining the context of learning within online discussions, such research is typically premised on the assumptions that students’ learning is evidenced by posting a certain quantity or quality of entries and that interactions with other students through discussion responses support and enhance student learning (Rourke & Kanuka, 2009; Wise, Speer, Marbouti, & Hsiao, 2013b). Online discussions are assumed to benefit learners because students have the opportunity to reflect on others’ entries while composing their own, and to edit and reflect on their entries before posting them for others to read and comment on (Swan, Shen, & Hiltz, 2006). Since successful learning in a DBOLE is presumed to be visible through written entries of a particular quality, does this mean that learners who do not demonstrate the expected evidence are not learning successfully? The creation of insightful entries may not be the only way to demonstrate a successful learning experience in online learning discussions.

Further to this, not all online learners may be familiar or comfortable with learning in a DBOLE in the same way (Dennen & Wieland, 2007; Goodfellow, 2004). Students adopt different approaches when engaging with online discussions and contributing entries (Vogler et al., 2013). For example, online learners, who are perhaps unfairly characterized as lurkers (Perkins & Newman, 1996) or passive participants (Goodfellow, 2004) may still, in fact, be learning and participating. It is possible that learners who could be characterized this way are learning but do not exhibit the expected behaviours for reasons such as unfamiliarity with the environment, concerns about expressing themselves in written text, learning preferences that do not value others’ opinions, doubt about the quality of the other students’ opinions, concerns
about copying or plagiarism, social pressures of joining the discussion in an acceptable way, learning processes that are thorough or time-consuming that result in selective or brief text contributions, and many others. Sutton (2001) identified vicarious learners as those who may be able to achieve learning benefits without overt interaction. As well, Perkins and Newman (1996) propose that “virtuoso” participants exhibit particular skills in online discussions and are able to model these for those who may be new to the DBOLE. Of course, it is possible that not all learners will understand what is expected from these models or that they will even exist in a particular online course. Could it happen that a learner observes and adopts a model from another learner who is not prolific with entries or is not providing the written evidence that the instructor expects? A better understanding of the interactive behaviours of online learners may help to guide an understanding of how to support students whose learning behaviours are less obvious in the online learning environment.

Along these lines, Ebner and Holzinger (2005) investigated online discussion interactions and justified their inclusion of typically less visible reading activities by concluding that a “higher degree of visible interactions is not a precondition for higher learning efficiency” (p. 75). Reading is an important component of online learning since it would not be possible to insightfully respond to others’ entries or participate in a discussion without first reading the discussion entries. The process of reading in a DBOLE has not been as heavily studied as online participation shown through entries. For example, some researchers have documented observable patterns of reading within their overall studies of participant behaviours. For example, Vogler et al. (2013), using a new literacies perspective as a theoretical framework, described three patterns of participant behaviours observed in a blended learning study of

(a) a methodical reading of most messages, and composing of responses occurring as the reader/writer thinks of it;
(b) a coordination of reading, thinking, and writing, with careful revisiting of messages already read and deliberate crafting of responses; and
(c) a complex orchestration of processes, with several reading resources consulted in addition to the conversation’s unfolding messages as well as composing processes that were interleaved with thinking and reading (italics added for emphasis, pp. 211–212).

Measures of reading in online learning discussions can be challenging because while an entry can be opened and appear on the participant’s screen, without sophisticated measuring tools such as eye-tracking devices, it is difficult to know whether the entry has actually been read. Skimming and scanning may be a common practice as students search an entry for some information of interest upon its first opening or when reviewing entries that have been previously read (Wise, Zhao, Hausknecht, & Chui, 2013c). Researchers have proposed time measurement metrics related to scan rate in order to predict if an opened entry had most likely been read or skimmed. In a 2007 study, Hewitt, Brett, and Peters calculated an average reading rate of four words per second, and operationally defined the term scanning as “a reading speed equal to, or in excess of, 8.0 words per second” (p. 219). Even with these proposed metrics, looking at only quantitative data does not truly tell us what the students are doing when an entry is opened.

Further, it could be argued that reopening an entry is a purposeful activity, intended to look for specific information. The act of reopening implies an intention to reread, at least in part. While quantitative data can identify revisiting activities as opening a note twice or more, it is important for students to explain the importance of the rereading, which may take the form of detailed rereading, skimming, or scanning that is presumed to take place upon reopening the entry. Often instructors and other students do not have easy access to indicators of entry opening or reading activities of others in a DBOLE because of limitations of the learning software. For example, it is not possible in the learning management system Blackboard for students to easily see who has opened each other’s entries.
While reading and rereading in a DBOLE are important to the learning experience, few studies have deeply examined the complex and dynamic processes enacted by students as they engage in reading, rereading, and revisiting (Vogler et al., 2013). In fact, rereading an entire entry or revisiting an entry in order to scan or skim, as important practices in online learning, have not been highly researched. Some studies have anecdotally observed rereading as an important process (Beth, Jordan, Schallert, Reed, & Kim, 2015; Vogler et al. 2013). For example, Vogler et al. (2013) observed a participant who “seemed to intermingle the processes of reading, rereading, composing, editing, and meaning making through her response construction” (p. 226). Some respondents in this study would revisit entries to reread only part of an entry as a check-in or to verify or clarify a point. Other research, such as Wise, Hausknecht, and Zhao’s (2013a) study of online discussion participation as listening and speaking, which challenged the notion that students read other students’ entries, found that rereading other students’ entries led to better responsiveness. Since online discussions are not linear activities, given the ability to go back and jump ahead to read entries in any order, it has been suggested that not one pattern of literacy processes “seemed to provide the conversation with messages that were more substantive, robust, or in some other way ‘better’ than any other pattern” (Vogler et al., 2013, p. 233).

It is, therefore, important to document and understand what the less visible practices of reading, rereading, and revisiting may mean to participants, as these affect learning experiences. These are referred to as less visible practices because writing activities are visible through the creation of entries, but the reading, rereading, and revisiting of entries is not readily apparent to others. It may be that many cases of revisiting entries are purposefully intended to reread some or all of the entry in order to verify or clarify a point, or to assist in more deeply understanding a
point that was addressed in that entry. For the purposes of this study, the terms *rereading* and *revisiting* may refer to the same activity. To clarify, a participant may refer to *rereading* an entry when describing their interaction with the contents of an entry. Only the participant would know if they actually reread part or all of the entry. On the other hand, the data provided in the transaction logs imply that the entry was reread in some way, but the data can only identify entries that were opened by the participant and cannot identify how the participant then engaged with the text of the entry. It is possible that an entry was opened more than once (revisited) and not reread. It is unlikely that a participant would go through the steps to open an entry twice or more unless it was intended to be reread in some way. As well, it cannot be truly assumed that the original entry was entirely read in the first place. It is possible that an entry could be revisited in order to complete an interrupted reading or to read portions of the entry that were scanned or skimmed earlier. In order to better understand the implications of reading, rereading, and revisiting in a DBOLE, an investigation into patterns of these practices, into their relationships to writing, and into students’ and an instructor’s perceptions of these activities could potentially inform our understanding of students’ online learning experiences. Since revisiting involves reading or rereading, there are various perspectives that may help guide our exploration of these less visible activities in online learning discussions.

The relationship between literacy and reading is established in the literature but is not always viewed in the same way. Often, literacy can refer to literate acts involving reading or writing (Kelder, 1996). Some refer to literacy as a “deictic term—one that changes continually depending on the frame of reference in which it is used” (Leu as cited in Kinzer & Leu, 2016, p. 2). The contexts in which these reading or writing acts take place are important to our understanding of these practices. A sociocultural perspective of new literacy practices could
potentially inform an understanding of the online learning discussion interactions that involve textual reading and are often related to writing activities. Such a framework has not been deeply adopted by the online learning community and, therefore, could provide a thoughtful perspective to add to our understandings of online learning discussion practices that may be less visible to others but, nevertheless, are important to online learners.

Although not in the online context, a few accounts of research on classroom discussions also contribute to guiding this study. In addition to Heath’s (1983/2009) ethnographic and linguistic study of language use and interactions in the communities of Trackton and Roadville, and Barton and Hamilton’s (1998/2012) ethnographic-style study of social practices in the community of Lancaster, Clay (1991), a literacy researcher, documented her observations of classroom communications, and Cazden (2001), a teacher and literacy researcher with a sociolinguistic background, provided some examples of her research in classroom communications. These serve as examples for studying communication in discussion form in the online classroom of a DBOLE. These studies are further detailed in the Chapter 2.

A challenge to this approach of examining the three Rs of reading, revisiting, and rereading in a DBOLE is that literacy research has, in the past, been hotly contested and, at times, has divided the research community with significant tensions (Tierney, 2013). However, Tierney (2013) recently expressed some optimism that the literacy research community is once again “embracing a diversity of ideas and epistemologies” (p. 32). Researcher interests have shifted away from positivist views of measuring activities, such as reading, to interests, ontologies, and epistemologies embracing “socio-cultural-political elements as integral and intermeshed with rather than detached from reading” (p. 34). By way of background, literacy research took a sociocultural turn after ethnographic anthropologist Heath’s work, first published
in 1983, and research by researchers such as “Judith Green, David Bloome, Victoria Purcell-Gates, and Brian Street [that] have proven to be foundational to reconceptualizing literacy [and] to a broadening of what we studied, how, why, and with whom” (Tierney, 2013, p. 37). Tierney (2013) also observed a move to “research that was more site-based and subjective, demanding participatory approaches rather than feigned objectivity” (p. 38). It is promising that it now seems that “research seems more organic than manufactured, more community-based than commercialized; literacy researchers seem to be reclaiming constructive conversation and debate rather than vitriol and dismissive critiques” (p. 41). The view that literacies are multiple, local, made up of diverse social practices, and influenced by language, culture, context, and ideology (Street, 1995) is influential to this research. There is a clear interest in better understanding literacies in depth where they occur, and a recognition that research related to literacies can be of value if studied where they are situated.

There is a large body of research examining literacies in many contexts; studies examining reading in digital spaces are relatively recent and evolving. One study by Goodfellow (2004) applied a social literacies lens when examining online distance environments, arguing that “reading, writing and sending messages in online classrooms is literacy in just the same way that reading textbooks, writing essays, giving lectures and making notes is” (p. 396). He argued that shifting from print- to text-based literacies represents a challenge where “communication replaces all place-based interaction” (p. 396). The author claims there is a gap in research in this area, especially related to the “social-and-cultural domain of online literacies” (p. 397). Goodfellow observed “disparate textual practices of individual participants in virtual interaction” (p. 396). He calls for research that foregrounds the “social factors in shaping the writing that learners do to enact and recognize each other’s views of the learning relationships, constructed
through online interaction” (p. 397). There is a need to investigate social literacies in online learning environments in order to better understand the interactive and textual experiences of learners and the social complexities therein.

Related to this is the importance of an exploration of the terms literacy and literacies, which will be discussed in more detail with further scholarly views in the Chapter 2. During the 1980s and 1990s, a view of literacy developed with “a sociocultural perspective within studies of language and the social sciences” (Lankshear & Knobel, 2006, p. 10). Along with the 2001 U.S. No Child Left Behind Act, an educational focus of literacy emerged with the following five perspectives:

1. Literacy replaced reading and writing in educational language;
2. Literacy became a considerable industry;
3. Literacy assumed a loftier status in the eyes of educationists;
4. Literacy came to apply to an ever increasing variety of practices; and
5. Literacy is now being defined with the word new. (p. 12)

Lankshear and Knobel (2006) explain a change in understanding away from a psychological perspective, that “by adopting and developing ‘literacy’ as their key word, socioculturally oriented theorists, researchers, and educators sought, among other things, to bypass the psychological reductionism inscribed on more than a century of educational activity associated with ‘reading’” (p. 13). Further, Mills (2010) explains that “digital communication has transformed literacy practices and assumed great importance in the functioning of workplace, recreational, and community contexts” (p. 246). Notably, a common understanding of the term literacies does not exist. Lankshear and Knobel (2004) propose one perspective that “literacies come and go as changes occur regularly and from place to place within the constitutive conditions of doing textual work. The idea of ‘new’ literacies is associated with such changes” (p. 1). Literacy scholars such as Leu, Kinzer, Coiro, Castek, and Henry (2013) and Street (2003,
Welcome the reconceptualization of the traditional view of literacy, as the ability to read and write words, to a new literacies perspective.

New literacies often refer to literacies that are linked to textual processes involving digital technology (Lankshear & Knobel, 2004). As well, literacies “involving ‘contemporary’ text-mediated social practices” are also referred to as new literacies (p. 1). Lankshear and Knobel (2004) remind us that “ascriptions of new literacies are relative and contestable” (p. 2). More importantly, these authors note that “reading” involves new kinds of operations. There is a further and larger point, however. This is that new kinds of social practices emerge as well. People begin to develop and to participate in text-mediated practices that simply did not exist before because they could not. (p. 2)

New literacies’ theorists Coiro, Knobel, Lankshear, and Leu (2009a); Lankshear and Knobel (2006, 2013); Leu, Kinzer, Coiro, and Cammack (2004); Leu, Kinzer, Coiro, Castek, and Henry (2013); and New Literacy Studies (NLS) theorist Street (2003) call for educationally applicable research in order to provide a deeper understanding of learning in formal learning spaces through the exploration of new social practices and the literacies associated with those practices. Specifically, Lankshear and Knobel (2013), when calling for new literacies research, explain that,

[due to] the very “newness” of the phenomena under investigation, plus the fact that to a considerable extent the field of literacy studies needs to reinvent itself in order to address the changes going on around us … [researchers are advised against] adopting unduly goal-directed and functional/applied orientations at the outset. (p. 9)
New literacies and the various dominant perspectives will be discussed in detail in the Chapter 2.

In the following chapter, the terms related to *literacy, literacies, and social practices* will be examined in order to explore perspectives of new literacies. An important theoretical consequence of this shift away from relying primarily on psychological theories to inform our views of literacy and learning is the need for more contextualized and broader views. A deeper understanding of practices such as reading, rereading, and revisiting from an interpretive perspective could potentially inform our understandings of students’ experiences in a DBOLE. As I will argue in this thesis, seeking to better understand, within an interpretive perspective, the online learning discussion practices of reading, rereading, and revisiting by applying a new literacies lens as an interpretive tool may facilitate a similar theoretical shift towards a contextualized rather than an “in-the-head” view of how learning experiences can be understood in the online environment.

1.1 Research Purpose

Given the increased offerings of online learning opportunities for mainstream students and the rather limited theoretic perspectives currently informing the body of online teaching and learning research, it is a good moment to examine the online learning context to bring broader understandings of online experiences from both student and instructor points of view to inform questions of design, pedagogy, and learning. In more traditional analytic approaches, there has been a focus on the amount, quality, and impact of production activities, particularly entry writing. Yet recent research suggests there are important social and learning events occurring through less visible interactions of participant experiences. This study examines aspects of less visible participant practices of reading and rereading in a DBOLE for both students and instructors within an interpretive view, using a multi-study approach for presenting the
quantitative and qualitative data and specifically applying a new literacies lens to the findings as an interpretive tool. The understanding of findings using this lens is discussed in parallel with findings through an online learning lens, and the discussion addresses how the new literacies lens may provide specific forms of valuable additional understandings to the data. The overall study contribution therefore is to expand the theoretical discussions of online learning in the literature and to explore the social and learning implications of these perspectives in adding to understandings of the online learning context.

In seeking to better understand the importance of reading, rereading, and revisiting activities to students’ learning experiences, participants’ interactive patterns and their perceptions related to reading, rereading, and revisiting, as well as to writing, are important to document and understand.

The research objectives of this interpretive study are the following:

1. Identify and document participants’ patterns related to reading, rereading, revisiting, and writing activities in a DBOLE.
2. Investigate student perceptions of the importance of less visible activities related to reading, rereading, and revisiting in a DBOLE, and how these might contribute to their online learning experiences.
3. Document an instructor’s perceptions of supporting learners and the social practices that may be important to learners in a DBOLE.
4. Examine the practice of creating subject titles of entries in a DBOLE and the influence that subject titles might have on participants’ choices of which entries to read in a DBOLE.
5. Examine the less visible activities of reading, rereading, and revisiting in a DBOLE as social practices from a new literacies perspective (Lankshear & Knobel, 2004, 2013).

Specifically, the research questions are as follows:

1. What patterns of reading, revisiting, and writing might be observed by examining transaction log data in a DBOLE?

2. How do students in a DBOLE understand their own practices of reading and rereading others’ entries?

3. How does an online learning instructor support learners and the social practices that may be important to student learning in a DBOLE?

4. What aspects of entry titles influence students’ choices of entries to read in a DBOLE?

5. What aspects influence the design of subject titles in a DBOLE?

This study took place at a large urban Canadian university, within the Faculty of Education, with 137 graduate education student participants, one instructor, and some 13,754 entries in an online learning database of eight courses. It features an interpretive approach within an explanatory sequential mixed methods design. Quantitative data from a single course were first reviewed to better understand reading, revisiting, and writing activities. An online questionnaire based on early observations was designed to gather data from 14 volunteer students attending at least one of eight fully online graduate courses in education taught by the same instructor over four academic years (2011 to 2015). Data that were automatically collected by the online learning management system known as Pepper (explained in greater detail in Chapter 3) was analyzed. In addition to descriptive statistics, thematic analysis, and two comparative analyses of selected means, a cluster analysis using IBM’s predictive analytics
software, SPSS Version 22, was performed in order to identify students’ behaviour patterns related to reading and writing.

Some aspects of the study were piloted based on partial data to identify issues to be addressed prior to the integration of data from all eight courses. Fourteen volunteers completed in-depth online questionnaires, and four students who volunteered from the original 14 were interviewed in-depth using a semi-structured interview, with most interviews taking more than an hour to complete. The instructor was also interviewed regarding her views of less visible social practices that are important to student learning, and the elements she employs that may be important to student learning in a DBOLE. The interview data were supplemented by field notes and revisiting the quantitative data and online questionnaire data and comparing students’ perceptions of their activities to the data automatically collected by the learning management system. Data were gathered on student perceptions related to the composition of entry titles and the influence of entry titles on reading choices from the online questionnaire and the in-depth interviews. All discussion entry titles from the weekly discussions in one course were analyzed. The boundaries of the multi-study presentation approach are guided by a common case study approach (Yin, 2014). Each study is discussed both from a typical online learning study perspective, where quantitative performance data from online discussions are examined, in relation to other qualitative data sources (online questionnaire, interviews, and discussion entries), and these data are further examined from an interpretive perspective using a new literacies lens as an interpretive tool.

1.2 Researcher Context

I have taken many online courses and discovered that online courses can be taught in very different ways. As a student, I am not very outgoing in the online environment. I tend to read a
lot and say less than others. At times, I have read almost everything in an online learning discussion, and sometimes I have reread entries once or more. Most times that I reread an entry, I did so to contribute to my learning process in some way or to support a social aspect of my participation in the learning group. I purposely reread entries in order to help with a concept that I did not fully understand. Sometimes I read and reread entries for social purposes as I engaged with my peers or the instructor. It is important to know my fellow students (through reading their introductions), to remember something about them so that they seem real when I am reading their entries, and to ensure that my responses to each student are appropriate. I also read and reread entries in order to join conversations properly. At times, I have been unclear about the expectations for my participation. Through my various experiences, I have come to wonder about other students, like me, who do not always represent their learning through entries but who learn a lot through reading entries in the online discussion. I have been a teaching assistant in some online learning courses and have a great interest in researching in this area, particularly in light of the expansion of online learning offerings in higher education and in secondary school. I think it is important to better understand the processes, expectations, interactions, and social practices in DBOLEs.

As an online learner, my interest in this area was piqued by my own experiences as a student and by the prospect that examining less visible practices may help to provide deeper understandings of the complex interactions and activities in which online learners engage. For interpretivist researchers, it is access and “the intrinsic interest in a specific case that motivates” (Blatter, 2008, p. 69). From the multi-study perspective, the selected presentation method for discussing the data and findings is intended to include a “comprehensive and consistent picture” (p. 70) of each. The participants’ quotes at the beginning of this chapter are significant
illustrations of the importance of the social practice of rereading in an online learning environment that can affect participation and, in turn, learning. Since I am very familiar with the environment, my knowledge contributes to a deeply contextualized perspective of activities in these DBOLEs. As well, as an online learner, my intrinsic interest in less visible interactions in DBOLEs helps inform my understandings of the context of those activities in the online learning environment. It is through access to the online learning instructor and the online learning environment that I have had the opportunity to build thick descriptions and to provide a comprehensive picture of these cases.

1.3 Potential Significance of this Research

It is important to consider the blending of two phenomena, online learning and new literacies, that researchers are being called upon to examine. Examination of these phenomena require (1) a deep theoretical understanding of discussion-based learning in online contexts, and (2) an understanding of how the sociocultural perspective of a new literacies lens as an interpretive tool may contribute to this deeper theorizing and understandings of practices in online contexts. The processes that support learning in DBOLEs and the complexities involved in understanding online literacies as social practices need further investigation (Kiili, Laurinen, Marttunen, & Leu, 2012), as the online context may provide new kinds of observable literacy activities, as well as offer detailed persistent sources of data.

Literacy and online learning discussions are importantly interconnected since online interaction involves the ability to read, write, and make meaning of online entries. While students’ readings of entries in online learning discussions are not as obvious as written entries that have been posted in a discussion thread, reading has typically been undervalued, and writing an entry is often viewed as evidence of understanding, engagement, and participation (Brett,
Interactions are important elements to examine when looking at social practices in online learning discussions. Furthermore, while perhaps difficult to fully measure, online reading is an essential yet understudied component of interactions in an online learning environment (Wise, Hausknecht, & Zhao, 2013a). Examining the interactions of those who read, yet contribute few entries can be challenging (Arnold & Paulus, 2010; Nonnecke & Preece, 2003). Limited research has been published that investigates the literacy practices of reading, or “listening” as some researchers have termed it, in online learning discussions (Wise et al., 2013a; Wise et al., 2013b).

I argue that examining reading and rereading practices in depth is therefore important to understanding the learning environment and the social practices involved in online learning discussions, and addresses an area of research that has not been thoroughly studied. This interpretive perspective serves to inform our understandings of potential social practices taking place in DBOLEs by including the participants’ and the researcher’s perspectives and a deep description of the context. The relocation of mainstream teaching to online spaces requires research to inform us of the processes taking place, as learners in many different learning settings must increasingly negotiate this digital site of learning.

Examining interactions in DBOLEs through an interpretive framework designed to gather, discuss, and reflect on participants’ opinions could potentially inform deeper understandings of some of the less obvious interactive processes of online learners. Within the interpretive paradigm, using an explanatory sequential mixed methods design and a multi-study approach for presenting the data and findings, this study examines 137 participants’ overall experiences in eight fully online graduate level teacher education courses, with a particular focus on the perspectives of less visible social practices such as reading, rereading, and revisiting. It
also examines the instructor’s perspectives and the characteristics of entry titles. Further, the interpretive tool of a new literacies lens provides a newer and less studied perspective on these interactive processes. Since this approach has not been greatly explored, investigating social practices from an instructors’ perspective may be of value in examining online interactions.

While there are various perspectives of literacies and social practices applicable to digital environments (Barton & Hamilton, 1998/2012; Lankshear & Knobel, 2013 Street & Lefstein, 2007/2010; Purcell-Gates, Perry, & Briseño, 2011), this interpretive research explores, through a detailed literature review, the various ontologies and values of the more common perspectives of literacy, literacies, and social practices relevant to online communications, and the value they may add to interpreting and understanding interactions in DBOLEs. From the evolving studies of the new literacies field (Lankshear & Knobel, 2013; Leu et al., 2013), the social practices perspective (Barton & Hamilton, 1998/2012; Lankshear & Knobel, 2013; Street & Lefstein, 2007/2010) provides a view from which to examine the socially evolved and patterned activities (Lankshear & Knobel, 2006) related to meaning making through reading, rereading and writing in an online learning discussion.
Chapter 2
Definitions, Theoretical Frameworks, and Literature Review

The first section of this chapter introduces the background of this area of research by presenting terminology and definitions related to this online learning research. Following this, Section 2.1 is a discussion of the current context of online learning and Section 2.2 is an outline of the theoretical frameworks guiding this research. A literature review of interactions and interactive behaviours in online learning is detailed in sections 2.3 and 2.4. Section 2.5 through 2.12, details a scholarly literature review on the many perspectives related to literacies, social practices, and new literacies.

2.0 Online Learning Background, Terminology, and Definitions

Computer networks began to evolve in the 1950s and 1960s, and personal computers became available primarily for businesses and then for personal use in the 1980s. Computer-mediated communication (CMC) evolved in the 1970s, mainly in government and education environments (Harasim, 2012). The Internet, more commonly accessed by the public through the World Wide Web, became more widely used in the 1990s. Harasim (2012) sees online learning as evolving apart from distance education, which she explains as employing “a correspondence model in which learning materials are sent to the student who completes and submits the assigned work” (p. 176). Today’s online distance education (ODE) features what Harasim refers to as an “instructional” model, as opposed to online collaborative learning (OCL), which features the “conversational” model (p. 88). The term educational CMC was “widely used in the 1980s and 1990s but has been supplanted by the terms elearning or online education” (p. 177).

For the purposes of this study, online learning refers to any learning that involves a digital connection. There are a number of different terms used to describe various forms of online learning. Online courses are defined by Allen and Seaman (2013) as those “in which at
least 80 percent of the course content is delivered online” (p. 7). Conversely, *face-to-face instruction* is defined as delivering from 0% to 29% of course content online (p. 7). *Blended learning* is explained to be online instruction of between 30% and 80% of the course content (p. 7), and is a term described by Garrison and Vaughan (2008) as “the organic integration of thoughtfully selected and complementary face-to-face and online approaches and technologies” (p. 148). In the K-12 space, *e-learning* is the more common term used to describe access to digital resources, courses, and instruction online (Ontario Ministry of Education, 2012). As well, online learning environments in K-12 are sometimes referred to as *virtual* learning environments. This area continues to be under-researched (Barbour, 2013). To be clear, not all online learning involves collaboration or discussion, and not all online learning discussions are intended to be collaborative learning environments where students are expected to learn by producing evidence of collaboration. Ebner and Holzinger (2005) explain the difference between collaborative learning and CMC as follows: “Interactions can occur between learner and learner (known as collaborative learning) and between learner and instructor (known as computer-mediated communication, or CMC)” (p. 71).

This research is set in the context of discussion-based online learning environments (DBOLEs), where learning discussions are facilitated regardless of the degree to which the learning environment is intended to support student collaboration. An environment like this could exist as fully online or in a blended, e-learning, or virtual learning environment. As explained in the introduction, *rereading* and *revisiting* may be used interchangeably throughout this document; it is generally assumed that if a participant *revisits* an entry (as reported by the log data as an opened entry), they intend to *reread* at least some of the entry. The terms *post*, *posting*, *note*, *message*, and *entry* are used interchangeably in this literature review to mean a
participant’s visible contribution to an online learning discussion. These contributions take place in a discussion *thread*, which is usually a linear representation of the entries typically presented in chronological order. In the literature, online discussions can be referred to as *discourse* (Dennen, 2008) or *e-discourse* (Perkins & Newman, 1996). Finally, *note titles* are also referred to as *subject lines, subject titles, and entry titles*.

### 2.1 Current Context of Online Learning

Online learning environments are becoming more prevalent in mainstream institutions. Allen and Seaman (2013) report that almost 70% of chief academic leaders believe that “online learning is critical to their long-term strategy” (p. 4). As well, the *2013 Horizon Reports* for both K-12 and higher education claim that “education paradigms are shifting to include online learning, hybrid learning, and collaborative models” (Johnson et al., 2013a, p. 8, 2013b, p. 8). Massive open online courses (MOOCs) are gaining momentum with hundreds of thousands of registered students (Johnson et al., 2013a, p. 4, 2013b, p. 4). Further, Allen and Seaman (2013) claim that colleges and universities see value in MOOCs as research sites “to learn about online pedagogy” (p. 3). At the University of Toronto, Harrison (2013) reports 500,000 registrations in seven MOOC courses in a range of disciplines. As expected, only 57% of registrants were considered active learners (those who have watched at least one video) with a completion rate of 8% for all registrants and 17% for active learners (p. 3). Further studies are planned to look at patterns of engagement and learning among participants (p. 4).

In teacher education, many programs in the U.S. have moved some or all of their courses to online or blended format classes (Heafner, Petty, & Hartshorne, 2012; Lilienthal, 2014; Tschida & Sevier, 2013). For example, the University of North Carolina at Charlotte’s College of Education offers a completely online teacher education program, including remote observation
of graduate interns (ROGI) (Heafner et al., 2012). Recently, the University of Nebraska’s Master’s Degree in Reading moved completely online in order to attract in-service teachers pursuing graduate degrees. The University of Ontario Institute of Technology (UOIT) in Oshawa, Ontario, conducts the third semester of its Bachelor of Education program fully online, and the rest of the courses in the other three semesters are conducted in a blended learning format.

Further to this, some programs long considered best suited to face-to-face instruction, such as traditional reading clinics or graduate reading practicum courses, are also moving to online course formats. Lilienthal (2014) describes two of the benefits of moving the university’s reading clinic to an online setting. The first is an increase in enrolment of the program and the university by attracting students throughout the state and from other countries. The second is, because of the increased geographical area being served, there is greater diversity in the students and the children being tutored. As well, the author notes that this is “a new opportunity for reading intervention using the digital world of the 21st Century—modernizing the reading clinic format” (p. 187). Lilienthal concludes by asking for more research to provide further guidance on moving literacy instruction to online formats.

2.2 Theoretical Frameworks

2.2.0 Interpretive paradigm.

The interpretive paradigm has been chosen for this study because the ontological assumption of this perspective is that reality is constructed by the participants and the researcher, and the epistemological view recognizes there are many truths to be uncovered (Sipe & Constable, 1996). This paradigm calls for the exploration of the DBOLE and the inherent reading and social practices from the online learners’ perspectives in the specific context of the online learning
Typically, online learning research has been investigated from within the positivist paradigm (Picciano, 2016). A shift to the interpretive paradigm for online learning research in the case of this research is important because it provides a framework that focuses on “understanding and meaning making as opposed to explanation” (Bhattacharya, 2008, p. 464). Since reading, rereading, and revisiting in discussion-based online learning environments have not been extensively investigated, and social practices as explained by Lankshear and Knobel (2004) and Street and Lefstein (2007/2010) in DBOLEs have not been firmly established in the literature, the interpretive framework supports the investigation of participants’ beliefs and understandings of these practices. DBOLEs should be structured to be inclusive to learners who may be unfamiliar with this type of learning environment, who may be more likely to read to learn but perhaps not write a lot (previously negatively referred to in the literature as lurkers and passive participants), or who may be English-language learners or who may have a background that affects their participation in this environment, to name only a few potential variants. Participants’ understandings of DBOLE practices will influence the importance to their learning of inclusive practices and online learning environments that support learners of all types. It is important to better understand a variety of participant perspectives.

Further, the interpretive framework supports the view that such understandings are “constructed by each knower/observer according to a set of subjective principles peculiar to that person” (Sipe & Constable, 1996, p. 158). Therefore, the perspectives and understanding of the participants are highly influential in guiding this study as well as informing the understandings of social practices that affect the DBOLE. For example, some online learning environments include an introduction element so that the students can get to know each other in a virtual sense. It may be that an introductory feature, such as greeting each other through entries, is considered
important to learning. Introductions could be viewed as an important social practice intended to facilitate finding partners or others with similar interests. As well, the subjective principles that are particular to the online learning instructor will serve to provide insight into the underlying motivations and intentions of featuring and introducing an introductory element in the DBOLE.

Furthermore, since knowledge is socially constructed, the “concept of social construction places emphasis on human interaction, and the context in which those interactions occur, as the basis for how one comes to know or understand this phenomena” (Tullis Owen, 2008, p. 457). The interpretive paradigm allows for the consideration of the participants’ understandings of human interactions through online entries and any influence these understandings might have on the design and participation of student activities for inclusive and supportive learning. Human interaction through engagement with entries, such as writing and posting an entry, reading an entry, rereading an entry, replying to an entry, titling the subject of an entry, and choosing where to place an entry (if this is within the creator’s control), for example, is subject to interpretation by the instructor and other students. The understandings of these interactions will influence responding and interpreting the meaning underlying these activities. The participants’ concepts of online interactions among students and between instructor and students influenced the study’s perspective of interactions and social practices and reflexively influenced directions that the study took as it progressed.

It is important to keep in mind that realities, from the participants’ perspectives, are “local and specific in nature (although elements are often shared among many individuals and even across cultures), and [are] dependent for their form and content on the individual persons or groups holding the constructions” (Guba & Lincoln, 1994, pp. 110–111). Therefore, the interpretations of reading and rereading practices and the meanings of these practices reside with
the participant and will be influenced by the context of the courses in which the subject participates. Further, the understandings may change from course to course, or may be identified by participants as evolving with experience and over time. It is for this reason that the context is well described by the participants and the researcher.

As well, in the interpretive paradigm, the researcher and participant “inform and influence each other” (Sipe & Constable, 1996, p. 158). This means that as I prompted the participants for their perspectives and understandings, I could have influenced their views of the importance of the activities about which I was asking. However the quantitative data may help to verify that the activities noted by participants as important are observed empirically.

Picciano (2016), an online learning researcher, explains that within the interpretivist paradigm researchers “do not always begin with a theory, rather they inductively develop a theory or pattern of meanings throughout the research process” (p. 15). This paradigm is primarily associated with qualitative data, but “quantitative data may also be used to support or expand the analysis” (p. 15). In contrast to the many studies in literacy research that have been conducted from the interpretivist paradigm based on qualitative data, a thematic analysis of studies in online and blended learning found that less than 40% (32) of the 85 top-cited publications featured qualitative data (and not necessarily from an interpretive framework) (Halverson, Graham, Spring, Drysdale, & Henrie, 2014). Interestingly, only about one-third of these 32 qualitative studies focused on dispositions where they asked participants about their perceptions, preferences, and opinions, and faculty perceptions were much less studied than student perceptions (Halverson et al., 2014).

Given that the interpretive paradigm as a framework values participants’ and the researchers’ perceptions from the view that “reality is subjective rather than objective [and]
subjective and multiple realities are possible because all knowledge is socially constructed” (Tullis Owen, 2008, p. 457), this perspective is the chosen approach for this study of reading, rereading, and revisiting in online learning discussion environments.

As an interpretive researcher influenced by the sociocultural underpinnings of social practices and online learning, I drew on my own experiences and the following literature review of online learning research related to interactions, particularly those involving reading, rereading, and revisiting, to guide my identification, interpretation, interview structure, and analysis of activities. Further, the detailed literature review of new literacies in section 2.6 of this chapter guided my interpretations of reading and rereading activities. For example, I drew on my knowledge for the interpretations of observations from within the classroom (Cazden, 2001; Clay, 1991) and from literacy practice models (Barton & Hamilton, 1998/2012; Purcell-Gates, Perry, and Briseño, 2011) to guide my thematic analysis of activities in an online learning discussion.

The interpretive paradigm, with its epistemological and ontological assumptions explained earlier, is described by Picciano (2016) as a theoretical framework considered useful by online researchers. This paradigm has also been interchangeably referred to as the social constructivism paradigm (Picciano, 2016). Picciano explains that determining a paradigm choice is the first step in conducting research, as it “establishes the aim, motivation, and expectations for the research” (p. 13). It is from here that the choice of methodologies, methods, and design follows. While positivism is more likely to be the paradigm guiding research in online learning (Picciano, 2016), social constructivism/interpretivism is more common in literacy research. The research paradigm guiding my study in seeking a deeper understanding of participants’
experiences in a DBOLE is interpretivism. Within this paradigm, the researchers’ perspective is an important component of the study.

2.2.1 Sociocultural theory (SCT) perspective.

Vygotsky is credited with developing “a general theory of sociocultural development” (Ornstein & Hunkins, 2009, p. 124). Vygotsky (1978) was a Russian philosopher who some considered to be the founding father of SCT. He viewed learning differently from other early behavioural theorists, and his perspective “focused upon the historically shaped and culturally transmitted psychology of human beings” (John-Steiner & Souberman, 1978, p. 122). Vygotsky proposed that “people’s thoughts, language, and methods of solving problems have to be considered within the historical context of the person’s lifetime” (Ornstein & Hunkins, 2009, p. 124). Vygotsky’s perspective of learning considered learning to be a “profoundly social process” (John-Steiner & Souberman, 1978, p. 131). Within his writing and studies on language and its development, Vygotsky emphasized “dialogue and the varied roles that language plays in instruction and in mediated cognitive growth” (John-Steiner & Souberman, 1978, p. 131). This perspective is particularly relevant for this research because discussion is a key component of many DBOLEs.

Sociocultural theory (SCT) is more commonly found as a framework for new literacies studies than online learning. However, online learning researchers Bonk and Cunningham (1998), in their justification of these frameworks when looking at learning in collaborative online environments, suggest we “use the terms social constructivism and sociocultural theory interchangeably” (p. 35). The authors justify their use of SCT by observing that “[a] primary tenet of Vygotskian psychology is that individual mental functioning is inherently situated in social interaction, cultural, institutional and historical contexts” (p. 35). Further, SCT provides a framework for examining discussion and interaction (Cole & Scribner, 1978). New literacies
researchers Coiro et al. (2009a) call for frameworks to examine new literacies and social practices and the context in which these practices are situated. In order to understand the environment in which student learning and reading practices are situated, SCT and its inherent Vygotskian concepts will serve to frame an understanding of the DBOLE.

Long before research of brain plasticity and today’s digital culture evolved, Vygotsky’s studies were informed by his view of “the human organism as highly plastic and of the environment as historically and culturally shifting contexts into which children are born and which they, too, will eventually change” (John-Steiner & Souberman, 1978, p. 123). He believed that an individual’s development was influenced by both cultural and social experiences, proposing that “the higher mental functions are socially formed and culturally transmitted” (p. 126). Gee (2004) refers to socially mediated learning as learning which takes place within a social context. Purcell-Gates, Perry, and Briseño (2011) explain mediated social activity related to literacy events as “reflecting the Vygotskian notion of mediated social activity as the base unit of analysis for human behavior” (p. 450). Therefore, the authors explain, “viewing literacy events within a mediated action frame allows us to see texts being read or written as cultural tools used by humans to mediate their activities” (p. 450). Cole and Scribner (1978) explain that Vygotsky thought of the term mediated in relation to the notion “that in higher forms of human behavior, the individual actively modifies the stimulus situation as a part of the process of responding to it” (pp. 13–14). Vygotsky (1934/2012) saw interaction as essential to learning and the DBOLE is intentionally designed to support learning through discussion and interaction.

Finally, within SCT, the notion of the zone of proximal development (ZPD) has relevance in a DBOLE, where more knowledgeable peers may assist a student’s understandings. Quoting Vygotsky’s Thought and Language (1934), John-Steiner and Souberman (1978) explain
the ZPD as “the distance between the [student’s] actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 131). Opportunities exist for ZPD events such as peer-to-peer interaction, which can raise the level of problem-solving for a participant within a DBOLE. These events would typically involve interactions and the practices of reading and rereading.

2.3 Interactive Activities in Online Learning Discussions

Interaction in online learning is defined by Sutton (2001) as “the way learners and instructors communicate their own ideas, perspectives, feelings, and knowledge over time and comprehend those of others” (p. 225). In 1995, O’Malley recalled a request by computer-supported learning researchers that “studies of collaborative learning should focus more on the processes involved in successful peer interaction, rather than just on learning outcomes” (p. v). Dennen and Wieland (2007), in their narrative and discourse analysis study of representative threads, question “whether the purpose of discussion activities, both as intended by the instructor and perceived by the students, is to document learning (message as artifact of learning product) or to engage in an exploration of ideas that hopefully results in learning (message as artifact of learning process)” (p. 282). The authors propose that early research in the area of online discourse “looked at participation levels and individual message content and quality as product-oriented indicators of learning, with the underlying assumption that the learning took place prior to the discussion board posting” (p. 283). Dennen and Wieland point out, however, that interaction alone does not provide evidence of cognitive engagement (p. 283). The authors examined course dialogues by looking at the elements and strategies of social acknowledgements, questions, and shared explorations of perspectives and theories to examine both interaction and intersubjectivity.
Interaction processes are important to understand when examining reading and rereading in DBOLEs.

Some researchers view online learning discussions as collaborative efforts. Others caution against a focus on collaboration. For example, Dillenbourg (1999), in his article explaining collaboration in computer-supported learning environments, advises researchers who are attempting to measure the effects of collaborative learning that “one should not talk about the effects of collaborative learning in general, but more specifically about the effects of particular categories of interactions” (p. 12). Examination of online learning discussions should involve an examination of interactions within discussions based on appropriate categories of interactions.

Researchers have acknowledged the challenge of understanding the impact of online discussions in the context of online learning, despite agreement that the potential of such discussion can increase the quality of instruction and student learning (Thomas, 2002). The interactive patterns of the “nonlinear branching structure of online discussion” (Thomas, 2002, p. 351) can be both beneficial to learning and a challenge to examine. Thomas’s (2002) study used an evaluative analysis methodology to describe and interpret student activities in an online learning discussion. Thomas compared this environment to that of face-to-face discussions and found that “students were not united in discussion, but drawn along constantly diverging paths” (p. 359). Thomas concludes that there are “inherent problems involved in traditional online discussion” (p. 364) and suggests various instructional approaches to address conversational goals of interaction.

In further looking at studying patterns of interaction, e-discourse has been proposed by some researchers to be distinct, “not speaking or letter-writing, although it has elements in common with both these types of discourse” (Perkins & Newman, 1996, p. 156). Perkins and
Newman (1996) observe that “e-discourse can be viewed as a new way of writing and especially as a new way of reading” (p. 156). They note that e-discourse provides an opportunity for developing new literacy skills and to mediate new forms of social relationships. For example, they refer to reading between the lines and propose that “to extract meaning is not an automatically acquired or ‘natural’ skill but one which must be learned and continually practiced for efficiency” (p. 156). Perkins and Newman also claim “there is a flattening of social cues, which may help explain some of the informality and readiness with which people both attack and self-disclose, [but] there remain plenty of cues and clues” (p. 156). In fact, the authors point out that e-discourse characteristics of interest include:

- a tendency to metacommunication,
- an appearance of intimacy which entails a paradox of candor,
- the allowance of considerable ambiguity,
- the non-artefactuality or semi-artefactuality of the communicative utterance,
- the tendency to more easily express disagreement or even aggression, and the simultaneous increase in both individualization and collectivity of expression.

(p. 157)

Further, the authors note that early studies of e-discourse looking at quantification led to the “distortion of evaluation that can occur with a methodological focus on posted messages … [leading] to misunderstanding and misrepresentation of a medium in which reading is a far more frequent activity than writing” (pp. 162–163). Perkins and Newman (1996) call for further studies with a combination of approaches, such as analyzing activity patterns of reading and surveys or interviews of participants who may read more and write less than others.

From this view, each posting in an online learning discussion can be viewed as an interaction artifact. In addition, reading entries and replying could be viewed as interaction
patterns of practices occurring within an online discussion. As mentioned earlier, there is general researcher agreement that students’ learning can be supported and enhanced through interaction in online discussions (Wise et al., 2013a, 2013b). Swan, Shen, and Hiltz (2006) note that online discussion “affords the participants the opportunity to reflect on their classmates’ contributions while creating their own, and to reflect on their own writing before posting it” (p. 47). They caution that “discussion participation must count for a significant portion of the course grade and individual discussion postings must be individually assessed” (p. 48). Yet, because of standard assessment methodologies, “collaborative learning is undervalued and so marginalized” (p. 46). It is proposed that usually 5% to 25% of a course’s total grade is based on participation (Rourke & Kanuka, 2009).

Perkins and Newman (1996) suggest that evaluation of entries by other students “goes well beyond the mechanics of language and writing style” (p. 167). Understanding message content is not always straightforward, instinctive, or easy. As well, they propose that “with practice a great deal can be determined about the poster and, consciously or unconsciously, a reader makes value judgments based on message appearance, style and content, giving a practiced reader many clues about such attributes as class and education level” (p. 167). The authors suggest that “you cannot really know e-discourse without doing e-discourse” (p. 167) but note that there is an expectation “that anybody who can write can participate well in e-discourse, as if all of the skills from one mode will translate in a ‘natural fashion’” (pp. 167–168). Perkins and Newman conclude that “e-discourse requires its own set of skills and until now, at least, knowledge mostly came through practice” (168). Some participants in online learning discussions may not have been given any training and may be new to this environment. They do not necessarily join the learning group with strong writing skills, and some will be non-
native speakers. As well, Perkins and Newman explain that they “have observed how easily new student users can be intimidated by an electronic reproof delivered by an educational or administrative superior” (p. 168). The authors advocate for training in e-discourse by high school so that students can be functionally literate before participating in an online discussion.

Students’ postings are described by some researchers as students speaking, similar to face-to-face discussions (Wise, Marbouti, Speer, & Hsiao, 2011; Wise, Marbouti, Hsiao, & Hausknecht, 2012; Wise et al., 2013a, 2013b). Similarly, students are sometimes described as listening when reading other students’ entries (Wise et al., 2011; Wise et al., 2012; Wise et al., 2013a, 2013b). Harasim (2012) sees student discussion as key to idea organizing and generating.

In writing about an examination of online learning discussions related to how discourse threads die, Hewitt (2005) reports that online interaction supports learning by allowing students to view others’ ideas, articulate their own thoughts, and engage in productive discussion. Three small studies were conducted to investigate why online discussions stop. One theoretical possibility for this phenomenon could be an effect of “single-pass online practices … [where] threads can die unintentionally as a by-product of a seemingly unrelated activity: reading new notes and ignoring older notes” (p. 586). Further, Hewitt proposes a hypothesis “that the routine of reading and responding to new notes may be, in part, an adaptive response to information overload” (p. 586). Therefore, a conference discussion with many entries, “coupled with psychological limits on people’s capacity to process information (Miller, 1956), may lead some learners to use single-pass strategies as a coping mechanism” (cited in Hewitt, 2005, p. 586). In Hewitt’s study of the online behaviours of 14 graduate students engaged in a 13-week online discussion, he identified that when students logged into the conference, “approximately 83% of the notes they accessed were notes that they had not examined in a previous session” (p. 574).
He further elicited opinions from students in seven distance education classes on the reasons that discussions shut down. Seven themes were identified from these responses, including discussion exhaustion or loss of interest, perceived confrontational or threatening tones, competition, and off-topic and moderator interference. An interesting theme is related to “‘clunkers’—notes that shut down communication” (p. 573). In this study, clunkers are identified in several varieties with one example related to notes that were personalized through a salutation directed at a single participant that were perceived as exclusionary by two respondents. It may be useful to think of the implications of a social practice perspective when examining the understandings that participants may have about personalizing and greeting other participants or reviewing entries that may not follow particular DBOLE greeting conventions, and what those conventions may be.

Finally, many student discussions in online learning environments have a sense of permanence, at least as they are visible for everyone to see for the duration of the course, and can therefore provide evidence related to reading and rereading interactions. These discussion artifacts can be viewed in their social context as evidence of various types of interactions. Student responses and actions may provide further insight into understanding student behaviours related to these interactions in online learning spaces. It is from these examinations that researchers have provided examples of interactive behaviours.

2.4 Interactive Behaviours

2.4.0 Lurkers and virtuosos.

Goodfellow (2004), pointing out that “passive participation may still be a legitimate contribution to online discussion” (p. 392), credits Perkins and Newman (1996) with bringing the phenomenon of lurkers in online communications to the attention of educators and researchers.
Early research on lurkers and virtuosos as participants and their functions was undertaken to provide exemplars of “communicative competence in e-discourse” (Perkins & Newman, 1996, p. 155). The lurker is explained as “ubiquitous yet seems to be invisible and as a consequence is misunderstood” (p. 156). In online discussion, there is always the option of non-response that involves little social risk, but the result of this strategy is that the “silent response disconcerts new users, who may expect some electronic analogue of face to face conversational ‘I am listening’ cues” (p. 158). Perkins and Newman caution that “not only is scholarly contempt for lurkers unwarranted, but lurking should be recognized in educational settings as it is in recreational settings, as a particular feature of e-discourse that is beneficial to many and one way to participate” (pp. 151–152). The authors point out that new participants may forget that lurkers are also participants but that skilled or experienced participants are aware and may even feel responsible to those who are silent.

As touched on in the introduction, Perkins and Newman (1996) also explain that the “virtuoso, a highly skilled practitioner of e-discourse, can serve as a guide, a resource, and above all as an exemplar to those seeking to understand electronic communicative competence, to acquire it, and to teach it” (p. 156). The virtuoso is apparent because his or her entries are highly read, regardless of the subject. Perkins and Newman summarize what they believe were the skills of a virtuoso two decades ago, but they still generally apply today:

1. They tend to write offline (i.e., while not electronically connected to remote systems), using technology to get around the limitations of real-time message writing and difficulties of awkward user interfaces.
2. They have mastered the basic principles of presenting a message in clear, readable blocks of text that are aesthetically pleasing and undaunting to the reader, a skill especially necessary in long messages.
3. They integrate concise and accurate quoting into the message to give context and to avoid ambiguities.
4. In public conference discussions they orient, summarize, and provide necessary references so that the message is meaningful to more than just the direct recipient.
5. Subject headers, greetings, and closures are handled skilfully, functionally, and often playfully. (p. 164)

Virtuosos “are adept at influencing group dynamics of conferences, and can almost single-handedly enliven a conference or protect it” (p. 165). Further, they “can often create interaction where before there were speeches” (p. 165). Introducing the role of the teacher-moderator is often an attempt by educators to develop virtuoso-level skills. Research in the area of understanding the behaviours of these virtuosos or experts is called for, “if only to learn how to hasten the process of adaptation for other users” (p. 165). Given that virtuosos orient, summarize, and present entries that are readable, it could be assumed their entries would be highly read and perhaps even reread by online discussion participants. However, this would be a simplistic assumption that is being challenged by this research. Since we are seeking to better understand the variation of students’ literacy practices, participants’ understandings of modelled or popular DBOLE behaviours will serve to challenge or deepen our understandings of these “virtuoso” behaviours.

2.4.1 Vicarious interaction.

Sutton (2001) developed a theory of vicarious interaction. She defines vicarious interaction as occurring “when a learner absorbs and processes an observed interaction between others” (p. 227). Sutton further explains that “interaction in this sense is not first hand, but one level removed” (p. 227). Her investigation of published research on the types of participatory interaction occurring in distance education led her to conclude that direct interaction by those identified as vicarious learners “may not be necessary for them to achieve learning benefits” (p. 231). These participants, in order to be a level removed, would likely still be reading and rereading in order to observe the interactions.
2.4.2 Non-public participants and reading.

Nonnecke and Preece (2003) studied what they referred to as silent participants in online groups using in-depth interviews to understand reasons and strategies related to ten participants’ lurking behaviours. The authors explain that such an investigation is “fundamental for understanding social interaction online” (p. 131). Preferring the term non-public participant (NPP), they found that “lurking is a common activity in online groups … [and has] a complex set of actions, rationales and contexts” (p. 115). While this examination was not in the context of an online learning setting, the researchers found that these non-public participants used a “rich set of cues” (p. 125) in order to determine whether to read a message. The authors conclude that “lurking is not free-riding, but a form of participation that is both acceptable and beneficial to online groups” (p. 125). It is important to understand this type of participation and what may be important to reading and rereading for these types of participants. In this case, the interaction is with the text entry, but there may not be overt evidence (such as a response) to indicate such an interaction.

2.4.3 Hidden or invisible interactions and reading.

An interaction between online learning participants can involve reading another participant’s entry. Such an interaction between the student who created the entry and the student who read the entry is not usually easily visible to other students or the instructor. Unless a response entry is created, it can appear, in many online learning environments, that this reading interaction is hidden or invisible. However, many online classroom management systems can track this information and some can make this available to participants.

Ebner and Holzinger (2005) undertook a case study on interaction and learning in an online environment to better understand the behaviours of “active and passive learners” (p. 70).
In their study of approximately 340 blended learning higher education students, Ebner and Holzinger observed that each participant read more postings than he or she wrote. They studied the hidden interactions involving about two-thirds of their participants, who were only reading postings and not visibly contributing. The investigation into their first question, “Does a higher level of online interactivity lead to a better learning result?” (p. 72), led the researchers to conclude that “it was obvious that the online activity of each student was insufficient to account for the learning results” (p. 73). Ebner and Holzinger then decided to include hidden interactions such as reading as they investigated their second research question: “Does a learner who writes [posts] more contributions than a lurker automatically read more postings than a comparable lurking learner?” (p. 73). From this investigation, they found that 62% of their study population were “lurking—only reading posts, not contributing anything” (p. 73). They hypothesized that “a learner who writes [posts] a contribution automatically reads more postings than a comparable lurking learner” (p. 73). However, the results of this study led them to conclude that “no relationship exists between the writing and reading behavior of an online student” (p. 73). From their research, Ebner and Holzinger conclude that “one salient characteristic of the online discussion community has emerged, namely that every participant of the online community, active or lurking, reads more postings than they write” (p. 73). The authors propose that “within a certain time period, each member of an online community will read more postings than they write … [and] activity tends to decrease while passive participation remains at its previous level or increases” (pp. 74–75). The authors, as a result of their study, justify the expansion of the term interactivity to include reading activity. They conclude that more observable interactions are not necessary as evidence of learning competence.
It is interesting to note that reading in a DBOLE may not be directly mark-driven, as in the cases where participation marks are based on a particularly quantity of entries. In a case study of blended learning, for example, undergraduate interactions about “Computer Assisted Language Learning (CALL)” (Arnold & Paulus, 2010, p. 190), participants on a Ning site were investigated. The authors were “encouraged to learn … that students did read each other’s blogs without it being a requirement or part of the grade” (p. 194). They note that “much of the student interaction was invisible to the instructor, but it was anything but passive” (p. 194). The authors call for further study of invisible interactions.

2.4.4 Reasons for non-visible participation and reading.

Dennen (2008) identified pedagogical lurking to be where “students may engage in processes of reading and reflection on the discussion board, not leaving their mark” (p. 1624). Her study asked undergraduate and graduate education students to “self-report their non-visible course activities, the reasons behind these activities and their perceived usefulness related to learning” (p. 1624). Students noted that they would “at times log in just to read messages” (p. 1631). The author claims that “pedagogical lurking—that is, temporary situational or topical lurking in a class context—may just be part of regular online class participation” (p. 1631). It was noted that “discussion participation grades provide an incentive for students to participate” (p. 1633). Students would read messages simply for understanding with no visible indicator of this action and therefore no direct influence on their grade. This implies that an understanding of what students are reading may provide insight into learning activities that are enacted simply because they are beneficial to students’ learning.
2.4.5 Read-only participants and course grades.

On the flip side of Sutton’s (2001) and Nonnecke and Preece’s (2003) investigations, Nagel, Blignaut, and Cronjé (2009) report negative consequences of read-only behaviours. In their mixed method study, the authors investigated read-only participants in an online graduate program of 22 students in order to understand how online activities related to learning and course completion. They found that “the student group that aggregated a failing grade or did not complete the course opened significantly fewer pages than the successful students” (p. 43). As well, the authors conclude that “in a predominantly participative class the number of times students access the course, the number of contributions to discussions, the ratio of replies to others’ posts, and the integration into the learning community all significantly relate to successful course completion” (p. 49). Of course, we do not know if the instructor’s perception of students who exhibit these behaviours themselves influenced the assessment of student learning. The authors conclude by providing suggestions to avoid “read-only participation” (p. 49).

As well, Rovai (2000) believes that lurking undermines community building because of the lack of visibility. Yet others believe that online learning is attractive to introverts, who, by their very nature, may be reluctant to share their thoughts publicly (Harrington & Loffredo, 2010; Paechter & Maier, 2010).

2.4.6 Reading and writing behaviours.

Wise et al. (2013a) conducted “the first work we are aware of that provides direct empirical evidence to support the connection” (p. 6) between online learning reading and writing behaviours. As mentioned in the introduction, they examined the interactions of 31 undergraduate students and concluded that the “positive relationship found between revisiting
others’ posts and responsiveness suggests that the richer end of this spectrum tends to occur when posts are attended to multiple times” (p. 6). The authors found that “when students take the time to read and re-read some number of their peers’ posts, there are related benefits in the quality of the posts they contribute” (p. 7). An understanding of the characteristics, practices, and interactions related to the more highly visited and revisited postings may provide important insight into student learning in a DBOLE.

2.4.6.0 Elliptical utterances.

While there may be writing behaviours that are linked to reading in DBOLEs that have yet to be examined, one that has been discussed in the literature is elliptical utterances. Dennen and Wieland (2007), in their study of discussion threads from two fully online classes, explain that, in addition to their acknowledgement that unfamiliarity with the learning environment may lead to misunderstandings, the use of elliptical utterances also complicates the entry reader’s understanding and meaning-making. Elliptical utterances, “in which a speaker or writer makes oblique reference to unstated content” (p. 285), are problematic when occurring “in the midst of a discourse sequence” (p. 285). The authors note that “the role of ellipses in speech is still understudied, particularly with regard to function in empirical settings” (Spenader & Hendriks as cited in Dennen & Wieland, 2007, p. 285). In one of the two classes, elliptical statements were abundant, but, interestingly, “when these elliptical references were made, others tended to look past them rather than ask for clarification” (Dennen & Wieland, 2007, p. 291). An example of elliptical titling from this study is where the students were expected to discuss Chapter 5, and Steve labels a thread “Ch. 5” (p. 291). In this example, “the elliptical titling of the message was relevant in that Steve’s message topically did relate to the assigned reading; however, throughout the entire thread there is not one reference to Chapter 5” (p. 291). This is just one example of a
feature of an online literacy strategy that could be examined in order to better understand reading and rereading practices in DBOLEs.

2.4.6.1 Subject lines.

Perkins and Newman (1996) quote Duranti (1986) as noting that “both novices and experts tend to ‘misuse’ subject lines, a space in the header originally provided as a space for a title to identify the topic of the message or the thread in which it belongs” (p. 164). New participants in a DBOLE may not understand the expectations of participants and instructors for subject line content. Perkins and Newman (1996) propose that it may be lack of experience that may lead to a participant “inadvertently starting the body of the message in the subject line” (p. 164). However, they note that experienced participants, or virtuosos as referred to previously, “can put the space to playful and metaphorical uses” (p. 164). Implying an attitude or evoking interest or sympathy draws “reasonably high level message handling” (p. 165). Participants identified as virtuosos appear to have adapted the use of language to the medium and are able to alter the “subtypes of e-discourse, understanding which ways of communicating are appropriate to each specific channel” (p. 165). Examining the creation of subject lines and their attraction to readers may provide insight into practices related to reading and rereading in a DBOLE.

This literature-based background supports the view that it is important, in my study, to understand interactive activity practices related to reading and rereading in DBOLEs, especially from the participants’ perspectives.

2.5 Making Sense of Social Practices and New Literacies

It is claimed that investigating what may be considered new literacies is an exercise fraught with boundaries, borders, and perspectives that are sometimes distinct, sometimes intersecting, and sometimes closely similar to others. The term is commonly used in the literature and is drawn on
for many forms of research. Further complicating for researchers is that the terms literacy (which could mean skill, knowledge, tool, competency, or activity), literacies, literacy or social practices, new literacies, New Literacies (uppercase), studies of new literacies, and New Literacy Studies (uppercase) are all evolving and being taken up by overlapping and sometimes different groups, disciplines, and researchers employing a variety of investigative methods. Since perspectives of new literacies are complex and sometimes contested, Section 2.5.0 through to section 2.11 is a detailed review of the literature related to or influencing my perspectives, along with explanations of how these may be related to my research. Section 2.12 is a shorter summary of the views of literacy more specifically guiding my research.

2.5.0 Literacy.

The complexity begins with the term literacy. Gee (2012) explains that literacy as a concept has been controversial since the days of Plato. Only 300 years after the introduction of alphabetic literacy, Plato complained that “writing led to the deterioration of human memory and a view of knowledge that was both facile and false” (p. 48). Writing, Gee claims, was viewed by Plato as interfering with the opportunity to mutually question, restate, and clarify through dialogue, and to experience the opportunities to “come to see more deeply what they mean and come to respond to the perspective of another voice and viewpoint” (p. 49). As a result, Plato wrote dialogues but warned “that writing of any sort should never be taken too seriously” (p. 51). Of course, Plato would not have predicted the textual interactions that happen in online discussions, such as those that facilitate questioning, restating, and clarifying in asynchronous and synchronous electronic written form. These controversies related to literacy continued through religious conflicts and attempts, through to the beginning of the 20th century by the elite, to prevent the lower classes from being given literacy (meaning the ability to use language for
communication) or, later, to provide literacy to the lower classes in order to control the morals and values of the population. The following is a short summary of common views of the term literacy.

2.5.1.0 **Literacy situated in individuals.**

Gee (2012) explains that modern traditional literacy was “treated as a mental phenomenon … as ‘the ability to read and write’” (p. 26). This view situates literacy in individuals “rather than in society” (p. 26). In a paper presented at the 1996 World Conference on Literacy entitled “Rethinking Literacy Studies: From the Past to the Present,” Kelder (1996) cautions that “examining the historical legacy of literacy (Graff, 1987) is enough to caution anyone with the slightest bit of hubris not to speak too knowingly or confidently about what literacy is” (p. 1). He also observed that at that time, “in the everyday world, literacy [was] generally associated with an abstract set of reading and writing skills or abilities that exist independent of any context” (p. 1). A large body of research is focused on “operationalizing this concept with specific criteria and data” (p. 2). Many views of literacy evolved from both psychology and sociocultural perspectives. Some have evolved into a singular microfocus on specific types of skills beyond reading and writing, such as financial literacy, which refers to competency with concepts related to money and finances. A collection of terms such as *information literacy*, *multimodal literacy*, *digital literacy*, *Internet literacy*, and others is generally referred to as *new literacies* (Lankshear, Knobel, & Curran, 2013). The many variants of new literacies will be discussed in detail later in this chapter. Other research has wrestled with investigating if it is “possible to truly know what people are doing when they engage in literate acts or practices” (Kelder, 1996, p. 2). For example, anthropologists have sought to explore literacy as an equalizer or, at higher levels, as a “symbolic form of cultural capital” (Kelder, 1996, p. 2) or with a view that “the dominant
discourse and ideology of capitalist society are reproduced and rewarded in educational institutions” (Collins and Nespor as cited in Kelder, 1996, p. 2). The view of literacy as situated in individuals is historically traditional and psychological and is not applicable to my research.

2.5.1.1 More than one literacy: Social literacies as activities.

Although a commonly agreed-upon definition of literacy does not exist, from a positivist perspective, literacy has been considered by many to be a set of decontextualized skills (Kelder, 1996), though some “incorporate the assumption that literacy is at least multitextual and socially and culturally functional” (Purcell-Gates, 2010a, p. 8). My perspective for this research views literacy as an activity not simply as a skill that people possess or develop. This view includes the concept of many literacies. Brian Street, a British anthropologist and New Literacy Studies (NLS) theorist, was credited with establishing that there is more than one literacy when he published his 1984 book Literacy in Theory and Practice, claimed by Purcell-Gates (2010a) to be the “first of the scholarly works to be taken up by the educational theorists that challenge the dominant view of literacy as singular and autonomous” (p. 3). From this perspective, “different texts are written and read for varied purposes within specific sociocultural/sociolinguistic contexts by literate people” (p. 4). A number of new literacies researchers took up this view and documented “local literacies (Barton & Hamilton, 1998), literacy practices, and their embedded literacy events (Barton, Hamilton, & Ivanič, 2000; Purcell-Gates, 1996; Purcell-Gates, Degener, Jacobson, & Soler, 2002)” (p. 4). Local literacies (or vernacular literacies) and out-of-school literacies became a focus for researchers. Street’s 1995 book Social Literacies: Cultural Approaches to Literacy Development, Ethnography and Education details the concept of social literacies and explains early models of social literacies and related various perspectives of teaching literacy. While there is a large body of literacy research concerned with literacy
specifically in the context of literacy teaching, my research is not concerned with teaching literacy but rather literacy-related activities in the context of learning. To that end, there is also a large body of sociocultural research concerned with literacies as activities taking place in various contexts. Important to my research is literacy as an activity and the concept of social literacies or social practices, to be explained in more detail later in this chapter.

Along these lines, many studies from sociolinguistic, ethnographic, and anthropological perspectives sought to understand the meanings of literacy or literacies within their social, cultural, and political contexts. In seeking to better understand literacy as an activity, Purcell-Gates (2010a) calls for more ethnographic and descriptive research, even though such research is time-consuming and typically focuses on small sites of study. She believes that “more basic research needs to be done before we can fully understand how literacy is patterned by and patterns the lives of adults and children in these different and shifting contexts” (p. 11). The author explains, “now that we recognize the complexity of literacy, we cannot back away from fully describing it in all of its complexity” (p. 12). Heath, Street, and others “have demonstrated the importance for students, teachers, and researchers to engage in the ‘literate events and practices’ and ‘actions’ of their own and other communities as ethnographers” (Kelder, 1996, pp. 2–3). According to Kelder (1996), the works of Graff, Heath, Street, Langer, and others “point to a ‘plurality of literacies’ or what Street (1995) calls ‘social literacies,’ those literacy practices that people engage in at home, community, profession ...” (p. 3). Research of social literacies in the context of DBOLEs is called for. Interpretive, ethnographic-style, and descriptive research of activities in online learning courses will serve to further inform researchers who are seeking to understand literacy and social practices in this growing site of learning.
2.5.2 Literacies: Local contexts and literacies as social practice activities.

Further to this, Purcell-Gates (2010a) explains that a “revolutionary shift has taken place over the last 10 or so years in literacy studies and literacy educational theory, and this shift has complicated and challenged the notion of what literacy is” (p. 1). Again related to literacy as skills, the common perspective, both then and now, is that “literacy is reading and writing, that is people who can read or write are literate, and those who cannot are not literate, or illiterate” (p. 1). However, within education and literacy studies, the focus of literacy has broadened to the notion of literacies, and “we have experienced this ‘new’ perspective of literacy as falling under the such labels as multiple literacies, literacy as social practice (or social literacies), and new literacies” (p. 2). Within this broadened view of literacies, Purcell-Gates proposes that in this “postmodernist world, grand theories no longer hold, and local contexts are seen as wholes, providing ground for ‘little theories’ that reflect local cultural contexts” (p. 3). Examining the various contexts in which literacies and social practices take place is important to better understanding these practices.

Since the meaning of literacy, for both research and programming purposes, is so highly contested, as Street & Lefstein (2007/2010) argue, the three dominant approaches of (a) literacy acquisition, (b) consequences of literacy, and (c) literacy as social practice will be touched on here for background. The first two approaches view literacy most generally from a skills perspective. The perspective of literacy as social practice is the perspective most applicable to my study.

(a) Literacy acquisition, for example, understanding how children learn to read, has been a highly debated area of research in which perspectives on phonics, whole language, and
phonemic awareness have been contested for many years. In this case, literacy generally refers to aspects of language use.

(b) Consequences of literacy has been linked to the concept of the “Great Divide” and has garnered criticism in the areas of orality and literacy and technological determinism. Scribner & Cole’s (1981) study of the Vai peoples of Liberia is well known in this area. The researchers are credited with being among “the first to attempt to retheorise what counts as literacy and to look outside of school for empirical data on which to base sound generalisations” (Street & Lefstein, 2007/2010, p. 39). It is from this perspective that “one of the main proponents of the ‘strong’ thesis regarding the consequences of literacy has been David Olson … who has been and is one of the sources for claims about the ‘autonomous’ model of literacy” (p. 39). Challenging the autonomous paradigm are perspectives of the New Literacy Studies paradigm (Perry, 2012).

Literacy as social practice, considered a major sociocultural theory of literacy, focuses on understanding literacy practices in their social and cultural contexts (Perry, 2012). Often by those who advocate ethnographic style investigations, at times this perspective has been referred to as New Literacy Studies (NLS) which is discussed in more detail later in this chapter. Brant and Clinton (2002) explain that the social practice perspective:


From the social practice view, “scholars put context at the center of understandings about literacy” (p. 340). It serves to highlight “the diverse forms and
meanings the literacy takes on, especially when the perspectives of actual readers and writers are consulted” (p. 340). For example, “local readers and writers were observed making meaning of literacy on their own turf and on their own terms” (p. 341). This perspective, similar to (b) above, sees a distinction between an autonomous model of literacy, where some propose that “literacy in itself—autonomously—will have effects on other social and cognitive practices” as distinctive (Street & Lefstein, 2007/2010, p. 39). However, it is argued that “in practice, dominant approaches based on the autonomous model are simply imposing western (or urban etc.) conceptions of literacy on to other cultures … The alternative, ideological model of literacy offers … a more culturally sensitive view of literacy practices as they vary from one context to another” (p. 40). Recognizing the importance of context, the ideological view “posits instead that if we were to view literacy as a social practice, not simply a technical and neutral skill, then it would become apparent that it is always embedded in socially constructed epistemological principles” (p. 40). With this view, literacy “is always contested, both its meanings and its practices, hence particular versions of it are always ‘ideological,’” (p. 40). Social literacies, it is argued, “suggests that engaging with literacy is always a social act even from the outset” (p. 40).

Influencing my study is the perspective that there are many views of literacies, with the view of literacy as an activity most important to my research, and the concept of social literacies or practices as the view most useful to the interpretations in my study in the context of a DBOLE. My perspective is similar to Langer’s view of literacy not as a set of skills but rather as “‘a purposeful activity’ related to the use of reading and writing in many contexts” (Kelder,
These activities, in the case of online learning discussions, relate to online learning interactions.

Building on this view, Lankshear and Knobel (2006) define literacies as “‘socially recognized ways of generating, communicating and negotiating meaningful content through the medium of encoded texts within contexts of participation in Discourses (or as members of Discourses)’” (p. 64). In this case, reference is made to Gee’s (2012) concept of Discourses as “socially situated identities” (p. 3) or “ways of behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing, that are accepted as instantiations of particular identities” (p. 3). As well, “there are many different sorts of literacy—many literacies—connected in complex ways with different Discourses” (p. 3). Lankshear and Knobel (2006) explain, “Discourses also integrate identities, in the sense that through their participation in Discourses individuals are identified and identifiable as members of socially meaningful groups or networks and players of socially meaningful roles” (p. 17). Returning to Lankshear and Knobel’s definition of literacies above, the authors further explain their perspective of “socially recognized ways” as drawn from Scribner and Cole’s (1981) concept of practice based on their literacy and cognition research:

“A recurrent, goal-directed sequence of activities using a particular technology and a particular system of knowledge …

[It] always refers to socially developed and patterned ways of using technology and knowledge to accomplish tasks …

[T]asks that humans engage in constitute a social practice when they are directed to socially recognized goals and make use of shared technology and knowledge system. (ibid.: 236).” (p. 65)

The reference to technology, in this case, “isn’t confined to the digital, but includes a range of tools and techniques” (p. 65). To clarify Scribner and Cole’s (1981) explanation:
Rather than simple cause-effect relationships between technology (e.g., literacy as writing system) and outcomes (e.g., new skills, new kinds of knowledge and thinking processes, economic and social development), a concept and theory of practice sees all of these—technologies, knowledges and skills—as inter-related, dynamically connected to one another, and mutually evolving in conjunction with people’s changing ideas about purposes and tasks. (p. 65)

Lankshear and Knobel (2006) explain that “this means that literacy is really like a family of practices—literacies—that will include such ‘socially evolved and pattern activities’ as letter writing, keeping records and inventories, keeping a diary, writing memos, posting announcements, and so on” (p. 66). This perspective can be applied to the DBOLE to include activities related to interactions such as replying to an entry for a particular purpose or creating an entry to introduce one’s self. It is important to note that this concept of literacy practices “has been reworked many times (see, for example, Street 1984, 2001; Barton 1991; Prinsloo and Breier 1996; Barton and Hamilton 1998; Hull and Schultz 2001). Subsequent accounts have tended not to focus so explicitly on the technology and skill dimensions … rather, to emphasize the social recognition of particular features within given settings” (Lankshear & Knobel, 2006, p. 66). Irrespective of these “variations, the link between identifiable literacies and recognized ways of engaging remains intact” (p. 66). The perspective of literacies, and ways of engaging or interactions with texts and others, is influential in my study.

Returning to Lankshear and Knobel’s (2006) definition of literacies, the authors’ perspective of meaningful content is “wider and looser than many literacy scholars might accept” (p. 67). They argue that “almost anything available online becomes a resource for diverse kinds of meaning making” (p. 66). Further, the authors explain that the term encoded texts refers to “texts that have been rendered in a form that allows them to be retrieved, worked with and made available independently of the physical presence of another person” (p. 66). They contrast this with their understanding of unencoded texts “that ‘expire’ at the point and time of production.
other than in the extent to which they live on in the memories of people who were there at the
time” (p. 69). It could be argued that online discussion entries are encoded texts that feature
meaningful content to be understood and interpreted by other participants.

The concept of social and literacy practices in context resonates with my view of
interactive activities related to reading and writing that take place in DBOLEs. Social practices
will be discussed in further detail in section 2.12.

2.5.3 New Literacy Studies and the study of new literacies.

Since the distinction between New Literacy Studies and the study of new literacies is muddy and
overlapping, I will briefly review these perspectives by way of background. New Literacy
Studies began in the 1980s when a selection of scholars questioned traditional views of literacy
and began to look at literacy through a sociocultural lens (Gee, 2012). The name, often referred
to as NLS for short, first appeared in the 1990 edition of Gee’s book and in some of Gee’s work
“from the 1980s on which some of that original text was based” (Gee, 2012, p. 39). Gee (2012)
explains the NLS argument, related to the transitive verbs read and write, highlights the point
that literacy must have something to do with being able to read or write something. Further,
“reading must be spelled out, at the very least, as multiple abilities to ‘read’ texts of certain types
in certain ways or to certain levels” (p. 40). As well, literacy practices “are almost always
interwoven into the very texture of wider practices that involve talk, interaction, values, and
beliefs (Barton and Hamilton 1998; Gee 2004; Health 1983; Lareau 2003; Scollon and Scollon

Mills (2010) reviewed a decade of research related to New Literacy Studies. She
synthesizes a large selection of empirical studies within the sociocultural tradition contributing to
“current understandings of print-based literacy practices in everyday use by different
communities” (p. 246). She notes that, with the advent of technology, a shift began, first observed by Barton in 2001, towards including “new textual practices that are mediated by digital technologies” (p. 247). Mills identified 90 peer-reviewed journal articles, of which 39 reported observational research, to be related to sociocultural or social practices, digital and literacy, or reading or writing. While her study was conducted with a primary focus on digital literacy applications in digital media environments, she calls for a new vision and a continued focus on new literacies in this 21st century, especially those related to educational research, practice, assessment, and policy.

New literacies’ theorists Lankshear and Knobel (2013) describe the outcome of an international working seminar in 2000 focused on New Literacies Studies convened by James Paul Gee (referred to as plural literacies at this time). At the seminar, Lankshear and Knobel presented a paper entitled “The New Literacy Studies and the study of new literacies,” which noted that, up until then, the new literacies theme had been largely overlooked in published works identified with New Literacy Studies. This emerging area of research, growing from the New Literacy Studies paradigm but progressively evolving so that these works were branching into new areas, was identified to be in the realm of the studies of new literacies. New literacies, from this perspective, are understood best when identified in terms of practices, including “forms of literacy practice that [are] emerging in association with new technologies” (p. 7). The authors declare that “studies of new literacies [are] encouraging a push into domains of theory substantially new to literacy research” (p. 8).

Lankshear and Knobel (2013), whose work looks at emergent forms of literary practices, explain that one perspective of the study of new literacies can best be understood “where one might plausibly talk about new forms of literacy practices emerging, that could in significant
ways be distinguished from previously existing ones” (p. 7). They elaborate that these new literacies practices are those beyond involving “competence with conventional reading and writing and conventional print texts” (p. 5). They encourage the literacy studies field to be prepared to revamp itself in the digital age of the 21st century. They point out that “the need for theoretical and methodological innovation within New Literacies research is empirical, not a priori” (p. 9). These researchers are calling for “case studies of participants who are working collaboratively with others on projects requiring them to learn through participation” (p. 10). Furthermore, when looking at reading and writing in online learning environments, it has been proposed that “understanding how meaning and knowledge construction take place during reading may be one of the most complex tasks in literacy research” (Kiili, Laurinen, Marttunen, & Leu, 2012, p. 449). Since it has been claimed that “schools will be increasingly encouraged to develop more collaborative and online literacy practices with students” (p. 449), an interpretive examination of new literacies practices within DBOLEs addresses a gap in current research. With students more commonly learning online, it is important to explore online learning interactions in an online learning discussion by examining those practices that could be considered within the new literacies perspective such as reading and revisiting in a DBOLE. Rereading is a practice that would not take place in a face-to-face classroom discussion and may be integral to addressing Plato’s earlier concern of being able to engage with information in a deeply meaningful way in order to understand it and to further clarify. Further overlapping perspectives related to new literacies are addressed in the following sections.

2.5.3.0 **Autonomous/ideological or situated/decontextualized models of NLS.**

Street and Lefstein (2007/2010) point out that an area of difficulty contrasting between the autonomous and ideological models of literacy is that the “original distinction, rooted in the
debate about the Literacy Thesis, was intended to contrast ways of understanding the apparent consequences of literacy” (p. 178). Therefore, “when conceptualizing the manner in which distant influences are involved in the construction of local literacy events, ‘autonomous’ and ‘ideological’ may not be suitable contraries” (p. 178). Some, rather, focus on “a related distinction between conceptions of literacy as ‘situated’ versus ‘decontextualised’” (p. 179).

In order to contextualize an exploration of literacy events and practices, Street and Lefstein (2007/2010) ask several questions, related to:

- setting: “Where does the event take place? What is happening there? How is that site organized?” (p. 193);
- participants: “Who is involved in the event? What social and semiotic resources do they bring to the situation? What are their roles?” (p. 193);
- text(s) and other objects: “What texts are present as part of this activity? How are the texts identified by the different participants? What assumptions have each text’s authors made about its prospective readers?” (p. 193); and
- other questions related to interpretation, context, and what might be the meaning of these literacy practices.

These suggestions for exploring literacy activities may serve as a guide to interpreting participants’ interviews related to activities in a DBOLE.

2.6 New Literacies

2.6.0 General background.

As a general concept, new literacies “mostly functions as an umbrella term of myriad everyday interactions with digital texts” (Lankshear, Knobel, & Curran, 2013, p. 863). Historically,
Lankshear and Knobel (2013) propose it was actually David Buckingham, in 1993, who, “in collaboration with Chris Abbott and Julian Sefton-Green, made the first formal recognition that we can find within professional literature of ‘new literacies’ a potentially viable construct for organizing ongoing theoretical, conceptual, and pedagogical work across diverse cultural sites including formal education” (p. 1). Lankshear and Knobel explain that Buckingham, Abbott, and Sefton-Green addressed new literacies, in contrast to print literacy, “more as a thematic frame for addressing issues arising in public debate at the time than as a concept to be closely defined, and explicitly rejected any sharp division between old and new technologies” (p. 2). Specifically, Buckingham and his colleagues were addressing concerns raised “around the rapid uptake of digital technologies … in terms of established and emerging technologies positioned in opposition to each other: computers were widely perceived as threats to print literacy” (p. 2). Buckingham argued for a new definition of literacy “‘not tied to particular technologies or practices’ but rather, ‘that allows us to look at the competencies that are developed across the whole range of culture and communication’” (as cited in Lankshear & Knobel, 2013, p. 2). Since then, Buckingham’s research has generally evolved to studies of digital literacies and other literacies such as media literacies that are linked to competencies in particular contexts. The perspective of literacies as competencies is less useful to my study. The concept of new literacies has many variations. To better explain these, some common perspectives are explained in the following sections.

2.6.1.0 Mediated by technology.

Near the end of the 1990s, many referred to new literacies as “reading and writing texts mediated by digital electronic technologies” (Lankshear & Knobel, 2013, p. 2). According to Lankshear and Knobel (2013), researchers such as Warschauer (1998) “co-identified new literacies and
electronic literacies, asking ‘what new literacies does multimedia technology demand?’” (p. 3). Lankshear and Knobel (2013) also point out that Bruce, in a 1998 column for the *Journal of Adolescent and Adult Education* entitled “New Literacies,” speaks of “‘rapidly evolving literacy practices’—new literacies—within the context of the ‘hypertextual, multimedia world we are entering’ (p. 46), and identified the challenge of understanding the ‘yet to be designed world’ that unfolds as people engage in the new practices made possible by new technologies (p. 47)” (as cited in Lankshear & Knobel, 2013, p. 3). Not everyone believes that new literacies must be linked to digital communication. For Lankshear and Knobel (2011), the idea of new literacies is proposed to focus “on ways in which meaning-making practices are *evolving* under contemporary conditions that include, but are in no way limited to, technological changes associated with the rise and proliferation of digital electronics” (p. 97). In the case of online learning, new literacies are mediated by digital communication, as that is the context of the learning environment.

### 2.6.1.1 From a sociocultural perspective.

Lankshear & Knobel (2007b) further suggest that understanding new literacies from a sociocultural perspective means reading and writing must be viewed within the context of which they are a part. This view is in line with Gee’s “new” literacy studies, or socioliteracy studies. Lankshear and Knobel explain Gee’s (1996) position that “there is no practice without meaning, just as there is no meaning outside of practice” (as cited in Lankshear & Knobel, 2007b, p. 2). Further, the authors think that what is central to new literacies is not the fact that we can now “look up information online,” write essays using a word processor rather than a pen or typewriter, or even that we can mix music with sophisticated software that works on run-of-the-mill computers but, rather, that they mobilize very different kinds of values and priorities and sensibilities than the literacies we are familiar with. (p. 3)

From Lankshear and Knobel’s (2007b) perspective, “the significance of the new technical stuff has mainly to do with how it enables people to build and participate in literacy practices that involve different kinds of values, sensibilities, norms and procedures and so on from those
that characterize conventional literacies” (p. 3). This perspective supports the exploration of literacy practices that may take place in contexts that have not been deeply explored. Through an interpretive focus, the context of the social and literacy practices in DBOLEs is applicable to my study.

2.6.1.2 Communicative practices.

Street and Lefstein (2007/2010) suggest that employing ethnographic-style methods of inquiry allow for closer views of and reflections about what the “literacy practices we are studying consist of” (p. 46). Street and Lefstein suggest that a future direction for research in the field may be a combination of “literacy as social practice and literacy as one component of multimodal communicative practices. This is sometimes signaled as a relationship between ‘text and practices’, an approach that may come to inform literacy work in the coming years” (p. 46). The concept of communicative practices factors into the context of online learning and the investigation of social practices in an online learning discussion, since many interactive activities involve communicative practices. For example, a text entry posted by a participant is a communicative practice intended to convey some information to others. Reading an entry is a communicative practice. Multimodal communicative practices can be exemplified by a video entry that is posted instead of a text entry. In that case, the video posting represents a multimodal communicative practice that may be important to student experiences. While video entries are not a focus of my research, this concept may be raised by the participants, and the meaning of these entries might be addressed through participant reflections of literacy practices.

2.6.2 Literacy as social practice.

Building on the concept of social practices discussed earlier, my understanding of literacy as social practices is drawn from the popular literature. Barton and Hamilton are credited with
proposing a social theory of literacy: practices and events (Street & Lefstein, 2007/2010, p. 143). The concept of literacy practices “offers a powerful way of conceptualizing the link between the activities of reading and writing and the social structures in which they are embedded and which they help shape” (p. 143). The basic unit of “a social theory of literacy is that of literacy practices” (p. 143). However, literacy practices are not “observable units of behaviour since they also involve values, attitudes, feelings and social relationships” (p. 143). Further, these practices are “the social processes which connect people with one another … [and] are shaped by social rules which regulate the use and distribution of texts” (p. 143). Literacy practices “are more usefully understood as existing in the relations between people, within groups and communities, rather than a set of properties residing in individuals” (p. 143). From Street and Lefstein’s perspective, they are also different from repetitive tasks or “common or typical activities or tasks” (p. 144), which would be considered literacy events. The concept of practices, “cultural ways of utilizing literacy—is a more abstract one that cannot wholly be contained in observable activities and tasks” (p. 143).

Further, literacy events “in life are regular, repeated activities, and these can often be a useful starting-point for research into literacy” (Street & Lefstein, 2007/2010, p. 144). Some are structured events, intended to meet particular informal social expectations or linked to “formal procedures and expectations of social institutions like work places, schools and welfare agencies” (p. 144). In this case, “the study of literacy is partly a study of texts and how they are produced and used” (p. 144). Barton and Hamilton’s social theory of literacy will be outlined in more detail section 2.6.7. This concept is useful for understanding activities that take place in a DBOLE.
2.6.3 The concept of literacy events and practices in context.

Street (1993) provides a definition of the term literacy events, based on Heath’s (1983/2009) well-known study of language use and interactions, as “any occasion in which a piece of writing is integral to the nature of participants’ interactions and their interpretive processes” (Street, 1993, p. 12). Heath (1983/2009) is an ethnographer who studied patterns of literacy practices and events in two communities: Roadville (with white mill workers and their families) and Trackton (with black mill workers and their families). In her research, Heath explains that literacy events in Trackton, “which bring the written word into a central focus in interactions and interpretations have their rules of occurrence and appropriateness, just as talking junk, fussing or performing a playsong do” (p. 200). She created descriptive categories to explain literacy events, such as the following types of uses of observed reading: instrumental, “to gain information for practical needs of daily life” (p. 220); news-related, “to gain information about third parties or distant events” (p. 220); confirmational, “to check, confirm, or announce facts or beliefs” (p. 220); social-interactional, “to gain information pertinent to social linkages and forthcoming activities” (p. 220); and recreational/educational, “for temporary entertainment or planning a recreational event” (p. 220). These descriptive categories can contribute to a conceptual model for examining interactive activities and practices in a DBOLE.

Barton and Hamilton (1998/2012) studied literacy in a Lancaster, England neighbourhood for three years, where they provided “a situated account of the uses and meanings of reading and writing in this particular community” (p. xvii). They explain that their studies “show how qualitative methods and detailed local studies can deepen a theoretical understanding of literacy by identifying distinct practices in different domains of life” (p. xix). These authors explain that the “concept of the literacy event provides a starting-point for analysing interactions,
whilst the concept of literacy practice provides a way of relating these to broader cultural and structural formations” (p. xxvii). This understanding of literacy practices and events is useful to framing the conception of literacy or social practices in DBOLEs.

These perspectives of literacy events and practices, from Barton and Hamilton’s (1998/2012) social theory of literacy, indirectly influence my deeper understanding of interactions and activities in DBOLEs related to reading and rereading and to a better understanding of creating a subject line or the influences of reading of a subject line.

2.6.4 Multiliteracies, many literacies, and multimodality.

The concepts of multiliteracies and multimodalities are included here by way of background because they are important sociocultural perspectives of literacies, but they are not influential in my study. The concepts of multiliteracies are based on an idea developed in New London in September 1994, when 10 researchers met “to consider the future of literacy teaching” (Cope & Kalantzis, 2000, p. 3). These researchers—Courtney Cazden, Bill Cope, Norm Fairclough, James Gee, Mary Kalantzis, Gunther Kress, Allan Luke, Carmen Luke, Sarah Michaels, and Martin Nikata—referred to as the New London Group (NLG), chose the term multiliteracies to describe their focus because it encompasses the diversity of language and culture and the modes of representation beyond printed text (Cope & Kalantzis, 2000). The NLG developed a theory of “six design elements in the meaning-making process: those of Linguistic-Meaning, Visual Meaning, Audio Meaning, Gestural Meaning, Spatial Meaning, and the Multimodal patterns of meaning that relate the first five modes of meaning to each other” (p. 7). They also considered four important components of pedagogy: situated practice, overt instruction, critical framing, and transformed practice. In contrast to the studies that consider literacy as social practice in both out-of-school contexts and in formal educational settings,
multiliteracies research is primarily focused on literacy pedagogy often involving diverse and digitally enabled students (Lotherington, 2011; New London Group, 2000). Responding to the need for literacy pedagogy in an increasingly global environment with technological advancements that support modes of communication and meaning-making beyond print, it is these areas of focus that set it apart from literacy as social practice (Perry 2012).

Explaining the variations in terminology related to literacies, Coiro et al. (2009a) explain that terms such as “Internet literacies, digital literacies, new media literacies, multiliteracies, information literacies, ICT literacies, computer literacy and so forth, are used to refer to phenomena [they] would see as falling broadly under a new literacies umbrella” (p. 10). Some authors such as Leu et al. (2004) are researching new literacies specifically to address the plethora of information available on the Internet but not confined the areas of multiliteracies or multimodalities. Street and Lefstein (2007/2010) describe the multimodal viewpoint related to literacies, whereas Kress and van Leeuwen (2001) and others view language “as just one of several modes through which communication is conducted” (as cited in Street and Lefstein, 2007/2010, p. 45). Street and Lefstein (2007/2010) explain that this “approach sees literacy practices as one set amongst many communicative practices at the same time applying the social, ideological and functional interpretations that have been developed with respect to discourse-based studies of communication” (p. 45). Some researchers, such as Burn (2009), seek to understand how “media education might be influenced by cultural studies” within the multiliteracies perspective (p. 152).

Kress (2011) further focuses on terms like multimodality and criticizes those studies that focus primarily on print literacy practices. Multimodality is considered to be a “domain for research” (Kress, 2011, p. 241) seeking to better understand spaces and resources, “which enter
into *meaning*, in some way or another” (p. 242). Further, social semiotics looks at “meaning-
*making* rather than meaning-*use*” (p. 242). Kress (2011) explains that the “range of questions that concern social semiosis, all come under the heading of the *social process* of meaning *making*” (p. 243). Kress notes that the Internet “is on the point of providing yet another major area for research” (p. 253) in the field of multimodality. A particular challenge to those ethnographic-style studies of multimodal practices is that of capturing “a temporally integral process” (p. 254). Ethnographic and social semiotic approaches to qualitative research in this area are common. Street and Lefstein (2007/2010) cite Pahl and Roswell (2005) as addressing two fields, new literacies studies and multimodalities, and “guiding us away from extreme versions of these approaches” (p. 46). Street and Lefstein (2007/2010) prefer that the term literacy not refer to any kind of competency or skill, and they find problematic, when addressing the concept of multimodality, “uncertainty about what to include and exclude, what goes with what” (p. 46). In order to avoid the confusion around terms such as multimodality or multiliteracies, they suggest that “understanding and defining literacy lies at the heart of ‘doing’ literacy, and new understandings and definitions [previously defined] … are likely to lead to quite different ways of doing in the next era” (p. 47).

2.6.5 New literacies’ directions.

It has been proposed that the original inspiration for Street’s (2003) New Literacy Studies was to determine “what literacy events and practices mean to users in different cultural and social contexts” (p. 87). Some perspectives have evolved from strictly New Literacy Studies to explorations of new literacies that may take place in digital environments. There are many perspectives of new literacies, and researchers are encouraged to take unique and wide-ranging approaches, to use multiple lenses, and to try a “let’s see” approach to research “with the primary
aim of understanding in depth a ‘new’ social practice and the literacies associated with or mobilized within this practice. A ‘let’s see’ orientation encourages researchers to get as close as possible to viewing a new practice from the perspectives and sensibilities of ‘insiders’” (Lankshear & Knobel, 2013, p. 9).

Lankshear and Knobel (2013) explain that Street posits that in the 21st century, where global access and technology support new forms of communication for continuously growing demographics, “across the multiple domains of everyday life, being literate involves much more than competence with conventional reading and writing and conventional print texts” (p. 5). From this perspective, being literate involves successful negotiation of meanings “by managing a grammar/semiosis that brings together a text, one’s experience, and features of the current context in a functional manner” (Lankshear & Knobel, 2013, p. 5). Street’s view is that “the new literacies of the new communicative order invoke myriad ‘grammars’ and forms of insiderliness that bespeak patterns of experience and relationships between texts and experience that wreak havoc with conventional conceptions and norms of literacy grounded in print” (as cited in Lankshear & Knobel, 2013, p. 6). It is the activities associated with these new communicative practices in online learning discussions that are of interest to document and examine. With this view, it is important to examine both the learning environment and the perspectives and experiences of those enacting the social practices.

Further, the Handbook of New Literacies, edited by Coiro et al. (2009a, 2009b), was published in order to provide a central resource for new literacies researchers. The purpose of this handbook was to bring “together leading scholars from around the world to review research in their area, from perspectives they find to provide the greatest insight, as they study how the Internet and other digital technologies profoundly redefine what it means to be literate” (Coiro et
The authors expected this publication “to provide central leadership for this newly emerging field, directing scholars to the major issues, theoretical perspectives, and interdisciplinary research on new literacies” (p. xi). They propose that the *Handbook* contains “wide-ranging, interdisciplinary research through multiple lenses, and in multiple areas of inquiry, in order to determine the most important issues, problems, and questions that must be studied as the Internet becomes this generation’s defining technology for literacy and learning” (p. xii). Forcing “a single perspective upon a newly emerging field” (xii) is not what the authors intend, but rather they want to support “researchers to collectively define central constructs and central issues through their individual work” (xii). As well, Lankshear and Knobel (2011) explain that, within educational research contexts, descriptive, analytic, and critical accounts are required. They call for “rich descriptive sociological accounts of new literacies … produced as much as possible by insiders who can ‘tell it like it is practiced’” (p. 204). Building on descriptive data with analytic information is important. From a researcher perspective, my insider view and understanding of the context of online learning in my study, including understanding the course, the patterns of course expectations, my understanding of the instructor and teaching style, and familiarity with the DBOLE will serve to support the opportunity for deeply descriptive data.

### 2.6.6 Models of literacy, literacy events, and literacy practices.

Further to the early understandings of literacy events and literacy practices discussed previously, some models and definitions may be useful as a guide. Since this is an interpretive study, it will be in the analysis that these models will be most useful as guides or interpretive tools to better understand activities that are related to student experiences such as reading and rereading. Street (2003) developed a working distinction between literacy events and literacy practices, where we
attribute to a literacy event “concepts and social models regarding what the nature of the event is and makes it work, and give it meaning. Literacy practices, then, refer to the broader cultural conception of particular ways of thinking about and doing, reading and writing in cultural contexts” (p. 79). He explains that an important issue, “at both methodological and empirical levels, then, is how can we characterize the shift from observing literacy events to conceptualizing literacy practices” (p. 79). A model outlining this approach will be helpful to better understanding literacy practices and social practices in a DBOLE.

Some have criticized research approaches to understanding literacy events and practices in context, because of political demands for research in education and literacy to conform to scientific standards (Street, 2003, p. 85). The call for rigorous experiments and evaluations of existing programs and practices befitting systematic reviews have led to researchers claiming to know definitely, for example, “what works in teaching initial literacy and that the task is simply to apply this in schooling (Board, 2000; Harrison, 2002)” (as cited in Street, 2003, p. 86). On the other hand, critiques of these scientific approaches by “well known qualititative researchers in the literacy field (Gee, 2002; Coles, 2001; Goodman, 2001; Hammersley, 2001; Erickson & Gutierrez, 2002)” (as cited in Street, 2003, p. 86), have been well documented. For example, New Literacy Studies theorists have demonstrated “some of the problems with the ‘scientific’ approach—its inability to engage with the nuances of cultural meanings, the variation in uses of literacy across contexts and the problems already highlighted with the autonomous model of literacy” (Street, 2003, p. 87). A qualitative interpretive study will uncover the nuances and contextual practices that are related to the interactive activities in this study of online learning discussions.
2.6.7 Social theory of literacy: Practices and events (definitions).

New literacies theorists Barton and Hamilton (1998/2012) describe their Social Theory of Literacy: Practices and Events, where they set out “six propositions about the nature of literacy” (p. 6):

- Literacy is best understood as a set of social practices; these can be inferred from events which are mediated by written texts.
- There are different literacies associated with different domains of life.
- Literacy practices are patterned by social institutions and power relationships, and some literacies become more dominant, visible, and influential than others.
- Literacy practices are purposeful and embedded in broader social goals and cultural practices.
- Literacy is historically situated.
- Literacy practices change, and new ones are frequently acquired through processes of informal learning and sense making. (p. 7)

Barton and Hamilton (1998/2012) employed this theory as they studied local literacies in Lancaster. They explain that “in the simplest sense literacy practices are what people do with literacy” (p. 6). Literacy practices are not observable. Further, practices “are shaped by social rules which regulate the use and distribution of texts, prescribing who may produce and have access to them” (p. 7). As mentioned earlier, the “notion of practices as … cultural ways of utilising literacy—is a more abstract one that cannot wholly be contained in observable activities and tasks” (p. 7).

Events are “activities where literacy has a role” (Barton & Hamilton, 1998/2012, p. 7); they are “observable episodes which arise from practices and are shaped by them” (p. 7). Furthermore, with events, “usually there is a written text, or texts, central to the activity and there may be talk around the text” (p. 7). In their study of everyday life, Barton and Hamilton (1998/2012) identify these three components—practices, events, and texts—and “provide the
first proposition of a social theory of literacy, that: *literacy is best understood as a set of social practices; these can be inferred from events which are mediated by written texts*” (p. 8).

Building on these ideas, Purcell-Gates, Jacobson, and Degener (2004) published *Print Literacy Development* about the Literacy Practices of Adult Learners Study (LPALS) study of adult literacy students representing a “range of students who are working to improve their reading and writing abilities in literacy classes” (p. 2). The authors explore the participants’ literacy practices based on the theoretical assumptions set out by Barton and Hamilton (1998/2012). Purcell-Gates’s (2010b) questionnaire asks participants to consider if their historical school literacy practices prepared them for literacy practices they were expected to master as adults. Examples of two questions are “III. What kinds of texts did students write in your school as part of the school instruction/assignments?” (p. 222) and “VI. Do you think the reading and writing you did at school prepared you for the kinds of things that you read and write now? Why or why not, or in what ways?” (p. 223). In order to prompt for a better understanding of writing literacy practices, interviewers were asked to “*elicit information about why (purpose of writing); social context (as part of what type of school activity); participant structure (e.g. read to or with whom and write to or with whom?); and how important and/or enjoyable/fulfilling it is*” (p. 222). Such questions can serve as a guide to an online survey intended to better understand interactions and activities that are best described as literacy or social practices in online learning discussions. Generally, and indirectly based on these definitions and frameworks, investigations of literacy practices, events, and texts in online learning environments may provide a deeper understanding of online interactions based on those identified in offline contexts.
2.6.8 Model of a literacy practice.

An example of a model of a literacy practice is included below. This model includes the concept of function, which may be useful in understanding social and literacy practices related to intention or meaning. For example, there may be identifiable functions or intent related to the activity of revisiting. The model is described with some detail to explain the text-function relationship drawn from the example. Purcell-Gates, Perry, and Briseño’s (2011) model (see Figure 1) of literacy practices is based on understanding observable literacy events in order to infer invisible literacy practices. The authors explain, as touched on earlier, that “literacy events are observable while practices relate to non-observable beliefs, values, attitude, power relationships and so forth, and therefore must be inferred” (p. 451).
Figure 1. Model of a literacy practice, reflected in the analytic categories of the Cultural Practices of Literacy study (Purcell-Gates et al., 2011, p. 450).

This model is centred on function. Two examples of function are “to indicate approval/disapproval [or] to invite someone to an event” (Purcell-Gates et al., 2011, p. 448). This model may serve as a useful guide for understanding literacy practices and interactions in online learning discussions.

Purcell-Gates, Anderson, Gagne, Jang, Lenters, and McTavish (2012) published an article in the Journal of Literacy Research entitled “Measuring Situated Literacy Activity: Challenges and Promises.” The authors report that this type of research is messy, because the measures of
literacy required the researchers to “quantify the degree to which the literacy activities that our students were engaged with were, in fact, ‘socially situated’ as defined by sociolinguists and other literacy theorists (e.g. Bakhtin, 1986; Street, 1984)” (Purcell-Gates et al., 2012, p. 397).

Purcell-Gates and colleagues’ article is based on their experiences in an action research project, Literacy for Life (LFL), which ran for a year, incorporating “real-world literacy activity into instruction for low-English-literate and non- or low-schooled adults and their prekindergarten children, ages 3 to 5” (p. 397).

Purcell-Gates et al. (2012) identified real-world literacy activities for the adults such as “Entering (writing) search terms on computer to find information on lead based paint [and] composing personal immigrant stories to send to newspaper for possible publication” (p. 399). During the analysis, the literacy activities were considered a unit of analysis and were “defined as any activity that includes reading, writing, listening to reading, and watching writing by the students” (p. 409). These were then coded according to a genre and the purpose was then conceptualized “as the purpose served by reading, writing, listening to, or observing the associated text for each literacy activity” (p. 409). This “required an analysis of the social context within which the literacy event took place” (p. 409). A coding manual was created and compared to the field notes in order to measure levels of real-life literacy activities.

One of the authors’ key challenges was in negotiating two different views of literacy (as socially mediated and as a technological skill). While others argue “this cannot be done while maintaining epistemological validity and purity, [the authors] propose that in the process of attempting it, we have suggested ways to explore a third theoretical lens” (Purcell-Gates et al., 2012, p. 418). Purcell-Gates and colleagues describe this third theoretical lens as seeing “literacy skill and knowledge as developing within sociocultural contexts, including power relationship
and historical processes” (p. 418). While my research does not propose to measure literacy levels or to explore at this depth (reported by the authors as the messiest piece of Purcell-Gates et al.’s [2012] research), the coding process and identification of literacy events is helpful to guiding my understandings. While the model will not be followed in the same way, it is helpful to understand the underlying thinking and the modelling of detailed descriptions of the online activities of interest.

2.7 Literacy Observations in Face-to-Face Classrooms

By way of background to the perspectives guiding interactions in a learning environment and understanding of social practices related to DBOLEs, a brief review of similar early investigations in the classroom may help to broaden our understanding of such practices from a formal face-to-face learning context. Similar to the new and social literacies perspectives and the views guiding my research, Clay’s (1991) perspective from decades ago views literacy as an activity related to meaning-making and communication within a social context.

Long before online learning became a common environment for learning, classrooms were, and still are, a common site for research on literacy practices. Research on literacy as a skill or competency, a focus of many studies, is not part of my study. However, Clay (1991), while investigating literacy in her classroom context, views literacy as an activity worth investigating that is influenced by social contexts. I believe a review of these two well-known literacy works helps to guide an understanding of past studies aiming to undertake observations of social practices in a learning environment.

2.7.0 Clay’s classroom research

In 1991, Marie Clay, one of the original designers of the Reading Recovery program, published *Becoming Literate: The Construction of Inner Control*. Her research examined children’s early
literacy acquisition from “the formal introduction of instruction in school until the relative independence of the third year of schooling” (Clay, 1991, p. 1). She believed that while social contexts influence the acquisition of literacy, “it is the children who learn to actively integrate their experiences and the parent or teacher is powerless to do more than contribute to this active construction completed by the learner” (p. 1). Further, “meanings provide the purpose of reading and writing. But different readers bring different meanings to texts” (p. 2). Her model of literacy behaviours “respects the complexity, studies the cross-referencing of knowledge, expects different skills to be interactive, and assumes that control of this orchestration is something the child has learned” (p. 3).

An important aspect of Clay’s (1991) study is in the observed areas of difficulty and effective reading strategies to support literacy development. She “attempts to capture and describe patterns of change over time in reading and writing processes, the changes that occur as children accumulate experience with literacy activities” (p. 4). Clay defines reading “as a message-getting, problem-solving activity which increases in power and flexibility the more it is practiced” (p. 6). While Clay’s experience may seem far removed from understanding literacy practices in online learning discussions, her research serves as an example of understanding literacy events and practices related to interactive activities and by observing related issues in context (in the classroom). Classroom observations of student interactions as modelled by Clay, together with Heath’s (1983/2009) example of home-based literacy activities, and Barton and Hamilton’s (1998/2012) observations of community-situated literacy and social practices, serve to guide this study of observing online “classroom” interactions. Clay’s (1991) research also helps to set out the perspective that a participant’s understanding and use of literacy activities is influenced by a degree of familiarity of the processes associated with the literacy activities in a
particular environment. Importantly, she attempted to capture and describe patterns of change and to analyze reading patterns by considering how the messages were received.

2.7.1 Cazden’s classroom research.

Another well-known literacy researcher, Cazden (2001), published the first edition (1988) and second edition of *Classroom Discourse: The Language of Teaching and Learning* to highlight her studies of classroom activities and discourse from the perspective of the social or communication system within which it is situated. Cazden believed that “as classrooms change toward a community of learners, all students’ public words become part of the curriculum for their peers” (p. 3). Her insight into the importance of public words is applicable to research in the online learning environment today.

Cazden (2001) draws on a quote by Douglas Barnes from 1974, where he claims that “speech unites the cognitive and the social” (p. 2). Further quoting Barnes, Cazden states that “speech makes available to reflection the processes by which they relate new knowledge to old. But this possibility depends on the social relationships, the communication system, which the teacher sets up” (p. 2). Cazden explains that her “study of classroom discourse is the study of that communication system” (p. 2).

Cazden (2001) referred to the classroom activities and discourse she was interested in studying as “nondeliberate, usually nonconscious” (p. 4). At the time of her early research, spoken language was the main medium used for both teaching and demonstrating what was learned, and she believed that “in each and every utterance, speech truly unites the cognitive and the social” (p. 3). From a linguistic perspective, she identified three features of classroom life—the language of curriculum, the language of control, and the language of personal identity (p. 3). As she sought to understand the associated classroom practices by observing patterns, one of the
questions she addressed was, “What communication competence do these patterns presume and/or foster?” (p. 3).

Further, Cazden’s (2001) revised edition of her 1988 book highlights a greater educational emphasis on the skills of communicating in writing, working with others, and using electronic devices. As well, the newer version highlights that non-traditional discussions had become more emphasized as an important learning strategy in everyday teaching. Her research was “deliberately eclectic in drawing on diverse theories, analytic strategies, and kinds of empirical research … [because] no single perspective can be adequate” (p. 7). One description of her research looking at activities and discourse draws on Vygotsky’s perspective, related to sociocultural theory, of the concept of the Zone of Proximal Development (ZPD) as scaffold, explaining that a child grows competent when supported by an adult who can sustain. As well, Cazden (2001) highlights an example where a researcher describes a “Community of Learners’ (COL)—one of the best-documented examples of challenging, discourse intensive, curriculum and teaching” (p. 68). She explains that the “metaphor of discourse as scaffold applies easiest to adult assistance with mental actions—in our examples, mental actions necessary for literacy, such as transcribing spoken language into writing and understanding increasingly complex texts” (p. 71). Scaffolding of learning in an online learning discussion environment is supported by social practices, and these require exploration and documentation in order to be better understood.

Cazden (2001) calls for “more descriptions of alternative forms of such relationships that are functionally equivalent in engaging and supporting student learning” (p. 78). She states, quite “bluntly, changing the name of a classroom of students from a ‘group of conscripted workers’ to a ‘community of learners’ doesn’t make it happen” (p. 78). The exploration of social
practices in an online learning discussion environment must include observations of relationships and interactions.

In Cazden’s (2001) discussion of research of an online learning environment, she observed “qualitative differences in the discourse” (p. 129). These observations included threaded discussions and students’ “longer, and more thoughtful, answers to questions; teacher evaluations were almost totally absent; and students received more comments from their peers” (p. 129). The question of what is viewed as cheating is of interest in a study of online learning environments, where everyone’s thoughts and opinions are available for everyone else to read and adopt. Cazden also raises the topic of peer silence and lack of response to an utterance, which are areas of interest in this interpretive study of online learning discussion environments and the social practices observed in such environments.

Cazden’s (2001) perspective is important, although she typically refers to research in K-12 classrooms, because K-12 classrooms and online learning are converging as more high school students are participating in online learning courses. Middle school students are also learning about the online learning experience as they experience blended learning environments. As well, she observes that in classrooms, “noncognitive aspects of underlying interpersonal relationships—affective aspects” (p. 78) are important to learning. Further, “in descriptions of even nontraditional classrooms, where interactions are deemed so important, mention of affective qualities of the learning environment are hard to find” (p. 78). In this study of DBOLE social practices, the cognitive aspects are only important insofar as social practices are perceived to be important to the learning environment.

Cazden (2001) cautions that although creating a community of learners can be seen as beneficial to learning, “it is important not to idealize the notion of ‘community’ and to consider
realistically the relationships among students that such learning environments assume” (p. 131). In fact, the “emerging changes in classroom participant structures, and the kinds of discourse we hope will happen within them, combine to raise the importance of these social relationships” (p. 131). She asks researchers to supplement their analysis of activities and discourse with interviews. This is especially important, as “being able to use technology assumes a set of literacy skills that are special in several ways” (p. 132). Besides computer proficiency, “student-to-student transmission of expertise becomes necessary” (p. 132). Such transmission of expertise and what it means to the recipient requires investigation through interviews to be better understood.

2.8 Ethnographic Research Review

New literacies researcher Knobel (1999) provides a detailed description of her ethnographic case study. She documents her research on students’ everyday literacies among school experiences and their everyday social practices. Her studies are “framed by James Paul Gee’s theory of D/discourses and by social constructionist approaches to ethnographic and sociolinguistic data analysis developed by Judith Green and her colleagues” (p. 6). Knobel explains that using these approaches “enables close examination of social and language practices on a moment-to-moment basis, set within larger contexts of sociohistorical institutions, conventions, and meanings” (pp. 6–7). The author explains Gee’s Discourses as those

“inhabited” and “operated” by socioculturally defined groups of people. These people act as—and are accepted as—members of the Discourse, and each Discourse is constituted by particular “ways of talking, acting, valuing, and believing, as well as the spaces and material ‘props’ the group uses to carry out its social practices. Discourses integrate words, acts, values, beliefs, attitudes, social identities, as well as gestures, glances, body positions, and clothes” (Gee, 1992b, 107; also 1996a, 122–148). Lowercase discourses are the “language bits” of Discourses (Gee, 1991a, 1992/3). (as cited in Knobel, 1999, p. 7)
Knobel’s (1999) study “employed an ethnographic multiple case study design” (p. 7). She explains that “this approach to research can be used to identify and interpret—as far as possible—complex interrelationships among components or participants” (p. 8). Knobel explains her choice of discourse analysis by comparing it to conversation analysis and noting that “conversation analysts … pay scant attention to social relations and social identities, contexts and so forth beyond the analyzed moment (Erickson 1996; Taylor and Cameron 1987)” (as cited in Knobel, 1999, p. 29).

Knobel (1999) includes herself among Kress, Bowers, and Iwi, who are generally identified as critical discourse analysts, and as one of those who believes that “worthwhile investigations of discourses are simultaneously investigations of social and material contexts” (p. 30). Knobel draws on the work of Norman Fairclough, who, in turn draws heavily on “Holliday’s (e.g. 1978, 1985) original functional linguistic system of analysis, and Michael Foucault’s (e.g. 1972) ‘orders of discourse’ to describe discourse-context relationships by means of analyzing three-way interrelationships among texts, interactions … and contexts” (p. 30). Knobel (1999) notes that Fairclough, however, “emphasizes texts over social practice” (p. 30). She also claims that Kress’s interpretive approach does not take into account the complexities of “interrelationships among discourse, social practices, group membership and social institutions” (p. 31).

The interconnections between primary and secondary discourses provided, for Knobel (1999), an interpretive framework for studying the everyday literacies, both in and out of school, of four different adolescents. She provided descriptive data collected over two weeks. Knobel drew upon the work of Judith Green and the Santa Barbara Classroom Discourse Group’s study. To address the question of participation, Knobel explains that it “is tied explicitly to social action
and the ways in which people appear to be making sense of interactions in particular contexts” (p. 52). She explains that “the meaning of an action or interaction within an event is not analyzed in terms of content, but rather in terms of the event’s relationships with other events, socially negotiated roles, and patterns of practices recognized and accepted by the group” (p. 52). Membership in groups is determined through observations of individual and group activities.

Knobel (1999) chose to analyze through the independent categories of event mapping, interaction units, and message units. An event map “enables the researcher to trace patterns of (and variations in) language and social practices within and across events over time” (p. 55). Further, “interaction units within and across events also play a significant role in this approach to data analysis. Interaction units are defined as a ‘series of interpersonally related message units that implicate each other’ (Bloome and Egan-Robertson 1993, 314)” (as cited in Knobel, 1999, p. 55). While events and interaction units are identified by Knobel (1999) “by means of contextual cues, prosodic features of the discourse, and by shifts in content or body positions” (p. 55), an online environment would provide overlapping and different cues for these units. Finally, a message unit is defined as to “represent a ‘minimal unit of conversational meaning’ as interpreted by the researchers, who draw on contextual and prosodic cues to identify these units (Green and Wallat, 1981, 196)” (as cited in Knobel, 1999, p. 55). Knobel (1999) describes message units as “grounded on the premise that meaning is constituted by social negotiations within a particular context and by (shared or clashing) histories of interactions” (p. 55). Further, message units are “always ultimately subject to the researchers’ interpretations of meanings being made and the contextualization cues that facilitate meaning-making in each interaction” (p. 55).
While prosodic cues are not available in a text-based message, other cues could nevertheless be identified as meaningful. Knobel (1999) concludes that “a conception of D/discourses coupled with event mapping strategies proved to be a useful analytic and interpretive device … [and] has gone some way towards developing an effective research methodology that enables dialogical analyses between the individual and the social” (p. 207). One caution the author offers is that “using Gee’s theory of D/discourses may have predisposed [her] to ‘find’ Discourses in the collected data” (p. 211), though she employed a number of strategies to enhance the validity of interpretations. Knobel calls for further research on literacies and sees potential in studying literacies captured through electronic communications.

This example of a study is included here by way of background only. It is interesting to review Knobel’s methods and perspectives as a guide. However, Knobel (2015) recommended not adopting this framework for this study, but rather focusing on the social practices perspective instead.

2.9 Critiques of Ethnographies of Literacy and New Literacy Studies

Many ethnographies of literacy took place in the late 1990s, and, not surprisingly, critical views of these studies emerged. Brandt and Clinton (2002), in their article “Limits of the Local: Expanding Perspectives of Literacy as a Social Practice,” argue that the autonomous/ideological dichotomy is problematic and ask, “can we not see the ways that literacy arises out of local, particular, situated human interactions while also seeing how it also regularly arrives from other places—infiltrating, disjoining, and displacing local life?” (p. 343). The authors find it limiting that “‘literacy events’ as they are defined by the social-practice perspective come across so overwhelmingly particular and situated under the ethnographic gaze” (p. 345). The authors argue “for opening the door between people and things in the accomplishment of literacy practices in
order to understand their formal and functional interrelationships in various circumstances” (p. 348).

Street (2003) provides an example of Brandt and Clinton’s (2002) theoretical critique, where they propose that the local perspective is overemphasized and the distant perspective leans towards the autonomous model, but disagrees with them by pointing out that it is the focus on the relationship between the local and distant, not on one or the other site, that provides insight. It is the contextualization that leads to a deeper understanding in my study. In fact, Street (2003) explains that “the shift from observing literacy events to conceptualizing literacy practice does, I think, provide both a methodological and empirical way of dealing with this relation and thereby takes account of Brandt and Clinton’s concern with the ‘limits of the local’” (p. 80). Some have referred to the limits of the local as referring to out-of-school literacy practices that may seem irrelevant to school policy-makers. Further, Street (2003) proposes to “strengthen a practical theoretical approach to literacy studies by specifying the space of literacy practice, examining in particular the locally operant figured world of literacy, identities in practice, and artefacts” (pp. 81–82). Street proposes that the “theoretical perspectives brought together in the ‘New Literacy Studies’ will face their sternest test: that of their practical applications to mainstream education” (p. 82). For example, Street cites Hull and Schultz (2001) who switch between literacy practices both in and out of school. Street also quotes Dewey (1938/1997), “the great waste in the school comes from [the student’s] inability to utilize the experiences he gets outside of the school in any complete and free way within the school itself; while on the other hand, he is unable to apply in daily life what he is learning in school” (p. 83).
Related to literacy and school, Simon (2005) notes, when commenting on an apparent disconnect between the NLS theory of literacy and school policy in the U.S., that it may possibly be:

a conscious disaffection with universalizing definitions of literacy combined with distance between local contexts—what might be termed antitranscontextualization—which opens NLS claims to the criticism of being overly relativistic, resulting in an undesired defanging effect on what has become an increasingly national and transnational literacy stage hungry for theories that address general tendencies and include proposals for intervention. (p. 126)

Simon (2005) proposes a theoretical perspective that considers the “interconnections between localities not to develop a new ‘autonomy,’ but rather a way of conceiving the local that has implications for other localities, one which emphasizes the symbiotic interconnectivity between the ‘local’ and the ‘translocal’” (p. 126). The disconnect between school policy and literacy intervention is not directly related to this study’s view of literacies in a DBOLE, but the broader implications may be relevant.

Perry (2012), in her critical overview of sociocultural perspectives of literacy such as literacy as social practice, points out the criticism of vague connections between literacy events and practices, because practices must be inferred from events. She encourages the use of a model to better determine literacy practices. Further, the theory of literacy as social practice “can help to describe what types of knowledge are needed in order to effectively engage in given literacy practices” (p. 55). Perry explains that “understanding literacy as a socially-contextualized practice helps us understand the ways in which practices may vary across diverse communities, and the ways in which they are also dynamic and malleable” (p. 62). For example, thinking of rereading as a practice in the context of DBOLEs may help us understand a range of ways participants find this an important and useful practice. Further, “viewing literacy as a diverse set
of contextualized practices helps researchers and practitioners understand the full range of ways in which people use literacy in their everyday lives, as well as the various types of complex knowledge that users need to have in order to effectively practice literacy” (p. 62). As well, the wide and varied definitions of literacy are problematic in this type of research and must be clearly addressed.

Finally, Street (2003) cites, as an example of a contributing study, the Community Literacy Project Nepal which, “based on a spirit of engagement between theory and practices, academic and applied concerns, … aims to make a contribution at the interface, clarifying conceptual issues, and enhancing knowledge on the one hand and aiding policy-making and program building on the other (cf Rogers, 1992)” (p. 85). Further, the “participants approach the issues in a spirit of reflective and critical enquiry, less concerned to advocate particular approaches, methodologies and theories than to extend current thinking and thereby facilitate informed local practice” (p. 85). Ethnographic style investigations of literacy practices and events can enlighten researchers by documenting and exploring these practices and events in detail in the context in which they reside. My research looks at the interactive activities of reading and rereading as described in context by both the researcher and the participants to explain the practices undertaken in this online learning environment discussion.

2.10 A Dual-Level Theory of New Literacies
Leu et al. (2013) have acknowledged the challenge of developing an adequate and fully defined theory, through which studies of new literacies’ practices can be framed, given the evolving and deictic nature and social context of literacy in this Internet Age. Some “call ‘literacy’ a deictic term—one that changes continually depending on the frame of references in which it is used” (Leu as cited in Kinzer & Leu, 2016, p. 2). To facilitate a more comprehensive way to approach
this task, Leu et al. (2013) have outlined a Dual-Level Theory of New Literacies, which is emergent and continues to be developed. The authors propose that the Uppercase Theory of New Literacies is an overarching theory of all literacies involving the Internet. The lowercase theory of new literacies is specific to a particular context, such as online reading comprehension, but is guided by the central principles of the Uppercase Theory. Within this theory, there are eight central principles defining the evolution of the Uppercase Theory of New Literacies. These principles are the following:

1. The Internet is this generation’s defining technology for literacy and learning within our global community.
2. The Internet and related technologies require additional new literacies to fully access their potential.
3. New literacies are deictic.
4. New literacies are multiple, multimodal, and multifaceted.
5. Critical literacies are central to new literacies.
6. New forms of strategic knowledge are required with new literacies.
7. New social practices are a central element of New Literacies.
8. Teachers become more important, though their role changes, within new literacy classrooms. (Leu et al., 2013, p. 1158)

Leu et al. (2013) believe these principles are useful to inform New Literacies theory and to guide the development of new literacies (lowercase) theories, many of which are yet to be established and developed. As consistent patterns are emerging from studies of lowercase new literacies, “a complete theory of New Literacies is not yet possible” (Kinzer & Leu, 2016, p. 4). Lowercase new literacies “also include those that explore a focused disciplinary base, such as the semiotics of multimodality in online media (e.g. Kress, 2003) or a distinctive conceptual approach such as new literacy studies (Street, 2005, 2003)” (Leu et al., 2013, p. 1157). An example of a lowercase theory of new literacies that is being developed is in the area of online research and comprehension. The following is what is known about this particular new literacies area:
1. Online research and comprehension is a self-directed process of text construction and knowledge construction.

2. Five practices appear to define online research and comprehension processing: (1) identifying a problem and then (2) locating, (3) evaluating, (4) synthesizing, and (5) communicating information.

3. Online research and comprehension is not isomorphic with offline reading comprehension; additional skills and strategies appear to be required.

4. Online contexts may be especially supportive for some struggling readers.

5. Adolescents are not always very skilled with online research and comprehension.

6. Collaborative online reading and writing practices appear to increase comprehension and learning. (Leu et al., 2013, p. 1164)

An implication of the Dual-Level Theory of New Literacies is that we can be guided by this theory to explore new areas of literacies and that lowercase literacy research can inform the uppercase literacy theory over time. Leu et al. (2013) propose that research “may not be able to keep up with the rapidly changing landscape of literacy if traditional paradigms are used” (p. 1171). Further, “important aspects of literacy are likely to change before a body of consistent research findings can be gathered. Because new literacies continuously change, we require new epistemologies and research practices that keep up with the rapid changes we anticipate” (p. 1171). The authors propose that “new models of research [are] likely to appear among those who understand the changes we are experiencing” (p. 1171).

This framework is emerging and evolving as researchers study particular contexts that may contribute to this body of work. This dual-level theory of lowercase new literacies and uppercase New Literacies is useful to consider applying to the context of understanding reading, rereading, and revisiting and social practices in online learning.

2.11 Literacy and New Literacies in Online Learning

Literacy research related to reading, teaching, and development is abundant; yet, literacy research in online learning environments is only emerging (OECD, 2011). Understanding literacy practices in formal online learning is less studied. For example, Mitchell and Erickson
(2004) raised the question of the changing literacy practices that are typically linked to academic activity in a digital environment. The authors examined academic literacy by suggesting that “the technology makes possible new ways of reading and writing academic texts” (p. 21). Mitchell and Erickson suggested that online discussions “enable a very different forum for interaction, for reading and writing, for presenting ideas and for directly linking to other resources” (p. 23). Also related to communicative practices in online learning, Leu et al. (2013) note that the “interactive processes of reading and writing have become so intertwined on the Internet that they often happen simultaneously during communication” (p. 1166). Interestingly, the authors explain that some studies in a lowercase new literacies theory of online research and comprehension have shown that “students who perform at a lower level on state reading assessments sometimes perform at unexpectedly high levels on tasks of online research and comprehension” (p. 1167). The authors conclude that we “do not know very much about the relative contribution of various elements of online research and comprehension to successful online research outcomes” (p. 1167).

Further, there are a number of studies related to online reading under way, including the Online Reading Comprehension Assessment (ORCA) project, investigating middle school students’ location and evaluation of online content (Coiro & Kennedy, 2011). Location is the activity of finding appropriate information on the Internet, usually to answer a question. Also reporting on middle school students and online learning is the Organization for Economic Cooperation and Development’s (OECD) PISA (Programme for International Student Assessment) 2009 Results: Students On Line Digital Technologies and Performance (Volume VI) (2011). Early results report that today’s 15-year-olds “do not automatically know how to operate
effectively in the digital environment, as has sometimes been claimed” (p. 20). Literacy research in the lowercase new literacies area of online reading is emerging and ongoing.

More specifically in the area of literacy and online learning discussions, Goodfellow (2011) comments that except for a small number of publications addressing academic literacy in higher education, in an extensive literature search for higher education publications “containing various conjunctions of literacies and higher education or university, with any term synonymous in this context with digital (e.g. e-learning, ICT, technology, electronic, etc.), [the authors] find only [their] own (Goodfellow and Lea 2007) ‘literacies perspective’ on e-learning in the university” (p. 135). Goodfellow (2011) therefore suggests “that higher-education research and practice has been slow to engage with the cultural impact of the new communications order on its literacy practices” (p. 135). A series developed by the Open University at http://lidu.open.ac.uk was intended to facilitate the discussion and research on literacy in the digital university. A recent check found that site had not been updated since 2011.

Investigating social and literacy practices in a DBOLE is an important opportunity to join an area that is of interest to researchers such as Goodfellow (2011) and others that may add to a small body of research through an interpretive perspective. This research will combine a new literacies perspective drawn from the complex area of literacy research that is described in this chapter, and an interpretive view of online learning activities that have been typically studied from a positivist perspective, to seek a deeper understanding of activities such as reading and rereading that may be important to students’ experiences.

2.12 Summary of the New Literacies Perspectives Influencing the 3Rs

This section summarizes the views related to the new literacies perspective that influences my study. To recap, online learning is becoming a more common delivery platform for teaching in
K-12 and higher education. Online learning discussions have been examined in many ways, but primarily within the positivist paradigm by online learning researchers, including research with a focus on interactions and interactive behaviours. In seeking to examine and understand online learning discussion activities from a different perspective, I am adopting a new literacies lens that looks at activities from a social practice view. Since new literacies research is evolving and emergent, and research in this area is muddy, with overlapping and mixed but sometimes distinct perspectives, I am approaching this examination by drawing on the perspectives previously discussed and explaining the relationship between my view in the context of online learning discussions and those published studies that are guiding my perspectives. It is encouraging that Tierney (2013) is optimistic that the literacy research community is open to diverse ideas for research featuring contextual, subjective, and participatory approaches.

However, there is no clear definition agreed to by all literacy researchers to explain exactly what literacies are and what a social practice is. These are evolving and complex concepts. Therefore, I am drawing on the following points for guidance and will explain the perspective I have chosen as the new literacies lens for examining online literacies and social practices.

- I am looking at literacy and social practices in the context of learning but not in the context of teaching literacy.

- Literacy as a social practice is best understood through social and cultural contexts (Perry, 2012; Street & Lefstein, 2007/2010). Related to my research, the social and cultural contexts are within the DBOLE. The cultural contexts include the norms and expectations of discussion-based online learning behaviours. These cultural contexts are influenced by the participants.
• Literacy is an activity and social practices relate to reading and writing in many contexts (Kelder, 1996; Street, 1995). In this case, the context is in a DBOLE.

• There is a “clear link between identifiable literacies and recognized ways of engaging” (Lankshear & Knobel, 2006, p. 66). These relate to the ways participants read, write, and make meaning of discussion “texts” in a DBOLE.

• Literacy practices involve engaging with something—such as reading, writing, or meaning-making involving something (Gee, 2012). In a DBOLE, it is through interactions with discussion entries.

• Literacy is best understood as a set of social practices; literacy practices are purposeful and embedded in broader social goals and cultural practices and these practices are fluid and influenced by the need for sense-making (Barton & Hamilton, 1998/2012). Social practices within the social goals and cultural practices of a DBOLE are being examined in this study.

• Sociocultural definitions of literacy “have to make sense of reading, writing and meaning-making as integral elements of social practices” (Lankshear & Knobel, 2007b, p. 2).

• Literacy and social practices should be examined in context (Purcell-Gates, 2010a). In this study, the context is the DBOLE.

• Understanding classroom discussions involves the study of a communication system within social systems influenced by the teacher (Cazden, 2001, p. 2).

• Social literacies suggest “that engaging with literacy is always a social act even from the outset” (Street & Lefstein, 2007/2010, p. 40).
The views of literacy as social practice and literacy as one component of multimodal communicative practices, “sometime signaled as a relationship between ‘texts and practices,’ [is] an approach that may come to inform literacy work more in the coming year” (Street & Lefstein, 2007/2010, p. 46)

The following summarizes the influential points from the preceding literature review and the perspectives I draw on for my research. From a sociocultural perspective, literacy is viewed not as a skill or a competency situated in individuals but rather as an activity that is a product of or affected by social relationships. Purcell-Gates (2010a) calls for more contextualized, descriptive research, important to better understand how literacy and social practices affect and are patterned by participants in different situations. Based on the literature, the simplest perspective of literacy for me is meaning-making through reading and writing. This perspective is applicable to the context of online learning discussions where interactive communicatives or entries must be created/composed, read, and understood by participants. Street (1995) established that there is not just one literacy but many literacies. I am drawing on Lankshear and Knobel’s (2006) definition of literacies as “socially recognized ways of generating, communicating and negotiating meaningful content through the medium of encoded texts within contexts of participation” (p. 64), as they explain that “this means that literacy is really like a family of practices—literacies—that will include such ‘socially evolved and patterned activities’ as letter writing, keeping records and inventories, keeping a diary, writing memos, posting announcements, and so on” (p. 66). Of course, in the context of online learning discussions, the socially evolved and patterned activities I am examining are appropriate to the DBOLE.

One of the dominant approaches of literacy research, which is considered a major sociocultural theory of literacy, views literacy as social practice (Barton & Hamilton, 1998/2012;
Purcell-Gates, 2010a; Street & Lefstein, 2007/2010) with a focus on understanding literacy practices in their social and cultural contexts (Perry, 2012). It is important to note that the concept of literacy practices has been extensively reworked by many, though Lankshear and Knobel (2006) emphasize the social features and recognize the “link between identifiable literacies and recognized ways of engaging” (p. 66). Identifying themselves as educationists, Lankshear and Knobel (2004) explain their interest is “to understand contemporary practices in their own right, on their own terms, and so far as possible, from the perspectives of insiders to those practices” (pp. 2–3). Some say the concept of social literacies evolved from New Literacy Studies (Perry, 2012), but Lankshear and Knobel (2013) see a distinction between the complex and overlapping New Literacy Studies and the studies of new literacies. The study of new literacies, influencing my research, is branching into new areas which include looking at forms of practices facilitated by new technologies. While the technology that supports online learning is not new per se, the wider adoption of this mode of learning is opening access to many who may not otherwise have experienced online learning discussions and therefore may think of this context as new to them. From this perspective, it is inspiring that Lankshear and Knobel are “encouraging a push into domains of theory substantially new to literacy research” (p. 8) under the umbrella of the studies of new literacies.

To further clarify, social practices are explained by Street and Lefstein (2007/2010) as activities taking place within a group setting where there is a “social regulation of texts” (p. 147). They are conceptual and evolving and often studied based on evidence of the literacy events that are considered to be indicators of these activities (Street & Lefstein, 2007/2010). Street (1993) draws on Heath’s (1982) definition of literacy events as “any occasion in which a piece of writing is integral to the nature of participants’ interactions and their interpretive processes” (p.
Further, in the case of my situated research, the original distinction between the autonomous and ideological perspectives associated with NLS is more appropriately addressed as situated and not decontextualized (Street & Lefstein, 2007/2010). Therefore, my objective is to focus on situated social practices in DBOLEs and to examine these practices in the context of these online learning discussions. In order to study these practices, various models provide general guidance.

Overall, Barton and Hamilton (1998/2012) provide their Social Theory of Literacy: Practices and Events, with six propositions to guide my understanding of literacy practices, and their model of the Lancaster study, upon which I can draw for examples of observable activities and interpretations. Purcell-Gates et al. (2011) also provide a model and study which are useful as guides for understanding literacy practices and their related events. As well as Heath (1983/2009), Street (1993), Barton and Hamilton (1998/2012), Clay (1991), and Cazden (2001) provide somewhat related examples to help inform my understandings and interpretations of identifying practices in classroom discussions. It has been noted that there are limitations to the approach of first identifying literacy events in order to conceptualize literacy practices. The limitations are that the events are too specifically situated and the connections between events and practices are too vague (Brandt & Clinton, 2002; Perry, 2012). While these limitations are important to acknowledge, Street (2003) counters that descriptions and explanations lead to deeper understandings, and Perry (2012) explains that “understanding literacy as a socially-contextualized practice helps us understand the ways in which practices may vary across diverse communities, and the ways in which they are also dynamic and malleable” (p. 62). The focus of my research will not be on literacy events specifically, but rather on conceptualizing reading, rereading, and revisiting as important social practices to be understood, in a similar fashion to that which Barton and Hamilton (1998/2012), Heath (1983/2009), Purcell Gates et al. (2011),
Street (2003), Clay (1991), Cazden (2001), and others understood the contextualized literacy and social practices of their studies.

In a general sense, a literacy practice is not directly observable and is usually situated at the individual level. Since, in the context of a DBOLE, many of these literacy practices involve others in some way (reading entries written by others, writing an entry to be read by others, etc.), the practices that take place in a DBOLE are viewed in this study as social practices. This will be further discussed throughout this study.

Finally, Leu et al.’s (2013) Dual-Level Theory of New Literacies provides a useful framework for viewing communications and interactions as literacies and social practices in a DBOLE. These fresh understandings could contribute to a body of work leading to the development of a (lowercase) theory of new literacies in online learning discussions. A theory of new literacies in online learning discussions would situate student communication and meaning-making activities in the contexts of online learning. Within this potential perspective, our understandings could broaden across many online learning environments, including those in the K-12 space. Some of the DBOLE activities that researchers are seeking to better understand are new in that they did not previously exist in the context of a traditional classroom. For example, revisiting, an activity that has social practice implications, does not take place in a face-to-face classroom. It is made possible by the digital technology that facilitates a student returning to read an entry or a part of an entry where it was situated in the discussion. Some activities have developed simply because of the digital environment. Creating a subject line is an example of a practice which does not have a face-to-face equivalent of students succinctly announcing what they are about to say as a listener chooses whether or not to listen to the content of the spoken message. This practice is necessary in a threaded online discussion because the content is
identified in the subject line in a digital conversation. The possible contribution to *a theory of new literacies in online learning discussions* will be discussed in greater detail in Chapter 5.
Chapter 3
Methodology

This chapter outlines the purpose of the study and explains the research design and methodology, the participant selection process, the qualitative and quantitative data collection and analysis, the limitations of the study, and the presentation of the data using a multiple sub-study format. The overall purpose of this study is to explore the importance to students’ learning of the less visible practices related to reading, rereading, and revisiting in a DBOLE. This study can be described in three phases—pre-Phase One (a pilot phase), Phase One (quantitative data collection), and Phase Two (qualitative data collection)—but these phases were overlapping and flexible and not necessarily performed in a linear fashion. In this chapter, the section describing Study One explains the investigation and data gathered in relation to students’ activities and perceptions of less visible activities associated with reading, rereading, and revisiting in a DBOLE, and the analyses of these data. The section describing Study Two explains the investigation and data gathered related to the instructor’s perceptions of the importance of social practice activities to student learning in a DBOLE, and the analyses of these data. The section describing Study Three explains the investigation and data gathered related to the practice of composing entry titles and the less visible influence of note titles in decisions to open a note in a DBOLE, along with the analyses of the data. The design is illustrated in Figure 2. From an interpretive perspective, this study is designed to explore understandings of these online learning practices from participants’ perspectives. To explore the online reading, rereading, revisiting, and entry title practices and participants’ and instructor’s perceptions of these practices, the following are the objectives serving to guide this research:
1. Identify and document participants’ patterns related to reading, rereading, revisiting, and writing activities in a DBOLE.

2. Investigate student perceptions of the importance of less visible activities related to reading, rereading, and revisiting in a DBOLE, and how these might contribute to their online learning experiences.

3. Document an instructor’s perceptions of supporting learners and the social practices that may be important to learners in a DBOLE.

4. Examine the practice of creating subject titles of entries in a DBOLE and the influence that subject titles might have on participants’ choice of which entries to read in a DBOLE.

5. Examine the less visible activities of reading, rereading, and revisiting in a DBOLE as social practices from a new literacies perspective (Lankshear & Knobel, 2004, 2013).

Specifically, the research questions are as follows:

1. What patterns of reading, revisiting, and writing might be observed by examining transaction log data in a DBOLE? (Study One)

2. How do students in a DBOLE understand their own practices of reading and rereading others’ entries? (Study One)

3. How does an online learning instructor support learners and the social practices that may be important to student learning in a DBOLE? (Study Two)

4. What aspects of entry titles influence students’ choices of entries to read in a DBOLE? (Study Three)
5. What aspects influence the design of subject titles in a DBOLE? (Study Three)

This study, designed within an interpretive approach, gathered data in order to better understand an instructor’s and students’ practices and perceptions, using an explanatory sequential mixed methods design (Creswell & Plano Clark, 2011). Researchers studying online and blended learning environments are increasingly interested in mixing quantitative and qualitative methodologies (Picciano, 2016). A benefit of this approach is to utilize each methodology “to provide a more complete description and analysis of the subject of the study” (p. 20). An explanatory sequential mixed methods design is suited for the following reasons:

- The researcher knows the important variables and has access to quantitative instruments for measuring the constructs of primary interest;
- The researcher has the ability to return to participants for a second round of qualitative data collection; and
- The researcher has the time to conduct the research in two phases. (Creswell & Plano Clark, 2011, p. 82)

The explanatory design is considered to be the most straightforward method for working with qualitative and quantitative data (Creswell & Plano Clark, 2011). Since the quantitative and qualitative data inform each other, a deeper understanding of the phenomenon can be achieved (Creswell & Plano Clark, 2011). Creswell and Plano Clark (2011) advise that once the quantitative data have been collected and analyzed, the researcher then “develops or refines the qualitative research questions, purposeful sample procedures, and data collection protocols so they follow from the quantitative results” (p. 83). My study followed this flexible format, guided by pilot components with early observations and data collection. Further, the data from this study are presented in three multi-study sections as part of this larger mixed methods study, to “help investigate the conditions within one of the entities being surveyed” (Yin, 2014, p. 66). Figure 2
illustrates the processes involved in my explanatory sequential mixed methods study by phases and the multi-study presentation.

Figure 2 Methodological Processes

The processes related to the pre-Phase One stage involved observations, field notes, preliminary learning management system log data, and a pilot study. Phase One included learning management system log data and the pre-test of the online questionnaire. Phase Two included the online questionnaire with open-ended responses, learning management system log data, and interview data. Quantitative and qualitative data were collected in order to investigate
and present the results of Study One (reading and rereading from the students’ perspectives), Study Two (the instructor’s perspective of supporting student learning), and Study Three (subject headings examined from the students’ perspectives). Since both qualitative and quantitative data are important to this study, an explanation of each follows.

### 3.0 Preliminary Investigations

It is important to mention that during pre-Phase One, I first began observing the online weekly learning activities in course three (referred to as database 3 or DB 3) as a teaching assistant (TA). Later, I observed the online activities in course one (DB 1), course two (DB 2), and course four (DB 4) in context after they had concluded. I made qualitative field notes about participant behaviours and interactions (primarily in DB 3 but also in DB 1, 2, and 4). Table 1 identifies the database by number, subject, time frame, and number of students.

Table 1

*Database Number and Course Caption*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Semester and year</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB 1</td>
<td>Computer-Mediated Communication</td>
<td>Fall 2011</td>
<td>14</td>
</tr>
<tr>
<td>DB 2</td>
<td>Constructivist Theory</td>
<td>Winter 2012</td>
<td>17</td>
</tr>
<tr>
<td>DB 3</td>
<td>Constructivist Theory</td>
<td>Winter 2013</td>
<td>19</td>
</tr>
<tr>
<td>DB 4</td>
<td>Computer-Mediated Communication</td>
<td>Fall 2012</td>
<td>15</td>
</tr>
<tr>
<td>DB 5</td>
<td>Computer-Mediated Communication</td>
<td>Fall 2013</td>
<td>17</td>
</tr>
<tr>
<td>DB 6</td>
<td>Constructivist Theory</td>
<td>Winter 2014</td>
<td>16</td>
</tr>
<tr>
<td>DB 7</td>
<td>Constructivist Theory</td>
<td>Fall 2014</td>
<td>24</td>
</tr>
<tr>
<td>DB 8</td>
<td>Language and Literacy</td>
<td>Winter 2015</td>
<td>15</td>
</tr>
</tbody>
</table>

Since these courses had been completed, the quantitative data related to participants’ reading, revisiting, and writing practices were extracted from the system logs and examined. The interpretive approach remained intact throughout since there were no previous assumptions of the trends and levels of those practices examined. As a researcher, my interest in the less visible activities was piqued, but I had no pre-set notions of what the actual levels of reading and
rereading would be across all participants, or how these activities would be perceived by participants. This early pilot investigation was presented and discussed at the American Educational Research Association Conference (AERA) (Wilton & Brett, 2014a) and discussed with a roundtable group at the Language and Literacy Researchers of Canada (LLRC) conference, a special interest group (SIG) within the Canadian Association for Curriculum Studies (CACS), which is an associate group of the Canadian Society for the Study of Education (CSSE), at CSSE 2014 (Wilton & Brett, 2014b). Since the instructor only taught two courses per year, I collected further data from more courses over the following two years to examine data from eight courses in total. As well, I was a TA in DB 5. While I was a TA, I primarily focused on assisting with technical issues or creating groups for discussions and carefully refrained from guiding the students into areas that might influence my data.

3.1 Quantitative Research Methodology

The quantitative data provides a starting point for the descriptive data for this study and can generally be referred to as Phase One, which was complemented by qualitative observations, as mentioned previously. The quantitative methodology for this component of the study is best described as a quantitative descriptive study (Picciano, 2016). According to Picciano (2016), a “quantitative descriptive study is especially effective when comparing subpopulations such as students” (p. 18). The purpose of this phase is to provide a description of the population and the reading, revisiting, and writing behaviours for Study One and Two, and subject header characteristics for Study Three. As well, the quantitative data was processed to look for patterns of behaviours to better understand participants’ activities in the course, and to provide descriptive information with which to describe the events and circumstances of the activities and the patterns related to reading, revisiting, and writing in the DBOLE. Finally, while not a specific
focus, a comparison of means was used to determine if there were significant differences between groups and themes related to social practices in the DBOLE. Also, correlations were investigated in relation to subject entry length and note activities.

Quantitative data of online learning activities are automatically gathered in the learning management system, the online environment in which the courses are taking place. Data pertaining to each participant’s activities in the online learning environment were automatically documented and stored on an internal server. This data can be extracted by a researcher with the appropriate permissions according to the variables of interest. For example, data related to a participant’s session login activity and approximate time online are available. As well, data are available that describe note characteristics, such as type of note, or note-related activities, such as number of opens or likes by others. Related to Study Three, the words and numbers of words in the subject titles were extracted from the learning management system database. Other examples will be detailed in the data collection section specific to the sub-study presented.

From the descriptive data related to student reading and writing behaviours, some general groupings from the completed course databases were established earlier in the study, related to Study One. This preliminary data generally identified patterns related to participant behaviours that could be grouped, but the data set seemed too small with less than six course databases. The seventh and eighth course databases added enough participants so that each of the three groupings were allocated at least 30 participants by the SPSS program’s cluster process.

Based on early simple quantitative data and weekly observational field notes made by me related to online class activities, a pilot online questionnaire was designed to gather quantitative and open-ended qualitative data from participants related to their perceptions and feelings about less visible DBOLE activities. The questionnaire included questions about online learning
experiences, opinions of online learning, reasons for rereading another student’s notes, Likert scale questions related to the importance of rereading, and open-ended questions for descriptions of rereading activities. The pilot study allowed for refinement of the final survey instrument and helped to guide the semi-structured interview questions. The final online questionnaire that was administered featured 20 questions representing 52 variables (see Appendix C). From the questionnaire, quantitative data provided a snapshot of the importance to participants of less visible online learning practices related to reading, revisiting, and writing.

3.2 Qualitative Research Methodology

Qualitative researchers from within the interpretive perspective are looking for “sensemaking, description and detail” (Bhattacharya, 2008, p. 465). Qualitative research is a situated activity that locates the observer in the world of the lived experience (Denzin & Lincoln, 2005) and is most appropriate when an “exploration is needed, in turn, because of a need to study a group or population, identify variables that cannot be easily measured, or hear silenced voices” (Creswell, 2013, pp. 47–48). Further, it is a useful approach when “interactions among people, for example, are difficult to capture with existing measures” (p. 48). In fact, to “level all individuals to a statistical mean overlooks the uniqueness of individuals in our studies” (p. 48). The qualitative portion of this study, generally referred to as Phase Two of the research, was designed to explore participants’ views of online learning practices related to reading, rereading, and revisiting. These views are particular to each respondent. Interviews were designed to be conducted to allow for explanation without limits in order to capture the views in detail.

There is “no agreed upon structure for how to design a qualitative study” (Creswell, 2013, p. 49). Creswell (2013) advises on the importance of the researcher adopting an “evolving design, the presentation of multiple realities, the researcher as an instrument of data collection,
and a focus on participants’ views” (p. 53). According to Bogdan and Bilken (2007), qualitative researchers should “have a general idea of how they will proceed and what they are interested in, [but] to state exactly how to accomplish their work and what specific questions they will pursue would be presumptuous” (p. 54). In fact, the authors explain that the “study itself structures the research, not preconceived ideas or any precise research design” (p. 54). Given this advice, the research approach for the qualitative data gathered from interviews was planned with room for flexibility.

The intention of the informal interview is to capture information using an “informal approach to discover how the people conceptualize their culture and organize into meaningful categories” (Brodsky, 2008, p. 290). As well, Kendall (2008) criticizes researchers who generate in-depth interview data merely to triangulate or substantiate quantitative data. She claims that in-depth interview data should stand on its own and is valuable and important, in and of itself. This phase of the study is important in and of itself, as it examines the participants’ perspectives. Qualitative data were gathered through the learning management system database from course entries. As well, the participants’ opinions, gathered from semi-structured in-depth interviews and the online questionnaire, represent both the students as presented in Study One and the instructor as presented in Study Two, based on the contexts of their experiences in a particular course or courses. In Study Three, related to note titles, students’ qualitative data were also collected through the online questionnaire and in-depth interviews.

3.3 A Multi-Study Context Approach as a Complement—Presenting the Data

A qualitative data subset, together with observational and quantitative data, allows for a complementary multi-study presentation. Separate study presentations can be used in order to focus on an issue or theme arising through the initial exploratory analysis. The issue of revisiting
entries in an online discussion environment is important to explore to understand practices related to reading and rereading of student notes which support learning in an online discussion. The following generally describes the context of each study presentation.

Study One focuses on the students’ activities and perceptions related to reading, rereading, and revisiting in the DBOLE. It is bounded within eight courses, which took place over a four-year period, and the activities of 137 student participants including the interactions with the instructor’s entries.

Study Two, primarily based on qualitative data gathered through an interview with the instructor, focuses on in-depth perceptions of social practices that may be important to student learning. This study is bounded by the instructor and her experiences. While her experiences and opinions are built on far more than her experiences in only the courses that I am examining, she was asked, if possible, to provide examples from the eight courses and those participants, and she was able to draw on those examples during her interview. Quantitative data served as descriptive background to the rich qualitative data provided by the instructor.

Study Three is related to the nuances of note titles: the number of words that note titles contain, the aspects that might influence the composition of note titles, and the factors related to the note title that might influence participants’ choices of which notes to read in a DBOLE. This study is bounded within a single course, DB 3. A benefit of this approach is that the findings can be presented separately.

Since Bogdan and Bilken (2007) describe a case study perspective adopted here as separate sub-studies, as “a detailed examination of one setting, or a single subject, a single depository or document or one particular event” (p. 59), this approach will serve to present the views of participants bounded within eight courses or a particular course, as the case may be,
according to the question(s) being examined. Yin (2014) explains the rationale for a common case as capturing “the circumstances and conditions of an everyday situation … because of the lessons it might provide about the social processes related to some theoretical interest” (p. 52). As the participants recall and explain their thinking related to their online learning discussion experiences, the concepts of reading, rereading, social practices, and note title composition and influences based on participants’ understandings will be explored in context.

As an online learner, as mentioned in the researcher context section, my interest in this area was piqued by my own experiences as a learner and by the prospect that the concepts of social practices and literacy practices may serve to help guide an understanding of the complex interactions and activities in which online learners engage. As mentioned in Chapter 1, what can be motivating for interpretivist researchers is the deep-down interest in a specific case (Blatter, 2008). For me, I have a deep interest in this subject area as well as access to both the instructor, for whom I have been a teaching assistant, and the actual online learning environment.

3.4  The Learning Environment

The courses of interest are graduate level courses in the Faculty of Education of a large urban university. As mentioned previously, I am familiar with the online learning environment, Pepper, as I have been supporting users in this environment. These courses being examined were taught over four years by the same instructor. Pepper is the classroom management tool that was locally developed at the Faculty of Education in the large urban university in which this study takes place. The learning management system is a web-based collaborative online community building environment that supports threaded online discussions, private e-mail and chat, a calendar, and community-building social tools such as the ability to like entries and to link to other entries.
Over 2,000 students participate in this online learning environment each year. There is a suite of analytic tools that can provide information to instructors and researchers about student activities.

In each of the eight courses, the instructor provides a “Start Here” entry. The Start Here instructions introduce the course materials to be read (course outline and important dates, assignments, expectations, etc.), provide advice on creating an introductory message with encouragement to read and reply to others, give guidance on asking questions publicly, and give directions on required course activities such as learning journals. The discussion database contains a section with administrative folders, which includes guidelines for online contributions. The courses range over three different but related subjects and follow similar formats, where students create learning journals in the database and document their learning growth publicly by posting their views on their learning theories at the beginning and end of the course. As well, all the courses feature assigned moderators who are responsible for the weekly discussion based on assigned course readings by posing questions and responding to students’ entries. The instructor models the format at the beginning of the course and provides weekly videos featuring recaps of the previous week’s discussion, introductions to the next topic(s), acknowledgements of items of interest (such as concepts that the participants may be struggling with), and answers to questions or concerns. This instructor does not provide a prescriptive requirement for participation, such as posting one entry and two responses each week. However, participation in these discussions is worth 25% of the overall course mark. More details of her course organization will be outlined in the findings and discussion of Study Two.

3.5 Trustworthiness

Important to qualitative research is the trustworthiness of the study (Lincoln & Guba, 1985). In order to address trustworthiness and reliability, and the standards of validation and evaluation,
the four principles of data collection described by Yin (2014) were considered: “(a) using multiple, not just single, sources of evidence; (b) creating a case study database; (c) maintaining a chain of evidence; and (d) exercising care in using data from electronic sources of evidence, such as social media communications” (p. 105). Multiple sources of evidence were important to this study. Documentation, interviews, direct participant observations, and artifacts of entries were all gathered in order to corroborate and provide data on aspects of the study from multiple sources.

Lincoln and Guba (1985) suggest that the terms credibility, transferability, dependability, and confirmability are equivalent measures for validity, reliability, and objectivity in qualitative research. It is important to note that researchers “do not try to generalize beyond the case under investigation, but the findings can be taken up by others if they perceive a ‘fit’ to their cases” (Blatter, 2008, p. 69).

The following outlines four criteria for establishing trustworthiness and how I have addressed these areas:

1. Credibility. This was addressed through ongoing and in-depth observations and checks of believability related to the quantitative and qualitative data provided by the learning management system, the online questionnaire data, and the interview data (by, at times, validating reported data by observing database behaviours).

2. Transferability. This is considered to be similar to external validity (Lincoln & Guba, 1985). Picciano (2016) explains that transferability allows for the interpretation of the findings to be “transferred or applied to other contexts different from the specific context of the study” and the participants (p. 108). This was addressed through a “rich description of the study context” (p. 108). Additionally, as addressed in the
limitations section, some of the findings will have limited transferability to other
online discussion environments since this data were collected in the context of
graduate student online learning.

3. Confirmability. This was addressed by using multiple sources of data, consulting with
participants to clarify interpretations, and peer auditing of some of the data.

4. Dependability. The procedures of the data collection and analysis were documented
in order to establish consistency and ensure processes were carefully adhered to
across multiple sources of data.

This research was designed to carefully consider credibility, transferability,
dependability, and confirmability throughout the study.

3.6 Participant Selection and Recruitment

Upon receiving ethics approval from the Office of Research Ethics at the University of Toronto,
I recruited volunteers from the eight online graduate courses in the study (see Table 1), to
complete an online questionnaire and interviews, using a maximum variation sampling strategy
in order to recruit a number of individuals who would represent diverse variations of
characteristics in the online learning database (Creswell, 2013). Fourteen students accepted
and they volunteered to participate in the online questionnaire. The 14 volunteer participants
belonged to a variety of the eight courses, and three or more volunteers represented each one of
the three reading and writing behaviour clusters (to be explained in more detail in the data
analysis section). The instructor also agreed to participate in an in-depth interview. The
participants were informed that their participation was completely voluntary and would not affect
their grades. In addition, 11 student participants volunteered to participate in a semi-structured
interview. Of those, four were available for in-depth interviews.
In the online survey, the participants were asked to provide background data related to their online learning experiences and their opinions about reading practices in online learning discussion environments. The online questionnaire addressed reading, revisiting, online behaviours, and potential strategies related to title composition and reading of title entries in DBOLEs. This survey took no more than 15 minutes to complete (see Appendix C). In addition to the online questionnaires, semi-structured interviews were completed with four student volunteers and the instructor (see Appendix D). All participants were asked to agree to give consent to participation (see Appendix A and Appendix B).

This study examined interaction data collected from the eight online graduate courses described previously, which had taken place in the Fall and Winter semesters over the course of four years. Learning management system log data were available for extraction and accessed as anonymous data for general statistics on reading, revisiting, and writing. Each of the eight courses yielded between 1,303 and 2,356 note entries. Some 13,754 note entries and their related details were available for analysis. Data available on each of these notes include date and time of creation; revision history; numbers of words, replies, sentences, and informal and academic words; number of links to and links from the note; number of opens and re-opens; and number of likes. Data available on the 137 student authors include number of notes written, number of notes opened, number of notes re-opened, which notes were opened and re-opened, time online, and number of times logged in.

3.7 Data Collection, Interview Process/Protocols, and Data Analysis
Since each study presentation is different, these are explained in separate sections as follows.
3.7.0 Study One: Students’ views of reading, revisiting and rereading.

This focus, referred to as Study One for data presentation purposes, is intended to identify and document participants’ patterns related to reading, rereading, revisiting, and writing activities in a DBOLE. Further, it is also intended to investigate student perceptions of the importance of less visible activities related to reading, rereading, and revisiting in a DBOLE, and how these might contribute to their online learning discussion experiences. Specifically, the data collection and analysis are addressing these questions:

1. What patterns of reading, revisiting, and writing might be observed by examining transaction log data in a DBOLE? (Study One)

2. How do students in a DBOLE understand their own practices of reading and rereading others’ entries? (Study One)

3.7.0.0 Data collection.

The quantitative data collected by the learning management system was extracted to examine participant behaviours related to reading, revisiting, and writing and to determine patterns. Volunteer participants were asked to complete the online questionnaire described earlier (Appendix C), which included information on the background of the participant. Each participant was asked to outline which qualities/abilities they believe are important to be successful in a DBOLE. These relate to possible social practices in the DBOLE. Relevant entry data for each participant was examined in order to better understand how the participants felt about online learning, their online learning experiences, and how they would describe themselves in their introductions in order to provide participant context.

In order to gather the interview data, a flexible outline in consideration of the analysis process (Kvale, 2007a, p. 102) was developed. It was important to consider that “thematically the
questions relate to the ‘what’ of an interview, to the theoretical conceptions of the research topic, and to the subsequent analysis of the interview” (Bogdan & Bilken, 2007, p. 57). I was seeking to understand the participants’ perceptions of the importance and practices of reading, rereading, and revisiting. This interview guide is included below in Table 2.

### 3.7.0.1 Interview guide for Study One: Research questions to interview questions.

Table 2

*Interview Guide for Study One*

<table>
<thead>
<tr>
<th>Research question</th>
<th>Conceptual questions (related to theory)</th>
<th>Interview questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>How might students in a DBOLE perceive the practices of reading and rereading entries as important to their learning experiences?</td>
<td>[Intro] I am investigating student perceptions of the importance of non-posting activities (reading, rereading, and revisiting) in a DBOLE and how these might contribute to their online learning experiences. What is your understanding of the function and importance of reading activities (Wise et. al 2011)?</td>
<td>1. In thinking of your participation in a DBOLE, what do you think are important reasons for reading other students’ entries? (D)</td>
</tr>
<tr>
<td>AND How might students in a DBOLE justify and explain their reading and rereading practices?</td>
<td>Wise et al. (2013a) concluded that the “positive relationship found between revisiting others’ posts and responsiveness suggests that the richer end of this spectrum tends to occur when posts are attended to multiple times” (p. 6). What might be the reasons for rereading and revisiting? How might invisible activities contribute to, or play a role in, student learning (Sutton, 2001)?</td>
<td>2. In thinking of your participation in a DBOLE, what do you think are important reasons for revisiting or rereading? (D) That is, looking at an entry that you have already looked at, at least once before, other students’ entries? (Sp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. In what ways do you think student learning experiences in a DBOLE are influenced by their own reading behaviours? (D)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. In what ways do you think student learning experiences in a DBOLE are</td>
</tr>
</tbody>
</table>
of the posts they contribute” (p. 7). How might student learning experiences be influenced by rereading or revisiting behaviours?

*Ebner & Holzinger (2005)*
- no relationship exists between the writing and reading behavior of an online student
- [a] higher degree of visible interactions is not a precondition for higher learning efficiency (p. 75).

*Dennen (2008)*
“pedagogical lurking—that is, temporary situational or topical lurking in a class context—may just be part of regular online class participation” (p. 1631).

*Perkins and Newman (1996)* propose that virtuosos model for others.

How might invisible activities be important?
What strategies might be important?

How might your intentional and unintentional practices contribute to or feature ______ practices that affect inclusion or learning?

*Kvale (2007a)* Coding Legend:
Introductory [Intro]
Follow-up [F]
Probing [P]
Specifying [Sp]
Direct [D]
Indirect [Ind]
Interpreting [Inter]

influenced by their own revisiting or rereading behaviours? (D)

Please specify if this relates to revisiting/rereading students’ or teachers’ entries? (Sp)

3. In what ways do you think your (and other students’) writing behaviours in DBOLE are affected by other participants’ behaviours? (D)
- such as, is your writing affected by who is reading your entries/comments? (P) (Sp)
- do you write similarly (in style) to others? (P) (Sp)
- do you like to imitate others or assume an identity based on the environment? (P) (Sp)
- do you only write what others have not said, do you only write in response to others, etc.? (P) (Sp)
- do you consider yourself a model to others, or did you have a model upon which you base your online behaviours? (P/Sp)

You had mentioned __________ as an important invisible activity. Would you explain why you felt this was important? (S/F)

Who would be affected by this invisible activity or strategy and in what ways? (P/Ind)

You had mentioned __________ as an important activity. Would you say this was an intentional or unintentional practice related that you would have facilitated? (Sp/F) Would you please explain? (P/Inter)

4. Can you think of any other information that would help us understand the importance and effects of reading and rereading or revisiting strategies used by online learners in a DBOLE? (D/F)
3.7.0.2 Interview process/protocols.

The semi-structured participant interviews followed a similar line of questioning for each interview. Participants were questioned about the strategies they employed in order to choose entries to read and to reread. They were asked for the reasons they would reread and to explain how rereading might contribute to their learning experiences. Further, students were asked to describe a pattern or sequence in subject lines, content, author, or anything else that would have led to revisiting entries. They were also asked about strategies they would have used to create subject titles. As well, the participants were asked how other students’ behaviours influenced reading or revisiting patterns, and they were asked about the feature where they could see who has read an entry and whether this was an important feature to them. Finally, they were asked about online participation expectations and patterns. Additionally, if they were an online learning instructor in another environment, they were asked about their experiences as an instructor in an external DBOLE.

These participants were interviewed with multiple recordings of the interviews to avoid any possibility of data loss. One of the participants was interviewed via Skype. In this case, Skype Recorder was used and a backup recording was made on an iPad. The recordings were saved to a password-protected area where only I can access the data. All interviews were transcribed and carefully reviewed. One of the participants preferred to complete her interview by composing her answers online and sending them by e-mail.

3.7.0.3 Data analysis.

Descriptive statistics were produced using SPSS Version 22 to give a top-line view of the learning management system activity data. Differences in the levels of activity among the eight
courses were observed. Some course databases contained higher levels of reading and writing activity than others. Instead of relying on the absolute counts of participants’ actions such as notes written and notes read, which would tend to be associated with the levels of activity in the course, data manipulations were performed and new variables were created to express reading and writing actions as a percentage of the activities in that particular course database. For example, a participant who read 10% of the entries in one database would compare similarly to another participant who also read 10% of the entries in a different database, regardless of the absolute numbers of entries. Therefore, a relative measure of their activity was available for comparison among the databases.

The quantitative data were analyzed using SPSS Version 22 to look for patterns of reading and writing using the new variables. SPSS performed a good quality non-model based cluster analysis identifying reading and writing pattern groups (Green & Salkind, 2011; Pastor, 2010). For all 137 student cases, participants were assigned to one of three clusters based on reading and writing patterns, with an SPSS reported good quality *silhouette measure of cohesion and separation* (0.6). The identified clusters were descriptively named Avid Readers/Avid Writers, Avid Readers/Moderate Writers, and Moderate Readers/Moderator Writers (see Table 3 below). More data related to these clusters will be presented in Chapter 4.

Table 3

*Reading and Writing Clusters*

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Avid Readers/Avid Writers</td>
<td>31</td>
</tr>
<tr>
<td>2 Avid Readers/Moderate Writers</td>
<td>40</td>
</tr>
<tr>
<td>3 Moderate Readers/Moderate Writers</td>
<td>66</td>
</tr>
</tbody>
</table>
Cluster groupings are illustrated in the following scatterplot (see Figure 3 below). The members of each cluster are indicated by the same colour and a vector is drawn to the centroid of its cluster. This figure graphically illustrates the three reading and writing groups.

Descriptive statistics were produced to see if there were differences in behaviours related to other variables amongst the clusters. For example, a relationship between clusters and student or teacher entries revisited was investigated. These results are presented in Chapter 4.

The quantitative data from the online questionnaire were exported to Excel for top-line data analysis, such as calculations of frequencies and means. Tables were produced and the
results were analyzed as presented in Chapter 4. The qualitative data from the open-ended online questionnaires were analyzed along with the interview data.

When examining data for this section of analysis, an outlier was found in the variable sessions. Sessions record how many times a student has logged into the DBOLE during the active course period. The data in database 2 showed that a student had recorded 857 sessions involving a total time online of 69 hours. The number of sessions was 4.4 times as many as the mean (193) for the course, which indicates that the average session length was 4.8 minutes each. Since the mean time online for the course was 64 hours, it appears there was an error in recording the number of sessions. To correct this, the variable for the student’s sessions was recoded to 209, which reflected the 69 hours online divided by the mean session length of 19.8 minutes.

The transcripts of the interviews were analyzed using two approaches. Kvale (2007a) explains that there is a continuum between description and interpretation. Guided by Kvale’s five approaches to analyzing data, the coding approach (categorization of meaning) and the ad hoc meaning generation method (a common-sense approach of condensing long statements into brief summaries) featuring “a free interplay of techniques during the analysis” (p. 203) were set up. When analyzing the online questionnaire open-ended data and the interview data with these interpretations, themes related to the importance of reading, revisiting, and rereading were explored. Reasons for revisiting were then grouped and reviewed. The following themes related to reasons for revisiting stood out in the analysis of the answers from the online questionnaire results and the interviews:

1. Rereading to achieve a deeper understanding (for learning purposes),
2. Rereading in order to participate in the discussion (for social purposes),
3. Rereading to find models/understand expectations,
4. Rereading to apply to future learning,
5. Rereading in the role of weekly moderator or with grades in mind, and
6. Rereading for resources.

These categories were consistent with early findings of themes based on a subset of databases that were presented at the Literacy Research Association’s Annual Conference in December, 2015 (Wilton & Brett, 2015).

In addition, social factors and influences, online persona related to reading and writing behaviours, and intentional versus unintentional practices were explored as themes in the qualitative data from the open-ended questions and the in-depth interviews. The data related to subject headers are more deeply explored and discussed in Study Three to follow. The findings are presented in Chapter 4.

3.7.1 Study Two: Instructor understandings of social practices and instructional elements.

From this sub-study focus, I was seeking an understanding, from an instructor’s perspective, of online learning practices that could be described as social practices, which may or may not be less visible, and how these might be important to learners, particularly as they relate to inclusion and learning. The objective is to document an instructor’s perceptions of supporting learners and the social practices that may be important to learners in a DBOLE by addressing the following question: How does an online learning instructor support learners and the social practices that may be important to student learning in a DBOLE? By asking the instructor for her understanding and examples of instructional elements that she felt were important, I was looking to examine examples and explanations of her perspectives. This instructor was already familiar
with the subjects under investigation because she is an experienced online learning instructor and has taught courses related to literacy, new literacies, and multiliteracies.

3.7.1.0 Data collection.

In order to gather the relevant data, an outline of the analysis process (Kvale, 2007a, p. 102) was developed, similar to Study One. Information on the instructor’s background and experience was gathered. It was important to gather the instructor’s perceptions of the instructional elements she intentionally deploys to support student learning, especially those elements that are less visible, and the social practices related to these, as deeply as she was able to describe. Understanding how the instructor would define these by example and how she might relate these to the concepts of literacy and social practices was important for building a deep description. During the interview, probing was intended to uncover Alana’s (a pseudonym) perspectives on the practices she was describing, with further questions asked about invisible activities, about the function and importance of exampled practices (using real database examples), and about intentional and unintentional practices. Overall, I sought her understanding of the less visible instructional elements important to student learning. This interview guide is included below (see Table 4), followed by an explanation of the access to the participant and the interview details.

3.7.1.1 Interview guide for Study Two.

Table 4

*Interview Guide for Study Two*

<table>
<thead>
<tr>
<th>Research question</th>
<th>Conceptual questions (related to theory)</th>
<th>Interview questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>How does an online learning instructor</em></td>
<td>[Intro] I have been looking at social practices and literacy practices as a way to understand important practices</td>
<td>For clarification, see summary of literacy and social practices in Chapter 2.</td>
</tr>
<tr>
<td><strong>support learners and the social practices that may be important to student learning in a DBOLE?</strong></td>
<td><strong>to inclusion and learning in online learning discussion environments.</strong></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>How would an online learning instructor define or describe social practices (Barton &amp; Hamilton, 2012) in an online learning discussion environment?</strong></td>
<td><strong>How would an online learning instructor define or describe literacy practices (Purcell-Gates et al 2011)?</strong></td>
<td></td>
</tr>
<tr>
<td><strong>How might invisible activities contribute to, play a role in, or be social practices (Sutton, 2001)?</strong></td>
<td><strong>What is your understanding of the function and importance of reading and rereading activities (Wise et. al 2011) related to social/literacy practices?</strong></td>
<td></td>
</tr>
<tr>
<td><strong>How might an online learning instructor better understand the meanings and functions of online learning discussion environment practices that are not visible to others?</strong></td>
<td><strong>You had mentioned ___________ as an important invisible activity. Would you explain why you felt this was important?(Sp/F)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>In thinking about the context of online learning discussion environments, how would you define or describe social practices? (D)</strong></td>
<td><strong>In what ways might you consider these to be important to inclusion? (Ind)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Do you find it helpful to identify these types of practices as either social or literacy practices? (D)</strong></td>
<td><strong>In what ways might you consider these to be important to learning? (Ind)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>How would you describe or define literacy practices in an online learning discussion environment? (D)</strong></td>
<td><strong>Who is responsible for this activity? (Sp)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>In thinking about online learning discussion environments, what invisible activities can you identify that might be related to social practices or literacy practices? (D)</strong></td>
<td><strong>What is its function? (P)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Who is responsible for this activity? (Sp)</strong></td>
<td><strong>How might this activity contribute to inclusion? (D)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>What is its function? (P)</strong></td>
<td><strong>How might this activity contribute to learning? (D)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>How might this activity contribute to inclusion? (D)</strong></td>
<td><strong>In what ways might you consider these to be important to inclusion? (Ind)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>In what ways might you consider these to be important to learning? (Ind)</strong></td>
<td><strong>Who would be affected by this invisible activity and in what ways? (P)</strong></td>
<td></td>
</tr>
</tbody>
</table>
3.7.1.2 Interview process/protocols.

I was able to access the online learning instructor who taught a course in which I was a TA. The pseudonym Alana was assigned to the instructor. Alana agreed to participate in an interview, which took place in Alana’s office on March 18, 2016, and took about an hour and a half to conduct. The ethics forms were reviewed and consented to by the participant beforehand. I recorded the interview on an iPad, and Alana also recorded the interview using a screen capture software on her equipment. She uploaded the file to my online data repository. I checked to ensure that the recording was successful by viewing it immediately afterward. The screencast recording is valuable because it captures (in camera view) Alana’s facial expressions, gestures, movements, hesitations, and other communicative nuances that an audio recording alone would not have captured. The recordings were saved to a password-protected area where only I can access the data.

During the interview, listening and allowing for pauses was a focus. I clarified some of the points Alana made and encouraged her to continue. The questions guided the discussion, but it continued as long as Alana proceeded to explain and describe examples. While I realized the interview was running long, I did not want to stop Alana from sharing her ideas and
understandings because they were very enlightening. The interview came to a natural conclusion. It was transcribed into 9,713 words. Bogdan and Bilkän’s (2007) comments that “most researchers collect too much data” (p. 69) rang true to me as I realized there was a lot of data to explore and analyze. Lastly, I made extensive notes (more than 12 pages) and captured observations of the participant’s intonations, gestures, and hesitations in my field notes.

3.7.1.3 Data analysis.

La Pelle’s (2004) process for managing transcript data was used in order to convert the text from the interview into a table and to number each of the sections sequentially so that they would remain in order if sorted for easy location in the original transcript. I reread the transcript and kept in mind Kvale’s (2007b) advice to read the participant’s answers “without prejudice and to thematize the statements from her viewpoint as understood by the researcher” (p. 194). Themes began to become apparent through early readings.

Creating a codebook, using La Pelle’s (2004) suggestions for simplifying qualitative data analysis related to numbering and managing interview data, helped me to remain focused on the research question. The conceptual questions helped to build a set of codes that were related to the question. The first codes turned out to be too extensive and complicated, so were then simplified in order to be more manageable.

A Meaning Condensation Summary was then created (see Appendix F) with highlighted sections of the transcript next to the column identifying a Meaning Unit (Kvale, 2007b). Meaning condensation involves shortening long statements “into briefer statements in which the main sense of what is said is rephrased in a few words” (p. 192). Kvale’s (2007b) comment that “meaning condensation is not limited to the phenomenological approach and has been applied to other qualitative studies” (p. 196) was helpful. A column was then added to help identify themes.
Kvale’s (2007b) Ad Hoc Meaning Generation approach, referred to as a common-sense approach, was also helpful, particularly when looking for patterns and themes, making contrasts and comparisons, building a logical chain of evidence, and making conceptual/theoretical coherence (pp. 193, 204). Kvale advises that the “outcome of categorization is in numbers, which can be subjected to statistical analysis. The eclectic ad hoc analysis may involve words and figures as well as numbers” (p. 192). This approach was focused on examining Alana’s understandings of instructional elements important to students’ learning, particularly those that are less visible, and her understandings of how these elements might be considered related to social practices important to student learning in a DBOLE. It was helpful to note where Alana observed complexities, hesitated or corrected herself, admitted to being unsure, or appeared to come to a personal realization related to the complex analysis and thinking involved in this conversation. These observations added some depth to my interpretations of her explanations. These themes and examples are presented in detail in Chapter 4.

3.7.2 Study three: Note title composition and influence on reading choices.

Study three presents a focus on examining the practice of creating subject titles of entries in a DBOLE and the influence that subject titles might have on participants’ choices of which entries to read in a DBOLE. The research questions are specifically as follows: What aspects of entry titles influence students’ choices of entries to read in a DBOLE? What aspects influence the design of subject titles in a DBOLE?

3.7.2.0 Data collection.

Nineteen students took part in a 12-week graduate-level DBOLE, identified earlier as DB 3. Quantitative data were gathered on entries in the discussion conferences only, including the words contained in all note titles and the total number of words contained in all note titles, the
conference name in which the note was created, the total entry word count, the number of times students accessed the entry, and the number of *likes* the entry received from students. Social features such as the *like* function, where students can easily flag a note as *liked*, are tracked by the system and are helpful measures to use either in parallel with or instead of reading measures.

The online questionnaire and in-depth interviews asked participants for their perceptions about creating and reading subject headings (see Appendix C for the online questionnaire). The following questions were addressed in open-ended format and in the in-depth interviews:

1. Please explain how the contents of the subject line influence which discussion entries you open.

2. As if explaining the online learning discussion environment to an inexperienced student, please describe what you think is important to creating a subject line for entries in an online learning discussion.

The data were thematically analyzed as described in Study One. The initial six codes established for analyzing the data seemed incomplete, so the data were reanalyzed and the categories were expanded to eight, as discussed in the Data Analysis section. As well, an early pilot of this study was presented at the Literacy Research Association Conference in 2014 as a preliminary investigation (Wilton & Brett, 2014c).

**3.7.2.1 Data analysis.**

During the course referred to as DB 3, a total of 1,461 class entries were generated by students (1,271) and the instructor (190). Each of the 11 topic weeks began with questions to guide the weekly discussion. After the first week, students moderated the discussions by posting questions related to the readings. A total of 843 student notes were generated in these discussion
conferences, ranging from 73 to 155 notes each week. Rather than relying on read counts to indicate another student’s interest in a particular note, the like count was identified as a good indicator of another student’s interest, because a like represents a reader’s acknowledgement that the note has been read or processed in a way that the reader acquired some meaning from the note, and also that its message was important enough to receive specific social kudos from another student.

The subject line wording, as extracted from the database, was analyzed and coded according to the following eight categories:

1. **Topic Focused—Detailed Subject.** Entries that were classified into this category contain enough information in the subject line to be clear that they are addressing the readings or discussion topics and clearly indicate the topic that is being discussed in the entry.

2. **Exclamative (!).** Entries that were classified as exclamative contain an exclamation mark implying a sense of excitement or enticement.

3. **Interrogative (?).** Entries that were classified into this category contained a question mark and were clearly asking a question.

4. **Social (Thanks).** Entries that were classified as social appear intended to build relationships with other participants.

5. **Uninformative (Question1).** Entries that were classified as uninformative do not contain enough information to indicate the message contents.
6. **Topic Focused—Leading (…)***. Entries that were classified into this category are typically fragmented or feature an ellipsis implying that more will be said on this matter within the body of the entry. This could be considered similar to the observations of Dennen and Wieland’s (2007) elliptical utterances referred to in the Literature Review.

7. **Repeated Response (Reply)**. Entries that were classified into this category were typically replies that used the same subject as the entry to which they replied or the conference in which they appeared.

8. **Topic Focused—Simple Subject**. Entries that were classified into this category typically feature a single noun or noun/adjective pairing that is on topic with the weekly discussion.

Upon completion of the initial data analysis, my preliminary interpretations were shared with a peer to assess the credibility of my analysis and to determine if changes should be made. In order to address intercoder agreement (Creswell & Plano Clark, 2011), reliability for the coding scheme used in data analysis needed to be established. To address this, an additional rater scored a randomized 10% of the subject heading data. The second rater earned a PhD degree from the Ontario Institute of Studies in Education and is a full-time educator, teaching at the secondary school level in Canada. Her research interests include online learning, and she is very familiar with the Pepper learning environment. After the initial rating, the second rater and I were at a 92% agreement with subject line categorization. We discussed the discrepancies of the different results of the remaining 8%, and the second coder agreed with the original categorization of these differences. Therefore, there was agreement on 100% of these randomized categorizations. These results suggest that the categorization of the subject heading
titles is reliable. In addition, field notes of online activities guided observations. The triangulation of data allowed for an “intent of convergence” (Greene, 2008, p. 14). The permanence of the entries allowed for a thoughtful examination in context (Anderson & Kanuka, 2003).

The findings related to Study Three are presented in Chapter 4.

3.8 Limitations of the Study

This study examines interactions, entries, behaviours, and perceptions of participants who attended one or more of eight courses taught by the same instructor in graduate education online courses that took place in the Pepper online learning management program. The findings are not likely generalizable to a larger population. The Pepper online learning management program is unique in that it collects valuable data and displays information about who has read participants’ notes in the database. Not all online learning environments are built with similar features. As well, the study took place in the context of a very skilled instructor who purposefully designs her courses to facilitate rich discussion. Not all instructors have this skill, or even desire. Not all classes would unfold in the same way; not all students learn from each other in the same way. The students were all studying education and likely had a heightened awareness, compared to non-education students, that discussion is important to learning, or that participation would be measured by contributions. Finally, the nature of this study and the need for deep description in order to address the questions required a small sample for manageable data.
Chapter 4
Findings

4.0 Introduction

In this chapter, the findings are described in three sections. All 14 participants who agreed to online or in-depth interviews have been assigned pseudonyms. Study One documented patterns of participant interactions, particularly those related to reading, revisiting, and writing in eight DBOLEs. Included were brief biographical sketches of the participants; reported understandings of their perceptions of the qualities/abilities important to successful online learning, especially those related to interactions; the point in the course where they felt comfortable reading and writing with others; and the reasons for, and the importance of, rereading while learning in a DBOLE. Study Two investigated, across the same eight courses, the DBOLE instructor’s patterns of activity, her reported understandings of online learning interactions and social practices important to the student learning environment, and the visible and hidden course elements intentionally included to support students’ learning. Finally, Study Three examined note title attributes and characteristics in a complete online course discussion to better understand patterns related to composition and any influence on interactions. Included were 14 participants’ perspectives on title creation strategies and the influences of the note title to reading an entry in the DBOLE.

A brief context of the online courses is summarized as follows. In all eight courses taught by the same instructor, students’ learning journey documentation was posted publicly. In addition to a final paper (which could be collaborative and was not required to be public), students were required to do the following: provide an introductory entry in the Class Biographies conference, create a public Learning Journal that was worth 25% of the course grade, and participate in weekly discussions facilitated by different class members. In some
courses, each student wrote a *Theory of Learning/Collaboration* entry at the beginning of the course and updated it at the end.

Table 5 below describes the number of notes by author in eight online courses that were investigated for participants’ patterns related to reading and writing activities.

Table 5

*Number of Students, Student Notes, and Teacher Notes in Eight Online Courses*

<table>
<thead>
<tr>
<th>Course</th>
<th>Number of students</th>
<th>Student notes</th>
<th>Teacher notes</th>
<th>Total notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB 1</td>
<td>14</td>
<td>1,508</td>
<td>200</td>
<td>1,708</td>
</tr>
<tr>
<td>DB 2</td>
<td>17</td>
<td>1,343</td>
<td>172</td>
<td>1,515</td>
</tr>
<tr>
<td>DB 3</td>
<td>19</td>
<td>1,271</td>
<td>190</td>
<td>1,461</td>
</tr>
<tr>
<td>DB 4</td>
<td>15</td>
<td>1,112</td>
<td>191</td>
<td>1,303</td>
</tr>
<tr>
<td>DB 5</td>
<td>17</td>
<td>1,485</td>
<td>229</td>
<td>1,714</td>
</tr>
<tr>
<td>DB 6</td>
<td>16</td>
<td>2,002</td>
<td>237</td>
<td>2,239</td>
</tr>
<tr>
<td>DB 7</td>
<td>24</td>
<td>2,069</td>
<td>287</td>
<td>2,356</td>
</tr>
<tr>
<td>DB 8</td>
<td>15</td>
<td>1,215</td>
<td>243</td>
<td>1,458</td>
</tr>
<tr>
<td>Total</td>
<td>137</td>
<td>12,005</td>
<td>1,749</td>
<td>13,754</td>
</tr>
</tbody>
</table>

Each study will be presented in this chapter sequentially, although there are some overlaps since the instructor featured in Study Two participated in all courses. The database featured in Study Three is identified as DB 3. This will be described in more detail in the description of Study Three.

4.1 Study One: Reading, Rereading, and Revisiting

As explained in Chapter 3, the reading and writing behaviour counts of all 137 student participants were converted to percentages for comparison purposes. SPSS Version 22 assigned participants to clusters according to these reading and writing behaviours. Table 6 (below) describes the reading and writing ranges in percentages of the members of each cluster. It is important to keep in mind that the number of student notes in the course databases varied between 1,112 and 2,069, so the actual number of notes read may be misleading. For example, a
student who wrote 5% of the notes may have written 56 notes or 103 notes, and a student who wrote 10% of the notes may have written 111 to 207 notes. The percentage of notes provides a more accurate picture because it contextualizes the contributions. Following the name of each of these groups, I describe their reading and writing characteristics by percentages and then the range of notes written are described. The total number of participants in each category is also provided.

- **Avid Readers/Avid Writers** read 42% to 100% of the student notes in the course database at least once. On average, this group read about 85% of the student notes written in the course. They wrote between 7% and 16% of the notes in the online learning discussion, with an average of 10% of the student notes being written by participants in this group. This range represents between 87 and 286 entries occurring in any of the eight databases. There are 31 students who were allocated to this category.

- **Avid Readers/Moderate Writers** read 63% to 99% of the student notes, at similar levels to the Avid Readers/Avid Writers above, but they were generally less visible in the course because they wrote less. On average, they read 83% of the student-written notes. They wrote between 2% and 7% of the notes in the database. On average, they wrote about 5% of the student notes in the course. This represents between 24 and 145 notes. There are 40 students who were allocated to this cluster.

- **Moderate Readers/Moderate Writers** appear to be more selective about the student entries they chose to read than the Avid Readers. Their range of student notes read represented between 11% and 62% of all student-written notes, with an average of 41% of students’ notes being read by this group. In general, members of this group were less visible than the Avid Readers/Avid Writers, having written between 1% and 9% of the
student-written notes in the course. The average percent of written notes of 4% was slightly less than the Avid Readers/Moderate Writers group. This group wrote between 17 and 145 notes in the course environment. There are 66 students in this group.

Table 6

*Cluster Descriptions*

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Range of % of student notes read (M)</th>
<th>Range of % of student notes written (M)</th>
<th>Range of # of notes written</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Avid Readers/Avid Writers</td>
<td>42–100 (85)</td>
<td>7–16 (10)</td>
<td>87–286</td>
<td>31</td>
</tr>
<tr>
<td>2 Avid Readers/Moderate Writers</td>
<td>63–99 (83)</td>
<td>2–7 (5)</td>
<td>24–145</td>
<td>40</td>
</tr>
<tr>
<td>3 Moderate Readers/Moderate Writers</td>
<td>11–62 (41)</td>
<td>1–9 (4)</td>
<td>17–145</td>
<td>66</td>
</tr>
</tbody>
</table>

What follows is a brief outline to introduce the participants in this study. Some of this information was gathered through the online survey and through the interviews, and some from introductions and other entries provided in the database. Each of the tables of participant activities contains information particular to that participant’s activities, as well as the average participation numbers for the course in which they were participating in order to provide context to the participant’s activities. In this learning management system, students were able to indicate when they liked a note. The participant information contains the number of likes the participant gave to others and the number of likes the participant received. These likes are the equivalent of a thumbs up. The numbers related to likes infer social interactions.

While replies to entries indicate the number of times they wrote an entry as a reply, this count is not always useful because often students chose to reply to the moderator’s question rather than to create a new entry. Based on my observations, a reply does not imply any particular type of entry—it could be a reply to a question posed in the discussion, or it could be an original idea responding to the readings of the week. This is simply a count that was available.
Replies received is also not a helpful count, though it may indicate that the participant was able to engage in discussion-type activities. Without following up to read the actual entries, it would not be a strong assumption. The total number of student entries and teacher entries written in the course are provided at the top of the column of each table, along with the total number of students participating in the online class for contextual purposes. The number of student notes and teacher notes reread represents the total number of these types of notes that were accessed two or more times by this participant.

Finally, rereads by other students indicates the number of times that a student accessed one of that participant’s notes twice or more. For example, Samira (#8) wrote 39 notes. If three students read all her notes twice or more, her rereads by other students count would be 117. If all 14 of her colleagues in the class read 10 of her notes at least twice or more, her rereads by other students count would be 140. This number can indicate if the participant is highly reread, but it is important to follow-up with an examination of the rereads by looking at the note interaction to deeply understand the context of this count.

4.1.0 Participants: Their stories.

The following section provides descriptions of the participants in this study based on their online introductions to their peers (intro), their entries in the learning databases, their learning journals (learning journal), their responses to the online questionnaire (questionnaire), and, if they participated, their responses in their interviews (interview). The pertinent data captured by the learning management system is provided in table format along with a comparison of the averages in the relevant course. All the names have been changed to pseudonyms. In the interest of space, only some of the relevant details of their stories as online learners in these DBOLEs have been
captured. Later in this section, there are further answers from the participants to questions asked in the online questionnaire.

4.1.0.0 Participant #1—Ella.

Ella is a high school teacher who believes that her online learning experience “to date has been generally positive and rewarding” (intro). She is flexible, works well under pressure, and has strong time management skills. She strongly associates with Kincheloe’s “concept of teacher personae painting one’s ideology as a teacher and his/her respective pedagogy” (learning journal). When asked to describe how her online learning persona differs from her face-to-face persona, she responded that her “online learning persona is always professional and filtered … quite similar to how I conduct myself at work. The one major absence found in VLEs [virtual learning environments] is bodily presence (tone of voice, facial expression, body language, etc.)” (questionnaire). She believes the following qualities/abilities are important to successful online learning:

- Clarity in communicating and expressing ideas and thinking related to a specific topic;
- Being able to deal with constructive criticism, opposing viewpoints, and/or vastly different perspectives; and
- Being able to bring a professional, self-confident “voice” to the discussion.

Kindness can still be “felt” online. (questionnaire)
Table 7 details some of Ella’s online behaviours (in the middle column) in course #7 (average students’ behaviours in the course are displayed in the right-hand column). Ella belongs in the Avid Reader/Avid Writer category. Ella logged in for more sessions (376) on more days (98) compared to the average student (180 sessions and 62 days), for a total of 93 hours online—more than the average student (61 hours) in this course. She contributed 154 notes, compared to the average contribution of 86 notes, with more than twice as many words written (26,764) than the average (12,940). She read more notes (2,248) than the average student (1,274) and reread more student (360 vs. 267) and teacher (92 vs. 71) notes than the average student. Her notes were highly reread by other students, at a count of 517. The social indicators of likes given and received show that she gave almost four times as many likes to others as the average student gave, and she received almost twice as many likes as the average student. This data suggests that Ella was highly visible and participatory in the course.
4.1.0.1 Participant #2—Danique.

Danique, a student in the PhD program, sees herself as a practitioner-researcher. These are Danique’s second and third online courses, all in the same learning management system environment. She observes that in her first course, she missed the face-to-face interaction “but ended up really liking” online learning (intro). She has had some blended learning experiences, “with sometimes mixed results” (intro). In fact, one course was so badly designed and taught she did not complete it. Danique has had some experience teaching in an online environment.

She sees her sense of humour, her ability to “question the conventional wisdom” (intro), and her ability to generate ideas and possibilities in herself and others as strengths that serve her well in the online learning environment. A reflective student, Danique observes that “learning may be a very individual process, but it can be very social” (learning journal). She is appreciative of learning and collaborating with others in a learning environment. She believes the following qualities/abilities are important to successful online learning:

- Good writing skills;
- A willingness to engage thoughtfully; and
- The ability to pick and choose where to engage (so as not to be so overwhelmed, trying to answer everything). (questionnaire)
Table 8

*Danique’s Online Activities in Course #1 and Course #2*

<table>
<thead>
<tr>
<th></th>
<th>Course #1</th>
<th>Course #2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avid Reader/ Avid Writer</td>
<td>Avid Reader/ Avid Writer</td>
</tr>
<tr>
<td><strong>Avid Reader/ Avid Writer</strong></td>
<td>Total student entries: 1,508</td>
<td>Total teacher entries: 200</td>
</tr>
<tr>
<td><strong>n=14</strong></td>
<td><strong>n=17</strong></td>
<td><strong>n=17</strong></td>
</tr>
<tr>
<td>Time online (hours)</td>
<td>161</td>
<td>167</td>
</tr>
<tr>
<td>Sessions</td>
<td>71 (35)</td>
<td>77 (23)</td>
</tr>
<tr>
<td>Days online</td>
<td>108</td>
<td>108</td>
</tr>
<tr>
<td>Likes given</td>
<td>19</td>
<td>13 (6)</td>
</tr>
<tr>
<td>Likes received</td>
<td>184</td>
<td>108 (52)</td>
</tr>
<tr>
<td>Notes written</td>
<td>24,684</td>
<td>17,306 (6,017)</td>
</tr>
<tr>
<td>Words written</td>
<td>1,305</td>
<td>1,207 (431)</td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>397</td>
<td>294 (192)</td>
</tr>
<tr>
<td>Replies received</td>
<td>1,305</td>
<td>1,207 (431)</td>
</tr>
<tr>
<td>Notes read</td>
<td>397</td>
<td>294 (192)</td>
</tr>
<tr>
<td>Student notes reread</td>
<td>122</td>
<td>85 (33)</td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>447</td>
<td>243 (43)</td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>447</td>
<td>243 (43)</td>
</tr>
</tbody>
</table>

Table 2 indicates that in both courses, Danique logged in for more sessions (322 and 279) on more days (108 and 86) compared to the average student (172/188 sessions and 78/77 days), for a total of 161/107 hours online—more than the average student (71/58) in these courses.

Danique is identified by SPSS as an Avid Reader/Avid Writer. She contributed nearly twice as many notes (184 and 141) as the average student (108 and 79), with more words written (24,684 and 19,117) than the average (17,306 and 15,372). She read more notes than average, though both of these courses had a number of participants who read many of the entries in the database. She reread more student and teacher notes than the average. Her notes were highly reread by other students. The social indicators of *likes* given and received show that in the first course, she gave less *likes* than the average student but received more *likes* than average. In the second
course she gave and received almost twice that of the average student. This data indicate that Danique was highly visible and participatory in the course.

4.1.0.2 Participant #3—Oliva.

A multilingual English-language college teacher, Oliva is in the middle of earning a PhD. This was her first learning management system course and her first graduate level online course. She has experience developing and facilitating both blended and online courses. Interested in staying current in the world of online learning, she has also taken some online learning courses for personal interest and joined a couple of MOOCs.

Oliva enjoys the positive experience of working collaboratively with another student she has not yet met face-to-face and also enjoys the diversity of ideas and opinions encountered in the online class. One of her strengths is establishing “effective communications with others to work toward setting plans in motion and achieving outcomes” (assignment). She suggested creating a social media group in order to continue the interesting and lively discussions. She believes the following qualities/abilities are important to successful online learning:

- It is important to be open to posting your thoughts to share with others;
- It is also helpful to be punctual and diligent in posting each week to be able to participate in the discussion within the appropriate time frames. (questionnaire)

As well, Oliva notes that she had hoped to match her online persona with her face-to-face person, but is not sure this is always possible. She tries to keep her online persona positive and professional, “and this is how I would describe my persona and communication style in my professional workplace” (questionnaire).
Oliva's Online Activities in Course #8

<table>
<thead>
<tr>
<th></th>
<th>Avid Reader/ Avid Writer</th>
<th>Course #8 n=16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Total student entries: 1,215</td>
</tr>
<tr>
<td>Time online (hours)</td>
<td>122</td>
<td>56 (31)</td>
</tr>
<tr>
<td>Sessions</td>
<td>175</td>
<td>178 (95)</td>
</tr>
<tr>
<td>Days online</td>
<td>93</td>
<td>58 (36)</td>
</tr>
<tr>
<td>Likes given</td>
<td>138</td>
<td>58 (75)</td>
</tr>
<tr>
<td>Likes received</td>
<td>89</td>
<td>58 (30)</td>
</tr>
<tr>
<td>Notes written</td>
<td>95</td>
<td>76 (40)</td>
</tr>
<tr>
<td>Words written</td>
<td>14,320</td>
<td>13,512 (7,694)</td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>82</td>
<td>57 (33)</td>
</tr>
<tr>
<td>Replies received</td>
<td>64</td>
<td>58 (27)</td>
</tr>
<tr>
<td>Notes read</td>
<td>1,392</td>
<td>786 (351)</td>
</tr>
<tr>
<td>Student notes reread</td>
<td>447</td>
<td>194 (105)</td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>110</td>
<td>71 (25)</td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>234</td>
<td>194 (100)</td>
</tr>
</tbody>
</table>

Oliva is identified by SPSS as an Avid Reader/Avid Writer. Table 9 indicates that while Oliva logged in for an average number of sessions, her time online (122) was more than double that of the average student. As well, she logged in on 93 days compared to the student average of 58 days. She contributed more notes (95) than the average student (76) and wrote slightly more words (14,320) than the average student (13,512). She read almost twice as many notes (1,392) as the average student (786), reread more than twice as many student notes as the average student (447 vs. 194), and reread more teacher notes (110) than the average student in her class (71). Her notes were more highly reread by other students than the average student’s notes. The social indicators of likes given are almost double that of the average of her peers, and likes received are about one and a half times higher than the average student. This data indicates that Oliva was highly visible to other participants and participatory in the course.
4.1.0.3 Participant #4—Loretta.

Loretta attended two online courses that are part of this study. She is extremely comfortable in the online environment having taken all of her MEd courses online and having taught teacher educators in online Additional Qualifications (AQ) environments (intro). She candidly notes that she loves “to observe the interactions and elements around [her] to the point it may seem like [she is] day dreaming at times” (learning journal). She loves to play, explore, try new tools, and make connections between people, ideas, and resources. Loretta explains that she “always find[s] it intriguing to teach online and take an online course” (learning journal). She is curious about the blended learning environment since this is the environment that her K-8 students will be learning within.

She believes the following qualities/abilities are important to successful online learning:

- To check in often. The idea of sitting down and doing all the work in one sitting doesn’t work in a fluid online conversation;
- To remember that the person on the other side of the screen is a person. Taking time to note the personal items. Looking for colleagues’ voices and interests can help build virtual relationships; and
- To use a positive tone when challenging the ideas of others. “I tend to stick to questions since they are less intimidating and allow me to show my curiosity.” (questionnaire)

As well, Loretta explains that her online learning course persona does not differ greatly from her out-of-classroom social media persona. She notes that she feels “more comfortable expressing myself online than in face-to-face situations so some may note that I am more shy in person” (questionnaire). My field notes indicate she often answered questions related to use of
technology in schools for colleagues and was receptive to engaging with her peers to help them by discussing her experiences. She was also very active on social media and provided a number of resources for others in the class.

Table 10

*Loretta's Online Activities in Course #5 and Course #7*

<table>
<thead>
<tr>
<th></th>
<th>Course #5 $n=17$</th>
<th>Course #7 $n=24$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avid Reader/Avid Writer</td>
<td>Total student entries: 1,485</td>
<td>Total student entries: 2,069</td>
</tr>
<tr>
<td></td>
<td>Total teacher entries: 229</td>
<td>Total teacher entries: 287</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time online (hours)</td>
<td>63 (20)</td>
<td>64 (28)</td>
</tr>
<tr>
<td>Sessions</td>
<td>152 (94)</td>
<td>149 (102)</td>
</tr>
<tr>
<td>Days online</td>
<td>85 (26)</td>
<td>80 (34)</td>
</tr>
<tr>
<td>Likes given</td>
<td>79 (39)</td>
<td>181 (71)</td>
</tr>
<tr>
<td>Likes received</td>
<td>85 (28)</td>
<td>146 (38)</td>
</tr>
<tr>
<td>Notes written</td>
<td>198 (50)</td>
<td>190 (46)</td>
</tr>
<tr>
<td>Words written</td>
<td>15,998 (6,624)</td>
<td>16,021 (8,503)</td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>76 (47)</td>
<td>180 (43)</td>
</tr>
<tr>
<td>Replies received</td>
<td>138 (43)</td>
<td>139 (38)</td>
</tr>
<tr>
<td>Notes read</td>
<td>1,124 (426)</td>
<td>1,481 (570)</td>
</tr>
<tr>
<td>Student notes reread</td>
<td>272 (124)</td>
<td>253 (119)</td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>78 (28)</td>
<td>83 (20)</td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>241 (166)</td>
<td>514 (265)</td>
</tr>
</tbody>
</table>

Loretta is identified by SPSS as an Avid Reader/Avid Writer. As Table 10 indicates, while Loretta’s time online in both courses was average, her session log-ins occurred less frequently than average. She was online more days (85 and 80) than the average student (70 and 62). She contributed more than double the entries (198 and 190) than the average student (87 and 86) and wrote more words (approximately 16,000) in each course compared to the average student, who wrote 14,196 and 12,940 in each course. She read more notes (1,124 and 1,481) than the average student (963 and 1,274). She reread 272 student notes, slightly more than average (243) in the first class, and she reread 253 student notes in the second class, just under
the average (267). She was also similar to the average student in rereading 78 teacher notes compared to 74 in the first course and 83 compared to 71 in the second. However, Loretta’s notes were highly reread at more than twice as many (553 and 514) than the course averages (241 and 265). The social indicators of likes given (79) and likes received (85) are almost double that of the average of her peers in the first course compared to the average student’s 47 likes given and 46 likes received. However, she gave almost three times (181) as many likes in the second course as the average student (65) and received 146 likes compared to the average student (61). These actions of positive social recognition agree with her earlier stated advice on the importance of building relationships. This data indicates that Loretta was highly visible and participatory in these courses.

4.1.0.4 Participant #5—Deiter.

Deiter lectures in higher education but has not taught a fully online course yet. He has taken several courses online. He describes himself as not afraid to fail. Socially, he is not concerned with what people think of him (intro). His learning journal shows that during the course, he reflected more deeply about collaborative and peer learning both as a teacher and as a learner. He wrote about situated learning and had been reflecting on what it was like to be a student in his class, explaining that this would have changed over years and during this course. He explained that from his perspective, “one cannot improve as a teacher if one does not first improve as a learner” (learning journal). While social relationships in an online learning environment appear to be less important to him (he responded, in the questionnaire, that being socially responsible to other students is somewhat unimportant to successful online learning), his learning journal refers to three students in the course who added value to his learning. He refers to a resource that Loretta (#4) provided that resonated with him. He appreciated and reflected on a story shared by
Ella (#1), representing learning without grades. As well, he refers to discussions with his wife, Marlize (#6) (whose data appear below) that may not be apparent to me as a researcher, because some of these debates took place face-to-face. Finally, he observes that the focus on a social and cultural learning environment appears to be increasing both in the environments in which he learns and in his teaching and professional context.

Deiter believes the following qualities/abilities are important to successful online learning:

- The ability to express one’s thoughts clearly and concisely in writing;
- The ability to read with insight and comprehension; and
- The ability to keep the overall objective of the course or discussion in mind while posting and reading. (questionnaire)

Table 11

*Deiter’s Online Activities in Course #7*

<table>
<thead>
<tr>
<th></th>
<th>Avid Reader/ Moderate Writer</th>
<th>Course #7 n=24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time online (hours)</strong></td>
<td>83</td>
<td>61 (28)</td>
</tr>
<tr>
<td><strong>Sessions</strong></td>
<td>96</td>
<td>180 (102)</td>
</tr>
<tr>
<td><strong>Days online</strong></td>
<td>68</td>
<td>62 (34)</td>
</tr>
<tr>
<td><strong>Likes given</strong></td>
<td>7</td>
<td>65 (71)</td>
</tr>
<tr>
<td><strong>Likes received</strong></td>
<td>142</td>
<td>61 (38)</td>
</tr>
<tr>
<td><strong>Notes written</strong></td>
<td>116</td>
<td>86 (46)</td>
</tr>
<tr>
<td><strong>Words written</strong></td>
<td>22,122</td>
<td>12,940 (8,503)</td>
</tr>
<tr>
<td><strong>Replies to other entries</strong></td>
<td>96</td>
<td>72 (43)</td>
</tr>
<tr>
<td><strong>Replies received</strong></td>
<td>129</td>
<td>73 (38)</td>
</tr>
<tr>
<td><strong>Notes read</strong></td>
<td>2,111</td>
<td>1,274 (570)</td>
</tr>
<tr>
<td><strong>Student notes reread</strong></td>
<td>186</td>
<td>267 (119)</td>
</tr>
<tr>
<td><strong>Teacher notes reread</strong></td>
<td>61</td>
<td>71 (20)</td>
</tr>
<tr>
<td><strong>Rereads by other students</strong></td>
<td>290</td>
<td>265 (131)</td>
</tr>
</tbody>
</table>
Deiter is identified by SPSS as an Avid Reader/Moderate Writer. As Table 11 indicates, while Deiter’s time online was about a third higher than the average, the number of session log-ins was about half of the average, and his days online (68) were just slightly above average (62). He contributed more entries (116) than the average student (86), but wrote almost twice as many (22,122) words than the average student in the course (12,940). He read many more student notes (2,111) than the average student (1,274). As well, he reread less than the average amount of student notes (186) than the average student (267) and less than the average amount of teacher notes (61) than the average student (71). His notes were reread more often (290) than the average student (265) in this course. The social indicators of likes given (7) and likes received (142) are not as balanced as the average student’s 65 likes given and 61 likes received. This would indicate that his notes were well-liked, but it would seem that he did not give priority to reciprocating or acknowledging entries he may have appreciated. This data reflect only a partial picture of Deiter’s learning with others because his discussions with Marlize on course topics were not necessarily captured. He indicated that his online persona is not different from his offline persona.

4.1.0.5 Participant #6—Marlize.

Marlize is a part-time teacher and supervisor in the Early Childhood Education field. She identifies herself as passionate, hard-working, honest, and loyal, with a great sense of humour. She is a multitasker who loves online learning and has been attending online workshops and courses towards a certificate over the previous five years. She explains to her peers, in her introduction, that because of her busy working schedule, she typically logs in later in the evening and will not likely log in before 8:00 pm. She also acknowledges that studying with her husband,
Deiter (#5) (whose data are featured above), who has a different background than her, has been great for her learning experience, as she enjoys their discussions at home (intro).

Marlize believes the following qualities/abilities are important to successful online learning:

- To be able to manage the posts by keeping current. You have to log in often as to not fall behind or miss an important discussion opportunity;
- To know the readings and be able to relate the discussions back to it. Be prepared; and
- To read twice and respond with care. People can easily misunderstand what you wrote, so take care to clarify ideas before posting or responding. (questionnaire)

Table 12

*Marlize’s Online Activities in Course #7*

<table>
<thead>
<tr>
<th></th>
<th>Avid Reader/ Moderate Writer</th>
<th>Course #7 n=24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total student entries: 2,069</td>
<td>Total teacher entries: 287</td>
</tr>
<tr>
<td>Time online (hours)</td>
<td>58</td>
<td>61 (28)</td>
</tr>
<tr>
<td>Sessions</td>
<td>111</td>
<td>180 (102)</td>
</tr>
<tr>
<td>Days online</td>
<td>53</td>
<td>62 (34)</td>
</tr>
<tr>
<td>Likes given</td>
<td>126</td>
<td>65 (71)</td>
</tr>
<tr>
<td>Likes received</td>
<td>53</td>
<td>61 (38)</td>
</tr>
<tr>
<td>Notes written</td>
<td>90</td>
<td>86 (46)</td>
</tr>
<tr>
<td>Words written</td>
<td>18,516</td>
<td>12,940 (8,503)</td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>74</td>
<td>72 (43)</td>
</tr>
<tr>
<td>Replies received</td>
<td>71</td>
<td>73 (38)</td>
</tr>
<tr>
<td>Notes read</td>
<td>2,232</td>
<td>1,274 (570)</td>
</tr>
<tr>
<td>Student notes reread</td>
<td>274</td>
<td>267 (119)</td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>73</td>
<td>71 (20)</td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>545</td>
<td>265 (131)</td>
</tr>
</tbody>
</table>
Marlize is identified by SPSS as an Avid Reader/Moderate Writer. As Table 12 indicates, while Marlize’s time online (58 hours) was about average, the number of session log-ins (111) was almost half of the average of 180 sessions, and her days online (53) were below average (62). She contributed slightly more entries (90) than the average student (86), but wrote about 43% more (18,516) words than the average student in the course (12,940). She read many more notes (2,232) than the average student (1,274). As well, she reread slightly more student notes (274) than the average student (267) and about the same amount of teacher notes (73) as the average student (71). Her notes were reread far more often (545) than the average student (265) in this course. The social indicators of *likes* given (126) are greater than the average student’s *likes* given (65), but *likes* received (53) is less than the average student’s *likes* received (61). This would indicate that her notes were highly reread and well-liked and that she reciprocated with *likes* by giving more than twice the amount that the average students would have given other students. This data reflect only a partial picture of Marlize’s learning with others because her discussions with Deiter (#5) on course topics were not necessarily captured.

In thinking of her online persona, Marlize explains that she is “more confident online as I take my time to formulate my thoughts and respond to posts” (questionnaire). Further, she explains “I am very social, but I feel that online learning gives everyone an equal chance to ‘speak.’ You can post whenever you are ready and how often you feel is needed” (questionnaire). Finally, she appreciates the fact that “you are not forced to answer right away as you would have to in a face-to-face discussion. This to me makes the learning more powerful as I can take some time and ensure I understand the issues or challenges correctly” (questionnaire).
4.1.0.6 Participant #7—Jon.

Jon, a new father, is a thoughtful and conscientious high school teacher who is a leader in experiential education in an outdoor context with a degree in divinity. He has taken many AQs, so is very familiar with another learning management system, Desire2Learn, and is also familiar with Blackboard and Google Drive through his teaching (intro). Jon explains, in his learning journal, that “online design must be at the service of relationship and community building.” He considers this important to his teaching in a blended learning environment. In fact, he forefronts building community as a positive outcome for building learning skills. He ponders the dilemma of “scolding students when they don’t submit work, for example, instead of seeing non-submission as a reflection of the student not feeling like a valued member of the community.” As well, he grapples with finding time-efficient ways to provide new experiences to his students that are relevant to the topics he teaches. He sees his strengths as possessing creative ideas, being able to find common threads in order to bring people/ideas/perspectives together, and having a welcoming and community-oriented personality (intro).

Jon believes it is important to enter into a community with the other students and contribute to the discussion with occasional anchors to the readings in order to be successful in online learning (questionnaire).
Table 13

*Jon’s Online Activities in Course #7*

<table>
<thead>
<tr>
<th></th>
<th>Total student entries: 2,069</th>
<th>Total teacher entries: 287</th>
<th>Course #7 n=24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avid Reader/Moderate Writer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time online (hours)</td>
<td>61</td>
<td>61 (28)</td>
<td></td>
</tr>
<tr>
<td>Sessions</td>
<td>113</td>
<td>180 (102)</td>
<td></td>
</tr>
<tr>
<td>Days online</td>
<td>71</td>
<td>62 (34)</td>
<td></td>
</tr>
<tr>
<td>Likes given</td>
<td>31</td>
<td>65 (71)</td>
<td></td>
</tr>
<tr>
<td>Likes received</td>
<td>88</td>
<td>61 (38)</td>
<td></td>
</tr>
<tr>
<td>Notes written</td>
<td>82</td>
<td>86 (46)</td>
<td></td>
</tr>
<tr>
<td>Words written</td>
<td>17,391</td>
<td>12,940 (8,503)</td>
<td></td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>78</td>
<td>72 (43)</td>
<td></td>
</tr>
<tr>
<td>Replies received</td>
<td>69</td>
<td>73 (38)</td>
<td></td>
</tr>
<tr>
<td>Notes read</td>
<td>1,504</td>
<td>1,274 (570)</td>
<td></td>
</tr>
<tr>
<td>Student notes reread</td>
<td>449</td>
<td>267 (119)</td>
<td></td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>78</td>
<td>71 (20)</td>
<td></td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>236</td>
<td>265 (131)</td>
<td></td>
</tr>
</tbody>
</table>

Jon is identified by SPSS as an Avid Reader/Moderate Writer. As Table 13 indicates, while Jon’s time online was the same as the average (61 hours), the number of session log-ins was less (113) than the average (180), but the number of days he was online (71) was higher than the average number of days online (62). He contributed about the same number of entries (82) as the average student (86), but wrote more words (17,391) than average (12,940). He also read more notes (1,504) than the average student (1,274). As well, he reread close to twice as many student notes (449) as the average student (267) and slightly more teacher notes (78) than the average student (71). His notes were reread slightly less (236) than average (265) in this course. The social indicators of *likes* given (31) and *likes* received (88) are not as balanced as the average student’s 65 *likes* given and 61 *likes* received. This would indicate that his notes were
well-liked but that perhaps he did not give the same priority as others to reciprocating or acknowledging entries that he may have appreciated.

In thinking of any differences between his online persona and his offline persona, Jon explains that “it is difficult to see the pondering that goes along with colleague contributions in an online environment. I find myself a bit less collaborative” (questionnaire).

4.1.0.7 Participant #8—Samira.

Samira is a PhD student who loves to travel. She describes her strengths as a being good speaker and a good listener and possessing an ability to make people feel comfortable and safe in a teaching space (intro). From a teaching perspective, she is interested in being open to the possibilities of teaching in virtual environments (learning journal). As a student, she felt only somewhat favourable about the online learning environment, based on some experiences she had while attending an online course as part of her master’s program. She had completed two online courses at the time of her interview. She felt somewhat confident in expressing her thoughts and understandings to others using the English language in this online environment. The two online classes she had attended were very different from each other.

As a deeply reflective learner, Samira’s learning journal grapples with such issues as old teaching habits that may be difficult to break in new online teaching environments, such as Second Life, whether lecture-style teaching has a place in online learning, and whether teachers are given adequate training to transition to new learning environments. She also reflected on her good fortune for having taken this course as she later shared her experience with a provincial educational technology group. She stated that the course was an “incredible journey” and that she had “learned a great deal.” She also noted that “online courses can be much more difficult than face-to-face courses.”
Samira believes the following qualities/abilities are important to successful online learning:

- To ask the instructor and students questions for clarification;
- To refer to readings and other resources to support your ideas; and
- To write clearly. (questionnaire)

Table 14

_Samira’s Online Activity in Course #4_

<table>
<thead>
<tr>
<th></th>
<th>Moderate Reader/Moderate Writer</th>
<th>Course #4 n=15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total student entries</td>
<td>1,112</td>
<td>Total teacher entries: 191</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time online (hours)</td>
<td>77 (36)</td>
<td>74 (36)</td>
</tr>
<tr>
<td>Sessions</td>
<td>89 (136)</td>
<td></td>
</tr>
<tr>
<td>Days online</td>
<td>58 (31)</td>
<td></td>
</tr>
<tr>
<td>Likes given</td>
<td>34 (42)</td>
<td></td>
</tr>
<tr>
<td>Likes received</td>
<td>20 (30)</td>
<td></td>
</tr>
<tr>
<td>Notes written</td>
<td>39 (39)</td>
<td></td>
</tr>
<tr>
<td>Words written</td>
<td>11,512 (13,053)</td>
<td></td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>34 (38)</td>
<td></td>
</tr>
<tr>
<td>Replies received</td>
<td>10 (34)</td>
<td></td>
</tr>
<tr>
<td>Notes read</td>
<td>571 (384)</td>
<td></td>
</tr>
<tr>
<td>Student notes reread</td>
<td>128 (199)</td>
<td></td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>64 (33)</td>
<td></td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>120 (176)</td>
<td></td>
</tr>
</tbody>
</table>

Samira was identified by SPSS as a Moderate Reader/Moderate Writer. As indicated in Table 14, Samira’s time online was about the same (77 hours) as that of the average student (74), with fewer session log-ins (89) than the average student (247) and fewer days online (58) than that of the average student (94). She posted about half as many entries (39) than the average student (74), and the entries contained about half as many words (11,512) than the average number of words (20,679). She read close to half as many notes (571) than the average student (982). As well, she reread close to half of the student notes (128) compared to the average
student (308) and fewer teacher notes (64) than the average student (84). Her notes were reread less often (120) than the average student’s notes were reread (308) in this course. The social indicators of likes given (34) and likes received (20) are about half that of the average student’s likes given (54) and likes received (50). These results may be a reflection of Samira’s low visibility profile. It seemed from her comments in her interview that she was deeply reflective and thoughtful about responding to others in the discussion and that she devoted much of her time to carefully crafting her entry responses as opposed to focusing on being highly visible through many postings.

Samira prefers not to create a separate online persona from her face-to-face persona. She explains that “the only difference is that it requires more writing and I want to be as clear with my writing as possible and create a logical structure so readers can understand my points.”

(questonnaire)

4.1.0.8 Participant #9—Hannah.

Hannah is a middle school teacher with a decade of experience and a new baby at home. She is approaching the end of her MEd program, has been studying online for two and a half years, and is in her second course studying online learning environments. She likes learning in the online environment as it suits her busy lifestyle. She plans to continue to further her education either through Principal’s Qualifications or a PhD. She describes herself as patient, understanding, hardworking, ambitious, and a lifelong learner. According to her learning journal, interaction is imperative in online learning, and she believes that “we must learn together and with each other, by bouncing ideas off of each other, and using our own expertise, and our shared knowledge.” She notes that technology is slow to be deployed in schools because of old ways of teaching and
funding. She believes that teachers must create safe and inclusive environments for learning, because “learning is a social process” (learning journal).

Hannah believes the following qualities/abilities are important to successful online learning:

- Understanding the English language;
- The ability to write coherently in the English language; and
- The ability to read coherently in the English language. (questionnaire)

Table 15

**Hannah’s Online Activities in Course #7**

<table>
<thead>
<tr>
<th></th>
<th>Moderate Reader/</th>
<th>Course #7 n=24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moderate Writer</td>
<td>Total student entries: 2,069</td>
</tr>
<tr>
<td>Time online (hours)</td>
<td>41</td>
<td>61 (28)</td>
</tr>
<tr>
<td>Sessions</td>
<td>210</td>
<td>180 (102)</td>
</tr>
<tr>
<td>Days online</td>
<td>91</td>
<td>62 (34)</td>
</tr>
<tr>
<td>Likes given</td>
<td>1</td>
<td>65 (71)</td>
</tr>
<tr>
<td>Likes received</td>
<td>88</td>
<td>61 (38)</td>
</tr>
<tr>
<td>Notes written</td>
<td>106</td>
<td>86 (46)</td>
</tr>
<tr>
<td>Words written</td>
<td>20,360</td>
<td>12,940 (8,503)</td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>88</td>
<td>72 (43)</td>
</tr>
<tr>
<td>Replies received</td>
<td>89</td>
<td>73 (38)</td>
</tr>
<tr>
<td>Notes read</td>
<td>1,355</td>
<td>1,274 (570)</td>
</tr>
<tr>
<td>Student notes reread</td>
<td>356</td>
<td>267 (119)</td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>63</td>
<td>71 (20)</td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>335</td>
<td>265 (131)</td>
</tr>
</tbody>
</table>

Hannah was identified by SPSS as a Moderate Reader/Moderate Writer. As Table 15 shows, Hannah’s hours online were fewer (41 hours) than that of the average student (61), but she was online about 50% more days (91) than the average student (62), with more log-in sessions (210) than the average student (180). She posted more entries (106) than the average student (86), and the entries contained considerably more words (20,360) than the average
student in the course (12,940). She read more notes (1,355) than the average student (1,274). As well, she reread many more student notes (356) than the average student (267) but fewer teacher notes (63) than the average student (71). Her notes were reread more (335) than the average student (265) in this course. The social indicators of likes given (1) and likes received (88) are not as balanced as the average students’ 65 likes given and 61 likes received. This would indicate that her notes were well-liked but that perhaps she did not give the same priority as the average student to reciprocating or acknowledging entries that she may have appreciated.

Hannah explains that she does not believe there is a difference in her online persona and her offline persona. For example, she says, “this past semester I was in a face-to-face class and working on an online course. I found I participated and was engaged just the same” (questionnaire).

4.1.0.9 Participant #10—Kai.

Kai is a high school teacher who is interested in teaching with technology and investigating teaching in a blended online environment. This is his seventh course in his MEd, and all of the courses have been online for convenience, since his wife works long hours and they have a young child. This is his third course on the Pepper platform. He identifies himself as easygoing, tech-savvy, resourceful, and able to build good connections with others through listening and a willingness to help with technology challenges (intro). Kai’s journal is written with many reflections on being able to deploy, to his own students, innovative teaching ideas that are discussed in the online class. He shared some examples of approaches he was trying that were influenced by his online learning experience in Alana’s course.

He was particularly impressed with a project that Loretta (#4) had introduced, where students could teach their peers by learning something about which they were passionate. He
wondered if this would help students who were at risk of failing or dropping out, or students who were disengaged, and he planned to discuss it with his administrators (learning journal). He was also quite reflective about motivating students to participate in an online learning setting after an engaging discussion with Loretta (#4) and another student. He explains that he enjoys “online learning because it provides me with an opportunity to be thoughtful and reflective with my comments prior to sharing them with others” (learning journal). He felt that he was not able to engage with his students in “online ‘social’ learning and reading” because they were able to see each other in person every day, but he was planning to try some of the strategies he had seen Alana model to see if he could improve the online learning opportunity.

Kai believes the following qualities/abilities are important to successful online learning:

- To be concise with discussion posts—people are much more likely to read a post if it is not too long;
- If responding to someone else’s post, be sure that it adds something new to the conversation or extends the discussion; and
- If in Pepper, acknowledge that you like someone’s posts by pressing the like button. It’s like a virtual head-nod of approval. (questionnaire)
Table 16

*Kai’s Online Activities in Course #7*

<table>
<thead>
<tr>
<th></th>
<th>Moderate Reader/Moderate Writer</th>
<th>Course #7 n=24</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time online (hours)</td>
<td>57</td>
<td>61 (28)</td>
<td></td>
</tr>
<tr>
<td>Sessions</td>
<td>160</td>
<td>180 (102)</td>
<td></td>
</tr>
<tr>
<td>Days online</td>
<td>58</td>
<td>62 (34)</td>
<td></td>
</tr>
<tr>
<td>Likes given</td>
<td>100</td>
<td>65 (71)</td>
<td></td>
</tr>
<tr>
<td>Likes received</td>
<td>81</td>
<td>61 (38)</td>
<td></td>
</tr>
<tr>
<td>Notes written</td>
<td>93</td>
<td>86 (46)</td>
<td></td>
</tr>
<tr>
<td>Words written</td>
<td>14,389</td>
<td>12,940 (8,503)</td>
<td></td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>75</td>
<td>72 (43)</td>
<td></td>
</tr>
<tr>
<td>Replies received</td>
<td>85</td>
<td>73 (38)</td>
<td></td>
</tr>
<tr>
<td>Notes read</td>
<td>923</td>
<td>1,274 (570)</td>
<td></td>
</tr>
<tr>
<td>Student notes reread</td>
<td>290</td>
<td>267 (119)</td>
<td></td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>89</td>
<td>71 (20)</td>
<td></td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>146</td>
<td>265 (131)</td>
<td></td>
</tr>
</tbody>
</table>

Kai is identified by SPSS as a Moderate Reader/Moderate Writer. As Table 16 shows, Kai’s time online was slightly less (57 hours) compared to that of the average student (61), with close to the average number of session log-ins (160) compared to an average student (180) and slightly fewer days online (58) than that of the average student (62). He posted slightly more entries (93) than average (86), and the entries contained more words in total (14,389) than average (12,940). He read approximately a quarter fewer notes (923) than the average student (1,274). As well, he reread slightly more (290) than the average number of student notes (267) and slightly more (89) than the average number of teacher notes (71). His notes were reread less often (146) than the average student notes (265). The social indicators of *likes* given (100) and *likes* received (81) are higher than the average students’ *likes* given (65) and *likes* received (61). This would indicate that his notes were less valued, as they were reread less than the average, but were *liked* at slightly higher levels.
Kai believes that the difference in his online persona vs. his face-to-face persona is the time he has to think of words. He explains that “in person, I sometimes struggle with finding the right words to get my point across succinctly, or finding the right figure of speech. With the asynchronous discussion, I am able to take the time to choose my words more carefully” (questionnaire).

4.1.1.10 Participant #11—Jackie.

Jackie manages an online training program for higher education students and is in the middle of completing her MEd. She has a young family and is married to a teacher. She describes herself as a good listener, a good mediator, and a positive person who makes the most of everything she does, explaining that she “can make anything fun” (intro). This is her second course on the Pepper platform, and she really likes this learning environment. She is already familiar with Moodle, another learning management system, having attended Moodle conferences. From a teaching philosophy perspective, she is a big believer in personalizing curriculum and enthusiasm-based learning (EBL). On learning with others, she explains that learning can occur unexpectedly, and “often this learning occurs outside of ‘planned’ interactions—for example, in this class, on many occasions we have strayed off-topic to discover something altogether unintended, together” (learning journal). Jackie explains that Alana has “not created a new pathway in my head—she has created an environment where my understanding is made more possible” (learning journal).

Jackie believes the following qualities/abilities are important to successful online learning:

- To be concise;
- To use language that is easily understood by all readers; and
To reference posts/articles/course materials. (questionnaire)

Table 17

Jackie’s Online Activities in Course #2

<table>
<thead>
<tr>
<th></th>
<th>Moderate Reader/Moderate Writer</th>
<th>Course #2 n=17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time online (hours)</td>
<td>41</td>
<td>58 (33)</td>
</tr>
<tr>
<td>Sessions</td>
<td>181</td>
<td>188 (111)</td>
</tr>
<tr>
<td>Days online</td>
<td>85</td>
<td>77 (23)</td>
</tr>
<tr>
<td>Likes given</td>
<td>22</td>
<td>26 (28)</td>
</tr>
<tr>
<td>Likes received</td>
<td>29</td>
<td>28 (12)</td>
</tr>
<tr>
<td>Notes written</td>
<td>84</td>
<td>79 (32)</td>
</tr>
<tr>
<td>Words written</td>
<td>10,412</td>
<td>15,372 (4,502)</td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>75</td>
<td>70 (33)</td>
</tr>
<tr>
<td>Replies received</td>
<td>82</td>
<td>68 (34)</td>
</tr>
<tr>
<td>Notes read</td>
<td>677</td>
<td>1,132 (326)</td>
</tr>
<tr>
<td>Student notes reread</td>
<td>147</td>
<td>277 (138)</td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>41</td>
<td>61 (23)</td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>310</td>
<td>277 (127)</td>
</tr>
</tbody>
</table>

Jackie is identified by SPSS as a Moderate Reader/Moderate Writer. As Table 17 shows, Jackie’s time online was less (41 hours) than that of the average student (58), with close to an average number of session log-ins (181) compared to the average student (188) and more days online (85) than the average student (77). She posted slightly more entries (84) than the average student (79), but the entries contained on average about a one-third fewer words (10,412) than the words an average student in the course wrote (15,372). She read close to half as many notes (677) than the average student (1,132). As well, she reread fewer student notes (147) than the average student (277) and fewer teacher notes (41) than average (61). Her notes were reread more often (310) than the average student notes were reread (277) in this course. The social indicators of likes given (22) and likes received (29) are only slightly less than the average likes given (26) and slightly more than the average likes received (28). This would indicate that her
notes were valued, as they were reread more than the average, but they were *liked* only at an average level.

In the in-depth interview, Jackie predicted that she did not write any more notes than the average student, and that she likely read less. Jackie explains that she was strategic about what she would read. She said she “would read the postings I think would pertain the most to how my answer would be articulated” (Jackie, 2016, transcribed interview, p. 1). She was aware of what she felt she needed to do to be assessed and that it was that which motivated her to read some of the entries posted by those she identified in the first two weeks of the course as important to read.

Jackie feels that her offline and online personas are only slightly different; she offers that she “might be a bit more comfortable with constructive criticism in the face-to-face setting” (questionnaire). She notes that she is very careful about the wording she uses in an online learning course.

4.1.1.11  **Participant #12—Mohammed.**

Mohammed is pursuing his MEd, working full-time in the health care industry, and is a part-time instructor in health diagnostics. He has taken one other course on the Pepper platform. He sees himself as open-minded, a problem solver, and a natural knowledge seeker (intro). Many of the reflections in his learning journal relate back to the classes he teaches and the strategies he uses with his students. He also reflects on his participation in Alana’s online course—noting that he had an active group to moderate with who worked well together, but he was “a bit hesitant to participate in the discussion due to my fear of taking over the discussion” (learning journal). He acknowledged that though he has not always found online discussion to be helpful in the past, because even on the Pepper platform a different instructor can design a course that is less
interactive, in this course, he has “found the discussion very useful” (learning journal). He
believes it has been a richer discussion because there were fewer rules for postings.

Mohammed believes the following qualities/abilities are important to successful online
learning:

- Good written communication; and
- Consistently participating in discussion. (questionnaire)

Table 18

Mohammed’s Online Activities in Course #7

<table>
<thead>
<tr>
<th></th>
<th>Moderate Reader/Moderate Writer</th>
<th>Course #7 n=24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time online (hours)</td>
<td>38</td>
<td>61 (28)</td>
</tr>
<tr>
<td>Sessions</td>
<td>73</td>
<td>180 (102)</td>
</tr>
<tr>
<td>Days online</td>
<td>54</td>
<td>62 (34)</td>
</tr>
<tr>
<td>Likes given</td>
<td>0</td>
<td>65 (71)</td>
</tr>
<tr>
<td>Likes received</td>
<td>22</td>
<td>61 (38)</td>
</tr>
<tr>
<td>Notes written</td>
<td>40</td>
<td>86 (46)</td>
</tr>
<tr>
<td>Words written</td>
<td>8,007</td>
<td>12,940 (8,503)</td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>36</td>
<td>72 (43)</td>
</tr>
<tr>
<td>Replies received</td>
<td>31</td>
<td>73 (38)</td>
</tr>
<tr>
<td>Notes read</td>
<td>1,341</td>
<td>1,274 (570)</td>
</tr>
<tr>
<td>Student notes reread</td>
<td>296</td>
<td>267 (119)</td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>53</td>
<td>71 (20)</td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>435</td>
<td>265 (131)</td>
</tr>
</tbody>
</table>

Mohammed is identified by SPSS as a Moderate Reader/Moderate Writer. As Table 18 shows,
Mohammed’s time online was less (38 hours) than that of the average student (61), with fewer
session log-ins (73) than the average student (180) and slightly fewer days online (54) than
average (62). He posted about half as many entries (40) than the average student (86), and the
entries contained about one-third fewer total words (8,007) than the average number of words
(12,940). It may be that he was less visibly active in the discussion because of his earlier
discussed concern about taking over the discussion. In terms of less visible interactions, he read more student notes (1,341) than the average student (1,274). As well, he reread more student notes (296) than the average student (267) but reread fewer teacher notes (53) than the average student (71). Although he posted fewer than half as many notes as the average student, his notes were reread more often (435) than the average student’s notes were reread (265) in this course. The social indicators of likes given (0) and likes received (22) are far fewer than the average students’ likes given (65) and likes received (61). This would indicate that his notes were valued as they were reread more than average but that there was less social engagement between Mohammed and his student peers in the context of appreciating entries with likes.

4.1.1.12 Participant #13—Megan.

Megan has been teaching special education, working with students who have autism and development disabilities, for a local school board for the last decade. This is her last course in the MEd Program. She describes herself as patient, a creative problem solver, enthusiastic, and a motivator of others (intro). She has experience in online learning but is sceptical about the true benefits. She had been looking forward to Alana’s class because she believes the value of the discussion-based learning will be more apparent than in past courses.

Megan’s learning journal reflects her focus on students with disabilities, English-language learners, and those with an aversion to technology or an inability to communicate online, and how they would fare in an online learning environment. She notes that she is a native English speaker and is “overwhelmed by the amount of time it takes to read all the posts and to respond thoughtfully” (learning journal), though she acknowledges that the effort has been worth it in this class, because she feels she has learned a lot. She explains frankly that in the past she was resentful about reading superficial and forced discussions. She was intrigued by comments
made by other students in the course that “they liked that they had extra time to construct and communicate ideas in asynchronous format while others reported that it took too much time and effort” (learning journal). She is considering adopting a blended learning format for her students. As for learning in a social environment, Megan appreciated that Alana modelled for the class as a facilitator who is “aware of the culture of the class and active in helping resolve misunderstandings and disputes” (learning journal).

Megan believes there is a different skill set required for succeeding in Alana’s classes than in a typical online class because the discussion is such an important component. In a more typical online course, Megan believes the following qualities/abilities are important to successful online learning:

- Post early so that you don’t have to repeat what others have already said;
- Flatter everyone, no matter what they’ve said; and
- Meet the requirements set out by the instructor (answer the question and comment on two other posts). (questionnaire)

In Alana’s classes, “there’s more authentic discussion so there’s less pressure to complete a meaningless checklist of tasks. Instead, you can actually focus on understanding what your classmates have posted, and truly expand on or dig deeper into the ideas” (questionnaire). In Alana’s classes, Megan believes the following qualities/abilities are important to successful online learning:

- Read posts and compare/contrast with your own interpretation of the readings;
- Re-read the readings to see if your classmates picked up on something you didn’t;
- Write your posts succinctly (and save some of your thoughts and ideas for later in the discussion) so that your post isn’t too long. People don’t read long posts; and
“I think a big factor in whether or not there will be worthwhile discussion is the quality of the reading. In most online courses the readings are so simple that there really isn’t anything to discuss.” (questionnaire)

Table 19

*Megan’s Online Activities in Course #7*

<table>
<thead>
<tr>
<th></th>
<th>Moderate Reader/Moderate Writer</th>
<th>Course #7 n=24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total student entries: 2,069</td>
</tr>
<tr>
<td>Time online (hours)</td>
<td>81</td>
<td>61 (28)</td>
</tr>
<tr>
<td>Sessions</td>
<td>230</td>
<td>180 (102)</td>
</tr>
<tr>
<td>Days online</td>
<td>84</td>
<td>62 (34)</td>
</tr>
<tr>
<td>Likes given</td>
<td>31</td>
<td>65 (71)</td>
</tr>
<tr>
<td>Likes received</td>
<td>73</td>
<td>61 (38)</td>
</tr>
<tr>
<td>Notes written</td>
<td>113</td>
<td>86 (46)</td>
</tr>
<tr>
<td>Words written</td>
<td>25,445</td>
<td>12,940 (8,503)</td>
</tr>
<tr>
<td>Replies to other entries</td>
<td>94</td>
<td>72 (43)</td>
</tr>
<tr>
<td>Replies received</td>
<td>111</td>
<td>73 (38)</td>
</tr>
<tr>
<td>Notes read</td>
<td>1,058</td>
<td>1,274 (570)</td>
</tr>
<tr>
<td>Student notes reread</td>
<td>277</td>
<td>267 (119)</td>
</tr>
<tr>
<td>Teacher notes reread</td>
<td>108</td>
<td>71 (20)</td>
</tr>
<tr>
<td>Rereads by other students</td>
<td>444</td>
<td>265 (131)</td>
</tr>
</tbody>
</table>

Megan is identified by SPSS as a Moderate Reader/Moderate Writer. Table 19 indicates that she spent a third more time online (81 hours) than the average student (61), with more sessions (230) than the average student (180) and about a third more days online (84) than the average student (62). She posted almost a third more entries (113) than the average student (86), with twice as many total words (25,445) than the average student in the course (12,940). She read slightly fewer (1,058) notes than the average student (1,274). On the other hand, she reread slightly more student notes (277) than average (267) and reread about a third more teacher notes (108) than average (71). Her notes were reread more often (444) than the average student’s notes were reread (265) in this course. The social indicators of *likes* given (31) is fewer than the
student average (65), but likes received (73) is higher than the student average (61). This would indicate that her notes were valued, as they were reread more than average, and were liked at an average level.

Megan feels her online persona and offline persona are the same.

4.1.0.13 Participant #14—Karina.

This course is Karina’s second last in her MEd Studies in Second Language Education. She is excited to be learning more about online environments. A former distance education student, where her assignments were mailed to her and the lectures were sent on tape, she has been learning more in the online environment lately, and has also taught in the online course format. She teaches part time at the college level (intro). Through her learning journal, Karina recognizes similarities between face-to-face classrooms and online classrooms but felt cautious about the challenges of teaching and learning in online learning environments. Optimistically, she states that after more than half of the course has passed, she has “more belief in the idea that online classrooms can, in many regards, live up to the positive attributes of a group of students in the same physical space.” She is skeptical about the online learning environment for younger students but is beginning to think of it as promising.

Karina believes the following qualities/abilities are important to successful online learning:

- Organization to keep on top of things and not fall behind; and
- Language skills to convey your opinion and intent clearly. (questionnaire)
Table 20

Karina’s Online Activities in Course #7

<table>
<thead>
<tr>
<th></th>
<th>Course #7 n=24</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total student entries</td>
<td>2,069</td>
<td></td>
</tr>
<tr>
<td>Total teacher entries</td>
<td>287</td>
<td></td>
</tr>
</tbody>
</table>

| Time online (hours)    | 32             | 61 (28)   |
| Sessions               | 69             | 180 (102) |
| Days online            | 38             | 62 (34)   |
| Likes given            | 32             | 65 (71)   |
| Likes received         | 32             | 61 (38)   |
| Notes written          | 58             | 86 (46)   |
| Words written          | 10,857         | 12,940 (8,503) |
| Replies to other entries| 37            | 72 (43)   |
| Replies received       | 54             | 73 (38)   |
| Notes read             | 1,004          | 1,274 (570) |
| Student notes reread   | 145            | 267 (119) |
| Teacher notes reread   | 55             | 71 (20)   |
| Rereads by other students | 356       | 265 (131) |

Karina is identified by SPSS as a Moderate Reader/Moderate Writer. As Table 20 indicates, Karina’s time online was about half (32 hours) that of the average student (61), with fewer than half the number of session log-ins (69) than the average student (180) and just over half the number of days online (38) than that of the average student (62). She posted fewer entries (58) than the average student (86), but the entries contained more words since she wrote closer to the number of words an average student in the course wrote (10,857 vs. 12,940). She read fewer notes (1,004) than the average student (1,274). As well, she reread fewer student notes (145) than the average student (267) and fewer teacher notes (55) than average (71). Her notes were reread more often (356) than the average student (265) in this course. The social indicators of likes given (32) and likes received (32) are about half of the average student’s 65 likes given and 61 likes received. This would indicate that her notes were valued, since they were reread more than average, but not necessarily well-liked, as indicated by the number of likes.
given, and that perhaps she did not give the same priority to reciprocating or acknowledging entries that she may have appreciated from others.

Karina explains that her online persona is different from her offline persona because “I am more hesitant with sharing and posting as I fear I will be misunderstood in an online learning environment. Other than that, I try to show myself and don’t put on a different persona” (questionnaire).

4.1.1.14 Wrap-up.

These stories of these participants offer insights into their contexts, thoughts, and understandings related to their learning in an online learning environment. The interpretive perspective guides the purpose of this research to better understand the participants’ perspectives and not to seek explanation. In general, the findings support the notion that reading, rereading, and revisiting are social practices important to students’ online learning experiences for a variety of reasons. The data identifying the entry activities related to reading and revisiting practices indicate that these activities are frequently taking place in these DBOLEs. It is important to note that there are no marks associated with these activities.

The four highly visible participants who were identified by their reading and writing behaviours as Avid Readers/Avid Writers felt that literacy skills and social practices were important to learning in a DBOLE and identified the following skills and practices as important to learning successfully:

- to communicate clearly;
- to thoughtfully consider other perspectives;
- to interact respectfully (kindly);
- to choose with whom to engage and build positive virtual relationships; and
• to be mindful of discussion time frames and to check in often in order to participate as if in a conversation.

These participants appeared to read many entries and were also able to create many entries while mindfully considering others’ perspectives and building respectful relationships.

The three participants who were identified by their reading and writing behaviours as Avid Readers/Moderate Writers also felt that literacy skills and social practices were important to learning in a DBOLE and identified the following skills and practices as important to learning successfully:

• to write clearly and concisely;
• to read with insight and comprehension;
• to keep course objectives and course readings in focus while engaging with others;
• to log in often; and
• to carefully read others’ entries in order to respond with care to avoid misunderstandings.

This group also appeared to read many entries written by others but were more selective about responses, perhaps posting less than the first group through careful composition of responses.

The seven participants who were identified by their reading and writing behaviours as Moderate Readers/Moderate Writers also felt literacy skills and social practices were important to learning in a DBOLE and identified the following skills and practices as important to successful learning:

• to write clearly, concisely, and coherently;
• to read well in English;
• to be mindful of length (not too long);
• to add to or extend the discussion;
• to like entries;
• to reread for clarification;
• to ask for clarification; and
• to refer to course readings and support ideas.

While some of the participants referred to the importance of discussion expectations that may or may not be commonly known, such as length of entry, connection to course readings, and time frames, it was important to most to be able to write concisely and to read to understand. These findings will be discussed in more detail in Chapter 5. Following this section are the results of the behaviour-related online questionnaire questions that support the above observations, referring to the participants by their participant numbers and names and seeking a deeper understanding of the attributes of entries that were important to revisit.

4.1.1 Online behaviours: Perceptions of skills or practices.

The 14 student participants were asked to rank, using a 5-point Likert scale (legend below), the importance of particular skills or abilities to successful online learning. Table 21 below illustrates the results.
Table 21

*Online Behaviours: Perception of the Importance of Skills or Practices to Successful Online Learning*

<table>
<thead>
<tr>
<th>Participant number and name</th>
<th>1 Ella</th>
<th>2 Danique</th>
<th>3 Oliva</th>
<th>4 Loretta</th>
<th>5 Deiter</th>
<th>6 Marlize</th>
<th>7 Jon</th>
<th>8 Samira</th>
<th>9 Hannah</th>
<th>10 Kai</th>
<th>11 Jackie</th>
<th>12 Mohammed</th>
<th>13 Megan</th>
<th>14 Karina</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding the meaning in other student’s discussion entries</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Being understood by other students through my discussion entries</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Being understood by the instructor through my discussion entries</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Being able to express my thoughts in a concise manner in discussion entries</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Responding to other students’ entries with clarifying questions</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Composing an entry that refers to the readings</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Composing an entry with an opinion that has not been expressed by others</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Being able to read every entry in a discussion</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Revisiting students’ entries to improve my understanding</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Revising my entries to clarify meaning</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Most interesting is that generally (except for Marlize #6) the group did not think that being able to read every entry in a discussion was very important. This was the behaviour choice with the lowest average (3.4). This opinion was reflected even in the first two cluster groups (highlighted in pink and blue) considered Avid Readers, where two of these participants felt it was somewhat unimportant to read every entry in a discussion. This suggests that the high levels of reading by some respondents were not driven by the belief that reading every entry was an expectation. Other than that exception, the remaining nine behaviours were generally considered somewhat or very important to successful online learning.

Ranking all but one of these ten online behaviours as very important is Samira (#8), who was not very visible in her course, most likely because she was very thoughtful about composing her entries and, therefore, contributed about half as many entries and fewer than half as many words than the course averages. She explained in her interview, “I would try to make my contributions as clear as possible, because in the written format, sometimes things could be misunderstood. So you want to be able to write as clear as possible, and that’s where the making connections to other people’s posts helps build on ideas that have been presented.” It was clear from Samira’s interview that by revisiting other students’ comments, she carefully composed her responses in order to meet her social responsibility to the community.
4.1.2 **Online behaviours: Importance of both abilities and interactions.**

The 14 student participants were asked to rank, using a 5-point Likert scale (legend below) the importance of particular abilities and interactions to successful online learning. Table 22 below illustrates the results.

Table 22

*Online Behaviours: Importance of Ability to Interact in Successful Online Learning*

<table>
<thead>
<tr>
<th>Participant number and name</th>
<th>1 Ella</th>
<th>2 Danique</th>
<th>3 Olivia</th>
<th>4 Loretta</th>
<th>5 Deiter</th>
<th>6 Marlize</th>
<th>7 Jon</th>
<th>8 Samira</th>
<th>9 Hannah</th>
<th>10 Kai</th>
<th>11 Jackie</th>
<th>12 Mohammed</th>
<th>13 Megan</th>
<th>14 Karina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being able to compose and post my thoughts in a discussion in a reasonable amount of time</td>
<td>4 4 5 4 5 5 4 5 5 5 4 5 5 4 4.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responding to other students’ entries favourably</td>
<td>4 3 5 3 2 5 2 5 4 5 4 3 3 5 3.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responding to other students’ entries with contrasting opinions</td>
<td>3 4 4 3 4 4 4 5 4 4 5 5 3 4 4.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composing an entry that refers to another student’s entry</td>
<td>4 5 4 5 4 5 3 5 5 5 4 5 4 4 4.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being comfortable choosing which students’ entries to read</td>
<td>1 3 5 4 3 4 5 4 4 5 4 4 5 4 3.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ranking legend</th>
<th>Colour legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Not important at all</td>
<td>Avid Readers/Avid Writers</td>
</tr>
<tr>
<td>2 Somewhat unimportant</td>
<td>Avid Readers/Moderate Writers</td>
</tr>
<tr>
<td>3 Neither</td>
<td>Moderate Readers/Moderate Writers</td>
</tr>
<tr>
<td>4 Somewhat important</td>
<td></td>
</tr>
<tr>
<td>5 Very important</td>
<td></td>
</tr>
</tbody>
</table>
Interestingly, Ella (#1), who read 2,248 entries, felt it was not at all important to be comfortable choosing which students’ entries to read, and Danique (#2) and Deiter (#5), both Avid Readers, felt neutral about the importance of this ability. Further, Deiter, who explained, “I’m not worried what other people think of me. Too many people are shackled by worries about what others will think of them if they do or say something,” and Jon (#7), who identified himself as a bit less collaborative in online learning environments, felt it was somewhat unimportant to have the ability to respond to other students’ entries favourably. Danique (#2), Loretta (#4) (both Avid Writers), Megan (#13), and Mohammed (#12) all felt neutral about the importance of this ability. As well, Ella (#1), Loretta (#4), and Megan (#13) were neutral to the importance of responding to other students’ entries with contrasting opinions. Only Jon felt neutral about composing an entry referring to another students’ entry.

4.1.3 Online behaviours: Importance of interactions to successful online learning.

The 14 student participants were asked to rank, using a 5-point Likert scale (legend below) the importance of particular interactions to successful online learning. Table 23 below illustrates the results.
Table 23

**Online Behaviours: Importance of Interaction to Successful Online Learning**

<table>
<thead>
<tr>
<th>Participant number and name</th>
<th>1 Ella</th>
<th>2 Danique</th>
<th>3 Oliva</th>
<th>4 Loreta</th>
<th>5 Deiter</th>
<th>6 Matrize</th>
<th>7 Jon</th>
<th>8 Samira</th>
<th>9 Hannah</th>
<th>10 Kai</th>
<th>11 Jackie</th>
<th>12 Mohammed</th>
<th>13 Megan</th>
<th>14 Karina</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building a sense of community with colleagues</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4.7</td>
</tr>
<tr>
<td>Understanding the intentions behind the instructor’s discussion entries</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4.5</td>
</tr>
<tr>
<td>Being able to help other students with their learning</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Being able to contribute to a discussion at the “right” time in the thread</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>4.4</td>
</tr>
<tr>
<td>Building relationships with other students</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Sharing personal background or insights into my personality</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3.4</td>
</tr>
<tr>
<td>Being comfortable when there are no responses to my entry</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Being socially responsible to the other students</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>-</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Being comfortable with students who post more than me</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Being comfortable in a busy discussion</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Revisiting students’ entries to develop or enhance relationships with other students</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Knowing who has read my entries</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3.5</td>
</tr>
</tbody>
</table>
Interestingly, Deiter (#5), who describes himself as self-confident and not concerned with what others think of him, confirmed his sense of strong confidence by being the only participant to choose *not important at all* to any of 12 importance-of-interaction statements. In fact, he ranked five out of 12 this way. The interactions not important at all to Deiter were *sharing personal background or insights into my personality, being comfortable when there are no responses to my entry, being comfortable with students who post more than me, revisiting students’ entries to develop or enhance relationships, and knowing who has read my entries.*

Contrasting Deiter’s views, Marlize (#6) (his wife) felt that these same five interactions were very or somewhat important to successful online learning.

Samira (#8), who was less visible in her course, was the only person who ranked every behaviour above the group average. She felt that all the interaction examples were very or somewhat important. Her thoughtful consideration of interacting with the students and building community in her course is affirmed by her interview comments where she explains that “you have to read other students’ work, it’s the only way to further the conversation or the discussion, and also build community.” (Samira, 2016, transcribed interview, p. 3)

4.1.4 **Point in course where participants felt comfortable.**

The 14 student participants were asked to explain at what point in the course they felt most comfortable reading other students’ entries to help with their understandings, and writing entries so that other students could learn from them. Table 24 below illustrates the results.

<table>
<thead>
<tr>
<th>Ranking legend</th>
<th>Colour legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Not important at all</td>
<td><strong>Avid Readers/Avid Writers</strong></td>
</tr>
<tr>
<td>2 Somewhat unimportant</td>
<td><strong>Avid Readers/Moderate Writers</strong></td>
</tr>
<tr>
<td>3 Neither</td>
<td><strong>Moderate Readers/Moderate Writers</strong></td>
</tr>
<tr>
<td>4 Somewhat important</td>
<td></td>
</tr>
<tr>
<td>5 Very important</td>
<td></td>
</tr>
</tbody>
</table>
Table 24

*Point in the Course Where Participants Felt Comfortable*

<table>
<thead>
<tr>
<th>Participant number and name</th>
<th>1 Ella</th>
<th>2 Danique</th>
<th>3 Olivia</th>
<th>4 Loretta</th>
<th>5 Deiter</th>
<th>6 Marlize</th>
<th>7 Jon</th>
<th>8 Samira</th>
<th>9 Hannah</th>
<th>10 Kai</th>
<th>11 Jackie</th>
<th>12 Mohammed</th>
<th>13 Megan</th>
<th>14 Karina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading other students’ entries to help with my understanding</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Writing my entries so other students could learn from them</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*Ranking legend*

1 From the start of the course
2 After observing postings by other students
3 After observing postings by the instructor
4 After a period of trial and error
5 Towards the end of the course
6 Never
7 Other

*Colour legend*

Avid Readers/Avid Writers
Avid Readers/Moderate Writers
Moderate Readers/Moderate Writers

Interestingly, three out of four Avid Readers/Avid Writers felt they were most comfortable reading other students’ entries to help with my understanding after a period of trial and error. Half of all the respondents were comfortable reading other students’ entries to help with my understanding and writing my entries so that other students could learn from them from the start of the course.

4.1.5 Reasons for revisiting entries

The participants in the survey were asked about what conditions or attributes may have influenced their revisiting an entry in the course. This series of questions was presented as a “select all that apply,” so reasons could have anywhere from zero to 14 selections. Table 25
below shows the total number of selections in the far right column indicating how many of the participants agreed that this statement applied to them.

Table 25

*Reasons for Revisiting Entries*

<table>
<thead>
<tr>
<th>Participant number and name</th>
<th>1 Ella</th>
<th>2 Danique</th>
<th>3 Oliva</th>
<th>4 Loretta</th>
<th>5 Deiter</th>
<th>6 Marlize</th>
<th>7 Jon</th>
<th>8 Samira</th>
<th>9 Hannah</th>
<th>10 Kai</th>
<th>11 Jackie</th>
<th>12 Mohammed</th>
<th>13 Megan</th>
<th>14 Karina</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>It added a perspective on something I was having difficulty with</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>12</td>
</tr>
<tr>
<td>It was helpful to my learning</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>12</td>
</tr>
<tr>
<td>In order to provide a link to it in one of my posts</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>11</td>
</tr>
<tr>
<td>It contained resources that I found helpful</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>10</td>
</tr>
<tr>
<td>I was notified that a link to one of my entries was in a posting</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>8</td>
</tr>
<tr>
<td>To find a model for something I was trying to do</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>5</td>
</tr>
<tr>
<td>It was important to remember details about other students</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>5</td>
</tr>
<tr>
<td>I was partnered with a student and had to read their entries</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>4</td>
</tr>
<tr>
<td>It looked like a new posting, but I had read an earlier version</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>3</td>
</tr>
<tr>
<td>It was important in order to fit in</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>2</td>
</tr>
</tbody>
</table>
The two statements *It was helpful to my learning* and *It added a perspective on something I was having difficulty with* were the most frequently selected reasons for revisiting entries. A significant majority of participants selected *In order to provide a link to it in one of my posts, It contained resources that I found helpful, and I was notified that a link to one of my entries was in a posting*. *Social pressure to “fit in”* was the least frequently selected reason. Notably, only Marlize (#6) and Loretta (#4) felt revisiting entries was socially driven as *important to fit in*.

**4.1.6 Primary reasons for revisiting student notes.**

Table 26 details data from the open-ended survey question identifying respondents’ primary reasons for revisiting/rereading previously read entries created by other students (see Appendix C). The right-hand column summarizes the quote in order to better understand the reasons as they provide insight into revisiting as a social practice that is important to learning.

Table 26

*Primary Reason for Revisiting (Open-Ended Online Interview Question 9)*

<table>
<thead>
<tr>
<th>Reason for revisiting response (participant #)</th>
<th>Summary re: social practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>A student was reiterating a point/quote mentioned by one of the authors in a reading that greatly influenced my thinking and understanding. I wanted to quickly revisit the quote to include it in my research paper. The quote was: “Intelligence is accomplished rather than possessed” –Pea. (Ella #1) To revisit arguments or ideas that I could draw and engage with going forward. To clarify in my own mind what was meant. (Danique #2) To ensure I wasn’t repeating information that was already posted. To review relevant and important ideas that helped with my understanding of the content. (Oliva #3) Often it was for journal posts, clarification, or to link two conversations. RE: Who has read my note. I found it more important to know who liked it. (Loretta #4) I tried to get a better understanding of what the students meant. In many cases it was after reading other comments or thinking about what the student said. (Deiter #5)</td>
<td>Quote influenced understanding For clarification Building on Understanding; Ensuring socially correct response Clarification or building on understanding Clarification of student point</td>
</tr>
<tr>
<td>Reason for revisiting response (participant #)</td>
<td>Summary re: social practice</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>To ensure I understand the student’s point of view or because they clarified a point that I found challenging. (Marlize #6)</td>
<td>Understanding a students’ point of view</td>
</tr>
<tr>
<td>To make connections with current learning or to cite them in an ongoing conversation. (Jon #7)</td>
<td>Connections or socially inclusive</td>
</tr>
<tr>
<td>To refresh my overall understanding of the conversation and to make sure I didn’t repeat something already said. (Karina #14)</td>
<td>Ensuring socially correct response; Building on understanding</td>
</tr>
<tr>
<td>For better understanding/comprehension. (Hannah #9)</td>
<td>Building on understanding</td>
</tr>
<tr>
<td>Usually when a fellow student referenced a resource or tool of interest that was not included in the course materials. (Jackie #11)</td>
<td>Building on understanding</td>
</tr>
<tr>
<td>Once I gained a better understanding of a topic, I reread other people’s posts to better appreciate their post or point of view. (Kai #10)</td>
<td>To appreciate others’ POV</td>
</tr>
<tr>
<td>If there was a contentious issue, I would reread to see if I had previously misunderstood the message or the tone. Or if the conversation was going in a direction that was different than how I had envisioned it, I would re-read to see where the departure was. I think I mostly re-read posts when there was an error or misinterpretation of something. I would double or triple check to try and find out if and how my classmate had misunderstood something. And check that I hadn’t misunderstood it. (Megan #13)</td>
<td>For understanding</td>
</tr>
<tr>
<td>Referring to discussions as part of writing a learning journal. (Mohammed #12)</td>
<td>Procedural</td>
</tr>
<tr>
<td>Clarification of ideas; connecting ideas with readings; building on ideas. (Samira #8)</td>
<td>Clarification</td>
</tr>
</tbody>
</table>

As is evident from Table 26, some respondents explained that the reason for revisiting an entry was for clarification. As a social practice, this would be important to participating in a DBOLE, since revisiting is available at any time—allowing the student to review entries they had read before, in order to better understand. Some respondents note that revisiting was an important step before responding, to avoid repeating something that had already been said or to correctly cite something in a quote. Another important reason to revisit was to build on an understanding. Revisiting is a social practice that does not have a face-to-face equivalent.
### Types of Student-Generated Notes Likely to be Revisited

Table 27 details the type of student-generated notes respondents were likely to revisit as responses to an open-ended question (see Appendix C). The right-hand column summarizes the quote.

Table 27

**Types of Notes Likely to be Revisited (Open-Ended Online Interview Question 11)**

<table>
<thead>
<tr>
<th>Type of entry revisited response (participant #)</th>
<th>Summary re: social practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ones containing quotations, synthesized or summarized ideas from assigned readings, especially lengthier articles. (Ella #1)</td>
<td>Lengthy articles containing relevant information.</td>
</tr>
<tr>
<td>Helpful notes with useful resources. Well thought-out notes. Well-composed notes. Notes with excellent connections to the research. (Oliva #3)</td>
<td>Useful resources; thoughtful; well-composed</td>
</tr>
<tr>
<td>Notes that made me think. Notes that introduced a new idea to the discussion or a personal experience/example. (Loretta #4)</td>
<td>Provoking; new idea; personal example</td>
</tr>
<tr>
<td>Notes that are insightful and show a deeper understanding of the topic. Also notes that contain information or links that I was not aware of. (Deiter #5)</td>
<td>Insightful; deep understandings; resources</td>
</tr>
<tr>
<td>If a student clarified a topic, added resources or if the student had a different point of view. (Marlize #6)</td>
<td>Clarification; resources; different POV</td>
</tr>
<tr>
<td>Succinct, connected with readings and personal experience, insightful. (Jon #7)</td>
<td>Succinct; personal example; insightful</td>
</tr>
<tr>
<td>The ones that summarized what others had said or asked questions to further the discussion. Also, I re-read posts a few times if I intend to respond to them. (Karina #14)</td>
<td>Summarizing or questioning; to plan response</td>
</tr>
<tr>
<td>Opinions I don't understand or agree with, and after re-reading my readings and then going back to the posting. (Hannah #9)</td>
<td>Provoking</td>
</tr>
<tr>
<td>If the discussion forum activity: included an assessed response to a student-generated note; contained a link/resource not included in course materials; contained questions that I could provide personal insight into. (Jackie #11)</td>
<td>Questioning; resource; assessed response</td>
</tr>
<tr>
<td>Explaining a difficult concept from course materials by using real-world examples, often from the person’s own experience, or one that simplifies concepts by using more novice-friendly language. (Kai #10)</td>
<td>Example; well-written for understanding</td>
</tr>
<tr>
<td>Those with resources; Posts from students I have identified as “getting it” and therefore good role models; Anything I’m responding to. (Megan #13)</td>
<td>Well-written for understanding; resource; to respond</td>
</tr>
<tr>
<td>Clearly written; Followed writing model that instructor provided; Assisted with assessment; Build on ideas. (Samira #8)</td>
<td>Well written; clarifying or building on course content</td>
</tr>
</tbody>
</table>
The types of entries that participants would revisit contained a few generally consistent features. Students returned to other student’s entries to find resources, to seek a deeper understanding, to clarify or build on their understandings, or to engage with examples, questions, or thought-provoking content. Well-written responses were often mentioned as important to revisit. In thinking of a face-to-face equivalent, returning to these types of notes appears to be a new practice to further understanding since typically one would not replay a students’ comments containing similar content once they had been stated—and not multiple times.

4.1.8 Other information to add to understanding revisiting.

Respondents were asked, through an open-ended question, to add any information, based on their own experiences, which may help further understanding the importance of revisiting or rereading notes to successful online learning. Table 28 below details the results (see Appendix C). The right-hand column summarizes the quote.

Table 28

<table>
<thead>
<tr>
<th>Open End Responses to Other Revisiting Information (Online Interview Question 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Response (participant #)</strong></td>
</tr>
<tr>
<td>I believe revisiting students’ entries helps to reinforce concepts read about and discussed. It adds different perspectives and changes my overall outlook, which in turn gives me a broader toolkit from which to choose. (Ella #1)</td>
</tr>
<tr>
<td>I found that liking notes made it easier to revisit. I also found the ability to link between discussions made it more relevant to revisit and reread the notes of others. Getting a message to tell me that there was a link also encouraged me to go back and revisit or reread the posts of those that liked my post or linked to my post. (Loretta #4)</td>
</tr>
<tr>
<td>It is not always possible to get full value from another student’s post immediately. It sometimes helps to “digest” what the student wrote and think about it for a day or two and then to go back and reread it again for a better perspective. It is important to have enough time built into the course to do this. (Deiter #5)</td>
</tr>
<tr>
<td>Response (participant #)</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Being able to go back and re-read the notes is helpful to me because I can think about</td>
</tr>
<tr>
<td>the ideas other students post, and either agree and add resources or ask challenging</td>
</tr>
<tr>
<td>questions related to other articles I have read to be able to open up the discussion.</td>
</tr>
<tr>
<td>By being able to re-read a post, it makes it easier to follow the different threads and</td>
</tr>
<tr>
<td>keep your thoughts about you. With a lot of posts it is easy to get lost in the online</td>
</tr>
<tr>
<td>posting game. (Marlize #6)</td>
</tr>
<tr>
<td>The metacognitive investigation of a growth in understanding—of self and others. (Jon</td>
</tr>
<tr>
<td>#7)</td>
</tr>
<tr>
<td>Clarity. Reflection. And looking back after completing the course. (Hannah #9)</td>
</tr>
<tr>
<td>It would be nice to be able to archive some of the information that is posted within a</td>
</tr>
<tr>
<td>class discussion forum without having to revisit or reread. (Jackie #11)</td>
</tr>
<tr>
<td>Followed writing model that instructor provided; Assisted with assessment; Build on idea;</td>
</tr>
<tr>
<td>link to ideas to further discussion. (Samira #8)</td>
</tr>
</tbody>
</table>

Common themes related to the importance of revisiting are similar to the previous responses noting that revisiting is important to clarify, to better understand, and to participate.

These responses support the notion that revisiting is an important social practice to participating in a DBOLE for many reasons related to understanding and participating.

**4.1.9 Summary of the importance of revisiting.**

Building onto the observations related to qualities/abilities important to successful online learning and the summary of 14 participants’ activities are the responses related to revisiting.

The reasons for revisiting that were identified by the 14 participants were highly focused on clarifying, building on understanding, and ensuring a socially correct response. As well, the participants explained that the notes that were revisited were well written, insightful, clarifying, summarizing, provoking, questioning, or contained resources. As well, some students preferred entries that contained personal examples. It would seem that the social connection was important
to students’ learning experiences with a common thread throughout the responses that the participants in this study are learning from each other.

**4.1.10 Activities by reading and writing clusters.**

As explained earlier, students were grouped into three sets of participants according to their writing and reading activities. These groupings were intended to provide descriptive trends commonly found among participants in each group that could add to our understanding of DBOLE practices. Table 29 describes the activity of revisiting student and teacher entries and the average time online by cluster groupings.

| Table 29

*Revisiting Activity Clusters in Relation to Hours Online*

<table>
<thead>
<tr>
<th>Cluster</th>
<th>% of total student entries</th>
<th>% of total teacher entries</th>
<th>Hours online</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (Min) (Max)</td>
<td>M (Min) (Max)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>1 Avid Readers/Avid Writers</td>
<td>30.7 10.7 78.4</td>
<td>45.7 23.8 79.8</td>
<td>89 (31)</td>
</tr>
<tr>
<td>2 Avid Readers/Moderate Writers</td>
<td>23.1 8.1 44.1</td>
<td>36.3 20.6 55.1</td>
<td>73 (31)</td>
</tr>
<tr>
<td>3 Moderate Readers/Moderate Writers</td>
<td>11.6 2.5 25.5</td>
<td>25.5 8.4 48.4</td>
<td>47 (21)</td>
</tr>
</tbody>
</table>

Not surprisingly, those belonging to the group of Moderate Readers/Moderate Writers appear to typically spend fewer hours online (M = 47) than the other groups (Table 29). As well, Moderate Readers/Moderate Writers would generally reread fewer student entries and fewer teacher entries.

The ratio of student notes reread to teacher notes reread for Moderate Readers/Moderate Writers is higher at 1:2.2 compared to 1:1.6 for the Avid Readers/Moderate Writers and 1:1.5 for the Avid Readers/Avid Writers, meaning that Moderate Readers/Moderate Writers read more teacher entries in proportion to other student notes. To establish the significance of the differences of means as reported in Table 29, an ANOVA was considered. However, Levene’s
Test of Homogeneity reported that the data violated the assumption of equal variances. The Dunnet-C post hoc test is tolerant of the lack of homogeneity of variance among the dependent variables. Table 30 (below) illustrates the results of the Dunnet-C post hoc test on a comparison of means among cluster groups by hours online, percent of total teacher entries revisited, percent of total student entries revisited and percent of student notes written.

Table 30

*Differences between Cluster Means with Writing and Revisiting and Time Online*

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Cluster</th>
<th>Avid Readers</th>
<th>Avid Writers</th>
<th>Mod Readers</th>
<th>Mod Writers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SE</td>
<td>M</td>
<td>SE</td>
</tr>
<tr>
<td>Hours Online</td>
<td>1 Avid Readers/Avid Writers</td>
<td>-</td>
<td></td>
<td>15.8</td>
<td>7.446</td>
</tr>
<tr>
<td></td>
<td>2 Avid Readers/Moderate Writers</td>
<td>-15.8</td>
<td>7.446</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Moderate Readers/Moderate Writers</td>
<td>-42.4*</td>
<td>6.122</td>
<td>-26.6*</td>
<td>5.559</td>
</tr>
<tr>
<td>% of Total Teacher Entries Revisited</td>
<td>1 Avid Readers/Avid Writers</td>
<td>-9.3*</td>
<td>2.911</td>
<td>9.3*</td>
<td>2.911</td>
</tr>
<tr>
<td></td>
<td>2 Avid Readers/Moderate Writers</td>
<td>-20.1*</td>
<td>2.803</td>
<td>-10.8*</td>
<td>1.699</td>
</tr>
<tr>
<td></td>
<td>3 Moderate Readers/Moderate Writers</td>
<td>-19.1*</td>
<td>2.994</td>
<td>-11.5*</td>
<td>1.484</td>
</tr>
<tr>
<td>% of Total Student Entries Revisited</td>
<td>1 Avid Readers/Avid Writers</td>
<td>-7.6</td>
<td>3.209</td>
<td>7.6</td>
<td>3.209</td>
</tr>
<tr>
<td></td>
<td>2 Avid Readers/Moderate Writers</td>
<td>-19.1*</td>
<td>2.994</td>
<td>-11.5*</td>
<td>1.484</td>
</tr>
<tr>
<td></td>
<td>3 Moderate Readers/Moderate Writers</td>
<td>-19.1*</td>
<td>2.994</td>
<td>-11.5*</td>
<td>1.484</td>
</tr>
<tr>
<td>% of Student Notes Written</td>
<td>1 Avid Readers/Avid Writers</td>
<td>-5.7*</td>
<td>0.528</td>
<td>5.7*</td>
<td>0.528</td>
</tr>
<tr>
<td></td>
<td>2 Avid Readers/Moderate Writers</td>
<td>-5.7</td>
<td>0.528</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Moderate Readers/Moderate Writers</td>
<td>-5.7*</td>
<td>0.531</td>
<td>-0.1</td>
<td>0.325</td>
</tr>
</tbody>
</table>

* Dunnet-C Post hoc test: The mean difference is significant at the 0.05 level.

As confirmed by the Dunnet-C post hoc test, the Moderate Readers/Moderate Writers spent, on average, 42 fewer hours online than the Avid Readers/Avid Writers, and 16 fewer hours online than the Avid Readers/Moderate Writers. This table also shows there is a difference in the means between percent of total teacher entries revisited by Moderate Readers/Moderate Writers compared to the Avid Readers/Avid Writers (-20.1%) and to the Avid Readers/Moderate Writers (-10.8%).

4.1.11 Summary of participant reading, revisiting, and rereading data.
Both the quantitative and qualitative data illustrate that reading and rereading are important activities in a DBOLE. The participants’ perceptions allow us to better understand the thinking that underlies these activities. It is clear that there are a variety of purposes for revisiting an entry. Revisiting is a practice that does not have a face-to-face equivalent. For this reason, we may not have a deep understanding of the importance of this practice and what it means to student’s discussions in online classrooms. In thinking of revisiting as a social practice in a DBOLE, participants have stated that revisiting is important to social participation. As well, participants have noted that in various ways, the practice of revisiting deepens their understandings and benefits their learning. Literacy practices intended to support communication to deepen understandings are considered social practices. As mentioned in the Literature Review, section 2.12, Lankshear and Knobel (2004) encourage researchers to better understand “contemporary practices in their own right, on their own terms, and so far as possible, from the perspective of insiders to those practices “(pp. 2–3). The possible implications of these findings will be discussed in Chapter 5.
4.2 Study Two: An Instructor’s Perspectives of Supportive Elements in a DBOLE

... if people are feeling hurt and offended, they’re not listening and they’re not engaging, and if people don’t trust each other, they’re not going to be willing to be vulnerable and share what they don’t know. And if they don’t do that, then they don’t learn. So, it’s all part of having a respectful place for everybody to engage in. (Alana, 2016, transcribed interview, p. 6)

4.2.0 Research objective and question related to Alana’s perceptions.

The research objective related to the second in this series of studies is to document an instructor’s perceptions of supporting learners and the social practices that may be important to learners in a DBOLE. The pseudonym assigned to the instructor is Alana. The research question being addressed is: How does an online learning instructor support learners and the social practices that may be important to student learning in a DBOLE?

4.2.1 Background on Alana’s activities in eight courses based on Pepper data.

According to my field notes and observations, Alana is an active instructor who is skilled at promoting online learning discussions for the benefit of learning. She is genuinely interested in ensuring her online classroom is inclusive to all students, regardless of whether they have had online learning experience or not (interview). Alana reports that she is a reflective practitioner who tries to understand online learners’ behaviours, even those that she does not anticipate, and to assist if she can (interview). Her biographical entry indicates that she has been “teaching since the 1980’s! and [has] taught online for over a decade, as well as [spent] many years in classrooms working with teachers integrating technology into their teaching” (intro, DB 8). In the introductory video of DB 8, she reinforces for the course participants not to worry, that “we will all be in this together and try to figure out where we are” (1:30). Four of the courses listed
below were based on the same course code and teaching topic of Constructivist Theory: DB 2, DB 3, DB 6, and DB 7. According to her interview, it is important to Alana to “set up a space where people feel comfortable” (Alana, 2016, transcribed interview, p. 1), “take risks” (p. 2) and “feel safe” (p. 3). Alana’s activities illustrated below indicate that she was very active with her time online and frequently logs on to all courses (see Table 31).

Table 31

<table>
<thead>
<tr>
<th>Instructor Activity by Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database number</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

While replies received is less useful as an indicator, since some students prefer to create a reply instead of a new note, it is useful to see that Alana was highly engaged by writing many notes and words and replying to her students.

4.2.2 Social practice activities in Alana’s courses.

The activities noted to be intentionally included in the learning environment by Alana in the courses focusing on Constructivist Theory (DB 2, DB 3, DB 6, and DB 7) are documented as follows. Table 32 below indicates the items designed to be included in the learning environment, the item’s intended activity or social practice, and the level of visibility of the activity or social practice. While the level of visibility is not necessarily either completely hidden or completely visible to others, since there are degrees of hidden or visible activities, the category assigned to the activity is one that is generally true. For example, it is possible, as a student, to see who has
read my entries if I look for that information in each individual entry. However, I cannot see how often that student opened my entry. As well, there is no easily accessible count for a student to see the total number of notes they read or revisited, but the instructor can generate system administration reports that will provide these numbers if needed. In order to identify highly revisited entries, an extraction tool that is available to some researchers but is not accessible to all instructors would be required. One important point related to the hidden/visible column is that hidden social practices may be underappreciated by the instructor, the student enacting the practice, and other students, because they are not easily seen. It may be, however, that these practices are important to student learning and should be more highly valued.
## Table 32

### Course DB 3 Activities Framework Set Up by Instructor Alana

<table>
<thead>
<tr>
<th>Item intentionally included in learning environment</th>
<th>Function/event: To …</th>
<th>Leads to a student activity that is …</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Start Here” instructions</strong></td>
<td>Read course materials (course outline, assignment descriptions, expectations, etc.)</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Create introductory entry on background, learning goals, and interests</td>
<td>Visible</td>
</tr>
<tr>
<td></td>
<td>Read other students’ entries.</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Reply to “intro” entries in the course</td>
<td>Visible</td>
</tr>
<tr>
<td></td>
<td>Create links to other entries</td>
<td>Visible/Hidden</td>
</tr>
<tr>
<td></td>
<td>Ask questions in a public group discussion space</td>
<td>Visible</td>
</tr>
<tr>
<td></td>
<td>Start and maintain activities in various folders such as learning journal (min. of 6 entries)</td>
<td>Visible</td>
</tr>
<tr>
<td><strong>Intro video</strong></td>
<td>Watch</td>
<td>Hidden</td>
</tr>
<tr>
<td><strong>Admin folders</strong></td>
<td>Read announcements related to course</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Read guidelines for online contributions</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Read Conceptual Overview of course guidelines</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Read Weekly moderation guidelines</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Know about questions and practice spaces</td>
<td>Visible/Hidden</td>
</tr>
<tr>
<td><strong>Weekly video recap</strong></td>
<td>Watch/revisit</td>
<td>Hidden</td>
</tr>
<tr>
<td><strong>Discussion by week</strong></td>
<td>Weekly moderators (2 different students each week) post questions related to readings and weekly topics</td>
<td>Visible</td>
</tr>
<tr>
<td></td>
<td>Post entries</td>
<td>Visible</td>
</tr>
<tr>
<td></td>
<td>Read/others’ entries</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Revisit other students’ entries</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Read/revisit instructor entries</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Post private entries</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Send private messages</td>
<td>Hidden</td>
</tr>
<tr>
<td><strong>Learning journals</strong></td>
<td>Post emergent understandings (min. of 6 entries)</td>
<td>Visible</td>
</tr>
<tr>
<td></td>
<td>Read/revisit others’ learning journals</td>
<td>Hidden</td>
</tr>
<tr>
<td><strong>Learning theories</strong></td>
<td>Post beginning and ending entries</td>
<td>Visible</td>
</tr>
<tr>
<td></td>
<td>Read/revisit others’ entries</td>
<td>Hidden</td>
</tr>
<tr>
<td><strong>Introductions</strong></td>
<td>Post initial entry</td>
<td>Visible</td>
</tr>
<tr>
<td></td>
<td>Read/revisit others’ entries</td>
<td>Hidden</td>
</tr>
<tr>
<td></td>
<td>Reply to others’ entries</td>
<td>Visible</td>
</tr>
</tbody>
</table>
Table 32 illustrates that there are many activities that occur regularly and sometimes weekly that are not visible but that are important to student learning. Participants have referred to the importance of some of these activities in their interviews and online responses (see Study One).

Quantitative data previously gathered from these courses provide further information related to participant entries and some indicators of visible and hidden instructor practices by course (see Table 33). For example, the number of instructor entries range from 172 to 287 entries (these are visible to the participants). The average number of times a student revisited an instructor entry ranges from 4.1 to 6.9 (this activity is hidden from participants). The number of revisits of instructor entries by students is a count of any note that is opened by one participant twice or more, regardless of whether they are opened twice or many times.

Table 33

*Indicators of Some Visible (Entries) and Hidden (Reads and Revisits) Practices*

<table>
<thead>
<tr>
<th>Course</th>
<th>No. of students</th>
<th>Total student entries</th>
<th>Total instructor entries</th>
<th>Student notes read by instructor</th>
<th>Avg. # of times students revisited an instructor entry</th>
<th># of revisits of instructor entries by students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14</td>
<td>1,508</td>
<td>200</td>
<td>1,062</td>
<td>5.0</td>
<td>1,090</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>1,343</td>
<td>172</td>
<td>1,143</td>
<td>4.8</td>
<td>1,031</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>1,271</td>
<td>190</td>
<td>1,081</td>
<td>6.9</td>
<td>1,394</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>1,112</td>
<td>191</td>
<td>971</td>
<td>6.2</td>
<td>1,181</td>
</tr>
<tr>
<td>5</td>
<td>17</td>
<td>1,485</td>
<td>229</td>
<td>1,299</td>
<td>4.6</td>
<td>1,376</td>
</tr>
<tr>
<td>6</td>
<td>19</td>
<td>2,002</td>
<td>237</td>
<td>1,308</td>
<td>5.4</td>
<td>1,155</td>
</tr>
<tr>
<td>7</td>
<td>24</td>
<td>2,069</td>
<td>287</td>
<td>1,852</td>
<td>4.1</td>
<td>1,643</td>
</tr>
<tr>
<td>8</td>
<td>15</td>
<td>1,215</td>
<td>243</td>
<td>1,111</td>
<td>4.9</td>
<td>1,147</td>
</tr>
</tbody>
</table>

*aMean number of times a reread entry was reopened by a student.

*bRevisited entries are counted once if they are opened twice or more by one participant, regardless of whether they are opened twice or many times.*
4.2.3 Interview themes.

In reviewing the interview transcript, I highlighted important points and categories and then linked these with the themes so that I could look for patterns or comparatives. The themes that stood out were:

1. Social practices are complex, eclectic, visible, and invisible; everything is social, related to reading, rereading, replying, traces of online activities, compared to face-to-face, appropriate, and respectful.
2. Social practice examples: videos to gain an emotional connection, peer discussion.
3. Social practices as important to learning: mechanism that motivates and engages, recognition.
4. Norms, rules of engagement, experience levels.
5. Learning environment comfortable, safe, inclusive, awareness of diversity, based on instructor practice, representation, watchful observation.
6. Researcher/participant co-construction of knowledge, listening, confirming, clarifying.
8. Participation, activities, artifacts.

4.2.4 Development of understandings of social practices in online learning.

I realized during the interview that the distinction between social practices and literacy practices is not straightforward or useful as a dichotomy. As well, the participant, at times, illustrated what is apparent from the Literature Review in section 2.6.7, that a clear understanding of literacy practices is difficult because the concept is very contextual and evolving. Literacy practices are inferred and not visible (Barton & Hamilton, 1998/2012; Street, 2003). As referenced earlier,
Tierney (2013) cautions that this area of research requires an embracing of ideas but is complicated by silos of perspectives, making situated and subjective understandings difficult to express as simple either/or constructions. For the purposes of this analysis, the focus is on social practices important to learning. Social practices are interactions or expected behaviours of student participation. Social practices are clearly important to successful learning online, according to Alana, because they are so closely tied to interaction and communication, two key components of online learning discussions.

The instructor was forthcoming with her understandings and examples of observed practices with descriptions of those she facilitated, such as video summaries. While there were no direct conclusions, my question was addressed through the interview and the analysis. The participants’ and researcher’s perspectives of DBOLE practices from a new literacies lens embodies what is referred to as a “let’s see” approach by new literacies researchers Lankshear and Knobel (2013). This approach encourages an investigation without an a priori perspective of the social practices that are important to learning in a DBOLE. This is an important approach to an in-depth uncovering of practices from insiders’ views. It is this understanding of the relationships between texts and practices from experienced perspectives that allows for a new literacies view of the practices in a DBOLE. For example, there may be practices in online learning environments that do not have a face-to-face comparable practice and therefore need to be documented and examined in order to be understood. From this new perspective, conventional conceptions of interactions may be challenged and questioned, and as this happens through this examination, there are points of questioning and rationalizing that support the development of a deeper understanding.
This research complements the conventional perspectives of online learning interactions by adding consideration of the complex view of new literacies practices (Lankshear & Knobel, 2013, p. 6). Cazden (2001) observed the differences between face-to-face classroom discussions and online classroom discussions, where “electronic discussions pursued ‘multiple threads’ rather than only one at a time. In other words, the criterion of relevance for any comment shifted to the class material as a whole; that is, it was not limited to the immediately preceding talk” (pp. 128–129). In addition, Cazden observed in the online discussion being studied, that “students gave longer, and more thoughtful, answers to questions; teacher evaluations were almost totally absent; and students received more comments from their peers” (p. 129). In her study of classroom discourse, Cazden refers to speech as uniting the cognitive and the social and clarifies that her studies of classroom discussions are studies not of the cognitive but of “situated language use in one social setting” (pp. 2–3). She draws on an eclectic variety of theories and frameworks, including touching on applied linguistics, in her study of classroom communications. Her documentation of her exploration and findings serves to set an example of such an exploration in DBOLEs.

This is a journey towards understanding social practices and their implications in a DBOLE. This interview is a building block to that understanding. As mentioned earlier, this interpretive perspective is intended to broaden our understanding of the issues and not to propose an explanation or conclusion.

An emphasis on Alana’s authentic questioning and spontaneous thoughts about the mixture of these diverse perspectives is intended to highlight the necessary questioning and rethinking that must be applied by all who are seeking to deeply understand the implications of these social practice views. Alana is helpful in illustrating these complexities with her off-the-
cuff answers, but the real point to be made is that these perspectives are exploratory and may represent a new and potentially valuable way of thinking about learning in a DBOLE.

4.2.5 Social practices as addressed by Alana.

Since this theme was so important to this study, I have focused on Alana’s interview responses related to her understanding of these elements, as listed in themes one to three above.

4.2.5.0 Social practices described as complex and eclectic.

Alana explained that social practices in online learning discussions are complex and eclectic. For example, in one course, Alana “found the students took up the social aspects of the course very differently than the other students in some of [her] other courses” (p. 4). In line with Purcell-Gates’s (2010a) emphasis on the importance of contextualized and descriptive research as influenced by participants, Alana’s description of social practices in these DBOLEs are influenced by the contexts and participants of each course. Alana explains that for her, “some of the social aspects of what goes on in these courses is really the way we all interact with one another. And that’s very much affected by the students … the particular group of students’ own prior experiences with online learning and with learning in general and what they think learning is” (Alana, 2016, transcribed interview, p. 25).

Alana’s approach to expectations of online learning participation includes her intentional refusal “to give people a precise number of notes that they have to complete each week, which [she] know[s] is very irritating to certain kinds of groups who have been used to producing for an instructor in a particular way” (p. 9). Alana explains that “the onus goes back on them … they have to engage enough to have a sense of what feels right to them” (Alana, 2016, transcribed interview, p. 9). Further, she says, “I’m trying to kind of force or encourage a particular sort of
way of understanding in this social process, which we call a course, through the activities that I engage in” (Alana, 2016, transcribed interview, p. 9).

4.2.5.1 Social practices related to the 3 Rs as compared to face-to-face classrooms.

As Kelder (1996) and Street (1995) point out, literacy is an activity, and social practices relate to reading and writing in many contexts. Alana outlines her perspectives in the DBOLE context. She points out that, when considering social practices,

- there’s a bunch that other people can see, like how you do your note titles,
- whether you indent your replies and whether you put them in the right place, and
- see the threads of conversations continuing and deepening. But then there are
  other things like rereading and reading which aren’t visible and yet are
  extremely important. (Alana, 2016, transcribed interview, pp. 16–17)

Alana further explains that

- reading is very important for being able to respond well, because if you don’t
  really read what somebody else has written, your response to that is just like
  listening and talking, right? You have to listen to the other person in your
  conversation, or you’re just saying things yourself … it’s like a monologue, not a
  dialogue. (Alana, 2016, transcribed interview, pp. 17–18)

Alana likens reading to listening in a face-to-face class as “part of the learning process … in these discussion-rich courses” (Alana, 2016, transcribed interview, p. 18). Furthermore, Alana believes online students “don’t just learn by discussion. They learn by reading, and reading offline, too, and reading other things, and I have no record of that, so it’s not easy to see that. So, it’s certainly a limited record, but it’s more than you get in a face-to-face course. So in that sense it’s kind of interesting” (p. 11). In this study, this could be particularly true, as Dieter #5 and
Marlize #6 would likely have had offline discussions in their home that would not have been visible to the online community or to Alana.

Related to social consequences, there is not the same access to rereading in a face-to-face class, “because you can’t look at the trace of your conversation” (Alana, 2016, transcribed interview, p. 19). For example, Alana explained that participants in a DBOLE are afforded the opportunity to read through all of the different notes … in a thread or even the first one [they’re thinking of replying to, then [they] look through the rest of the thread because [they] want to make sure that somebody else hasn’t said [this] idea too. And then [they] might go over again just to make sure that [they’ve] understood what it is … and then that in turn comes back to [their] response later. (Alana, 2016, transcribed interview, p. 19)

Again, comparing DBOLEs to face-to-face classrooms, typical online learning participation models assume that evidence of learning will be or must be apparent in the entries posted by students (Swan, Shen, & Hiltz, 2006). Alana proposes that some students may do all that work, all that rereading, all that thinking, and then [they’re] not even going to put anything into the conference. I’m going to go to a class, to a face-to-face class, or I’m going to have a conversation with somebody else and I kind of put those ideas together and come to an understanding, or an advance in my understanding, or something, or even come out with a question, which I can then choose to ask in that conference, or not. So, in the end, it makes it particularly tricky because we don’t really understand how those practices always lead back But it’s also very hard to say precisely how these things contribute to learning in a face-to-face class. Again, you use the performance part, you use what was the final paper, like, or how did they draw this, or they went off and did this different activity. So linking these kind of back to learning is always very tricky. (Alana, 2016, transcribed interview, p. 20)

Further to this, Alana explains that “you just make an assumption in a way that everything that a student does online is part of their engagement. And so it doesn’t matter
whether other people can see them or not. They’re part of how they navigate this particular kind of space” (Alana, 2016, transcribed interview, p. 20). Alana’s explanations help to illustrate that social practices, and identifying practices important to learning in online learning, are complex.

4.2.5.2 Social practices as appropriate and respectful.

Alana is mindful of participants’ comfort levels. She explains that “the reason for feeling comfortable is so that we can have a productive conversation. So I just don’t want to force people into either disclosing or talking about things that they don’t feel able to do” (Alana, 2016, transcribed interview, p. 32).

Alana specifically acknowledges the importance of practices that support “being respectful of people, and being aware that people come from different places, they come with different expectations and experience” (Alana, 2016, transcribed interview, p. 27). The course biographies and the interactivity with these are important components of Alana’s online courses. She explains that she wants them to actually read each others’ [posts] and talk to each other, because I want them to have an awareness of the diversity of the class, the diversity in every sense … culturally, gender, background, you know, language, everything, so that people are kind of attuned to being respectful and thoughtful and recognizing … that people aren’t going to necessarily have the same set of understandings as we kind of go through the course. And that’s a very concrete way to kind of start that process. (Alana, 2016, transcribed interview, p. 27)

Further, in addition to referring to this in her video summaries, Alana specifically states:

It’s important to note that you come into this course from diverse, plurilingual cultural backgrounds. You may also be positioned within different educational employment backgrounds and trajectories, as well as academic programs and streams. And the demographics of this class represent varied diverse interests and needs. We acknowledge the strengths that each student brings to the course and respect the diversity of interests so we may work collaboratively and promote success for everyone, creating a safe and balanced learning community where we can all learn from one another. (Alana, 2016, transcribed interview, p. 28)
Related to this, Cazden’s (2001) explanation of her research on classroom discourse emphasizes that “noncognitive aspects of underlying interpersonal relationships—affective aspects—are no less important” (p. 78) for learning. She notes that even in “nontraditional classrooms, where interactions are deemed so important, mention of affective qualities of the learning environment are hard to find” (p. 78). Cazden explains that “trusting relationships undoubtedly take many forms, including the shared enjoyment of humor, depending on both individual and cultural histories and preferences” (p. 78). Further, it is trust in the learning environment and those that scaffold learning that is key to learning (p. 78). Alana most certainly intentionally designs an online classroom intended to promote this level of trust.

According to Alana, an entry or reply is accessible: it has a social aspect—it is written for others to read, and others are engaging with it. Reading and rereading are not visible social practices. People reread for different reasons. A social practice might be to think of how to reply in a discussion. Rereading is a practice that students might exercise in order to better understand something or to make sure an idea has not been said. Everything is social in this online space. Further, it is important that Alana models a respectful, safe, and trusted learning environment. Without that, the students would not be able to have productive conversations. If something is said that is inappropriate, Alana will remove it or ask the author to revise it and talk about why. Such actions could be considered social practices.

In summary, Alana models a “reflective sort of emotionally calm way of writing” (p. 30). She states that “we’re not here to make judgements, I guess. But even so, I know that not everybody is comfortable all the way along in these courses about letting us know who are they are or revealing certain things about themselves” (p. 30). It is within
this inclusive environment that social practices intended to build a trusting learning community are encouraged.

4.2.6 Social practice examples: Videos.

Alana provides video introductions and summaries with pictures because “I think it’s important for them to know my cultural background and other things, and also because I use the videos and stuff and I think it helps me be a presence in the course for them, but a sympathetic presence because I try to encourage that” (Alana, 2016, transcribed interview, p. 30). The benefit of a respectful and inclusive environment, Alana believes, is that this will more likely lead to “productive conversations” (p. 32).

As well, Alana’s weekly videos encourage the students to engage in a more interactive set of social practices. She models this for students. While Alana will not give students a precise number of entries to complete each week, she sees this as a way of encouraging participants to figure out the social process required for this particular context (especially since it will change from course to course, depending on the participants).

Alana’s understanding of social practices in the context of online learning reflects the complexity of applying these terms for understanding. In comparing Alana’s perspective to the participant’s perspectives related to interactions from Study One, one respondent, Dieter #5, was clear that that he felt that sharing personal background or insights into my personality, being comfortable when there are no responses to my entry, being comfortable with students who post more than me, revisiting students’ entries to develop or enhance relationships with other students, and knowing who has read my entries were not important at all (see Table 23). While Alana explains, in the interview, that “some of the social aspects of what goes on in these courses is really the way we all interact with one another” (p. 4), some, like Dieter, may not feel...
social practices related to interactions are important. Of note, while Dieter selected these categories as unimportant, he still read most of the entries in the course, received 142 likes, and reread 186 entries. Alana gives the example of peer discussion as a social practice. She explains:

That’s why, for me, the social practices are so important, because they both carry the kind of rules of engagement for how we talk to each other in this particular kind of environment. But they’re also the mechanism that gets people more motivated to learn and get engaged in the ideas, so it has this kind of double-layered quality to me. (Alana, 2016, transcribed interview, p. 6)

4.2.7 Social practices: Mechanisms that motivate and engage recognition.

As Alana explains, “I spend more time watching out for the people who are less obvious … who maybe don’t write as much, and I do monitor how they’re reading and how much they’re online, just to make sure there aren’t problems” (Alana, 2016, transcribed interview, p. 36). If a student does not log in for a period of time, “I send a message and ask them if things are okay” (p. 36).

Alana explains that from time to time, if someone is feeling overwhelmed,

I will try to respond or take up some things when they do contribute in a written form like try to add to or reference their contribution so that they get some acknowledgement because that’s another kind of piece of feeling like you have a role to play … that your contribution is valued. (Alana, 2016, transcribed interview, p. 36)

Alana emphasizes that she thinks “that helps with the issue of dealing with people who come from diverse locations in multiple ways and having them have a kind of fair and positive experience in the course” (Alana, 2016, transcribed interview, p. 38). While Alana appreciates the importance of recognition from the instructor, three of the participants (one from each cluster grouping) felt that being able to read every entry in a discussion was somewhat unimportant (see Table 21). It can happen that a student creates an entry that is not read and does not receive a response. Cazden (2001), in her analysis of classroom discussions, refers to “what Bakhtin calls the ‘addressivity’ of any utterance—the quality of turning mentally to someone and anticipating,
hoping for, humanly needing, a response” (p. 116). A lack of response could be discouraging to some students. There are a number of factors that could contribute to a lack of response to an entry in a DBOLE such as timing, position, subject of entry, turning to a new topic, and so on. Since this is not occurring in a face-to-face classroom, it may not be apparent why there is a lack of interaction with an entry.

Alana watches to ensure her students are comfortable. She spends time “watching out for the people who are less obvious” just in case they need guidance or help. If someone says something that causes someone else anguish, they can close down the conversation. It is “these literacy practices that are appropriate particularly in an asynchronous context” (Alana, 2016, transcribed interview, p. 37).

4.2.8 Alana’s understanding of the instructional elements.

Related to the other themes listed in section 4.2.3 above, Table 34 below details the theme or instructional element intentionally included in Alana’s courses, Alana’s related perspective as was raised in the interview, and an explanation of whether this element could be considered visible or hidden.

Table 34

<table>
<thead>
<tr>
<th>Instructional element</th>
<th>Alana’s perspective</th>
<th>Visible/hidden component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norms of effective participation—familiarizing with the OLE</td>
<td>Alana follows up with students early by sending encouraging notes to those who are not engaging in expected activities: • “And if they don’t respond to a note … a private message, then I’ll send them an e-mail saying, ‘where are you?’ and ‘are you okay?’ and ‘do you need some help?’” (p. 5)</td>
<td>Visible: student entries Hidden: Alana’s private messages and e-mails to the student Relates to Social Practices in the DBOLE</td>
</tr>
</tbody>
</table>
- “There’s nothing worse than not knowing the rules to participation in a social group, and these are the norms of effective participation.” (p. 10)

| Observations of activities in context—understanding the students | In order to understand what her students are doing, she explains, related to one student,  
• “It’s not so much what she says as the fact of what she did. It’s that she was able to … lead the discussion in a week about stuff that she really didn’t know and hadn’t experienced before, and allowed herself to open up to that.” (p. 4)  
• In this case, a second language learner who was educated overseas from “a culture where education is much more teacher-driven” (p. 4) was discussing inclusive practices in online learning.  
• The student bios give her “a place to start and to make sure [she] can see who should be monitored.” (p. 15) | Visible: online discussion, student created bio  
Hidden: Alana reads the discussion and the bios of students—this aids in assessing the activities. Bios and discussion items are often revisited.  
Social Practices |

| Considering revisiting as important to learning | Related to the importance of invisible social practices in an OLE such as reading and revisiting, Alana observed that some weeks, discussions feature more reading and thinking.  
• “That’s part of what makes it a bit challenging to figure out what’s going on at any one time.” (p. 3)  
• “Sometimes the only way I can figure out what the real impact of anything is, is to look at people’s learning journals and then their theories of learning.” (p. 3) | Hidden: how to determine what is being revisited and importance of this social practice? |

| Importance of self-expression and self-presentation | There are also differences in self-expression and self-presentation. For example,  
• “They’re also processing other things about the social context that you can’t see because, you know, it’s not visible.” (p. 10)  
• “So how should I phrase this in this context? What’s a way of talking about this that sounds like the way other people would say that? Like, are you spending time thinking about how to frame something because in a cultural … so it’s really cultural kinds of issues, and is that also related to issues of self-presentation?” (p. 10)  
• Alana elaborates that she knows “from other studies and other conversations with students that that indeed is a consideration a lot of the time, and it just sort of depends on each person is kind of different in the way that they approach that.” (p. 10) | Visible: Alana notes that what is visible does not provide enough information.  
Hidden: practices also situated with students—contextualized to student and cultural context of course itself (affected by the students within).  
Social Practices. |
4.2.9 Summary.

Alana is a reflective instructor who is actively engaged with her students and supportive to each varied group of students as needed. Alana watches to ensure her students are comfortable. She spends time “watching out for the people who are less obvious” just in case they need guidance or help. As discussed in section 4.2, some of Alana’s students are Moderate Readers/Moderate Writers. Alana is able to support students who are less visible in different ways. She engages with them via public messages, through video, and in private messages where needed. Alana intentionally wants the DBOLE to be a space where her students feel comfortable and safe and where they can take risks. Further, if someone says something that causes someone anguish, they can close down the conversation. Alana will connect with the writer to support that participant’s understandings of the cultural contexts of this online classroom, the environment, and expectations in which the discussion is taking place, and suggestions for how to interact in a productive and positive way in order to learn by articulating ideas and engaging with the text entries created by others.

Alana finds it helpful to think about the activities she has been describing as practices involving a social context and the ability to communicate. She is consciously aware of the level of reading taking place in her courses, and identifies reading as a social practice important to students’ learning experience. As well, she values the social practice of rereading but notes that it is not easy to tell which participants are revisiting which texts and why.

Alana intentionally designs a number of specific elements into her course activities which encourage both visible and hidden student social practices. In addition, the interview themes identified from Alana’s interview highlights the complexities of the activities she considers as
important to students in the learning environment of her courses. Many of these activities can be identified as social practices, important to students’ learning experiences. While this is clearly a complex area, documenting and examining in this context may be valuable in terms of thinking about these practices and what they might mean to student learning. Some of these preliminary data have been presented at the Literacy Research Association’s Conference in Nashville, Tennessee (Wilton & Brett, 2016).

4.3 Study Three: Participants’ Perceptions Related to Subject Titles

The research objective related to the third in this series of studies was to examine the practice of creating subject titles of entries and the influence that subject titles might have on participants’ choices of which entries to read in a DBOLE. The research questions being addressed by the following data are as follows:

- What aspects of entry titles influence students’ choices of entries to read in a DBOLE?
- What aspects influence the design of subject titles in a DBOLE?

This data, together with the participants’ perceptions, are presented below.

4.3.0 Background.

This collection of data examines the practice of subject title creation and the practices involved in choosing to read an entry based on the subject title. The instructor commented that in one of the courses, the title “reply” appeared frequently within a threaded discussion that already indicated a reply relationship through repeated indenting of messages. Adoption of such practices at the beginning of a course can spread rapidly unless quickly dealt with; therefore, the instructor responded to the participants with the following advice:

I see that a number of you are using the note title of “reply” when responding to someone’s idea. Please use a title that is about the
CONTENT of your note instead. Imagine if you wanted to go back to an earlier week's discussion and most of the notes had the title Reply—how would you get a sense of the meaning of the thread if they were all called Reply? Also, adding a content-based title can attract readers and it also can act as a way to orient people to your idea—a kind of advance organizer.

If you think about how you would be able to quickly monitor what a group is discussing if you were the teacher—or moderator—as you will each be in this course, you can see that using a convention of having more content based titles will be much more effective. In a language or literacy context this issue is even more important—without content based titles it is harder for people to figure out what the overall discussion is about, so good titles are a useful instructional tool for several reasons.

Interestingly, this serves to illustrate the implication of subject information as influenced by social practices. In this case, a person whose behaviours appear to be modelling, exampled a social practice behaviour that was repeated by others. This is similar to the trend described by Ebner and Holzinger (2005) when they referred to a virtuoso who would model online behaviours for others who were less familiar. Subject titles can affect social practices in a DBOLE as they range from appealing to a reader to giving the impression that the entry is not worth reading. Given this background, subject titles, from a course on constructivist theory with 19 participants, were explored through descriptive statistics, categorizations by subject type, correlations, and a comparison of means. These findings contribute to our understandings of titles identified in this DBOLE and some strategies that are used by participants in creating subject titles and subject title characteristics that may influence the choice of entries to read.

4.3.1 Activities and themes.

To begin with, I looked at the number of words in the subject lines and any relationship between that information and the number of words in the entry, number of revisions to the entry, number of times students opened the entry, number of replies to entry, number of likes from students, and number of revisits by students (see Table 35 below).
Table 35

**Correlations Between Number of Subject Words to Attributes/Behaviours**

<table>
<thead>
<tr>
<th></th>
<th>$r$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td># of words in entry</td>
<td>.208</td>
<td>&lt;.001</td>
</tr>
<tr>
<td># of revisions to entry</td>
<td>.066</td>
<td>.056</td>
</tr>
<tr>
<td># of times students opened entry</td>
<td>.121</td>
<td>&lt;.001</td>
</tr>
<tr>
<td># of replies to entry</td>
<td>.100</td>
<td>.003</td>
</tr>
<tr>
<td># of <em>likes</em> from students</td>
<td>.108</td>
<td>.002</td>
</tr>
<tr>
<td># of revisits by students</td>
<td>.137</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

*Note. Number of notes analyzed = 843 weekly discussion notes written by 19 students (there is a lack of independence since many of these entries are written by the same author). Other factors may also influence activities such as position or time the entry was posted. 
*aCorrelation is significant at the 0.01 level (two-tailed).*

While it appears there is a relationship between the number of words in a subject line and the number of words in an entry, the number of times an entry was opened, the number of replies to an entry, the number of *likes* the entry received, and the number of revisits by students, the relationship is weak, as the $r$ values range from .100 to .208. As mentioned earlier, the implication of a relationship between the number of words in the subject and replies is less informative, because many students choose to reply instead of creating a new entry, even if the post is not intended to be a reply. I took a closer look at other subject line patterns by categorizing these entry titles into themes related to the content. Subject title content was classified into eight categories to look closely for patterns. The differences in means of subject title types by number of words in a subject title and the differences in means of subject title type by number of words in an entry are reported in detail in Table 36 and Table 37. The eight categories are listed below, with a description and an example.

1. **Topic Focused—Detailed Subject.** (n = 334) Entries that were classified into this category contain enough information in the subject line to be clear that they are addressing the readings or discussion topics and to clearly indicate the topic that is being
discussed in the entry. An example of this is: *The Pea article is 20 this year.* The entry with this title was read by most of the students, contained 414 words, received five *likes* from students, and received two replies.

2. **Exclamative (!).** (n = 24) Entries that were classified as exclamative contain an exclamation mark implying a sense of excitement or enticement. An example of this is: *An audience will transform your classroom!!!* The entry with this title was read by about three-quarters of the students, contained 210 words, received four *likes* from students, and did not receive any replies.

3. **Interrogative (?).** (n = 44) Entries that were classified into this category contain a question mark, and ask questions, such as: *What is Constructionism & Distributed Constructionism?* The entry with this title was read by approximately three-quarters of the students, contained 247 words, did not receive any *likes*, and received one reply.

4. **Social (Thanks).** (n = 47) Entries that were classified as social appear intended to build relationships with other participants. An example of this is: *Thank you.* The entry with this title was read by half of the students, contained 18 words, received one *like*, and did not receive any replies.

5. **Uninformative (Question1).** (n = 18) Entries that were classified as uninformative do not contain enough information to indicate the message content. An example of this is: *Indeed.* The entry with this title was read by half of the class, contained 40 words, and did not receive any *likes* or responses.

6. **Topic Focused—Leading (...).** (n = 93) Entries that were classified into this category are typically fragmented or feature an ellipsis to indicate that more will be said on this matter within the body of the entry. An example of this is: *If EQ is a form of cognition....*
The entry with this title was read by most of the students, contained 191 words, did not receive any likes from students, and received one reply.

7. **Repetitive Response (Reply).** (n = 47) Entries that were classified into this category are typically replies with the same subject as the preceding entry or conference. As mentioned earlier, Reply would be a basic example of this type of entry title. Reply was not an example in this course. An example in this course would be two entries entitled Situated Cognition, in reply to an entry entitled Situated Cognition. The two reply entries contained 46 and 97 words, were read by about half of the students, did not receive replies, and were both liked once.

8. **Topic Focused—Single Word/Simple Subject.** (n = 236) Entries that were classified into this category typically feature a single noun or noun/adjective pairing that is on topic with the weekly discussion. For example, Scaffolding is a reply entry which was read by most of the students, was replied to by two others, contained 198 words, and received two likes. As well, generational differences was also a reply entry that was read by most of the students, was replied to by one other, contained 418 words, and received one like.

These subject line themes were then used to determine if there was a measurable difference in student activity that was reflected in how frequently they interacted with these database entries. There is a lack of independence in these data since many of these entries are written by the same author and the timing and position of an entry will also influence activities related to reading and revisiting the posting.
Table 36

*Differences between Means of Subject Title Types: Number of Words in Title*

<table>
<thead>
<tr>
<th>Subject Type</th>
<th>Topic - Factual</th>
<th>Exclamative</th>
<th>Interrogative</th>
<th>Social</th>
<th>Uninformative</th>
<th>Topic - Leading</th>
<th>Repetitive</th>
<th>Single word/Simple</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SE</td>
<td>M</td>
<td>SE</td>
<td>M</td>
<td>SE</td>
<td>M</td>
<td>SE</td>
</tr>
<tr>
<td>Topic Factual</td>
<td>-</td>
<td></td>
<td>1.4</td>
<td>.446</td>
<td>.8</td>
<td>.430</td>
<td>1.5</td>
<td>.350</td>
</tr>
<tr>
<td>Exclamative</td>
<td>-1.4</td>
<td>.446</td>
<td>-</td>
<td>.22</td>
<td>.607</td>
<td>.552</td>
<td>1.3</td>
<td>.452</td>
</tr>
<tr>
<td>Interrogative</td>
<td>-0.8</td>
<td>.430</td>
<td>2.2</td>
<td>.607</td>
<td>.540</td>
<td>.36</td>
<td>1.9</td>
<td>.436</td>
</tr>
<tr>
<td>Social</td>
<td>-1.5</td>
<td>.350</td>
<td>-0.1</td>
<td>.552</td>
<td>2.3</td>
<td>.540</td>
<td>-</td>
<td>.357</td>
</tr>
<tr>
<td>Uninformative</td>
<td>-2.7</td>
<td>.146</td>
<td>-1.3</td>
<td>.452</td>
<td>.35</td>
<td>.436</td>
<td>-1.2</td>
<td>.357</td>
</tr>
<tr>
<td>Topic Leading</td>
<td>-1.1</td>
<td>.201</td>
<td>0.3</td>
<td>.472</td>
<td>.383</td>
<td>1.6</td>
<td>.213</td>
<td>-</td>
</tr>
<tr>
<td>Repetitive</td>
<td>-1.7</td>
<td>.214</td>
<td>-0.3</td>
<td>.478</td>
<td>.390</td>
<td>1.0</td>
<td>.265</td>
<td>-0.5</td>
</tr>
<tr>
<td>Single/Simple</td>
<td>-2.7</td>
<td>.103</td>
<td>1.3</td>
<td>.440</td>
<td>.424</td>
<td>-1.2</td>
<td>-0.0</td>
<td>.125</td>
</tr>
</tbody>
</table>

*Dunnet-C Post hoc test: The mean difference is significant at the 0.05 level.*

Table 36 above shows that entries with a subject title classified as Interrogative have on average more words than all other title types. This is a significant difference for all comparisons with the exception of Topic—Factual subject titles. The second longest title types were Topic—Factual which had a significantly larger mean than the title types classified as Social, Uninformative, Topic—Leading, Repetitive, and Single word/Simple subject.

Table 37 below shows the relationships between subject title classifications and the number of words in the corresponding entry. Entries with Topic—Factual subjects contained significantly more words than entries with subject lines classified as Social, Uninformative, and Single word/Simple subject.
Table 37

*Differences between Means of Subject Title Types: Number of Words in an Entry*

<table>
<thead>
<tr>
<th>Subject type</th>
<th>Topic - Factual</th>
<th>Exclamative</th>
<th>Interrogative</th>
<th>Social</th>
<th>Uninformative</th>
<th>Topic Leading</th>
<th>Repetitive</th>
<th>Single word/Simple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic Factual</td>
<td>-</td>
<td>72.6</td>
<td>41.9</td>
<td>-15.5</td>
<td>35.6</td>
<td>179.9*</td>
<td>20.1</td>
<td>176.9*</td>
</tr>
<tr>
<td>Exclamative</td>
<td>-72.6</td>
<td>41.9</td>
<td>-</td>
<td>-88.1</td>
<td>52.6</td>
<td>107.3</td>
<td>43.6</td>
<td>104.3</td>
</tr>
<tr>
<td>Interrogative</td>
<td>15.6</td>
<td>35.6</td>
<td>88.1</td>
<td>52.6</td>
<td>-</td>
<td>195.4*</td>
<td>37.6</td>
<td>192.4’</td>
</tr>
<tr>
<td>Social</td>
<td>-179.9’</td>
<td>20.1</td>
<td>-107.2</td>
<td>43.6</td>
<td>-195.4’</td>
<td>37.6</td>
<td>-</td>
<td>-3.0</td>
</tr>
<tr>
<td>Uninformative</td>
<td>-176.9</td>
<td>27.4</td>
<td>-104.3</td>
<td>47.4</td>
<td>-192.4’</td>
<td>42.0</td>
<td>3.0</td>
<td>29.9</td>
</tr>
<tr>
<td>Topic Leading</td>
<td>-27.2</td>
<td>27.9</td>
<td>-45.4</td>
<td>47.7</td>
<td>-42.8</td>
<td>42.3</td>
<td>152.7</td>
<td>30.4</td>
</tr>
<tr>
<td>Repetitive</td>
<td>-102.3</td>
<td>33.7</td>
<td>-29.7</td>
<td>51.3</td>
<td>-117.9</td>
<td>46.3</td>
<td>77.5</td>
<td>35.8</td>
</tr>
<tr>
<td>Single/Simple</td>
<td>-60.0*</td>
<td>15.8</td>
<td>12.6</td>
<td>41.8</td>
<td>-75.5</td>
<td>35.5</td>
<td>119.9’</td>
<td>19.8</td>
</tr>
</tbody>
</table>

*Dunnet-C Post hoc test: The mean difference is significant at the 0.05 level.*

Table 38 below examines student reads and student revisits, and number of words in an entry across the eight subject line themes and reports the means and standard deviations of each group for these three activities. It also reports the total number of student entries for each subject type.
Table 38

Subject Title Content Relating to Reading and Revisiting

<table>
<thead>
<tr>
<th></th>
<th>Student reads</th>
<th>Student revisits</th>
<th>Number of entry words</th>
<th>Total # of student entries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Topic focused—factual</td>
<td>10.87</td>
<td>1.99</td>
<td>4.71</td>
<td>2.34</td>
</tr>
<tr>
<td>Exclamative</td>
<td>10.46</td>
<td>2.04</td>
<td>4.42</td>
<td>2.24</td>
</tr>
<tr>
<td>Interrogative</td>
<td>10.45</td>
<td>1.81</td>
<td>4.84</td>
<td>1.94</td>
</tr>
<tr>
<td>Social</td>
<td>9.55</td>
<td>2.62</td>
<td>3.63</td>
<td>1.91</td>
</tr>
<tr>
<td>Uninformative</td>
<td>12.06</td>
<td>2.62</td>
<td>7.26</td>
<td>3.29</td>
</tr>
<tr>
<td>Topic focused—leading</td>
<td>10.74</td>
<td>2.39</td>
<td>4.84</td>
<td>2.38</td>
</tr>
<tr>
<td>Repetitive</td>
<td>12.47</td>
<td>2.58</td>
<td>7.34</td>
<td>4.01</td>
</tr>
<tr>
<td>Single word/simple subject</td>
<td>10.47</td>
<td>2.04</td>
<td>4.38</td>
<td>2.11</td>
</tr>
</tbody>
</table>

It was most common for students to create subject titles that were Topic focused—Factual and Single word/Simple subject. It is interesting to observe that entries with what might be considered the least engaging subject themes (Uninformative and Repetitive) were read more frequently than entries with subject lines with more clarity. Shows the relationships between subject title classifications and the number of student revisits. Of interest is that subject titles classified as Uninformative and Repetitive were more likely to be revisited by students than all other categories. Those entries with a Repetitive title type were significantly more likely to be revisited than those entries with a title classification of Exclamative, Interrogative, Social, Topic—Leading Single word/Simple subject.
Table 39 below shows the relationships between subject title classifications and the number of student revisits. Of interest is that subject titles classified as Uninformative and Repetitive were more likely to be revisited by students than all other categories. Those entries with a Repetitive title type were significantly more likely to be revisited than those entries with a title classification of Exclamative, Interrogative, Social, Topic—Leading Single word/Simple subject.
Table 39

*Dunnet-C Post hoc test: The mean difference is significant at the 0.05 level.

Similar to Table 39 above, Table 40 below shows the relationships between subject title classifications and the number of student reads. Entries with titles classified as Repetitive were read more, on average, than entries with titles classified as Social or Topic focused—Factual, or Topic focused—Leading. The differences in these means are statistically significant.
Differences between Means of Subject Title Types: Student Reads

<table>
<thead>
<tr>
<th>Subject type</th>
<th>Topic – Factual</th>
<th>Exclamative</th>
<th>Interrogative</th>
<th>Social</th>
<th>Uninformative</th>
<th>Topic Leading</th>
<th>Repetitive</th>
<th>Single word/Simple</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M</strong></td>
<td>.41</td>
<td>.431</td>
<td>.42</td>
<td>.294</td>
<td>1.32</td>
<td>.397</td>
<td>-.18</td>
<td>.628</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>.41</td>
<td>.431</td>
<td>.42</td>
<td>.294</td>
<td>1.32</td>
<td>.397</td>
<td>-.18</td>
<td>.628</td>
</tr>
<tr>
<td><strong>Topic Factual</strong></td>
<td><strong>Exclamative</strong></td>
<td><strong>Interrogative</strong></td>
<td><strong>Social</strong></td>
<td><strong>Uninformative</strong></td>
<td><strong>Topic Leading</strong></td>
<td><strong>Repetitive</strong></td>
<td><strong>Single word/Simple</strong></td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>-.41</td>
<td>.397</td>
<td>-.91</td>
<td>.566</td>
<td>-.90</td>
<td>.470</td>
<td>-.250</td>
<td>.727</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>.00</td>
<td>.498</td>
<td>.90</td>
<td>.470</td>
<td>-.16</td>
<td>.676</td>
<td>-.29</td>
<td>.369</td>
</tr>
<tr>
<td><strong>Exclamative</strong></td>
<td><strong>Interrogative</strong></td>
<td><strong>Social</strong></td>
<td><strong>Uninformative</strong></td>
<td><strong>Topic Leading</strong></td>
<td><strong>Repetitive</strong></td>
<td><strong>Single word/Simple</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>1.18</td>
<td>.628</td>
<td>1.60</td>
<td>.746</td>
<td>1.60</td>
<td>.676</td>
<td>2.50</td>
<td>.727</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>.28</td>
<td>.485</td>
<td>.27</td>
<td>.369</td>
<td>.119</td>
<td>.455</td>
<td>-.13</td>
<td>.666</td>
</tr>
<tr>
<td><strong>Interrogative</strong></td>
<td><strong>Social</strong></td>
<td><strong>Uninformative</strong></td>
<td><strong>Topic Leading</strong></td>
<td><strong>Repetitive</strong></td>
<td><strong>Single word/Simple</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>1.60</td>
<td>.392</td>
<td>2.01</td>
<td>.561</td>
<td>2.01</td>
<td>.465</td>
<td>2.92</td>
<td>.536</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>.01</td>
<td>.438</td>
<td>.02</td>
<td>.303</td>
<td>.917</td>
<td>.404</td>
<td>-1.59</td>
<td>.632</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td><strong>Uninformative</strong></td>
<td><strong>Topic Leading</strong></td>
<td><strong>Repetitive</strong></td>
<td><strong>Single word/Simple</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>-.13</td>
<td>.271</td>
<td>.28</td>
<td>.485</td>
<td>.27</td>
<td>.369</td>
<td>.119</td>
<td>.455</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>.41</td>
<td>.487</td>
<td>.90</td>
<td>.470</td>
<td>-.16</td>
<td>.676</td>
<td>-.29</td>
<td>.369</td>
</tr>
<tr>
<td><strong>Uninformative</strong></td>
<td><strong>Topic Leading</strong></td>
<td><strong>Repetitive</strong></td>
<td><strong>Single word/Simple</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>1.60</td>
<td>.392</td>
<td>2.01</td>
<td>.561</td>
<td>2.01</td>
<td>.465</td>
<td>2.92</td>
<td>.536</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>.01</td>
<td>.438</td>
<td>.02</td>
<td>.303</td>
<td>.917</td>
<td>.404</td>
<td>-1.59</td>
<td>.632</td>
</tr>
<tr>
<td><strong>Topic Leading</strong></td>
<td><strong>Repetitive</strong></td>
<td><strong>Single word/Simple</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>1.60</td>
<td>.392</td>
<td>2.01</td>
<td>.561</td>
<td>2.01</td>
<td>.465</td>
<td>2.92</td>
<td>.536</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>.01</td>
<td>.438</td>
<td>.02</td>
<td>.303</td>
<td>.917</td>
<td>.404</td>
<td>-1.59</td>
<td>.632</td>
</tr>
<tr>
<td><strong>Repetitive</strong></td>
<td><strong>Single word/Simple</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>1.60</td>
<td>.392</td>
<td>2.01</td>
<td>.561</td>
<td>2.01</td>
<td>.465</td>
<td>2.92</td>
<td>.536</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>.01</td>
<td>.438</td>
<td>.02</td>
<td>.303</td>
<td>.917</td>
<td>.404</td>
<td>-1.59</td>
<td>.632</td>
</tr>
<tr>
<td><strong>Single word/Simple</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Dunnet-C Post hoc test: The mean difference is significant at the 0.05 level.

Since the number of *likes* an entry receives implies that the entry was read and deserved an acknowledgement, further analysis of the number of *likes* by type of subject titles was completed. Table 41 below presents the data for subject classification types by number of likes.

Table 41

Number of Student Discussion Entries by Subject Type by Number of Likes

<table>
<thead>
<tr>
<th>Subject classification</th>
<th># of Entries with 0 likes</th>
<th># of Entries with 1 like</th>
<th># of Entries with 2 or more likes</th>
<th># of student likes (M)</th>
<th>Total # of student entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic focused—factual</td>
<td>87 (26)</td>
<td>114 (34)</td>
<td>133 (40)</td>
<td>1.41</td>
<td>334 (39.7)</td>
</tr>
<tr>
<td>Exclamative</td>
<td>2 (8)</td>
<td>8 (33)</td>
<td>14 (58)</td>
<td>1.96</td>
<td>24 (2.8)</td>
</tr>
<tr>
<td>Interrogative</td>
<td>8 (18)</td>
<td>19 (43)</td>
<td>17 (39)</td>
<td>1.43</td>
<td>44 (5.2)</td>
</tr>
<tr>
<td>Social</td>
<td>21 (45)</td>
<td>15 (32)</td>
<td>11 (23)</td>
<td>.91</td>
<td>47 (5.6)</td>
</tr>
<tr>
<td>Uninformative</td>
<td>15 (83)</td>
<td>1 (6)</td>
<td>2 (11)</td>
<td>.33</td>
<td>18 (2.1)</td>
</tr>
<tr>
<td>Topic focused—leading</td>
<td>31 (33)</td>
<td>30 (32)</td>
<td>32 (34)</td>
<td>1.25</td>
<td>93 (11)</td>
</tr>
<tr>
<td>Repetitive</td>
<td>31 (66)</td>
<td>10 (21)</td>
<td>6 (13)</td>
<td>.53</td>
<td>47 (5.6)</td>
</tr>
<tr>
<td>Single word/simple subject</td>
<td>68 (29)</td>
<td>83 (35)</td>
<td>85 (36)</td>
<td>1.24</td>
<td>236 (28.0)</td>
</tr>
</tbody>
</table>

Note: Number of notes = 843
Typically, most student discussion notes (68%) feature Topic Focused subject lines with either a Factual or Simple Subject as shown in Table 41 above. An additional 11% appear focused on the weekly topic but also contain a leading suggestion such as “flipping classrooms....” As well, of the 18 notes classified as containing Uninformative subjects, 15 of these were not liked. Interestingly, 22 notes with subjects classified as Exclamative were liked or highly liked, and 36 notes with subjects classified as Interrogative were highly liked (78%) but slightly more typically by only one person (43%). Entries with Repetitive subjects were least likely to be liked (66%), with only 13% of these entries liked by more than one person. Finally, the 47 notes that were classified as having a Social intent, such as “thank you for this,” were slightly more likely to receive no likes (45%) than one (32%) or two or more likes (23%).

Table 42 below shows the relationships between subject title classifications and the number of Likes from Students in more detail. This comparison of category means verifies that titles classified as Exclamative had more likes from students than titles classified as Uninformative and Repetitive. The differences in these means are statistically significant.
Table 42

*Differences between Means of Subject Title Types: Likes from Students*

<table>
<thead>
<tr>
<th>Subject type</th>
<th>Topic Factual</th>
<th>Exclamative</th>
<th>Interrogative</th>
<th>Social</th>
<th>Uninformative</th>
<th>Topic Leading</th>
<th>Repetitive</th>
<th>Single word/Simple</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SE</td>
<td>M</td>
<td>SE</td>
<td>M</td>
<td>SE</td>
<td>M</td>
<td>SE</td>
</tr>
<tr>
<td>Topic Factual</td>
<td>-.55</td>
<td>.254</td>
<td>-.02</td>
<td>.183</td>
<td>.46</td>
<td>.169</td>
<td>1.01</td>
<td>.209</td>
</tr>
<tr>
<td>Exclamative</td>
<td>.55</td>
<td>.254</td>
<td>.53</td>
<td>.298</td>
<td>1.04</td>
<td>.289</td>
<td>1.63</td>
<td>.315</td>
</tr>
<tr>
<td>Interrogative</td>
<td>.02</td>
<td>.183</td>
<td>.52</td>
<td>.230</td>
<td>1.10</td>
<td>.261</td>
<td>.19</td>
<td>.214</td>
</tr>
<tr>
<td>Social</td>
<td>-.46</td>
<td>.169</td>
<td>-.517</td>
<td>.230</td>
<td>.58</td>
<td>.251</td>
<td>-.33</td>
<td>.202</td>
</tr>
<tr>
<td>Uninformative</td>
<td>-1.01</td>
<td>.209</td>
<td>.315</td>
<td>-.10</td>
<td>.261</td>
<td>.58</td>
<td>.251</td>
<td>-.91</td>
</tr>
<tr>
<td>Topic Leading</td>
<td>-.16</td>
<td>.147</td>
<td>-.71</td>
<td>.277</td>
<td>.19</td>
<td>.214</td>
<td>.33</td>
<td>.202</td>
</tr>
<tr>
<td>Repetitive</td>
<td>-.88</td>
<td>.146</td>
<td>-.90</td>
<td>.213</td>
<td>.38</td>
<td>.201</td>
<td>.20</td>
<td>-.72</td>
</tr>
<tr>
<td>Single/Simple</td>
<td>-.17</td>
<td>.099</td>
<td>-.72</td>
<td>.255</td>
<td>-1.9</td>
<td>.185</td>
<td>.33</td>
<td>.171</td>
</tr>
</tbody>
</table>

*Dunnet-C Post hoc test: The mean difference is significant at the 0.05 level.*

While the numbers of participants in each cluster in this course are not high enough to be truly representative of all the participants, it is interesting to observe the entry titles created by cluster in this sample. See Table 43 below.

Table 43

*Percentage of Entry Title Types Created by Cluster*

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Number of Notes</th>
<th>Topic focused—factual %</th>
<th>Exclamative %</th>
<th>Interrogative %</th>
<th>Social %</th>
<th>Uninformative %</th>
<th>Topic focused—leading %</th>
<th>Repetitive %</th>
<th>Single word/Simple subject %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avid Readers/</td>
<td>389</td>
<td>42.2</td>
<td>1.8</td>
<td>5.7</td>
<td>3.9</td>
<td>0.5</td>
<td>12.1</td>
<td>3.3</td>
<td>30.6</td>
</tr>
<tr>
<td>Avid Writers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avid Readers/</td>
<td>136</td>
<td>30.4</td>
<td>3.6</td>
<td>9.4</td>
<td>8.7</td>
<td>0.7</td>
<td>8.7</td>
<td>9.4</td>
<td>29.0</td>
</tr>
<tr>
<td>Moderate Writers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate Readers/</td>
<td>316</td>
<td>40.5</td>
<td>3.8</td>
<td>2.8</td>
<td>6.3</td>
<td>4.7</td>
<td>10.8</td>
<td>6.6</td>
<td>24.4</td>
</tr>
<tr>
<td>Moderate Writers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
According to this group’s data based on 843 entries, the Avid Readers were noticeably less likely to create Uninformative (an average of 0.5 and 0.7 of their entries) compared to Moderate Readers (4.7). As well, Moderate Writers were more likely to create Social entry titles (8.7 for Avid Readers and 6.3 for Moderate Readers) than Avid Readers/Moderate Readers (3.9)

Further, when looking at individual patterns, one student, a Moderate Writer/Moderate Reader, wrote only Topic Focused subject lines. Another student, who read only one-third of student postings but contributed written entries slightly higher than the average, created all types of subject lines and received many likes. A third student, an Avid Reader/Avid Writer who generated the most entries during the course, overwhelmingly used Topic Focused—Simple or Detailed subject lines (91%) for postings, and these attracted an average of 1.1 likes and 0.7 replies. In the cases where this prolific student used Topic Focused—Leading subject lines, the average number of likes fell to 0.4, but each of these entries elicited an average of 1.4 replies.

4.3.2 Participant opinions of subject line content influencing reading.

Table 44 represents the participants’ open-ended comments related to the influence of subject line contents on entries opened (see Appendix C).

Table 44

Contents of Subject Line Influencing Discussion Entries Opened

<table>
<thead>
<tr>
<th>Response (Participant #)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>If the contents of the subject line relate to a discussion or idea I may have initiated, I feel compelled to read and acknowledge it/reply. Similarly, if the subject line contains a new insight or idea on a topic I’m interested in, then I will want to open the entry and read further. (Ella #1) The subject line helps to determine the most relevant information or posts when I may not have time to read them all. (Oliva #3) I think in regards to replies it doesn’t play as big of a part but definitely when having a busy evening and quickly checking in to the discussions. It can make a post stand out or get passed over. (Loretta #4)</td>
<td></td>
</tr>
</tbody>
</table>
Response (Participant #)
During a course, I tend to value certain students’ comments more than others. To know the author is therefore important. I always open a reply to my own posts. I open posts that have a question or seems to want more clarification. (Deiter #5)
If the subject line is interesting or related to something I addressed I am more likely to open it. If the subject line is very controversial I am also likely to open it. (Marlize #6)
Subjects which are precise, summarize the idea of the entry, and [are] related to the discussion are those which most influence whether I open them or not. (Jon #7)
Sometimes they do not influence anything at all, especially if I am interested in the overall discussion. I try to read all posts anyways regardless of subject line. (Karina #14)
If it’s catchy or has to do with my own way of thinking I will definitely open it. If the response is one of the first ones I always read it. Sometimes if the subject line is a part of the response. (Hannah #9)
I'm more prone to open a note with a subject line that is enticing—e.g., “A recent study of best practice in discussion forums” as opposed to “Well….” Be purposeful in subject line composition. (Jackie #11)
If the subject line refers to a topic that I am interested in or had trouble understanding, I would be more likely to open the entry. (Kai #10)
I'm not sure. I think I opened most … (Megan #13)
It doesn’t. (Mohammed #12)
Concisely written to explain contents in post. (Samira #8)

The responses above in Table 44 indicate that there are a variety of preferences for subject line content among the respondents. Some say subject lines are unimportant to choice of opening an entry. Of course, the subject line is only one component affecting the choice of opening an entry. Position in the thread, timing of the post, and the author are a few other influencing factors. There is a general agreement that “enticing” or “catchy” subject lines appeal to some. Interestingly, the example Jackie provides of an enticing subject line is representative of that which Perkins and Newman (1996) propose showed inexperience by “inadvertently starting the body of the message in the subject line” (p. 164). It appears that the strategy that Perkins and Newman identify as a misuse of the subject line feature is a preferred strategy of Jackie’s. Hannah also suggests that she is interested in note titles where the subject line is part of the response. Furthermore, some of the participant responses concur with Perkins and Newman’s (1996) observations that some are able to “put the space to playful and metaphorical uses” (p.
In general, while “concise” and “well written” are commonly mentioned as desirable features, it may be that there are many preferences for composition strategies and not one style will be agreed on by all in a particular context such as a DBOLE.

### 4.3.3 Important to creating a subject line.

As if describing the online learning discussion environment to an inexperienced student, respondent explanations of what they felt was important to creating a subject line for entries in an online learning discussion are detailed in Table 45 below (see Appendix C).

#### Table 45

*Open-Ended Responses: Important to Creating a Subject Line (Online Interview Question 18)*

<table>
<thead>
<tr>
<th>Response (Participant #)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a subject line that captures your audience’s attention by not giving too much away at once but by providing enough to engage readers (hooking their interest, for example). (Ella #1)</td>
</tr>
<tr>
<td>The details should refer to the content of the post. It’s helpful if it’s clear, concise, and useful for future reference. I think it was clearly outlined in this course how to create a helpful subject line. (Oliva #3)</td>
</tr>
<tr>
<td>Subject lines allow you to invite other colleagues into the conversation. Include enough information to entice them and peak their curiosity. Keep them short so they are easy to read. (Loretta #4)</td>
</tr>
<tr>
<td>It should be informative and draw other students’ attention. It should be short. (Deiter #5)</td>
</tr>
<tr>
<td>Be specific, but creative and interesting. Make sure you give the other students and idea of what you are discussing without giving the punchline away. (Marlize #6)</td>
</tr>
<tr>
<td>Keep it succinct, on topic, and related to previous material. (Jon #7)</td>
</tr>
<tr>
<td>They should be clear and concise. (Karina #14)</td>
</tr>
<tr>
<td>It needs to be catchy but informative so it creates an excitement to open it and engages the reader. (Hannah #9)</td>
</tr>
<tr>
<td>Be concise. Do not be vague or ambiguous. Show that you have something new to share. Ask a question and put (EOM) if there is nothing in the note. (Jackie #11)</td>
</tr>
<tr>
<td>Readers need to know what the post is about from the subject line. Make sure it hints at your viewpoint or topic. Also, if it’s an interesting subject line or one that’s funny, I feel people are more likely to open it. (Kai #10)</td>
</tr>
<tr>
<td>I hadn't really thought of it before … (Megan #13)</td>
</tr>
<tr>
<td>Being informative as possible. Try to keep it short. (Samira #8)</td>
</tr>
</tbody>
</table>
Six of the 12 responses in Table 45 describe a good subject line as one that is “enticing” or leads the reader to want to discover more about the underlying entry. The next most prevalent characteristics of a good subject line described by the respondents are that it should be on topic and be concise or succinct. Again, some of the participants’ advice could be seen as contradicting what Perkins and Newman (1996) suggest as incorrectly written subject lines. Despite Perkins and Newman’s opinion that this is not a good feature, hinting at the topic is described as engaging by the participants in this study. Perhaps in agreement with “playful,” as suggested by Perkins and Newman as a good strategy, Kai suggests that a funny subject line is more likely to attract other readers. These participant responses highlight both common preferences and a variety of preferences.

4.3.4 Summary of participant responses and educational implications.

While it was helpful to explore participants’ understanding of creating subject lines as a social practice that may be important to learners in the online learning environment, these results also highlight that subject lines may not be highly influential to student interaction. In this small study, there were a variety of common features of subject lines that stood out as appealing to some students. Entry titles are a common feature of text entries that do not have a face-to-face equivalent. It is possible that viewing certain online learning activities, such as creating subject content for entry titles, as social practices may be a useful perspective to inform both our understanding of learners’ communicative intentions and, ultimately, online pedagogy and course design. In this portion of the study, there is support for the notion that there is an intention to communicate a message behind the creation of subject line text, in part because only 2% of the student discussion notes are classified as Uninformative. Further, since a subject line is often composed with the audience in mind and the intent to have it read by many, this implies subject
line creation is a useful social practice in a DBOLE. As well, the events related to choosing which note to read is somewhat guided by the contents of subject lines, as perhaps is the case of highly liked notes with Exclamatory or Interrogative subject lines. This group of participants had various specific preferences for creating and reading entries with engaging note titles, in spite of the other factors that influence entry openings.

One pedagogical approach to be considered when teaching an online course is to explicitly address the topic of subject line content with students and to point out the possible influence of effective content and the downsides of uninformative subject line content, such as Reply, to the discussion. While participants in this study were more likely to read and reread the entries with repetitive and uninformative subject titles, this may have been the case because the note content was not clear. An online course designed to highlight and facilitate the social practices related to subject content may positively contribute to an online experience. These highlights could include clearly identifying the content of the entry through the subject title of the entry and focusing attention on how to convey the meaning of the entry through this important online learning social practice.

The next chapter outlines the implications of a deeper understanding of the three Rs (reading, rereading, and revisiting) of online learning, social practices that may be important to learners in online learning environments, and the elements that were identified in this study as supportive to learners. As well, consideration of this research as a contributor to a body of work supporting an early exploration of a theory of new literacies in online learning is discussed. Finally, further areas of research stemming from this study are outlined.
Chapter 5
Discussion and Implications

5.0 Introduction
Understanding the practices of reading, revisiting, and rereading in the context of online learning from students’ and an instructor’s perspectives was the original focus of this study. Early in the research phase, other elements, some also less visible in the online learning environment, became additional subjects of interest. I then examined entry title components and their relationships with other online activities/behaviours, perceptions of subject line composition, and the influence the subject line style has over choice to read, in order to better understand participants’ views. To round out the study, the instructor’s perspectives expanded the data of interest by bringing into focus instructional features she intentionally included in her courses to support social practices in a safe and inclusive learning environment, and to identify norms or expectations of behaviours in the online learning classroom.

In situations where quantitative data were available, a more traditional approach to examining online learning activities was undertaken. These examinations included descriptive statistics, thematic analysis, a cluster analysis, and a comparative analysis of selected means among groups where applicable. Qualitative data gathered from the learning management system, field notes, the online questionnaires, and the in-depth interviews provided additional information to better address the research questions from an interpretive perspective for understanding social practices in an online learning environment. This new literacies perspective followed a “let’s see” research approach, described by Lankshear and Knobel (2013), who identify themselves as “educationists interested in new literacies” (p. 9), as research that “is undertaken largely for its own sake, with the primary aim of understanding in depth ‘new’ social
practices and the literacies associated with or mobilized within these practices. A ‘let’s see’ orientation encourages researchers to get as close as possible to viewing a new practice from the perspectives and sensibilities of ‘insiders’” (p. 9). That is, in addition to the traditional, more quantitatively focused approach to data often undertaken in online learning research (Picciano, 2016), the qualitative and quantitative data were also viewed through a new literacies lens from a social practices view (Lankshear & Knobel, 2013). The situations from where data were captured can be unique to online classrooms and do not exist in the same way in face-to-face classrooms.

Rereading in a DBOLE could be considered a new mode of communication in this context. It is similar to re-hearing in a face-to-face classroom setting but is not necessarily bound by place or time. Meaning-making through rereading enhances learning since many revisits are possible at times that are convenient to the learner. This research approach was undertaken to explore a broadened understanding of these less commonly studied activities.

The interpretive paradigm, a framework that focuses on understanding through description and detail, guides this study with the ontological assumption that participants create their own realities and the epistemological view that there are many truths or perspectives (Sipe & Constable, 1996). As mentioned earlier, interpretivist researchers do not necessarily start with a theory, but they can develop a pattern of meaning inductively as understandings are uncovered during the research process (Picciano, 2016). An explanatory sequential mixed methods design allowed for an examination of the online activities, some of which were less visible, of 137 participants and one instructor in the context of eight discussion-based online learning courses taught over four years. Through the pre-Phase One Pilot and Test activities, the research methods were refined. Quantitative and qualitative data (generally referred to as Phase One and Phase Two) were collected by extracting the learning management system’s data, distributing an online
questionnaire, collecting field notes, and conducting in-depth interviews. After analysis, the findings were presented in Chapter 4 using a multi-study-style presentation approach as three sub-studies: An examination of reading, revisiting, and rereading as Study One; the instructor’s perspectives of important elements to support social practices important to student learning experiences in a DBOLE as Study Two; and an exploration of subject headings as Study Three. Within Study One, some of the participants are discussed in detail from their unique contexts in order to deepen our understandings of their perspectives.

This chapter revisits the purpose of the research, and the objectives and questions serving to guide the study, and discusses some of the findings and their implications as a summary of themes developed through combining an examination of traditional online learning data with an exploration as guided by a new literacies perspective in the context of eight online learning courses. Following this is a short discussion of the possibility of this study as a contributing body of work that may support a proposed (lowercase) theory of new literacies in online learning. The chapter concludes with suggestions for educational implications and future research.

5.1 The 3 Rs as Social Practices Important to Online Learning Experiences

Once again, the objectives being addressed in this portion of the study are to document patterns of reading, rereading, revisiting, and writing in eight courses in a DBOLE, a more traditional online learning research approach. As well, through a new literacies lens, the objectives include an investigation of student perceptions of the importance of, and reasons for, reading and rereading, and how these social practices might contribute to the online learning experience. The research questions are as follows: What patterns of reading, revisiting, and writing might be observed by examining transaction log data in a DBOLE, and how do students in a DBOLE understand their own practices of reading and rereading others’ entries?
5.1.0 Participant behaviour patterns.

The results of this study identified three clusters of behaviour patterns: Avid Readers/Avid Writers, Avid Readers/Moderate Writers, and Moderate Readers/Moderate Writers. These identified reading and writing behaviour patterns serve to support the claims in the literature that there are participant patterns of learner style, such as the Moderate Writers, who appear to be engaging in learning activities in less visible ways. Also mentioned in the literature are named types of learners based on their online learning activities. While comparing these contextualized findings to those reported in other studies was not the primary intention of this research, it is interesting to note some similar behaviour patterns in this study.

One named behaviour identified in the literature is a *virtuoso* (Perkins & Newman, 1996). In this study, virtuoso-type learners are referred to by participants in the online and interview responses, though not by this specific name. One example of someone described much like a virtuoso is Loretta (#4). While some participants referred to Loretta’s entries in the discussions as important to them because they contained interesting resources or details of real-world examples they found helpful, she herself noted that it was only after a period of trial and error that she became comfortable reading other students’ entries to help with her own understandings. As well, it was also after a period of trial and error that Loretta became comfortable with writing her entries so that other students could learn from them. Interestingly, Loretta was very experienced in online learning. It seems, at least in the two courses in which she participated, that Loretta did not consider herself a virtuoso, at least at the start of the courses. As well, while Loretta advised that online learners should check in often, her sessions and times online were similar to or lower than the average student. This may be because she, as an experienced online learner, was efficient about using her time online. It is also possible that she composed her
responses offline and uploaded these during a short session, which would result in less time online than those who compose while online. In any case, she read and wrote more than the average participant in both courses, and her notes were reread more than other students’ notes, though she reread student and teacher entries at just above the average amount.

In seeking to understand the influence of a participant like Loretta as a virtuoso in the DBOLE, it appears that she was a positive role model for the class in several ways. She was an experienced professional willing to share teaching resources and to offer advice to others to help with their teaching challenges. In some cases, she was able to help solidify others’ learning through her perspectives and sharing of her examples. As an online learning role model, she was visible. Related to the visible social practices of writing and liking, she wrote more than the average number of notes and gave more likes than average.

Returning to the discussion of the cluster groupings, it is not surprising that the Avid Readers/Avid Writers and Avid Readers/Moderate Writers on average spent more time online (89 and 73 hours), than the average Moderate Reader/Moderate Writer (47 hours). The revisiting patterns indicate that Moderate Readers/Moderate Writers tended to be more attentive to the teacher’s entries than to student entries when comparing rereading of the two. Based on the quantitative data, it is difficult to generalize behaviours of participants even within these clusters. This type of data is more commonly useful in online learning studies and, if addressing a different question, could have led to a deeper investigation of participant patterns based on assumptions of participant indicators. However, in this study, one that is focused on understanding, particularly related to social practices, the qualitative data allow for a deeper look into activities and practices important to learning in a DBOLE. In the contexts of the online
courses in which Loretta participated, her entries and contributions appeared to positively impact the learning experience of others.

5.1.1 Reasons for rereading.

Through reviewing 14 participants’ stories and perspectives, it seems that each participant had their own distinct views and experiences in these shared online learning environments. Many participants agreed it was important to learn with others and to reread a variety of entries for an assortment of reasons. When asked about their reasons for rereading in a DBOLE, 12 out of 14 participants selected *It added a perspective on something I was having difficulty with*, and *It was helpful to my learning*. This is a strong indicator of rereading as a social practice important to the online learning experience. Further to this, the themes earlier identified in Chapter 3 remain relevant as important reasons for rereading, and they are supported by the data as referred to earlier and exampled below:

1. Rereading to achieve a deeper understanding (learning from others)
   a. “For better understanding/comprehension.” (Hannah #9)
   b. “To review relevant and important ideas that helped with my understanding of the content.” (Oliva #3)

2. Rereading in order to participate in the discussion (social order)
   a. “To ensure I wasn’t repeating information that was already posted.” (Oliva #3)
   b. “To refresh my overall understanding of the conversation and to make sure I didn’t repeat something already said.” (Karina #14)

3. Rereading to find models/understand expectations
   a. “Posts from students I have identified as “getting it” and therefore good role models.” (Megan #13)
   b. “Followed writing model that instructor provided.” (Samira #8)

4. Rereading to apply to future learning
   a. “Clarity, Reflection. And looking back after completing the course.” (Hannah #9)

5. Rereading in the role of weekly moderator or with grades in mind
   a. “Assisted with assessment.” (Samira #8)
6. Rereading for resources.
   a. “Usually when a fellow student referenced a resource or tool of interest that was not included in the course materials.” (Hannah #9)

These themes and the results were consistent with early findings based on a subset of data presented at the Literacy Research Association’s Annual Conference in December 2015 (Wilton & Brett, 2015). Increasing the number of participants to 137 students in this sample and collecting qualitative data helped facilitate a more in-depth understanding of the reasons for rereading in a DBOLE. Both rereading to deepen understanding and rereading in order to participate in the discussions were highly cited as important to participants. Based on the comments in this study, my view is that deepening understanding and facilitating participation are not dichotomous but rather greatly overlap and are intertwined in the learners’ experiences. This highlights the importance of reading and rereading as important social practices in a DBOLE.

Further, the most highly ranked reasons for rereading related specifically to clarifying understanding or meaning-making. The top two reasons, *adding a perspective on something I was having difficulty with* and *it was helpful to my learning*, support the concept of revisiting as a social practice important to learning. The third most highly ranked reason, *in order to provide a link to it in one of my posts*, connects the importance of rereading as social practice to interactions involving others’ text entries, since providing a link makes it easier for others to trace the connecting entry. Further, the open-ended responses to reasons for revisiting, and types of notes revisited more than others, identified many examples that were connected to social practices involving meaning-making through reading and writing of digital texts. Furthermore, a few students mentioned they would revisit especially if the entry contained a personal experience example. Some revisited to avoid repeating another students’ point, to clarify a meaning and
avoid a misunderstanding, to find a tool or resource of interest, or to better understand a different viewpoint. Each of these examples relate to the social practice of rereading to better understand, and they also touch on the social aspects of involving other students and their expectations. Some participants in this study explained that they reread at times primarily to comment appropriately or respond suitably, to link to someone else’s note, or to clarify a misunderstanding. While there appears to be norms of social behaviours of which participants were mindful, it also appears that not everyone felt that norms of social behaviours were important to learning in a DBOLE such as to share personal insights, to know who has read their entries, or to be comfortable not creating as many entries as others.

The importance of maintaining social relationships in the learning environment is top of mind for many participants. These results support the notion that the concept of social practices is complex and that the social practice perspectives of students in online learning classrooms can highlight the importance of different views of social practice activities, such as reading and revisiting, as important to learning. There is not one simple view of social practices important to supporting learning in a DBOLE that can be succinctly described. This study highlights the possibilities of social practices important to the online learning environment.

5.1.2 Face-to-face equivalents.

The themes identified by the participants of *rereading to achieve a deeper understanding*, *rereading to apply to future learning*, and *rereading for resources* are more generally related to social practices that facilitate learning, and these do not have common equivalent practices in face-to-face classroom discussions. From a new literacies perspective, “literacies call us to generate and communicate meanings and to invite others to make meaning from our texts in turn” (Lankshear & Knobel, 2007b, p. 2). That is, rereading as a social practice addresses
meaning-making as participants seek to deepen their understanding of course content or discussions in context. As well, rereading as a social practice is more generally situated in the context of the learning environment and the participants, and the actions they are taking to understand the information. Further, participants acknowledge the importance of gathering resources for their own use and of seeking to better understand (or possibly refresh, skim, or scan for particular information) in the context of future learning. These findings have implications for course design since maintaining access to the course discussion for rereading purposes after the course has ended is valuable to some participants’ learning.

Also from a social practices perspective, *rereading in order to participate in the online discussion, rereading to find models/understand expectations*, and *rereading in the role of weekly moderator or with grades in mind* could be viewed as more generally related to fitting in and the norms of behaviour that Alana refers to when describing the instructional elements important to online learning. These findings have implications for course design since a clear understanding of common social behaviours particular to that class would be helpful to student participation in a DBOLE. Examples of social practices important to online learning are creating introductions, greeting others, engaging in many different types of discussions, disagreeing with online participants, and creating subject lines, to name only a few. It is helpful, in this interpretive study, to better understand social practices that do not exist in a face-to-face context (in the same form) and, therefore, could be “new” to participants in terms of understanding and meaning making through reading and writing with others in digital learning environments. Further studies in this area in other contexts would contribute more data for a deeper understanding and an opportunity to identify common practices across courses.
In thinking further of the concept of new literacies as involving “new” ways to make meaning (Lankshear & Knobel, 2007b), rereading is considered a social practice involving meaning-making through reading within a new learning space mediated by digital access to content, participants, and the instructor. It is new in the sense of access to the Internet and to online courses becoming more common for students (Johnson et al., 2016). Further, rereading is a social practice that does not exist in the same way in the context of face-to-face classroom discussions. Rereading is an opportunity to go back and revisit a portion of a digital conversation for many reasons, including to better understand something. While some have suggested that it is important to examine the literacy events indicative of and related to the practice in order to identify the practice (Barton & Hamilton, 1998/2012; Purcell-Gates, 2010a), this study did not take that lengthy and previously challenged approach. Instead, from an interpretive perspective, this study recognizes the empirical evidence that reading and rereading are actively taking place in these DBOLEs with some online learners rereading other students’ contributions over and over again. Further the participants identified these as important social practices. The data confirms the importance of rereading, which can also be considered a communicative practice, by examining the participants’ perceptions and applying a new literacies lens in order to interpret the findings. From that perspective, Chapter 4 outlines observations of these activities as social practices in a DBOLE. Further studies of these social practices that do not exist in a face-to-face classroom in the same way would make key contributions to a deeper understanding of the importance of such practices in the online learning environment.

5.1.3 Other less visible online activities.

Other social practice activities involving norms of behaviours in the context of this study are *liking* an entry, emulating a model student (such as a virtuoso student), logging in at particular
times, or timing an entry response, to name only a few. These are discussed in detail in Chapter 4. What is apparent from the results of this data is that some of these social practices are not visible to participants, yet they can be considered important to learning in a DBOLE. They are also highlighted by Alana. The importance of these findings to instructional design suggests that greater visibility of many of the less visible activities to instructors could help to support better understandings of student online activities related to learning. As well, it is important for instructors to consider intentionally including or supporting the less visible activities highlighted in this study, as these are important to learning experiences in a DBOLE. Further studies should investigate such social practices in K-12 online classrooms.

Specifically related to instructional practices and rereading, despite the indications from the participants that rereading is an important contributor to learning in a DBOLE, there may be few outward signs that the less visible practice of rereading takes place. Traditionally, rereading is not valued with grades, and indicators of rereading are not readily apparent to the instructor or to other participants. In the learning management system accessed during this study, the instructor can generate a report that will identify the number of notes opened by a participant, and a participant can query the system to see Who has read this note? In the latter case, a participant who may have opened an entry twice will appear only once as a reader, since the system simply reports the most recent opening event. It would be helpful if learning management systems provided information on rereading practices to instructors, or highlighted notes that are frequently reread to other participants, since those notes may be of value to others.

While a concern may exist that if rereading was obviously valued or encouraged by allocating marks, those marks would become the primary incentive for the activity (not the value the participant would receive from actually rereading), it is worth considering designing a system
that provides information about revisiting to the instructor. Such information would provide the instructor with insight into participants’ behaviours, possibly indicating less visible engagement, or perhaps identifying a struggling student who needs guidance or a misunderstanding that could be clarified. As well, a well-written entry could be highlighted for all to read based on the rereading activity associated with that note.

5.1.4 Other social practice aspects.

Other findings related to the composition of entries and linked to social practices were raised by participants but only anecdotally observed in this study. The following examples were raised as important to successful online learning and may be considered important to understanding from a new literacies perspective:

- clarity in communicating;
- online voice;
- an impression of kindness and positive tone online;
- thoughtful engagement;
- timeliness;
- concise writing;
- reading “with insight and comprehension” (Dieter #5);
- multitasking of reading and writing online;
- referring to what others have said and to the course content;
- writing to be understood;
- adding something new in a textual discussion;
- giving social cues of approval; and
- indicating regular presence.
As well, social factors and influences, online personas related to reading and writing behaviours, and intentional versus unintentional practices were raised as themes in the qualitative data provided through the open-ended questions and the in-depth interviews. Generally, responses indicated that social factors were important to learning, and most indicated that their online persona was similar to their offline persona. These important issues could be further explored in future research.

5.1.5 The three Rs of online learning.

Rereading, according to the participants, is an important DBOLE activity that should be facilitated, recognized, and encouraged as important to the learning experience. The data showed the three Rs of online learning discussion environments are important social practices. Further research in other contexts is needed to better understand the new literacies perspectives and social practices that may help us to contextually appreciate the roles reading, rereading, and revisiting play in supporting the student learning environment in a DBOLE.

5.2 Subject Titles

The investigation of subject titles evolved from a desire to study additional social practices that do not exist in the same way outside of a digital learning environment, similar to revisiting and rereading. Perhaps my interest in this area was prompted by my earlier experience as IT manager at Microsoft Canada, where I was responsible for deploying the first version of Microsoft Exchange internally in Canada, and thereafter as product manager, Microsoft Exchange, Canada, where I was responsible for the Canadian marketing of this e-mail product. Subject headings are an important component of e-mail messages. As employees and customers began to rely on e-mail as a standard method of communication, effective composition of e-mail subjects became important to address. Internally, it was not unusual for some employees to deal with hundreds of
messages a day. Informative subject lines helped to facilitate communication. Throughout this time, e-mail became a rapidly adopted business messaging tool and was eventually adopted in homes and schools for everyday use. Since the late 1980s, I have been aware of the importance of subject information and have been encouraging e-mail users to be strategic about the use of subject headings.

In online learning, the entry title in a discussion thread is as important as an e-mail subject. There are various forms of subject titles in a DBOLE. Of course, there is no equivalent of this introduction to what is about to be read, as a preface to what is about to be said in a face-to-face discussion. The subject title informs readers about the contents of the note. It is from the subject title information that a reader anticipates the content that the entry might contain. I believe it would not be typical to attend an online course and be instructed on how to best create a subject line in a DBOLE. It is a practice that people just seem to know how to do (or not). In a busy discussion thread, participants may choose which entries to read according to the subject title information. From an interpretive perspective, examining subject lines is useful from a new literacies perspective because it is a practice that does not exist in a face-to-face classroom. This study examined an online discussion in one course and through thematic analysis determined eight categories of subject lines as an initial step towards understanding the complexities that subject line composition may involve.

As mentioned earlier, by examining subject lines using a new literacies lens and by considering the creation of subject lines as a social practice, the question arises as to what content would be important to include in its composition? As explained by the participants, some of the strategies important to the DBOLE are as follows:
• Capture the audience’s attention by not giving too much away at once (hooking their interest);
• Be clear, concise, and useful for future reference;
• Invite others into the conversation;
• Include enough information to pique their curiosity;
• Keep them short so they are easy to read;
• Be specific;
• Be creative;
• Be interesting;
• Give others an idea of the topic without giving the punchline away;
• Be succinct, on topic, and related to previous material;
• Be catchy but informative;
• Do not be vague or ambiguous;
• Put (EOM) if there is nothing further in the note (EOM means End of Message);
• Be informative;
• Be brief; and
• Hint at your viewpoint or topic.

It is important to know how to best enact this social practice. It may be a practice that is not intuitive to everyone in a DBOLE. One example of contradicting viewpoints is the use of a leading subject, which Perkins and Newman (1996) suggested was due to inexperience rather than a strategic design intended to appeal to other students so that they would read the entry. As well, elliptical titling is proposed to lead to misunderstandings (Dennen & Wieland, 2007) but is
also representative of an enticing subject line. There does not appear to be clear agreement in this small sample of how to best design subject headings.

Further, it is an important social practice to make meaning through the interpretation of subject headers. The following is a list of comments made by participants when asked about the importance of an entry title and its relationship to the likelihood of opening the text:

- If the subject line contains a new insight or idea on a topic I’m interested in;
- It can make the post stand out or get passed over;
- I open posts that have a question or seem to be looking for clarification;
- A controversial subject line;
- Subjects that are precise, summarize the idea of an entry, and relate to the discussion;
- Some do not influence at all;
- Catchy;
- First in the thread;
- Sometimes if the subject line is part of the response (again, Perkins and Newman [1996] and Duranti [1986] felt that this was a sign of misuse or a novice mistake);
- “A recent study of best practice in discussion forums” as opposed to “Well …”;
- and
- Be purposeful in subject line composition.

While there are social implications related to choosing to read entries as influenced by subject titles, applying a new literacies lens to this practice could help us better understand how to increase engagement with note content, to explain concepts that are not straightforward, and to help inexperienced learners to better engage in a DBOLE. This relates to the relationship
between “texts and practices,” an approach that may come to inform literacy work more in the coming years (Street & Lefstein, 2007/2010, p. 46).

Future research should explore subject lines in a similar way across more courses. Exploring subject line creation and preferences from a new literacies perspective is helpful in highlighting the social practice aspects that influence these activities in many courses. Exploring several courses from within this interpretive framework will serve to highlight important areas of similarities and differences. For example, perhaps it is important to provide participants with guidelines so that discussions threads are not cluttered with notes all named with the same subject, such as Reply. As well, building on the few studies that have investigated elliptical utterances and subject line styles, it might be that there are particular strategies that improve the use of the subject line in communicating with others in the DBOLE. Similar to the context of communicating succinctly within a limited number of letters or words, such a process can require some practice and finesse. Creating a succinct, concise, and catching entry title is an important social practice that could be explicitly explained by an instructor at the beginning of an online course. As well, participants could be encouraged with tips and pointers on how to best compose subject headers to be effective and well-received.

Further, I think Alana’s guidelines related to entry title preferences would be helpful to instructors and participants everywhere. Eliciting students’ opinions on their preferences at the beginning of the course and tailoring the course advice to students’ preferences should be considered. As noted earlier, not every student will agree on subject heading strategies or appealing subjects. Students could be told how to approach subject headers in a particular class so that they could make informed and conscious decisions about their creation. YouTube videos could be created for other instructors and participants as a guide to effective practices (from
Alana’s beliefs or based on future studies) related to subject line creation, and how to more efficiently engage with these new literacies practices in the growing learning location of online learning environments.

5.3 The Instructor’s Perspectives of Less Visible Activities

Once again, the research objective related to the Study Two presentation of data is to document an instructor’s perceptions of supporting learners and the social practices that may be important to learners in a DBOLE. The research question being addressed is: How does an online learning instructor support learners and the social practices that may be important to student learning in a DBOLE?

Alana is an astute and experienced online learning instructor who is highly aware of her students’ needs and practices. She logs into her courses frequently and engages with her students in many ways (private notes, public notes, video messages, carefully thought-out suggestions, an organized learning environment, etc.). There are many instructional elements purposely designed into her courses that facilitate less visible or hidden activities that are important to learning. She creates weekly videos to build an emotional connection to her students, to facilitate and model peer discussion, and to guide students’ learning experiences. Alana reports that she is very conscious of providing a safe learning space where students can take risks. She is watchful and encouraging. For example, she was impressed with one of her students who was able to effectively moderate a weekly discussion about an educational concept that would have been foreign to the student whose prior educational experiences took place outside of North America.

In Alana’s interview, she raised the topic of norms many times. She explained that, as careful as she is to set up activities that are clearly set out for students and to model these types of online behaviours for her students, it is not always clear how an instructor is to know if
students understand expected online behaviours. Her intentional activity of creating a biography entry where students can describe their online learning experiences helps to highlight to the instructor those students who may not know what is expected. While out of the scope of this research, determining appropriate “norms” and then exploring the implications of preparing students for learning online would be important for future study. As well, affective components were also not within the scope of this study. However, it is important to note that Cazden (2001) pointed out, during her observations of classroom discussions, that “noncognitive aspects of underlying interpersonal relationships—affective aspects” (p. 78) were important to learning. Alana addresses this as she creates videos and digitally engages with her students.

Alana states that she finds revisiting an important indicator of what is going in her online courses, though she notes that it is not always easy to know who is revisiting and what is being revisited. She explains that “some weeks’ discussions feature more reading and thinking.” Without a system to indicate that reading and revisiting are taking place, it can appear that the course is “quiet” or perhaps that participants are less engaged. Alana notes that more information on reading and revisiting in her courses would be helpful. As she explains, “That’s part of what makes it a bit challenging, to figure out what’s going on at any one time” (Alana, 2016, transcribed interview, p. 3).

Alana reiterated, as was observed in the Literature Review in Section 2.12, that the concept of social practices in online learning is not clearly delineated and is very complex. She notes that the concept of social practices is evolving. However, when articulating these concepts, Alana stated that social practices are important to supporting her students. Alana is directing her students in the online learning environment, which, for some who are used to learning in face-to-face classrooms, may be a new environment for learning through digital means. As well, she is
also guiding some students, who may be comfortable with the new literacy practices of online forums that are not formal learning spaces, where participants “generally value attending to the interests and knowledge of others, recognize that quality is judged by groups rather than appointed experts, welcome diversity of opinion in decision-making, and so on” (Knobel & Lankshear, 2015, p. 5), towards a more formal online learning environment. To that end, Knobel & Lankshear (2015) explain that paradigm cases of new literacies include such practices as creating fan fiction, blogging and microblogging, remixing cultural artifacts, photo curating and sharing, video gaming, video game modding, online social networking, editing wikis, creating machinima, editing anime music videos, sharing and contributing to memes, building apps, creating animations, and participating in interest-driven online forums, to name just a few. (pp. 5–6)

Those students familiar with the social practices that are ordinarily enacted in these increasingly common environments featuring such new literacies now have to find a comfort zone and understand the expectations of a group in formal online learning discussions. Some studies are examining out-of-school literacies together with in-school literacies. It may be that future studies could examine students’ social practices when combining out-of-school literacies such as those mentioned above, together with previous experiences of in-person school literacies and the DBOLE.

The instructional elements included in the online courses taught by Alana are listed and explained by her. Quotes are taken from the survey to illustrate each of the areas of instructional elements focused on by Alana. Norms of effective participation, observations of activities in context, revisiting as important to learning, and the importance of self-expression and self-presentation are outlined with an explanation of whether they are visible and/or hidden components featured in Alana’s DBOLE. This illustration is helpful to document the importance of these elements as they are situated in these DBOLEs.
Overall, Alana provided some examples of what she felt were social practices in her courses. For her, the importance of social practices is double-layered in that the “rules of engagement for how we talk to each other in this particular kind of environment” (Alana, 2016, transcribed interview, p. 6) and the mechanism for motivating/engaging participants are both couched in the concept of social practices in a DBOLE. Composing an entry title is an example of a social practice involving writing and meaning-making for an audience. Alana explains that social practices can help to create a safe, respectful, and trustworthy learning environment. If something inappropriate is said, Alana will ask the author to remove it or revise it. This demonstrates the impact of social practices on the experiences of the community.

Alana’s interview clearly underlines her wealth of experience and knowledge in a DBOLE. A further step that could be taken, as a result of this research, is to document Alana’s best practices in order to help guide other online learning instructors. In addition, further research could be conducted to more deeply compare some social practices in courses taught by different instructors to see if there are notable comparatives or differences. Finally, I think the concept of social practices in a DBOLE is evolving and that Alana, over time, will continue to explore and discover connections to participant practices through a new literacies lens.

5.4 Online Learning Practices as Social Practices

In this thesis, I have undertaken an examination of some practices that are important to participants’ learning in DBOLEs. Social practices in an online learning context are important communicative practices. Reading, rereading, revisiting, and writing are practices that students become familiar with to comfortably participate in a learning environment that is heavily dependent on meaning-making of digital texts. Not all students engage in these practices in the same way. Empirical evidence from this study establishes that the social practices of reading and
revisiting are commonly enacted, with some students revisiting entries again and again, and some long after the course has completed. The new literacies perspective upon which this study draws guides a deeper understanding of how these practices influence the learning environment in a DBOLE. Since there is no face-to-face equivalent of rereading or creating subject lines it is difficult to compare these online social practices to face-to-face classroom practices. For example, rereading could be considered re-hearing if such a practice existed. Furthermore, it may be that greeting in an online discussion is a social practice with which learners in a DBOLE are inexperienced. Hewitt’s (2005) study referred to “clunkers,” where threaded discussion items were not responded to because they were addressed to participants in a limited way. Perhaps there are better ways to address fellow participants. Or is it possible that an entry is better without any greeting to participants at all? What are the implications of social practices we have not yet explored, and how do we relate to and understand these practices?

Through this examination, it became apparent that our understandings of social practices are evolving. Within the course of this study, early understandings of these practices were complex. While they were simplified to a few online learning social practices of focus in this study in order to analyze some of the data, the concepts are quite complex. These perspectives will evolve over time and perhaps be adopted and explored by others as they become fine-tuned. It is clear that even the simplified perspectives of social practices involving interactions with others are complex and fluid in the context of DBOLEs. There is no doubt that in a DBOLE, meaning-making and social interaction are important processes. Viewing these social practices through this exploration and documentation will broaden our understanding of learning in a DBOLE.
Future research should more deeply examine these identified practices and other practices in online learning environments that were not examined in this study (greetings, introductions, reading/writing journal entries, video entries, and more). As well, there are opportunities for instructional design research to examine a system that recognizes and reports on highly reread notes, or to examine individuals who are engaging in revisiting and those that are less visible, perhaps reading a lot but not writing a lot. Such recognition could guide instructors to avoid assuming that participants who are not highly visible are not engaged. This is important to creating a safe and inclusive learning environment.

5.5 A Theory of New Literacies in Online Learning

Leu et al. (2013) propose that the eight central principles defining the Uppercase Theory of New Literacies will apply to any lowercase theory of new literacies. To examine whether these principles will apply from an online learning perspective, each one will be discussed individually:

1. The Internet is this generation’s defining technology for literacy and learning within our global community.
   - The Internet has facilitated access to online learning at a much greater pace and reach than distance learning to date. It is important to understand the implications of learning through Internet access with a global community of learners.

2. The Internet and related technologies require additional new literacies to fully access their potential.
   - Online research and comprehension studies have established practices that are specific to online reading and researching. These are identifying, locating,
evaluating, synthesizing, and communicating. These practices were identified after a number of studies were conducted and commonalities were examined.

- Effective participation in a DBOLE should include the recognition of social practices such as revisiting, rereading, creating subject headings; methods for choosing to read content headings (similar to evaluating); navigating threaded discussions or online learning spaces; identifying learning peers through descriptions, bios, avatars, etc.; locating relevant content/resources; communicating in ways that are safe, inoffensive, understood; writing succinctly; greeting peers appropriately; and many other practices related to understanding the norms of behaviours in the online learning community, etc.

- These new literacies practices are best thought of as social practices within the overarching contextualized environment requiring participants interact to communicate and make meaning. A deeper understanding of these social practices in the context of a DBOLE will serve to guide a deeper understanding of applicable new literacies that are important to online learning environments.

3. *New literacies are deictic.*

- Technology and digital tools are changing rapidly. The Internet is becoming more accessible globally. Mobile learning is becoming more available to students in both higher education and K-12. As tools and access to online learning unfold and grow, and online learning practices evolve, new literacies will continue to develop and understandings of these will be required to better participate and learn in DBOLEs.
4. **New literacies are multiple, multimodal, and multifaceted.**

- Related to multimodal literacies in a DBOLE—While video entries have not realized particularly strong uptake to date in the environment in which this study takes place, it may be that at some point, video entries will become more popular and effective in DBOLEs, and at that point new literacies and social practices may develop in relation to these communicative practices. Most certainly, we will need to be open to a fluid and changing environment of tools and ways of communicating in online learning.

- Social practices such as reading and rereading are multifaceted in that a student can employ, for example, skimming or scanning techniques, or can choose to reread but only a portion of what is available. Participating in skimming or scanning in a DBOLE should be recognized as a new literacies practice since it relates to a communicative practice in a formal learning environment. It is difficult to anticipate the new literacies practices that will go hand-in-hand with future online learning environments, but there is no doubt that these will develop and require understanding as participants learn together and instructors support these learners.

5. **Critical literacies are central to new literacies.**

- In learning environments, particularly the online learning environment, understandings of the practices being enacted must be viewed with a critical view. Of course, many of these practices are intended by the institution and by the instructor, who is in a position of power. There are norms ofbehaviours that are dictated within the academic context. It is important to recognize
these from a critical perspective. For example, there may be other instructors who only value visible engagement. In that case, the participants who take time to read and reread and deeply think before composing their responses, thus contributing fewer entries than others, could be unfairly judged to be disengaged. The ability of participants to communicate in an DBOLE is important. Alana has provided examples of the resilience of students from cultures that value different aspects of learning than Western education culture. It is important to further recognize and understand these complexities in students’ experiences in a DBOLE. Some students in this study have adapted their viewpoints and enthusiastically adopted perspectives that allow them to engage in critical discussion with others. In an increasingly global world where online learners can bring with them many contextualized experiences, viewing new literacies practices with a critical lens will help to support instructors and learners in DBOLEs today.

- As well, this critical lens can relate to academic literacies—those literacies that are dictated by the institutions within which we learn. There is opportunity to question the literacies and social practices that are needed to learn online. How do we know what norms are? And how are they determined?

- Finally, while this study was guided by the interpretive paradigm, future studies from within the critical paradigm may further inform a deeper understanding of these issues.

6. New forms of strategic knowledge are required with new literacies.
• While we can’t easily predict these, as new technologies emerge, so will the technical skills required continue to advance (for instance, creating and producing artifacts as part of our learning and sharing these with our online learning community). This can include the strategic knowledge required for new literacies required by learning communities that meet on social media.

7. **New social practices are a central element of New Literacies.**

• Literacies are social practices. This research examined some social practices that may be considered “new” because they did not exist in the same way as face-to-face classroom practices. These concepts are muddy. These new social practices are central to the concept of New Literacies and the study of new literacies, and new literacies are central to the concept of learning with others in a discussion-based online environment. While some of these practices are not typically visible in today’s online learning management systems, it is important to understand and exercise those practices that are socially driven, since learning is a social process and the participants in this study have been clear that the social practice of rereading is important to learning in a DBOLE.

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

• Online teaching is undergoing a shift, particularly in learning environments featuring online discussions. MOOCs, for instance, are becoming a more popular choice for informal learning. Alana herself mentioned that in one course, the students took up the social aspects of the course very differently than the students in some of her other courses. In order to make such an
environment work effectively for students, the instructor must be flexible and connected to the learning community. Alana is an example of an attentive instructor who frequently checks on her students and their learning, who guides them when needed, and who models the practices she believes are important to learning in the DBOLE. Further studies of other instructors’ patterns may deepen our understandings of the evolving role of the online learning teacher.

It is important to explore the concepts of social practices in a DBOLE as being key to a lowercase *theory of new literacies in online learning*. Just as the lowercase theory of online reading and comprehension was first proposed and has continued to be explored and elaborated, this interpretive research study contributes to a potential body of work to help lay the groundwork for a *theory of new literacies in online learning*. Future research should explore and build upon these ideas through other studies of DBOLEs in many contexts.

Important to a theory of new literacies in online learning is an understanding of the new literacies and social practices important to a DBOLE. This would include the components related to reading, revisiting, rereading, composing subject lines, and choosing to read notes based on composition choices. However, this list is just a beginning. For example, studying the construction of *hello* entries could be important to better understanding the variety of strategies that participants employ, the meaning of the contents of these entries, and the implications of the construction of these entries to online learning.

### 5.6 Educational Implications

There are many educational implications of this study. Opportunities to participate in online learning across sectors are increasing. These are mostly focused on post-secondary contexts, but
are also growing in the area of formal high school education (Johnson et al., 2016). With time, younger students will be more heavily engaged in formal online learning. It is imperative to better understand how online learning practices, particularly social practices, affect the online learning environment. Specifically looking at reading, revisiting, and subject line composition from a social practice perspective helps to add perspectives on understanding why students may undertake these activities.

Further, a social practice perspective is important as it serves to guide interpretations of those practices involving interactions with others (or intended interactions as in the composition of a subject header designed to be engaged with by others). Understanding why and how social practices in DBOLE environments are enacted is important to understanding, developing further practices and supporting learners within this learning environment. Knobel & Lankshear (2014) acknowledge the importance of research in new literacies intended to “provide richly detailed examples and consider what these indicate in terms of trends and shifts in literacy practices and, in many cases, to suggest how learning and instruction might usefully be informed by these changing practices” (p. 97). The important perspective of this research takes into account the context of the learning environment and the perspectives that the learner brings to the practices they adopt for participating in a DBOLE.

Since learning in a discussion-based environment continues to grow in popularity, establishing a framework for understanding literacy and social practices would broaden understandings important to online learners. As well, looking for patterns related to participants improves our perspectives of learning styles and abilities or methods of engagement.

Finally, the learning management system that supports the learning environment and collects data could be modified and developed to better highlight indicators of some of these
important social and literacy practices. The social practices of revisiting and rereading in a DBOLE should be more visibly supported as our understandings of these important practices grow. As well, learning management system training and student-targeted online learning training should include a discussion of the composition of subject headers and possibly feature videos explaining instructional strategies for working with subject headers.

5.7 Future Research

In addition to the examples of future research mentioned throughout Chapters 4 and 5, I believe that conducting research in other instructors’ classes may contribute to our understandings of the potential literacy and social practices identified here. Since Alana’s individual style will influence participants’ practices, a larger sample would be informative, especially where there are a variety of instructors or possibly a group of youths learning at the high school or middle school levels.

Further to this, since online learners will become more comfortable in this rapidly expanding learning environment, new practices may more clearly emerge or be better described by experienced online learners. The viewpoints and perspectives of many learners will help to uncover common aspects of literacy and social practices in many DBOLEs.

Future research determining the quality and benefits of best practices, perhaps based on Alana’s experiences and advice, would also serve to inform instructors and course designers. There may be experimental approaches that make sense where highly reread notes are highlighted, for example, and measured engagement with these entries could be studied. There are many opportunities for instructional design changes which could be tested to further elicit participants’ perspectives of social and literacy practices that may be important to learning in a DBOLE as they evolve.
As Alana’s quote at the beginning of this thesis indicates, she values a safe and respectful environment to support learning in a DBOLE. Such an environment is essential to learning. Yet the question remains: How do we best create such an environment if we do not deeply understand the social practices important to learning in the DBOLE context? The proposal of a (lowercase) *theory of new literacies in online learning* serves to guide a deeper examination of these Internet-enabled learning practices as teachers’ roles change and new literacies continue to develop in the context of a growing global learning community. The influence of these fluid and changing contexts will affect existing and new practices and, therefore, it is imperative to strive for a deeper understanding of these social practices in online learning environments.

The purpose of this research was not to narrow the definitions of new literacies, social practices, or literacy practices, which are muddy, fluid, and evolving. Rather, the hope is that by identifying and documenting student activities in eight online learning courses and viewing them through a new literacies lens as social practices, we can better understand what these activities mean to the student learning experience. This research contributes to other studies undertaking a similar approach. A larger data set of participants would add value to future studies. As well, a controlled study where some participants have been briefed on title type preferences and others have not would also deepen our understanding of the importance of the social practice of creating subject titles. Such a study could contribute to identifying the implications of subject line creation as a social practice important to learning in a DBOLE.

To me, this is an exciting time to be studying in a field that is affected by rapidly changing technologies and evolving social practices within an education system that is traditionally slow to change. Such an environment will surely lead to a future for this field that is full of possibilities.
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Appendix A: Consent Form for Participation in Online Surveys

Examining Collaborative Online Learning Environments through a New Literacies Lens

Dear Online Learning Participant:

I am conducting my PhD thesis research with students in online learning courses on Pepper, under the supervision of Professor Clare Brett, through the Department of Curriculum, Teaching and Learning at OISE, University of Toronto.

We are interested in better understanding online collaborative learning discussions by examining these through a new literacies lens. Because of your experience as an online learning participant, we are writing to invite you to participate in this research study in the following ways:

1. Complete a brief online questionnaire. You should be able to complete the questionnaire in less than 15 minutes.
2. Give us your permission to collect data from you through your Pepper participation. There is no time commitment from you and your identity in this activity will be kept completely confidential.
3. Participate in a brief 30-minute interview. Your participation in this interview will be kept completely confidential. You may participate in the interview via phone or Skype.

All the information gathered during this study will be kept strictly confidential. You will be assigned a number and all your information will be identified only by this ID number. Data will be kept in a secure cabinet and/or in password-protected electronic documents. The data may be used in professional presentations or publications. In such cases, confidentiality and anonymity will be ensured through the use of pseudonyms and the removal of identifying details, of both you and of the institution. After a period of five years, all digital records and recordings and notes will be securely deleted or professionally shredded.

You are under no obligation to participate in this project and have the right to withdraw from the project at any time without negative consequences. Participation in the study is voluntary and will not have any influence on any course evaluation of your performance or grades. Should you choose to withdraw, all information collected from you will be removed from the data and destroyed.

For questions about rights as a research participant, please contact the Office of Research and Ethics at the University of Toronto, by phone at 416-946-3273, or at ethics.review@utoronto.ca.

Thank you for your time. If you have any questions about this study please contact me by phone at 416-xxx-xxxx or by e-mail at lesley.wilton@mail.utoronto.ca or contact my Thesis Supervisor, Professor Clare Brett, at 416-xxx-xxxx or by e-mail at clare.brett@utoronto.ca.

Your consent to participate in this study can be indicated by your reading and signing the attached consent form. You will receive a copy of the consent form for your records.

Thank you, Lesley Wilton
Appendix B: Consent to Participate in the Study:

Examining Collaborative Online Learning Environments Through a New Literacies Lens

I have read the letter from Lesley Wilton that describes her research project and I give my consent to participate in this study. I understand that all information about me will be kept confidential and secure, and the data will be destroyed at the end of the project. I also understand that I may withdraw from the study at any time without any negative consequences.

Please select (✓) one option:

☐ I agree to allow my Pepper contributions to be used anonymously as part of this study and I am willing to complete the short online surveys.
☐ I am willing to be contacted later for a short interview.
☐ I do NOT agree to allow my Pepper contributions to be used anonymously as part of this study and do not wish to participate in this study.

Participant name: _________________________________________________

Pepper name: ____________________________________________________

Signature: _______________________________________________________

Date: ___________________________________________________________
Appendix C: Online Questionnaire—Experiences in a Collaborative Online Learning Environment

1. My opinion of online learning is ...
   1. Very unfavourable
   2. Somewhat unfavourable
   3. Neither
   4. Somewhat favourable
   5. Very favourable

2. How many fully online courses have you completed?
   0. Zero
   1. One
   2. Two
   3. Three
   4. Four
   5. Five
   6. Six or more

3. In thinking of online learning discussions that require students to express their thoughts to others and to understand others’ expressed thoughts, rate your level of confidence in using the English language in such an environment.
   1. Not confident at all
   2. Not very confident
   3. Neither confident nor not confident
   4. Somewhat confident
   5. Very confident
4. Please rate the importance of the following skills or abilities to successful online learning using the scale below giving a rating from 1–5, where 1 is not important at all and 5 is very important.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Not important at all</th>
<th>Somewhat unimportant</th>
<th>Neither</th>
<th>Somewhat important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building a sense of community with colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding the meaning in other students’ discussion entries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding the intentions behind the instructor’s discussion entries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being understood by other students in my discussion entries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being understood by the instructor in my discussion entries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being able to compose and post my thoughts in a discussion in a reasonable amount of time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being able to express my thoughts in a concise manner in discussion entries.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being able to help other students with their learning.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being able to contribute to a discussion at the “right” time in the thread</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building relationships with other students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responding to other students’ entries favourably.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responding to other students’ entries with clarifying questions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responding to other students’ entries with contrasting opinions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composing an entry that refers to the readings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composing an entry that refers to another student’s entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composing an entry with an opinion that has not been expressed by others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharing personal background or insights into my personality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. As if explaining the online learning discussion environment to an experienced student, please describe up to three of the most important skills or abilities needed to be successful. (open-ended)

6. In your first fully online course, at what point did you feel you understood or felt comfortable with the following:

<table>
<thead>
<tr>
<th>Skill/Ability</th>
<th>From the start of course</th>
<th>After observing postings by other students</th>
<th>After observing postings by the instructor</th>
<th>After a period of trial and error</th>
<th>Towards the end of the course</th>
<th>Never</th>
<th>Other (explain below)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading other student entries to help with my understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing my entries so other students could learn from them</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Writing my entries so that I could learn from them

If you selected other, please explain.

7. Did you find it helpful to know who had read your notes?

1. Yes
2. No
3. I did not know about this option but would have found it helpful
4. I did not know about this option but would not have found it helpful

8. Have you opened another student’s note to purposely reread it?

1. Yes
2. No

9. Please describe briefly your primary reasons for revisiting/rereading previously read entries created by other students.

10. Please select all the reasons you may have revisited previously read entries created by other students.

1. It looked like a new posting, but I had read an earlier version
2. It added a perspective on something I was having difficulty with
3. It was helpful to my learning
4. It contained resources that I found helpful
5. I was partnered with a student and had to read their entries
6. It was important in order to fit it.
7. It was important to remember details about other students
8. I was notified that a link to one of my entries was in a posting
9. In order to provide a link to one of my posts
10. To find a model for something I was trying to do
11. Other (please explain below)
11a. Other—please explain

11. Please describe the types of student-generated notes that you would likely reread/revisit.

12. Please add any information, based on your own experience, that may help us to further understand the importance of revisiting or rereading notes to online learning.

13. In terms of design of the learning environment, would you find it valuable if you were able to see which of your notes were reread/revisited by other students?

1. Yes
2. No
14. In terms of design of the learning environment, would you find it valuable if you were able to see which student-generated notes are the most highly reread/revisited?

1. Yes  
2. No

15. When comparing the subject line to the following, which is more influential in guiding you to open an entry?

   The author of an entry:
   1. Subject line is more influential
   2. Subject line carries the same influence
   3. Subject line is less influential
   4. Subject line in not important at all

   The position of an entry:
   1. Subject line is more influential
   2. Subject line carries the same influence
   3. Subject line is less influential
   4. Subject line in not important at all

   The fact that it is a reply:
   1. Subject line is more influential
   2. Subject line carries the same influence
   3. Subject line is less influential
   4. Subject line in not important at all

16. Explain how the contents of the Subject Line influence which discussion entries you open.

17. When I create a Subject Line for an online entry, I consider the following (choose all that apply):

1. Creating excitement
2. Keeping it short
3. Being as informative as possible
4. Being ambiguous
5. A subject line as a hook using ... or some other teasing or enticing indicator
6. Length is not important
7. Using CAPS for emphasis
8. Using Exclamations (!) for emphasis
9. Asking a question (?)
10. Starting a point but not finishing it so that others will open the entry
11. Other

18. As if explaining the online learning discussion environment to an inexperienced student, please describe what you think it important to creating a Subject Line for entries in an online learning discussion.
19. Please briefly describe how your online learning persona in your most recent online learning course differs from your face-to-face persona.

Thank you for taking the time to answer this survey. Your opinion will help me to better understand online collaborative learning and may guide improvements to the Pepper learning environment.

20. When comparing the subject line to the following, which is more influential in guiding you to open an entry?

<table>
<thead>
<tr>
<th>Subject is more influential</th>
<th>Subject line carries the same influence</th>
<th>Subject line is less influential</th>
<th>Subject line is not at all important</th>
</tr>
</thead>
<tbody>
<tr>
<td>The author of an entry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The position of an entry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The fact that it is a reply</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. What is your gender?
1. Male
2. Female
3. Other

22. Finally, in order to ensure data integrity and only for the purposes of matching your to-be anonymized answers with statistical data provided within Pepper, please provide the first name and last name you used in the Pepper database.
Appendix D: Semi-Structured Interview Questions

1. Briefly describe your experience with online learning discussion environments.

2. In thinking of discussion expectations in your first online learning environment, how did you know what behaviours were expected in those discussions?

3. Please describe any literacy practices you think are important to an online learning discussion environment?

4. How important is reading other students’ entries to your learning? (Please describe.)

5. Can you think of a time when you may have felt uncomfortable learning by reading other students’ thoughts? (Please describe.)

6. Please describe any strategies you use when you create entry titles?

7. Please describe any strategies you use when choosing to read an entry based on the entry title.
Appendix E: Revisiting in an Online Collaborative Learning Environment (Pilot/Test)

These questions are intended to help us understand your previous online learning experiences, if any, or opinions you may have held of online learning, before you attended the first of XXXX or XXXX. * indicates an answer is required.

1. Before attending the first of either XXXX or XXXX, I had participated in the following number of online courses:

<table>
<thead>
<tr>
<th>None</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four or More</th>
</tr>
</thead>
</table>

2. My opinion of online learning (before attending the first of XXXX or XXXX), regardless of whether or not I have had any previous online learning experience, was ...

(Please select all that apply.)

| Online learning is a good way to learn | That I am undecided about online learning | Online learning is not a good way to learn | Requires a comfort level with expressing one's self in text or video in an online discussion | Requires self-regulation in order to manage deadlines | Is affected by a sense of community with my online colleagues | Depends on me reading my colleagues' opinions and I can learn through collaborative discussions | Depends on me reading my colleagues' opinions and I do not think I can learn from my classmates | My learning does not require me to read my colleagues' entries |

The next series of questions explores what it means to reread or revisit an entry posted by another student that has been previously read by you. In other words, we are seeking to understand why an online student would return or revisit a message for a second time or more.

3. Did you ever open another student's note to purposely reread it in order to help you learn?

1 Yes
2 No
4. In thinking back to your experience in XXXX (where there were 1,208 student-generated entries) and/or XXXX (where there were 1,051 student-generated entries), please estimate the number of notes that you revisited. (If you attended both XXXX and XXXX, just choose the course you best remember to answer this question.)

5. In XXXX or XXXX, did you find it helpful to know who had read your notes?
   (Please select one of the following:)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I did not know about this option but would have found it helpful</td>
<td>I did not know about this option but would not have found it helpful</td>
</tr>
</tbody>
</table>

6. Please provide your best guess of the percentage of the class that would have revisited your best 3 entries (the notes you put the most effort into) in the conference database:

7. Please describe your reasons for revisiting/rereading student-generated notes:

8. Please select the reasons you may have revisited a previously read entry posted by another student. Please select all that apply:

| It appeared that it was a new posting, but I had read an earlier version |
| It added a perspective on something I was having difficulty with |
| It was helpful to my learning |
| It contained resources that I found helpful |
| I found other students' entries helpful for me to see what was expected of me |
| I was partnered with a student and had to read their entries |
| It was important to revisit some student entries in order to fit in |
| It was important to revisit student bios to remember details about those in the course |
| I was notified that a link to one of my entries was in a posting that I revisited |
| I revisited a note because I wanted to provide a link to it in one of my posts |
| I was using a student-generated entry as a model for something I was trying to do |
| Other (please explain) |
9. In thinking of rereading or revisiting a student-generated note (that is, opening a note more than once), please select the types of notes you would have most likely reread/revisited. Please select all that apply:

<table>
<thead>
<tr>
<th>Learning Journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bios</td>
</tr>
<tr>
<td>Final Assignments</td>
</tr>
<tr>
<td>Learning Theories (XXXX)</td>
</tr>
<tr>
<td>Resources</td>
</tr>
<tr>
<td>Moderator Questions in the Weekly Discussions</td>
</tr>
<tr>
<td>Responses to Discussion Questions</td>
</tr>
<tr>
<td>Responses to secondary questions (posed by students, not the Moderator) in the thread that were not responses to Discussion Questions</td>
</tr>
<tr>
<td>Only responses to my posts</td>
</tr>
<tr>
<td>Only responses to discussions in which I was a part</td>
</tr>
<tr>
<td>Assignment 1 (XXXX)</td>
</tr>
<tr>
<td>Assignment 2 (XXXX)</td>
</tr>
<tr>
<td>Other—Please describe other types of student-generated notes you would likely reread/revisit.</td>
</tr>
</tbody>
</table>

10. On a scale of 1 to 5 with 1 being Very Important to my Online Learning experience and 5 being Not Important to my Online Learning experience, please rate the importance of rereading/revisiting an entry generated by another student. Please select one of the following:

<table>
<thead>
<tr>
<th>1 Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Important</td>
</tr>
<tr>
<td>3 Somewhat Important</td>
</tr>
<tr>
<td>4 Slightly Important</td>
</tr>
<tr>
<td>5 Not Important</td>
</tr>
</tbody>
</table>

11. In terms of the design of the learning environment, would you find it valuable to your learning if you were able to see if your notes were highly reread/revisited? Yes No

12. To the best of your recollection, please estimate the highest number of times you may have reread/revisited another student’s entry that you found valuable to your learning:

13. Please add any information, based on your own experience, that may further help us understand the importance of revisiting or rereading notes to online learning.

14. Please describe any negative issues that come to mind that may be associated with asking online learners to reread or revisit other students' notes to benefit the learning process.

15. Finally, in order to ensure data integrity and only for the purposes of matching your to-be anonymized answers with statistical data provided within Pepper, please provide the first name and last name you used in the Pepper database:
## Appendix F: Meaning Condensation Table—Study Two

<table>
<thead>
<tr>
<th>Page #</th>
<th>Detailed Response</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td><strong>Social practices</strong> seem to me to be very an <strong>eclectic set of things</strong></td>
<td>Social practices—eclectic</td>
</tr>
<tr>
<td>4</td>
<td>You think about the complexity of … there’s … that interaction is both sort of interpersonal things but also interaction with artifacts, and when you’re online …</td>
<td>Complex Interaction Interpersonal things Artifacts</td>
</tr>
<tr>
<td>4</td>
<td>I found the students took up the <strong>social</strong> aspects of the course very differently than the other students in some of my other courses</td>
<td>Social aspects</td>
</tr>
<tr>
<td>4</td>
<td>In this course I put out a kind of “hello” “hello” thing and then all of the messages here except for one question from one student are actually from ME … which is unusual</td>
<td>Hello</td>
</tr>
<tr>
<td>4</td>
<td>So for me, some of the <strong>social</strong> aspects of what goes on in these courses is really the way we all interact with one another. And that’s very much affected by the students … the particular group of students’ own prior experiences with online learning and with learning in general and what they think learning is. And how much they interact, and how much they value the kind of peer collaboration part, which is a big piece of my course … but how <strong>procedural</strong> they treat that … that is very much affected by their own prior experiences.</td>
<td>Interactive Social Vs. procedural Student experience</td>
</tr>
<tr>
<td>5</td>
<td>… the little videos that I use are … I mean it’s a tool, but it’s a <strong>social</strong> … what I’m doing with it and why this is a <strong>social practice</strong> is it’s part of trying to create both an affective as well as … I want an emotional connection with these people because I want them … I think having an emotional connection is part of how you engage with ideas and material, and so you need to feel comfortable and you need to feel safe and all that.</td>
<td>Video as tool Emotional Connection Comfortable Safe Inclusive</td>
</tr>
<tr>
<td>5</td>
<td>… and the other piece, of course, about <strong>social practices</strong> is their kind of <strong>peer discussion</strong>.</td>
<td>Social practices—peer discussion</td>
</tr>
<tr>
<td>5</td>
<td>… there’s a point in the course where the students kind of take it over a little bit, which I think is a good thing, and it happens often around week 4, or something … 3 or 4 … and it kind of goes on, and it’s when the students are comfortable with the kind of the</td>
<td>Norms</td>
</tr>
</tbody>
</table>
norms and the kind of … the activities and the kind of … what we do each week.

And that’s why, for me, the social practices are so important, because they both carry the kind of rules of engagement for how we talk to each other in this particular kind of environment. But they’re also the mechanism that gets people more motivated to learn and get engaged in the ideas, so it has this kind of double-layered quality to me. Does that make sense?

I think I can see the effects of the social practices because the technology … yes, and I think the distinction can be seen in the idea of the video. So the little videos that I make … you can call a video a kind of … it’s a technological affordance or something … but it allows me to communicate in a particular way … but what makes that effective is the fact that it’s visual, that they can see me, and it makes them feel like they know me a little bit and they see me and mumbling away and waving my arms, you know, and doing that thing, and the tone and the way I’m … the things that I’m talking about, and the WAY I’m talking is all about encouraging them to engage in that more interactive set of social practices in a way. That’s partly what I’m encouraging them to do. And partly it’s modelling too, so I model by … I model through the videos but I also model through the writing. So that people feel that they can engage in that way as well.

… which may not seem like a social practice, is something like the fact that I refuse to give people a precise number of notes that they have to complete each week, which I know is very irritating to certain kinds of groups who have been used to producing for an instructor in a particular way. But MY point is that by NOT doing that forces … the onus goes back to them … they have to engage enough to have a sense of what feels right to them. I want them to be the ones doing the learning, not me always doing the teaching. I’m happy to teach, but in response to particular questions, rather than me just going blah blah blah blah … which I can do! But it doesn’t necessarily help them to learn. But that is … so in a way I’m trying to kind of force or encourage a particular sort of way of understanding in this social process, which we call a course, through the activities that I engage in, you know. So … it’s quite complex when you think about it actually … I realize

Let’s go back to traces, because in the online space, the thing that I’ve always liked about online environments is that they leave traces. They leave words, they leave … they’re like a record of what went on, and so you can go back to that record, and you can’t recreate everything, but you can look at that and it gives you
information about how much people were certainly engaged in what they were doing, at least. You can’t look at the trace of online activity and say “this is what they learned” fully, but it gives you an idea … you have a comparative sense as an instructor. But you can’t obviously know that’s not the only way they learn. They don’t just learn by discussion. They learn by reading, and reading offline, too, and reading other things, and I have no record of that, so it’s not easy to see that. So, it’s certainly a limited record, but it’s more than you get in a face-to-face course. So in that sense it’s kind of interesting.

<table>
<thead>
<tr>
<th>Page</th>
<th>Information about how much people were certainly engaged in what they were doing, at least. You can’t look at the trace of online activity and say “this is what they learned” fully, but it gives you an idea … you have a comparative sense as an instructor. But you can’t obviously know that’s not the only way they learn. They don’t just learn by discussion. They learn by reading, and reading offline, too, and reading other things, and I have no record of that, so it’s not easy to see that. So, it’s certainly a limited record, but it’s more than you get in a face-to-face course. So in that sense it’s kind of interesting.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>I know people understand literacy in very different ways at this point in time. I think in my own … I mean I may have an older way of understanding it but … and that’s why, in part, I think online courses are so interesting ’cause I do think literacy practices are, you know, particularly textual and production-oriented. I think they’re producing something. You might be producing a video, and you might be producing pictures, and you might be producing a whole bunch of different things. It doesn’t have to be textual, but in this kind of context, it largely is. And those are … so that … and that stuff is largely visible, the literacy practices. But then there are more of these intangible pieces that I’m not sure, quite honestly, how to … when something ceases to be a social practice and becomes a literacy practice. I don’t know whether it’s because, when it becomes recognized or acknowledged as one by a larger group of people, or whether it encourages certain kinds of responses from others that it becomes a kind of literacy practice. But there are things like how you write a … oh, and I think this was one of the courses when they started off writing “reply” instead of having note titles. And, I mean, that’s a really good example of a simple but important thing that you need to be able to do … a literacy practice that you need to put into place in an online discussion, because otherwise people … it’s part of a communicative clarity, which is obviously social, too, in essence.</td>
</tr>
<tr>
<td>17</td>
<td>But then there are other things like rereading and reading, which aren’t visible and yet are extremely important for … like reading is very important for being able to respond well, because if you</td>
</tr>
</tbody>
</table>
don’t really read what somebody else has written, your response to that is just like listening and talking, right? You have to listen to the other person in your conversation, or you’re just saying things yourself. You might as well … it’s like a monologue, not a dialogue. And so the reading is an inherent part of the literacy practices, if you like, of this system … of an online system. And because you’re reading, not only reading the articles like you would in a face-to-face class or other readings, but you’re also reading, which is listening, to your other colleagues in the class. And that is part of the learning process in these courses, in these discussion-rich courses. Yeah, so it is tricky. So there are both visible and invisible ones, both socially and in literacy practice terms. I think there are some things you can see, and there are some things you can infer and you see have happened but are harder to access the value and consequences from engaging in.

… well, it depends what happens with the rereading, and it depends why people are rereading. But if somebody goes back and rereads something, you know, like I think they … and it also depends on how much they reread it. I mean, there’s different reasons for doing that. One is that they’re thinking about replying and they want to make sure that they’ve got the ideas straight that they’re replying to. And so it has a social consequence in that it shapes the later … the subsequent literacy practice of replying in a discussion, or responding if it was a face-to-face class. But you don’t have the opportunity to do that in a face-to-face class because you can’t look at the trace of the conversation. So being able to kind of go through and read through all of the different notes that say in a thread or even in the first one you’re thinking of replying to then you look through the rest of the thread because you want to make sure that somebody else hasn’t said your idea too, I mean there’s another reason for doing that. And then you might go over again just to make sure that you’ve understood what it is … and then that in turn comes back into your response later.

… that’s what makes it so tricky when we try to pin these things down. Maybe it doesn’t. Maybe you don’t see … I’m gonna do all that work, all that rereading, all that thinking, and then I’m not even going to put anything into the conference. I’m gonna go to a class, a face-to-face class, or I’m gonna have a conversation with somebody else and kind of put those ideas together and come to an understanding, or an advance in my understanding, or something, or even come out with a question which I can then choose to ask in that conference, or not. So, in the end, it makes it particularly tricky because we don’t really understand how those practices always lead back

But it’s very hard to say precisely. But it’s also very hard to say precisely how these things contribute to learning in a face-to-face
class. Again, you use the performance part, you use what they hand in as assignment, or what was the final paper like, or how did they draw this, or they went off and did this difference activity. So linking these kinds of back to learning is always very tricky.

| 20 | If you don’t try to do that, then … and you just make an assumption in a way that everything that a student does online is part of their engagement. And so it doesn’t matter whether other people can see them or not. They’re part of how they navigate this particular kind of space. And so those are … and the things they do and how they do that are collectively the literacy practices that they’re engaged with. And some of these have social consequences, some of them are directly social, but many are not. |

| 21 | If you don’t try to do that, then … and you just make an assumption in a way that everything that a student does online is part of their engagement. And so it doesn’t matter whether other people can see them or not. They’re part of how they navigate this particular kind of space. And so those are … and the things they do and how they do that are collectively the literacy practices that they’re engaged with. And some of these have social consequences, some of them are directly social, but many are not. |

| 22 | Yep. So I think what you’re saying is that the literacy practices and social practices don’t necessarily have to have a relationship. There isn’t always one without the other I don’t think, at least not in terms of literacy practices. |

| 24 | And that … I guess you’re also saying that in the case of … for example, rereading … that may be a literacy practice that doesn’t have a social practice corresponding activity kind of thing. But it’s hard to … yes, exactly. That’s right. They don’t have to be connected. |

| 25 | Well, except that it’s an invisible, partly social practice. It’s social in the sense that … I mean, all of these things are social in the sense that in that distributive cognition sense or in that sense that everything we do in the world is a social practice … I mean, a sociocultural way of understanding what reality is … that whether we’re reading something or doing anything … all of the artifacts we use are made by other people … all of the other things that we read or are written by other people … everything that we sit in and wear … there isn’t anything that isn’t somehow socially grounded and part of this kind of bigger context. So I think we come back to this more individual thing when we’re trying to … when we’re being forced to account for what’s going on in our classes where we have to say things like “well, is x learning more than y, or …” you know. So when we have to think about questions when they’re framed in those sorts of ways, then start to try and do this kind of definitional thing where “well, that’s a literacy practice and that’s a social practice.” |

| 26 | But in a way, everything is social in this online space and in most other spaces. I mean, social is almost like the air we breathe. So the literacy practices … I think that you could say that the amount … how functionally you can navigate … how comfortable |
you feel navigating around in these environments, and that you’re able to easily know when you reply and you … if you want to bring in some other social media or resource or … your sort of ease and ability to navigate your use of social terms and sort of inclusive … you can see it in the language that’s used … you know, where somebody says “thank you Susan, that was a really interesting idea, and have you thought about this,” or “I was thinking that, in addition to the points you made, I would also make.” So there are explicit linguistic markers too that you could look at when you look at content and content analysis. So there’s all sorts of different ways of looking and counting things as literacy practices if you think that … it depends what the practice is. If the practice … the practice you’re talking about … so if the practice is, you know, functioning effectively, or feeling comfortable functioning in an online learning environment, then there’s a whole host of those things. Some of them are linguistic markers, some of them are activities … what you do … and so … and these invisible things, reading and rereading are more invisible, and your contributions, your actual contributions … so, and just navigation and how you use titles, and how you use cite things, and linking between people’s notes. All of those things would be … could be considered part of the literacy practice in being comfortable about functioning in an online learning environment. So yeah.

| 27 | Alana: Right. Okay. So there are practices of mine, and then there are practices of other students, and one of the ways of including is being respectful of people, and being aware that people come from different places, they come with different expectations and experience. And so, that part of that is the kind of interactivity that goes on in the course biographies, in the class biographies area, where people talk to one and check in another a little bit and I want them to actually read each others’ and talk to each other, because I want them to have an awareness of the diversity of the class, the diversity in every sense … culturally, gender, background, you know, language, everything, so that people are kind of attuned to being respectful and thoughtful and recognizing that they’re going to … that people aren’t going to necessarily have the same set of understandings as we kind of go through the course. And that’s a very concrete way to kind of start that process. |
| 28 | And then it’s setting up things like expectations and … like in the course I’m in … you know, guidelines for discussion moderation, guidelines for contributions. In fact, in this course, I actually talked about diversity explicitly. Oh yes, and in fact, this is my most explicit kind of thing that I did with this. I said “It’s important …” I said that I like this following paragraph so much, I |
include it here … developed by faculty in LLE … summarizes several points I’ve tried to make in a weekly an introductory videos, but it bears repeating. It’s important to note that you come into this course from diverse, plurilingual cultural backgrounds. You may also be positioned within different educational employment backgrounds and trajectories, as well as academic program and streams. And the demographics of this class represent varied diverse interests and needs. We acknowledge the strengths that each student brings to the course and respect the diversity of interests so we may work collaboratively and promote success for everyone, creating a safe and balanced learning community where we can all learn from one another.

You have to watch out for some people who quite often will unintentionally say things that are not … that don’t abide by those rules … that aren’t really sensitive to somebody else’s way of understanding the world and end up kind of belittling and they really don’t recognize that. It’s hard to learn all of these things. It takes time and experience, and so if people have less and different kinds of experience it takes some time to learn that. So I try to model a very reflective and analytic … socially analytic kind of responses to things that students say so that they can … and I’m very … I try to be very measured. I try never to be polemical and say, “well, on the one hand there’s this, and on the other hand there’s that … maybe this happened because of this,” and so you know I’m deliberately … I have this more reflective sort of emotionally calm way of writing to model this. That’s what we’re doing here. Nobody is … we’re not here to make judgements, I guess. But even so, I know that not everybody is comfortable all the way along in these courses about letting us know who they are or revealing certain things about themselves. So I never … I don’t push that either, so people can put what they want in their biographies. They can choose who they want in their little pictures of who they are kind of thing … the … what are those things called? “Avatars,” that’s the word. And so people choose very different things and some people use pictures. I use pictures ’cause I think it’s important for them to know my cultural background and other things, and also because I use the videos and stuff and I think it helps me be a presence in the course for them, but a sympathetic presence because I try to encourage that.

And I use the course biographies to figure out who in the class hasn’t had as much experience online, and I look out for doing private notes, if they may have, you know, answered something in the wrong place, which does happen … just figuring out how to use Pepper, even though it’s not a complex environment, if people haven’t had a lot of experience they don’t know how to do this. So I try to help at that level, so private notes right in the middle of the
discussion right at the point where these things didn’t happen, and then I’ll put a private note there that only they can see, and I point that out to them that no one else can see this note. And that actually works very well. I found that that has been very good for people who are either second language learners, or have just had less experience, they may have come from other cultures … and that has been a way for me to connect personally with them early on in the course, and then they have definitely felt more comfortable ’cause they talk about that later and given me feedback on that. So I know that that’s a helpful kind of way.

| 32 | But it’s not all about just making everybody feel comfortable. It’s also … the reason for feeling comfortable so that we can have a productive conversation. So I just don’t want to force people into either disclosing or talking about things that they don’t feel able to do, and I just want to make sure that nobody gets, sort of … and if something happens, and if somebody gets offended, then I will … or something is said that I think has gone a little far, I will then try to … if it’s really difficult, I will remove it and talk to the person who made the comment and explain why I removed it and ask them to revise it, and talk about why, and … or I will go through and just try to deconstruct it a bit and say, “maybe you could have used these words instead of those words.” And the main reason for this is that if people are feeling hurt and offended, they’re not listening and they’re not engaging, and if people don’t trust each other, they’re not going to be willing to be vulnerable and share what they don’t know. And if they don’t do that, then they don’t learn. So, it’s all part of a having a respectful place for everybody to engage in. | Building an inclusive, safe, and trusted learning environment |

| 35 | So I guess it’s part of a process of building up a kind of sense of everybody in the class and where they kind of are with these things. So the people who … I spend more time watching out for the people who are less obvious in their … like who maybe don’t write as much, and I do monitor how much they’re reading and how much they’re online, just to make sure there aren’t problems. And if they … and I do … if people disappear, for instance, for a week or something and they haven’t let me know that there’s something going on, I will e-mail them or message them … actually I don’t e-mail anybody anymore. I do it all within Pepper, but I send messages and ask them if things are okay and stuff, and if I don’t hear, then I DO e-mail them ’cause I’ll go outside for that. But I found that … so I find that if somebody’s having an issue, then I give them some space or, you know, I say, “you don’t have to quit … just take this time and come back and join in whenever, and do this ….” So I try to navigate that if there’s some kind of issue or if they’re feeling a bit overwhelmed. And that has happened too from time to time, where somebody is feeling | Differences in student performance—reading, writing, rereading Responding or acknowledging contribution as recognition in a good way |
overwhelmed from a number of different ways. And the other thing then is that I will try to respond or take up some of the things when they DO contribute in a written way, like try to add to or reference their contribution so that they get some acknowledgement because that’s another kind of piece of feeling like you have a role to play … that your contribution is valued. Or if I don’t have a lot of time, I’ll do “likes,” but I’ll try to make sure that there’s some, you know, clear recognition … that I am in fact looking at what they’re doing … in a good way! Not like peering over their shoulder … which, of course, one has to worry about, right? Because that’s not helpful when you’re being kind of stalked by the instructor. Um, so yes, it’s sort of a benign interest, I think.

37 And then sometimes I’ve had to go like into, sort of, e-mail, to discussion, face-to-face discussion, when somebody’s either being too … is actually causing other people some anguish, and they are kind of withdrawing, and I can see that because all of their contributions stop and I’ve had to try and very clearly talk to whoever it is that you can’t make sort of assumptions about other people. You have to … you know … there are ways … and it’s these literacy practices that are appropriate particularly in an asynchronous context. But also I would argue in any kind of learning context where we all have to be respectful of each others’ sort of starting points. So, and when I mark too, my goals for students are that I can see where they start and I can see where they end, and I want to see their understanding of where they start and where they end, which is why I always have that assignment about the pre- and post-thing … you know, what you started out with and how you’re thinking about things differently at the end of the course. So … and I put a fair bit of weight on that because, not in marks but in terms of really getting a sense of whether they’ve kind of really try to get involved in the ideas, and then the final paper gives me a sense of how much they’ve actually been able to, sort of, get inside those ideas. So that’s another picture.

38 And then the other one is the learning journals, which also gives me a sense of how they’re engaging. So … and then there’s the participation itself, and I count reading as well as writing. So altogether that gives me, I think, a very rich … for me it’s a rich set of activities by which to evaluate people. Oh, and of course the learning journals are self-assessed too, which gives the students a sense of agency in their own assessment process. So that altogether, that gives … I think that helps with the issue of dealing with people who come from diverse locations in multiple ways and having them have a kind of fair and positive experience in the course.