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Identity presentation: The construction of identity in asynchronous discussion

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Identity Presentation:
The Construction of Identity in Asynchronous Discussion

Brian Morgan

Abstract: This study examines the use of e-mail as a tool for long term discussion between teachers and grade six students. E-mail messages between grade six students and teachers were collected over the course of one academic year. Methods of conversation analysis within a framework of social practice are used to examine the data. While identity is more readily constructed and more fully developed in contexts which allow for physical embodiment such as face-to-face discussion, this analysis found that identity can be constructed in a context that does not provide for the physical embodiment of identity: Identity was constructed using the social, cultural, and technological tools provided and supported by e-mail to develop social practices germane to the e-mail discussion. This study has implications for further understanding the relation between identity, goals, constraints and affordances, and the collaborative creation of social practices in asynchronous computer mediated communication.

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1. Introduction

Although considered old technology by some (O'REILLY, 2005), e-mail still has potential for use in education, particularly literacy education: e-mail depends upon reading and writing: largely eliminates the restraints of time and geography on interaction; and, its ubiquity and simplicity make its use widely accessible, all potentially beneficial to literacy instruction. However, little attention has been paid as has been with other forms of computer mediated communication (e.g. MOOs and MUDs[1]) regarding the role of identity in e-mail use in education. [1]

There has been an interest in the role of computer technology in literacy education for quite some time (HOFFMAN & PEARSON, 2000; TAO & REINKING, 2000; LABBO, 1999; COIRO & DOBLER, 2007). That interest includes its use as an intraclass tool for writing and reading, as a way to understand literacy learning, and as a conduit to the Internet and the reading and communication opportunities that the Internet provides (COIRO & DOBLER, 2007; JACOBS, 2004; SUTHERLAND-SMITH, 2002; MERKLEY, SCHMIDT, & ALLEN, 2001; HOFFMAN & PEARSON 2000; LEU & KINZER, 2000; MOJE, LABBO, BAUMANN, & GASKINS, 2000; LABBO, 1999; LABBO & REINKING, 1999; LOVE, 2002; VALMONT, 1999). Typically, the focus has been upon the use of technology and its implementation and its effects upon learning rather than upon the use of technology to enhance teaching and learning especially in regard to teaching case presentation to pre-service and in-service teachers (TEALE, LEU, LABBO, & KINZER, 2002; LEU, 2000; TRATHEN & MOORMAN, 2001). Little empirical evidence has been gathered that illuminates how teachers understand their role as co-users of Internet communication technology in literacy education. [2]

SUTHERLAND-SMITH (2002), for instance, acknowledges the impact that technology (meaning Internet and computer technologies) has had in the classroom. Technology has affected the way that text is produced by students and on the way students read print text. SUTHERLAND-SMITH (2002) considers this effect to be part and parcel of what LEU (1997) referred to as the deictic nature of literacy in general and refers to it as "web literacy (p.663)." As a result, SUTHERLAND-SMITH (2002) calls for an examination of the impact of technology on literacy. However, like others, this examination focuses upon children and their experiences with technology and literacy and recommendations for teaching web literacy. Most recently COIRO and DOBLER (2007) investigated the online reading comprehension strategies of skilled readers and how those strategies resemble paper-based reading strategies. Not surprisingly, the hypermedia features (the ability to link text internally and externally to other texts) influence and change the comprehension strategies employed by good readers. [3]

More specifically, other studies have examined pedagogical uses of e-mail in literacy education (TRATHEN & MOORMAN, 2001; McKEON, 2001; TAO &

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1   A MOO is a text-based online virtual reality system to which multiple users (players) are connected at the same time. A MUD (Multi-User Dungeon, Domain or Dimension) is a multi-user, online game that combines elements of role-playing games and chat rooms.

REINKING, 2000; LABBO, REINKING, & MCKENNA, 1998; LABBO & REINKING, 1999). It should be noted that while e-mail does indeed use the Internet, it is unlike text associated with SUTHERLAND-SMITH's (2002) conception of web literacy in that it resembles very closely other print texts and for the most part lacks the features of hypertext and other web based texts most often associated with web literacy. Several studies have examined and related some of the pedagogical uses of e-mail to literacy more closely (TRATHEN & MOORMAN, 2001; McKEON, 2001; TAO & REINKING, 2000; LABBO et al., 1998; LABBO & REINKING, 1999). [4]

For example, TAO and REINKING (2000) found in a review of research around the use of e-mail in literacy instruction programs for children that there is support for the belief that e-mail facilitates classroom interaction, creates a more democratic context for discussion, enhances opportunities for collaboration, and fosters learning development. While their review dealt mainly with the effects upon children, a portion of their research discussed research regarding e-mail and literacy instruction involving correspondence between teachers and students (NIDAY & CAMPBELL, 2000; KINNUCAN-WELSCH & ARNOLD, 2000; McKEON, 2001; STURTEVANT, PADAK, & STURTEVANT, 1998) or between teachers themselves (AYLWARD & MacKINNON, 1999; HAMMOND, 1998). However, when these studies involve children as participants, they deal primarily with the benefits of correspondence for children's reading and writing—there was only ancillary reference to teachers growing awareness of the benefits of using e-mail as a way to foster good writing and reading (STURTEVANT, PADAK, & STURTEVANT, 1998). The research on teachers and their use of e-mail as a way to understand children's thinking about books when distance and time do not allow for face-to-face interaction is large in volume but inadequate in quality and depth (TRATHEN & MOORMAN, 2001). [5]

One study of particular interest—due to basic structural resemblance to this study—by McKEON (2001) examined the correspondence between pre-service teachers and elementary school students as a sort of electronic substitute for the typical literature response journal. Most other studies like this were concerned with ascertaining whether the elementary students derive benefit from using e-mail. This study found that students engaged in both socialization talk and book talk equally and discussed the books in "authentic" and meaningful ways. No findings regarding the way either the teachers or elementary school students learned how to engage in authentic and meaningful book discussion. In other words, no study has examined ways in which learning occurs in e-mail. [6]

The question arose as to how best to look at and begin to understand e-mail-based correspondence in use. Rather than look at "potential talk"—the discussion of what certain technologies might do (SCOLLON & SCOLLON, 2004)—I looked at *e-mail in use over time for particular ends.* In other words, what does learning look like in e-mail discussion? Three questions were germane to understanding e-mail correspondence: (a) What theoretical and analytical tools lend themselves to understanding asynchronous computer mediated communication (CMC) such as e-mail? (b) What is the nature of the development of practices in

asynchronous CMC such as e-mail? (c) How is identity created, negotiated, and maintained in asynchronous CMC such as e-mail? [7]

Studies of e-mail correspondence have relied primarily on methodologies used to analyze and understand "on paper" correspondences (LOVE, 2002), and methodologies and coding schemes appropriate for other types of asynchronous threaded CMC have been developed (SUTHERS, DWYER, SATRAPU, & MEDINA, 2007; BOYD, LEE, RAMAGE, & DONATH, 2002). Methods of analysis which take into account the historical development of e-mail discussion as CMC, the immediate history of the correspondence under examination, and the social forces which affect that correspondence have been undeveloped or ignored (SUTHERS et al., 2007; BOYD et al., 2002; TAO, MONTGOMERY, & PICKLE, 1997). [8]

Therefore, this paper will discuss first social practice as a framework to understand data classified using Conversation Analysis. The combination of social practice and Conversation Analysis (CA) helps provide insight into actions of participants and the development of identity and social practices in long-term e-mail discussions. Second, this paper provides examples of analysis using this methodology. The remainder of the paper discusses the development of practices and concurrent presentation of identity which supports successful e-mail discussion. [9]

2. Framework for Analysis

Social practice theory has been used to understand learning within communities (HOLLAND, LACHICOTTE, SKINNER, & CAIN, 1998; BARTON & HAMILTON, 2000; GEE, 2005). It describes the progression of learning as it relates to changes of identity, the significance of activity, and the development of practices which provide the context of meaning for activity and identity. Briefly, practices are the unification of activity, identity, and meaning within a particular social space as recognized by participants in that space. Practices are recurrent, goal directed activities which refer to socially recognized ways of accomplishing tasks for which a particular technology is suited (SCRIBNER & COLE, 1981). [10]

In e-mail (and other CMC), discourse becomes both a tool (VYGOTSKY, 1986) for statements about identity and a context for those statements (VOLOSINOV, 1994). Identity is authored in the interactive space between individuals and develops through social practices (HOLLAND et al., 1998). E-mail (conversation) is such an interactive space in which a person can or cannot be "present" as the affordances of that space allow (GREENO, 1998). In some regards, a person presents her- or himself in that space. [11]

2.1 Figured worlds

One way to look at discourse within the particular social, cultural, and historical context of e-mail discussion (BAKHTIN, 1981) is through HOLLAND et al.'s (1998) notion of "figured world." It provides a framework to examine the formation

of identity within and in relation to cultural, social, and historical forces, the meditational means used in that formation, and the part that individual agency plays in the formation of identity. They provide a definition of figured world.

> "By 'figured world', then, we mean a socially and culturally constructed realm of interpretation in which particular characters and actors are recognized, significance is assigned to certain acts, and particular outcomes are valued over others. Each is a simplified world populated by a set of agents […] who engage in a limited range of meaningful acts or changes of state […] as moved by a specific set of forces … (HOLLAND et al., 1998, p.52). [12]

"Figured worlds" (HOLLAND et al., 1998) can be used to understand the people, structure, context, actions, and practices associated with e-mail discussion as a social and cultural activity and context for activity that occurs over some determinable period of time (BRIDGES, 1978). Once activities, people, and context have been identified using reliable methods of analysis, the notion of "figured worlds" is used to describe and understand the significance of those elements as they work together. [13]

2.2 Modified conversation analysis

Conversation Analysis (CA) is concerned with looking at and analyzing the everyday talk of individuals as a form of ordered action (SACKS, SCHEGLOFF, & JEFFERSON, 1978; HAVE, 1999). CA is an attempt to understand talk in interaction. Discussion can be thought of as a species of conversation. E-mail (and e-mail discussion) has a number of features (HERRING, 2001) that recommend it for examination using applied CA (HAVE, 1999; SACKS et al., 1978; SCHENKEIN, 1978). [14]

While strictly speaking, e-mail is neither face-to-face nor synchronous conversa-tion as is usually the subject of analysis in CA, it does retain a number of features (HERRING, 2001) that when examined using methods outlined in the literature surrounding CA (HAVE, 1999; SACKS et al., 1978; and SCHENKEIN, 1978) insight can be gained into e-mail as a type of conversational interaction. [15]

E-mail and other types of computer-mediated discourse fall somewhere between writing and spoken conversation (HERRING, 2001). First, although they do not often approach the speed of face-to-face synchronous conversation, conversational exchanges using e-mail are faster than other types of writing. Second, while e-mail is often described as a lean medium because of its lack of sensory inputs other than text as opposed to the multiple sensory inputs available to face-to-face conversation, ways have been developed by which e-mail expresses those other sensory inputs using text. Third, e-mail is one way communication as opposed to two-way as is spoken conversation in that the recipient in e-mail conversation does not see the message until that message is complete whereas in spoken conversation both speaker and recipient hear the message as it is being produced (HERRING, 2001). [16]

Despite these differences from spoken conversation and other types of non-computer-mediated writing, e-mail does have the following features which allow it to be analyzed using CA. First, like spoken conversation e-mail conversation is structured around a basic unit that can be thought of as a turn in conversation: a portion of the conversation which is controlled by one speaker to a point in the talk when another speaker may or does speak. Second, the structure of individual e-mail messages like spoken conversation reflects what HERRING (2001) calls "social situational factors" which through the local management of the participants determines the form and structure of the e-mail in the same way that conversation is managed locally not unlike the way in which practices are managed in "figured world" (HOLLAND et al., 1998). Third, e-mail does rely upon turn management systems to determine who "speaks" next in an exchange. That is, it is usually understood that an e-mail is sent and then the recipient has the right/obligation to reply. Fourth, like spoken conversation, the length and structure of each individual e-mail message is determined mainly by the person writing the e-mail as is the case with the speaker and turns in spoken conversation. Fifth, the idea of turn adjacency is present in e-mail conversation. Adjacency pairs are pairs of turns, which are "obligated" to go together such as a greeting and a response or a question and answer. [17]

HERITAGE (1997) has modified and applied CA to look at talk within social institutions. He has proposed that the following six areas be looked at: (a) turn-taking organization; (b) overall structural organization of the interaction; (c) sequence organization; (d) turn design; (e) lexical choice; and, (f) epistemological and other forms of asymmetry. [18]

HERITAGE (1997) has developed an analytic frame, which can be used to look at talk as it is manifested within certain institutions (social contexts) as a way to gain insight into those institutions, their participants, and what the participants do in relation to these institutions and the rules and requirements of these institutions. HERITAGE (1997) has proposed that the following six areas be looked at when using CA to understand institutional (applied) interaction: (a) turn-taking organization; (b) overall structural organization of the interaction; (c) sequence organization; (d) turn design; (e) lexical choice; and, (f) epistemological and other forms of asymmetry. [19]

If we return to the six areas as proposed by HERITAGE (1997), it is clear that e-mail is a candidate for a type of CA. First, the *turn-taking organization* of certain institutions is germane to those institutions. Both my classroom and the grade six teachers classroom used a peer-discussion format to organize discussion (ALMASI, 1996). Although, the purpose of the project was the use of e-mail to discuss books and as such was novel as far as the participants were concerned, they had familiarity with a certain organization around which discussion occurs and as such that organization was the most familiar one available to either of the group of participants. [20]

Second, the overall *structural organization* of the interaction and its parts are related to the tasks and goals of the parties taking part in the interaction and the

institution. All the participants understood the primary goal of the e-mail correspondence to be discussing books. Although the teacher and grade six student participants might characterize idiosyncratically what discussion was as far as depth and significance is concerned, they all understood the goal of the correspondence to be talking about books. These understandings shape the interaction as well as move toward or away from the goals of the interaction and function/purpose of the institution being studied as this structure evolves through the talk. [21]

Third, is *sequence organization* in which participants organize the sequence of turns in order to talk about certain things in certain ways and give each other and themselves the opportunity to do so. Participants could (and did) decide cooperatively what they wanted to focus their discussion upon for whatever amount of time they wished. [22]

Fourth, *turn design* refers to how individuals design their individual turns as part of the conversation. In designing their turns participants in the interaction refer to the action the talk is designed to perform and the means that are chosen to perform the action. Over time some participants developed a structure to their turns (e-mail messages) that placed an exchange of personal information at the beginning of the e-mail message, book-related talk in the middle section, and a reminder to continue to correspond, remark upon the rate of correspondence, and/or thanks for corresponding promptly and regularly. [23]

Within those turns a fifth area of examination is evident. That is, the *lexical choice* which participants make in relation to the institution, the task, and the individuals. Some of the teacher participants engaged in what one teacher described as "teachery talk" (Theresa, Interview) in that the choice of words were from the lexicon that teachers use when speaking about books with the intention of promoting deep response and analysis by students. [24]

Last, the sixth area to look at in institutional interaction, *epistemological and other forms of asymmetry*, is focused upon the ways in which people participate in interactions. While this e-mail correspondence as a way to discuss books was new to all participants, they had different knowledge about discussion, e-mail, books, school, reading, and themselves to name but a few areas. [25]

An application of CA within the framework of "figured worlds" can uncover the meaning of elements of e-mail as they are produced and change in the context of the e-mail discussion. Conversation Analysis helps get at how the participants functioned in "... a simplified world populated by a set of agents [...] who engage in a limited range of meaningful acts or changes of state [...] as moved by a specific set of forces …" (HOLLAND et al., 1998, p.52) in the figured world of e-mail discussion of children's literature. [26]

3. Design of the Research

This study is designed as a case study that is bounded by the extent of the e-mail project (CRESWELL, 1998). The case is limited by the duration of the project (two semesters). The primary source of data is the e-mail messages themselves. All e-mail messages and excerpts from them appear in this paper with no correction of grammar or spelling. [27]

As a part of a children's literature course which I taught, I required my students (pre-service and in-service teachers without permanent certification) to participate in a one-to-one e-mail correspondence with a grade six elementary student: a new experience for the teachers, the elementary students, and me. I intended this correspondence to center around the books the teachers and I were reading in our classroom and those the grade six students were reading in theirs in order to allow my pre-service and in-service teachers the opportunity to discuss books with children outside of the usual classroom context. To make this project work, I enlisted the help of a grade six Language Arts teacher, and we collaborated to ensure that some of the books used in her class and in mine were the same, in that way partially aligning our book lists. My students were required to read 29 books for the children's literature course, 13 of which were read by both the teachers and the grade six students. The books that were chosen for the teachers and the grade six students to discuss came from the already established list of the grade six teachers. The books in common conformed to the list that she chose for her classroom. Her choices were books she liked and thought her students would like. [28]

My purpose for this e-mail correspondence project was that the students in my class would gain deeper insights into how elementary (grade 6 specifically) school students make meaning of books that they read. I believed that it would be interesting for them and perhaps beneficial also to have the opportunity to discuss books with young readers on a one to one basis. Out of my intention of giving the teachers an opportunity to gain deeper insight into how elementary students make meaning of books that they read, a question arose regarding how e-mail could be used and what that use might mean to teachers engaged in using e-mail to facilitate conversations about books. What would I (and the teachers) need to know about e-mail discussion in order to be able to intelligently and realistically incorporate e-mail technology into the teacher-education classroom as a way to facilitate communication between teachers and students when circumstances of distance and time precluded face to face interaction between the participants in the discussion? Circumstances of distance and time include: a) teacher education classes are held on a college or university campus; b) those classes are often held after school has ended for the day; and c), many college/university students work during the school day. While strictly speaking, the idea of using the Internet or other computer based communication networks as a way to overcome distance and time in teacher education (e.g. SCOLLON & SCOLLON, 2004; TRATHEN & MOORMAN, 2001; AYLWARD & MacKINNON, 1999; HAMMOND, 1998) was not entirely new, there were aspects of that use of computer based communication networks which were unstudied. Rather than

look at what SCOLLON and SCOLLON (2004) call "potential talk"—the discussion of what certain technologies might do—around the use of e-mail as a way for teachers to talk to elementary grade students, I examined what actually happened when teachers communicate with grade six students via e-mail when the talk centers around a book. [29]

It became important that I look at this Internet project in a way that would provide understanding of what exactly went on in the above situation in my classroom in order to discover if using e-mail in this fashion in the classroom would be of benefit to pre-service and in-service teachers in any way. If it was or was not of benefit to my students, any understanding provided by this research study would allow me to either modify for improvement or abandon all together this classroom practice. Therefore, upon reflection, I decided to attempt to look at this pedagogical practice in a more systematic-analytic way. This could become an opportunity for me as well as the pre-service and in-service teachers to learn something and to inform our practice as well. I would design a pedagogical practice for my university course—in this case the use of e-mail—and study its implementation and effects and then make needed modifications, always with the idea of returning to this cycle of design, implementation, and study (COBB & BOWERS, 1999; ROTH, 2001; BROWN, 1992). This paper represents the first phase of that cycle. [30]

The pre-service and in-service teachers might benefit in two ways. They might gain a different and perhaps fuller understanding of the ways in which children make meaning around text, and they might—once they became more familiar with its workings—take up the practice of e-mail correspondence in their own classrooms. In turn, I might gain insight into ways of promoting discussion about literature between in-service and pre-service teachers and children through the use of e-mail, and in that way I might find ways to foster the different understanding the teachers acquire as they engage in e-mail discussion about books with elementary grade students. [31]

The teachers were required to discuss books via e-mail with grade six students for one semester; they were not required to submit data nor was participation in the research at all related to the grade they received. The assignment established the boundary and initial context for the discussion and the means for participants to enact that discussion. The teachers and the grade six students were participating in an e-mail discussion, which was centered around or limited by the assignment of discussing children's literature. Participants occasionally stepped outside that boundary. [32]

3.1 Context (nexus)

The idea of a nexus of participation as presented by SCOLLON and SCOLLON (2004) presents a suitable and workable way of thinking about the physical/research context of a discussion mediated by e-mail. A nexus is the entirety of the network, the participants, and the ways that the participants access that network. In other words, the sites of participation were distributed across

cyberspace with the individual computers upon which the e-mail messages were typed and read becoming tools for the manipulation of and physical access points to cyberspace. The distribution of individuals who had contact with the activity surrounding this e-mail project and the means by which they interacted make up the nexus of practice. The individual computers produced the written artifacts of the discussion that occurred between the teachers and the grade six students and the data were collected from the grade six teacher's computer. [33]

With respect to the pre- and in-service teachers, all e-mail correspondence was sent either from computers at work or at home. The grade six students sent e-mail only from computers located in their classroom or the school computer lab, and they did not send e-mails from home. The grade six teacher was a facilitator and promoter of classroom discussion (as well as being the teacher). [34]

Furthermore, the boundaries and context for the discussion and the means and participants to enact that discussion was established by the assignment itself. The teachers and the grade six students were participating in an e-mail discussion, which was centered around or limited by the assignment of discussing children's literature. Participants occasionally stepped outside that boundary. Therefore, establishing the nexus of participation not only describes the research context but also delineates the physical boundaries of the communicative context as well. [35]

3.2 Participants

Both the pre- and in-service teachers (graduate students in a Children's Literature course at a nearby university) and grade six students from a rural middle school participated in the study. The following table shows the pseudo-random assignment of the correspondence partners. The teachers never met the grade six students. I set up individual e-mail accounts for each of my students; each e-mail sent and received by them was forwarded to my account. These e-mails were not examined until after the close of the course and the teachers had agreed to participate in the study. [36]

I introduced this project to the pre- and in-service teachers enrolled in my children's literature course as part of an overview of the course the first day of class. As described earlier the students were required to discuss books via e-mail with grade six students for one semester; they were not required to submit data nor was participation in the research at all related to the grade they received. As is usually the case in any class, the students just saw it as another thing to do at first. They were more concerned with the logistics of the assignments: due dates, grading policies, and procedural issues. When I first introduced this assignment, none of the pre- or in-service teachers expressed an extraordinary amount of enthusiasm for this project nor did they seem lackadaisical about it either. They just asked for the details and requirements and began. In all cases the teachers initiated the correspondence by sending the first e-mail. They approached this assignment as they did the rest of their requirements for the course with a willingness to learn and take as much away from the course as possible.

However, some did agree to extend their participation beyond the end of the semester to further enhance their learning and my study. They became the teacher participants of this study. All names are pseudonyms. [37]

As mentioned previously, the teacher participants were all students in a graduate level Children's Literature course which I taught. While they were required to correspond during that semester, none were required to submit data (e-mails) for analysis during the semester nor to continue to correspond for the following semester. Those who volunteered to participate in the extended correspondence and allow analysis of their e-mails did so after the close of the course (first semester). Like the grade six student participants, their participation was voluntary. [38]

Although the teacher participants were either pre-or in-service teachers, they were not identified as such to the grade six students when the project was introduced to them. Some of the teacher participants self-identified as teachers over the course of the correspondence. [39]

These participants were paired with their grade six partners pseudo-randomly by the six grade teacher. The grade six teacher merely paired participants from my pool of potential participants with those grade six students who agreed to participate. [40]

The grade six students were also recruited for this study as volunteers. I went to the classroom of the teacher who collaborated with me on this project and described to the students the study and what participation in it would entail. I explained to the students that they, after receiving permission from their parents or guardians would have the opportunity to correspond via e-mail with students in my class. The grade six students were also assured that their participation or non-participation in this project would have no influence upon their grades or status within the class. I did not describe the pre- and in-service teachers as anyone other than "my students" to the grade six students. Any grade six student who was interested was required to ask for permission to volunteer from her or his parent or guardian. Signed permission slips were obtained by me. [41]

The grade-six teacher allowed the grade six students to write their correspondence to the pre- and in-service teachers whenever the grade six students had free time. No class time was devoted to the project. Confidentiality was maintained in that the elementary students could not and did not use their last names and all correspondence was monitored. All grade six students had access to the classroom computers and the computer lab during regular lab time and free time. [42]

All the grade six students who participated in this project attended the same rural public elementary school. Approximately 500 students from Kindergarten through grade six attend this school. [43]

In the remainder of the paper participants will be identified by *name and either the letter T for teacher correspondent or S for grade six correspondent* (e.g. Thomas (T) for teacher participant; Jillian (S) for student participant.

Teacher Participant	Grade Six Correspondent
Tommy	Jimmy
Francine	Jill
Jacki	Roger
Marie	Kasey
Joan	Michelle
Betty	Kirsten (1st semester)
	Rosalyn (2nd semester)
Theresa	Jillian

Table 1: Assignment of teacher participants to grade six correspondents [44]

3.3 Source of data

E-mail messages were collected over the course of two semesters. Every e-mail was stored on a secure e-mail server. From time to time the six grade teacher would look in on the correspondence to ensure that the discussion remained appropriate. Table 2 contains the number and frequency of e-mail messages sent by teachers and grade six students. [45]

The rate of correspondence and time between reply varied between sets of correspondents. Tommy (T)/Jimmy (S); Francine (T)/Jill(S); Jacki (T)/Roger (S); and, Marie (T)/Kasey (S) corresponded infrequently with gaps of sometimes weeks between e-mail messages. Joan (T)/Michelle (S) corresponded weekly with time between replies of only 2-3 days. The only exception to this was when Michelle (S) was ill. Betty (T)/Kirsten (S) corresponded very infrequently over the first semester with Kirsten (S) eventually dropping out of the study. Betty (T)/Rosalyn (S) corresponded at least twice a week (2 e-mails each) with only one day at most between replies. Theresa (T)/Jillian (S) corresponded 2-3 times per week (2-3 e-mail each) with often less than 24 hours between replies by the end of the project. [46]

Length of e-mails corresponds to the same distribution as that of frequency. Those correspondence pairs that corresponded more frequently also eventually sent longer e-mails of between 10-20 sentences although all e-mail messages were about 4-5 sentences long for the first quarter of the project. If the goal of the assignment was to engage in long term discussion of books using e-mail, then those participant pairs whose members both corresponded more frequently and using e-mail messages of greater length were most successful in reaching the

primary goal of the assignment. This definition of success was generated by participants during class discussion of the project.

	Number of E-mail Messages	Average Length in Sentences	Grade 6 Participant	Number of E-mail Messages	Average Length in Sentences	Frequency of Exchange of E-mail Cor-respondence
Tommy	11	5	Jimmy	9	3	1-2 per month
Francine	15	5	Jill	15	3	2 per month
Jacki	8	4	Roger	8	3	1 per month
Marie	12	6	Kasey	7	4	1 per month
Joan	27	8	Michelle	38	5	4 per month
Betty	3	5	Kirsten (1st semester)	3	2	1 per month
	26	9	Rosalyn (2nd semester)	26	8	2 per week
Theresa	75	11	Jillian	78	10	2-3 per week at onset; 4-5 by end
Total	177		Total	184		

Table 2: Number, frequency, and average length sentences of e-mail messages sent by teacher participants and grade six participants [47]

3.4 Analysis

I examined each e-mail correspondence between pairs of participants using HERITAGE's (1997) six categories with particular attention to structural organization of the correspondence, sequence organization of the e-mail messages (turns) in the correspondence, and how each individual e-mail message was designed by participants. I used HERITAGE's (1997) first category to look at each participant pair's e-mail correspondence to determine to which social context their correspondence might be related. Essentially, I asked to which social context the overall organization of their discussion was most related, in what context would a discussion like the participants' take place. Using HERITAGE's second category, I examined how the participants' discussion was shaped by them over time to meet their goals in relation to the social context within which the participants believed the discussion was taking place. In what way was the discussion shaped to help meet the goals of the participants and the institution (the e-mail discussion project) they believed the discussion was a part of. The third category was used to determine how individual sequences of e-mail messages were organized so that the participants could say what was necessary

for each to say in order to accomplish their goals. I examined each e-mail message (turn) using HERITAGE's fourth category in order to determine how each e-mail message was structured by the participants in reference to the primary goal of the discussion and the means they used in those messages to enact the purpose of the correspondence. I looked at the lexical content or word choice of each message as well, HERITAGE's (1997) fifth category to see how those choices were related to the institution, the task, and the participants. Finally, using HERITAGE's sixth category, I examined the epistemological asymmetry of the correspondence. That is, I looked how the knowledge the participants had about the correspondence, discussion, e-mail, teaching, their relation to the correspondence, and other related aspects of the correspondence influenced the way that the participants interacted. [48]

This analysis was then organized around the idea of figured worlds. Changes within categories were examined over time with attention being paid to the relation these changes had on the importation of practices from other contexts (i.e. figured worlds) or the initiation and development of practices within the context surrounding the assignment of discussing assigned books. [49]

4. Definitions of Goals/Examples of Practices

As practices are recurrent, goal directed activities which refer to socially recognized ways of accomplishing tasks, I will briefly define and differentiate between two types of goals (SCRIBNER & COLE, 1981). [50]

4.1 Primary and parallel goals

One overriding goal that was imposed by me upon the participants in this study was that they should attempt to use e-mail to engage in discussion with grade six students to acquire an understanding of the way elementary age students think about books that both the grade six students and the teachers had read. This goal was a class assignment. While the grade six students were free to participate in the correspondence as they wished—dropping out or in, writing as frequently as they wished- the teacher participants in this study were required to attempt to engage the grade six students in e-mail discussion of the books in an ongoing and consistent basis. The teacher participants were able to withdraw from the study at any time without penalty. Nonetheless, they had to participate in the class assignment. It may be important to note again that whether any teacher participant's grade six correspondent dropped out or not or infrequently wrote had no bearing whatsoever on a class grade, and they knew that. Therefore, attempting to correspond with a grade six student was the primary goal for all the participants under study here. After this initial goal, each participant developed additional goals as they saw fit, or as they attempted to complete the assignment of discussing books with a grade six student using e-mail as the sole means of communication. These goals were individually and personally generated by each participant although it is obvious that there were a number of influences upon their decisions. [51]

4.2 Practices

The following excerpts provide example of the negotiation and development of practices by the participants. Although practices are examined separately, they in fact work with one another often blurring the line between their separate functions and structures. They are presented as discrete practices only for convenience of analysis. [52]

4.2 E-mail as practice

Using e-mail as a way to discuss books with grade six students was new to the teachers and grade six students. These participants used a variety of practices when using e-mail to discuss books. A practice is any activity that recurs and whose meaning is recognized by those engaging in it within a certain domain of meaning or setting (HOLLAND et al., 1998; GEE, 1992; LAVE & WENGER, 1991). E-mail itself is not a practice. Neither are speaking or writing by themselves practices. Without a context of use, they have no meaning. Like speaking and writing, E-mail is manipulated in form and content under different circumstances to perform different actions. E-mail has purposes and links to meaning apart from the immediate context where it is utilized. In other words, it is what one does with e-mail and what he or she and others thinks he or she is doing with e-mail that determines what the practices are associated with e-mail in that context. Three areas of the correspondence were examined: (a) the types of practices; (b) the origin of the practices; and, (c) the purpose of the practices. [53]

4.3 Types of practice

Each practice was a way to work toward the primary goal of the project (talk about books with grade six students) and the parallel goals which developed over the course of the project. There are three categories of practices. Those categories are: (a) practices which are centered around discussing books, (b) practices which are centered around discussing self, and (c) practices which are centered around discussing the correspondence itself. The practices are meaningful to the participants, and those meanings are dependent upon the goals, history, and identity of the participants. [54]

4.3.1 Discussing books

The participants knew how to discuss books at the beginning of this research project. The grade six students had experience discussing books both casually (at home, with friends and so forth) and as part of their language arts programs. The teachers had more experience discussing books, both as teachers and as students. Though the teacher and grade six students never met, they shared a basic cultural and historical conception of book discussion. All participants had experience previously in book discussion, but they held distinctly different roles and identities. Teachers lead discussions and ask questions; students follow and answer. Therefore, while all the participants had available to them a repertoire of practices which they could call on when discussing books in the novel situation of

e-mail; epistemological asymmetry existed between the teachers and the grade six students. Their knowledge about discussion was different. [55]

Participants relied upon practices from domains of meaning which were similar in purpose and structure (classroom for example) or from media (speech, e-mail, or letters for example) at the outset of the correspondence. These borrowed practices developed into new practices which were more or less strongly related to practices from the other domains of meaning with which they were familiar (HOLLAND et al., 1998; GEE, 1992; LAVE & WENGER, 1991). Since using e-mail as a way to discuss books was new to them, it would be reasonable to assume that the participants would attempt to use practices from contexts which were similar to or had elements like those of discussion such as face-to-face discussion and from other e-mail correspondence. The teachers and students structured their e-mail messages and message sequences—at this point still two message sequences- according to their knowledge of discussion and e-mail from familiar contexts. [56]

The teachers began by asking questions about the books, a practice with which they were familiar from their own experience as students and teachers. For example, Tommy asks, "So, what did you think of the book?" [Tommy e-mail 10.4.01] Theresa's first e-mail message (10.02.01) provides another example of the initial practices. "I have heard that you finished reading Joey Pigza. What did you think of the book? Would you think that other sixth graders would enjoy the book?" [Theresa e-mail 10.02.01] The grade six students responded with brief answers. This is a common discussion/questioning pattern in the classroom. [57]

Questioning and answering were a practice associated with discussing books. Participants initially recognized this form of questioning as a primary or central practice in discussion. [58]

As the correspondence progressed, other practices beside asking and answering questions developed around the idea of discussing books. Participants began to develop new ways to discuss books with their grade six correspondents. [59]

As the teachers and students realize—due to the failure of the former question-answer practice to sustain discussion—that this context is different, epistemological asymmetry changes. Neither the teachers nor the students know more about talking about books in this context. Therefore to be successful, they collaborate on the development of new practices. [60]

To that end, participants departed from using questioning as the *sole* practice in the correspondence. This excerpt provides an example of a typical change in the questioning structure of the e-mail messages. "You said that the chapters seemed long at first—I found that too, but as I got further into the story, it seemed to go faster. Did it seem that way to you or am I just being weird?" [Tommy e-mail 11.15.01]. Tommy begins with a simple orientation to the book and the student's previous answer and then asks a question about it. [61]

Joan, Betty, and Theresa eventually abandoned questioning as a central practice. It becomes a practice which is supplementary to other practices which develop and are adopted. The structure and content of the e-mail messages changed as well. There are few to no questions. Instead opinions are offered as a way to initiate conversation. [62]

The participants have renegotiated the structure and sequences of the e-mail messages as the discussion is no longer like that of a classroom but has taken on a different structure as the teachers began to offer their own thoughts about the books, less frequently asked questions about what their grade six correspondent thought about the book, and offered thoughts about books from *outside the reading list*. For example, Joan discussed a book from outside the list of assigned books and discusses one of the assigned books without asking any questions. Her grade six correspondent adopted and employed this practice in the e-mail message she sent in response.

> "Well, it sounds like you are reading some really interesting books now. I have never read the book Hatchet but I have heard that it is very good. I would like to read it sometime. […]
>
> Yes, I did read the book Dave at Night. I thought it was a really good book but I got tired of hearing about all of the terrible things that went on at the orphanage. Those parts were really sad and I know that there are some places that might really be like that. […] It was also sad that no one in his family wanted to take care of him. I did like the setting and the time of the story though. That made it really interesting. I also like the way it talked about famous people of the era. I think that it shows children that they can overcome their obstacles if they really try and are creative." [Joan e-mail 1.21.02]
>
> "Yes I got sick of hearing everything that happened in Dave At Night. It was pretty sad to think that there are a lot of people in the world who don't have anyone who wants them. If I were left with no one who wanted me that was in my family I would just burst out crying and never stop. I think it is really cool that Dave is trying to get through all of his problems in a calm way.
>
> Hatchet is a really good book. You should try to read the book. It goes by slow but it is very wild, wild in a good way." [Michelle transcript 1.22.02] [63]

When opinion is offered (not only about books), that opinion is part of authoring and negotiation of the identity of the person offering it. Including a book in discussion and thoughts about the book, offers the opportunity to gain insight into character of the participant. It positions the participant as a reader of *this* book and not *that* book. The practice of introducing and discussing books from outside the reading list can be thought of as a practice which could be associated with talking about self as well as talking about books. The following excerpt provides example of discussing books from outside the book list as a way for Theresa to represent herself as a fellow reader rather than as a teacher. She asks no questions about the book as a teacher would. Theresa only wants to read along.

> "I picked up Wringer today but only got through the first two chapters, my kids were not doing a very good job during the day. How far are you? Let me know and I will catch up, it will be interesting to read right along with you, all of the other books I had finished before you had started them." [Theresa e-mail 6.11.02] [64]

 The *practice* of talking about books changed. E-mail messages were not questions from teachers and answers from students. Sequences were no longer two-turn question and answer. Talking about books not on the list of assigned books was introduced and was recognized by both the teachers and students as a way for the participants to talk about books and self. [65]

4.3.2 Discussing self

Participants began the assignment bringing in elements from their identity in other similar public contexts: the classroom and/ or other e-mail correspondence. Theses identities were tenuous and not well-formed. [66]

All participants began by introducing themselves.

> "I should start by telling you a little about myself. I teach sixth grade ELA in Xxxxxx. It is my second year and I enjoy teaching. I am excited to see what other sixth graders are reading and what they think about different books." [Theresa e-mail 10.4.01] [67]

The information provided was strictly indexical in that it would allow the recipient to say, "*someone particular* is e-mailing me." The information provided initially did not include details of what the teacher participant was doing at that time, details that were contemporaneous and dynamic. As grade six correspondents provided more and more personal information from their lives as they were living them at that moment, the teachers did likewise. [68]

The grade six participants introduced talking about self in detail and about events contemporaneous to the e-mail discussion. This was taken up by some of the teacher participants. Those correspondence pairs e-mailed more frequently, with less time between turns (e-mails), using lengthier e-mails. The following is an example of Jillian's (S) introduction of discussing self. [69]

As an opening to one of her e-mails, Theresa asks Jillian about her weekend. "How was your weekend? It was definitely a lot cooler than it has been." [Theresa e-mail 10.28.01] Rather than responding perfunctorily but politely to this question as she had in earlier e-mails, Jillian answers genuinely and in detail.

> "How are you? I am fine. My weekend was good. On Friday I went to the 'Red Oshur' in Stafford for my mom's 40th birthday. On Saturday, it was really my mom's birthday, but she had to work that night so we had a diner the night before. On Saturday morning my sisters made breakfast for my mom. We had pancakes, eggs, bagels, and toast. Big lunch, huh? So obviously, I had a nice weekend." [Jillian e-mail 10.29.01] [70]

The remainder of the e-mail discusses the points about *When Zachary Beaver Came to Town* (HOLT, 1999) that Theresa raised in her e-mail just prior to this one. It should be noted also that the frequency of the e-mail begins to increase at this point from about 1-2 e-mail exchanges a week to 4-5 exchanges a week. [71]

Theresa responds to this e-mail by acknowledging and discussing Jillian's personal information and by including her own.

> "How are you doing? It certainly sounds like you had a great weekend. I have heard of the Red Oshur but have never been there. My weekend was alright. I spent a lot of time doing schoolwork. […] In class, what sort of things are you discussing about the book? Was there anything you wanted to ask me, I would be more than happy to answer." [Theresa e-mail 10.29.01] [72]

The discussion thread about the books continues and develops as well as the discussion thread around personal day-to-day activities for the remainder of the e-mail correspondence. Both Theresa and Jillian have increased the frequency of their e-mails to the point where each writes back to the other on the day that an e-mail is received thus bringing the frequency up to 4 to 5 times a week. The content and structure of individual e-mail messages and the structure of sequences of e-mail messages changed: e-mail messages had either a two-part personal talk first, book talk second structure or were entirely devoted to personal talk. In either case, book talk and personal talk developed into threads which occurred over multiple e-mail messages. An e-mail message from Theresa late in the correspondence shows the development of the practice of talking about self.

> "Hi Jillian! How are you doing? Did you have a good Tuesday? My day went well, I had basketball practice afterwards and it felt good to run and play for a little while. I have grades to do tonight though because report cards are due at the end of the week. Also, I am being observed tomorrow, so I have to have everything ready for class, though I think it already is.
>
> I think Irma Lee is sweetheart also. She is full of so many good intentions and is friendly to everyone and always willing to help. She would also be someone that I would be friends with. Isn't the party that Dave goes to kind of fun. I just find it amazing that he could get of the orphanage and end up at a party like that. I guess I just wouldn't be daring enough to go out like that. How about you?
>
> Well, I hope you have a good Wednesday!
>
> Sincerely,
> Theresa" [Theresa e-mail 1.22.02] [73]

The personal information changed from an indexical function to the deictic. The practice of providing personal information beyond name, employment, and social position contextualized both the identity and all the information provided by that person. [74]

This exchange of information served the goal of discussing books in two ways. First, it allowed for the creation of another thread of discussion lengthening se-

quences. The teacher participants *and* grade six participants became more individually involved in the correspondence as a real conversation with a living individual who had a life part of which this correspondence and the resultant discussion were an important part. The goal of the correspondence became multi-faceted as not only the books but the lives of the participants and things of interest to the participants became subject for discussion. The (explicit) authoring and maintenance of identity became significant and became a way in which the participants created a tangible, approachable, person present in the conversation. [75]

Talking about self helped author not only a recognizable individual participating in *that* e-mail correspondence but also as someone with whom one might have a conversation about books (friendly fellow reader or friend) rather than as someone whose questions you answer (teacher). In all cases, whether at the prompting of their grade six correspondent and the resultant negotiation as to the form of that practice ultimately and/or through their own volition and negotiation, teachers included some form of personal information. [76]

Contemporaneous talking about self became a recognized practice in the e-mail correspondence. This practice became important as a way to decrease the anonymity of the participants and served to help create stronger connections between participants. [77]

4.3.3 Discussing the correspondence

As part of the change in design and organization of the correspondence, discussing the correspondence became a common practice. This practice manifested itself largely in the form of repairs (SACKS et al., 1978) and *anticipatory repairs* to the correspondence. While it is true that this is not unique to this correspondence and in fact is common to discussions and conversations, the way in which the practice was implemented here helps in understanding the significance that the correspondence and discussion had for the participants. Repairs while common to all conversation developed in a way that while not unlinked to conversations and discussions in different settings, were utilized in ways unique to the e-mail correspondence and were therefore the product of the e-mail correspondence and the goals and individuals associated with it. [78]

There were three main types of break in the correspondence: (a) the failure of the web mail system used; (b) participant absence; and, (c) causes such as lack of interest, interference of schedules, or some other related cause. Much more important than the cause of the break was what participants did in response to the break and how that response developed. [79]

Until the participants worked out how frequently they should correspond, one or other of the participants would sometimes indicate concern via e-mail that he or she had not received an e-mail message, but did not acknowledge nor apologize for breaks in the correspondence due to their own actions. Breaks in the correspondence were noted. Joan sends the following e-mail message when she does not hear from Michelle.

"Hi Michelle!

I sent you a message late last week but I am not sure that you got it. I received an error message back so you may not have. If not, I will give a copy of it to your teacher so that you can get it. Please tell your teacher that the document she sent today came to me blank with no text on it. Maybe she can try to send it again." [Joan e-mail10.22.01] [80]

As the correspondence became more regular, participants would make note of breaks and apologize. "Sorry it has taken me a few days to get back to you. I just started school again so things have been a bit hectic." [Betty e-mail 1.24.01] "I apologize for not getting back to you sooner. The holidays took me out of town and kept me very busy." [Jacki e-mail 1.15.02] [81]

Sometimes participants would send e-mail messages devoted entirely to monitoring the correspondence. It has been five days since Rosalyn's last e-mail, but since their correspondence has become regular (about twice a week) any pause in it is taken as a sign of trouble with potentially negative effects upon the correspondence.

"Hi Rosalyn,

How are you? I haven't heard from you in quite a while so I wanted to see if everything was all right. Did you get the last e-mail I sent?

Well, I hop that you are healthy and that you receive this message. Betty :)-" [Betty e-mail 2.20.02] [82]

The participants developed a way to make sure the threads of discussion were not broken by monitoring the correspondence to forestall any potential break. The participants would pre-repair the break by giving notice of absence. An example from a student is below.

"Hello Theresa!

This has to be a quick letter because it is time to go. Tomorrow I am going to NYC!!! I can't wait. Well go to go.

Your Partner,
~Jillian~

P.S. I won't be here tomorrow so I will talk you Monday☺" [Jillian e-mail 11.08.01] [83]

Participants would offer statements of anticipation. "Hopefully you get this and I will hear from you soon! Take care!" [Betty e-mail 3.14.02] They offered assurances of devotion to the correspondence. "Thanks for writing. Don't worry, I will write again soon. Have fun at school!" [Theresa e-mail 10.22.01] Participants developed a way to maintain contact as best they could within a communication system which had proved it to have the potential to be irregular either because of participant action or faults in the web mail system. They devised a practice to deal with the unique features of discussion using e-mail as the medium. [84]

5. Identity and Figured Worlds

At the outset of the assignment, the participants did not know what actions were meaningful or what identity would be recognized in this new communicative context. They did have an idea of what to do and who they were in other similar realms of meaning. They were familiar with other uses of e-mail. They were also familiar with discussing works of literature in other settings. [85]

Other figured worlds of which e-mail was a part and in which they discussed literature had activities which were meaningful, identities and positions which were recognized, and goals both personal and jointly determined were unique to those figured worlds. Participants used practices from other figured worlds (contexts) until new practices were developed most suitable to the goals of and which had meaning for the participants as the individuals they understood themselves and their correspondent to be. [86]

As the correspondence progressed and the participants realized that a discussion in this case could consist of more than a list of questions and answers, participants negotiated additional practices for the correspondence besides the exchange of information through questions and answers. New practices had to be developed and negotiated. As the teacher participants jointly developed, learned, and employed these new practices, they became people who did those things. They took on an identity that was associated with those practices and the people who used them. The practices, identities, and associated goals became part of the figured world which was discussing books with grade students using e-mail correspondence. [87]

Some participants were able through their actions to "fashion an identity" (HOLLAND et al., 1998). Those participants developed practices and identities that had a meaning particular to the e-mail correspondence. They began to talk about themselves and the contemporary events of their lives. Exchanging personal information (not talking about books) became important as it became apparent to participants that the explicit presentation of self—telling who they are—was a (new) goal of this correspondence. Some participants began to include talk about themselves, something determined by participants to be necessary for the correspondence and the discussion of the books. They developed ways to correspond and talk about books which were not exclusively those of the classroom. [88]

As the participants began to engage in the practices which they developed in the correspondence, their identities began to change. Very simply stated, they became individuals who used those practices which were recognized in the figured world of e-mail based discussion as opposed to people who did not use those practices and therefore were not recognized as having any kind of status in that figured world. [89]

The students knew that the teachers were teachers, and the teachers knew the students were grade six students. There was a social distance between the

teachers and students. However, the goals which were negotiated and the practices which were developed in the most successful cases, allowed participants to lessen the social distance and power differential which would potentially interfere with the discussion of the books. [90]

The participants were introduced to e-mail correspondence as a way to discuss books with students outside the classroom context, without the constraints of physical distance and time and of social status. Paradoxically, the constraint placed upon the discussion by physical distance was a necessary component (affordance) of discussing books outside the context of the classroom and outside the constraints of social position of teacher and student. The technology of e-mail as a way to overcome the constraints on the discussion of books by distance and time was not the only solution to the constraints of distance and time; the practices which the participants developed and used worked toward the solution of the problems associated with physical and social proximity and time. E-mail lends itself to the exchange of information over short periods of time; it does not lend itself to extended discussion over relatively long periods of time. It usually does not allow for the presentation of identity. [91]

There was the paradox of the need for the face-to-face element of discussion which e-mail does not provide and the social and cultural restraints that face-to-face discussion imposes. There was a need and an opportunity for a way in which "particular characters and actors are recognized" (HOLLAND et al., 1998, p.52) to be developed that would allow for a well-developed discussion of books using e-mail with as little direct influence of identities from outside the correspondence. E-mail presented the opportunity to overcome the social and cultural constraints and the restraints of physical distance but lacked the elements of face-to-face discussion necessary to establish an identity. The participants needed to make themselves known as individuals in the correspondence using a technology which did not lend itself to this type of knowing without negating or lessening the potential benefits of a discussion of children's literature. [92]

Discussion works best in face-to-face contexts in that the structure and flow of the discussion (conversation) and its goals are more instantaneously managed and more material is available for identity work. However, identity work, goal negotiation and management, and discussion management is affected strongly by the physical context of the participants as well as the presence of the participants themselves. The context of the discussion (conversation) and the presence of the participants affect the perception that the participants have of the position and social role of each other, the actions allowed for and by those positions and roles, and ultimately what the goals of the discussion are and who controls them. There was the need to develop new practices and activities which would be recognized as significant, that would allow for the advantages and lessen the disadvantages of face-to-face discussion. [93]

The students initiated the development of a practice that would overcome this problem. The grade six participants provided first the material (personal information) that was needed to fashion an identity within the e-mail

correspondence. It was necessary to at some time not talk about books to be able to talk about books more fully. That is, exchanging personal information became a practice and a way to author identity that allowed the students to discuss books as individuals outside the recognized roles of teacher and student. The coherent continuation of that exchange and maintenance of the identities presented and developed in the correspondence helped maintain a continuous discussion between the participants that allowed for a more developed discussion of the books. [94]

The most successful participants were able to develop and discover "... a simplified world populated by a set of agents [...] who engage in a limited range of meaningful acts or changes of state [...] as moved by a specific set of forces ..." (HOLLAND et al., 1998, p.52). That is, the participants negotiated goals to work towards, developed meaningful acts to reach them using the facilities provided by e-mail, and authored identities who could act in those ways. [95]

Acknowledgments

References

Almasi, Janice F. (1996). A new view of discussion. In Linda Gambrell & Janice F. Almasi Eds.), *Lively discussions! Fostering engaged reading* (pp.2-24). Newark, DE: International Reading Association.

Aylward, Lynn & MacKinnon, Gregory (1999). Exploring the use of electronic discussion group coding with pre-service secondary teachers. *Journal of Information Technology for Teacher Education*, *5*(3), 335-348.

Bakhtin, Mikhail Mikhailovich (1981). *Speech genres and other late essays* (C. Emerson, M. Holquist, Eds., & V. McGee, Trans.). Austin, TX: University of Texas Press.

Barton, David & Hamilton, Mary (2000). Literacy practices. In David Barton, Mary Hamilton & Roz Ivanic (Eds.), *Situated literacies: Reading and writing in context* (pp.8-10). New York: Routledge.

Boyd, Danah; Lee, Hyun-Yeul; Ramage, Daniel & Donath, Judith (2002). Developing legible visualizations for online social spaces. *35th Annual Hawaii International Conference on System Sciences (CD-ROM)*, *4*, p.115.

Bridges, Daniel (1978). *Education, democracy, and discussion.* Windsor UK: National Foundation of Educational Research.

Brown, Ann (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions in classroom settings. *The Journal of the Learning Sciences*, *2*(2), 141-178.

Cobb, Paul & Bowers, Janet (1999). Cognitive and situated learning perspectives in theory and practice. *Educational Researcher*, *28*(2), 4-15.

Coiro, Julie & Dobler, Elizabeth (2007). Exploring the online reading comprehension strategies used by sixth-grade skilled readers to search for and locate information on the Internet. *Reading Research Quarterly*, *42*(2), 214.

Creswell, John (1998). *Qualitative inquiry and research design: Choosing among five traditions.* Thousand Oaks, CA: Sage Publications.

Gee, James (1992). *The social mind: Language, ideology, and social practice.* New York: Bergin and Garvey.

Gee, James (2005). Semiotic social spaces and affinity spaces. In David Barton & Karen Tusting (Eds.), *Beyond communities of practice language power and social context* (pp.214-232). Cambridge: Cambridge University Press.

Greeno, James G. (1998). The situativity of knowing, learning, and research. *American Psychologist*, *53*, 5-26.

Hammond, Mark (1998). Learning through on-line discussion: What are the opportunities for professional development and what are the characteristics of on-line writing? *Journal of Information Technology for Teacher Education*, *7*(3), 331-346.

Have, Paul ten (1999). *Doing conversation analysis: A practical guide.* Thousand Oaks: Sage Publications.

Heritage, John (1997). Conversation analysis and institutional talk: Analyzing data. In David Silverman (Ed.), *Qualitative analysis: Issues of theory and method* (pp.161-182). London: Sage.

Herring, Susan (2001). Computer-mediated discourse. In Heidi Hamilton, Deborah Schiffrin & Deborah Tannen (Eds.), *The handbook of discourse analysis* (pp.612-634). Oxford: Blackwell Publishers.

Hoffman, James & Pearson, P. David (2000). Reading education in the next millennium: What your grandmother's teacher didn't know that your granddaughter's teacher should. *Reading Research Quarterly*, *35*(1) 28-44.

Holland, Dorothy; Lachicotte, William; Skinner, Debra & Cain, Carol (1998). *Identity and agency in cultural worlds.* Cambridge: Harvard University Press.

Holt, Kimberly Willis (1999). *When Zachary Beaver came to town.* NY: Henry Holt and Company.

Jacobs, Gloria (2004). Complicating contexts: Issues of methodology in researching the language and literacies of instant messaging. *Reading Research Quarterly*, *39*(4), 394-406.

Kinnucan-Welsch, Kathryn & Arnold, Jeff (2000). Making connections with web conferencing. *Kappa Delta Pi Record*, *37*(1), 17-21.

Labbo, Linda (1999). Toward a vision of the future role of technology in literacy education, http://caedofu.tripod.com/doc/labbo.pdf [accessed December 2001].

Labbo, Linda & Reinking, David (1999). Negotiating the multiple realities of technology in literacy research and instruction. *Reading Research Quarterly*, *34*(4), 78-92.

Labbo, Linda; Reinking, David & McKenna, Michael (1998). Technology and literacy education in the next century: Exploring the connection between work and schooling. *Peabody Journal of Education*, *73*(3, 4), 273-289.

Lave, Jean & Wenger, Etienne (1991). *Situated learning: Legitimate peripheral practice.* Cambridge: Cambridge University Press.

Leu, Donald (1997). Cait's question: Literacy as deixis on the Internet. *The Reading Teacher*, *51*, 62-67.

Leu, Donald (2000). Literacy and technology: Deictic consequences for literacy education in an information age. In Michael Kamil, Peter Mosenthal, P. David Pearson, & Rebecca Barr (Eds.), *Handbook of reading research* (Vol. III, pp.743-770). Mahwah, NJ: Erlbaum.

Leu, Donald & Kinzer, Charles (2000). The convergence of literacy instruction and networked technologies for information and communication. *Reading Research Quarterly*, *35*, 108-127.

Love, Kristina (2002). Mapping online discussions in senior English. *Journal of Adolescent and Adult Literacy*, *45*(5), 392-396.

McKeon, Christine (2001). The nature of children's e-mail in one classroom. *The Reading Teacher*, *52*(7), 698-706.

Merkley, Donna; Schmidt, Denise & Allen, Gayle (2001). Addressing the English Language Arts technology standard in a secondary reading methodology course. *Journal of Adolescent and Adult Literacy*, *45*(3), 220-231.

Moje, Elizabeth; Labbo, Linda; Baumann, James & Gaskins, Irene. (2000). What will classrooms and schools look like in the new millennium? *Reading Research Quarterly*, *35*(1), 128-134.

Niday, Donna & Campbell, Mark (2000). You've got mail: "Near-peer" relationships in the middle. *Voices from the Middle*, *7*(3), 55-61.

O'Reilly, Tim (2005). What is web 2.0?: Design patterns and business models for the next generation of software, http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html [accessed April 2006].

Roth, Wolff-Michael (2001). Designing as distributed process. *Learning and Instruction*, *11,* 211-239.

Sacks, Harvey; Schegloff, Emanuel A. & Jefferson, Gail (1978). A simplest systematics for the organization of turn taking for conversation. In Jim Schenkein (Ed.), *Studies in the organization of conversational interaction* (pp.7-55). New York: Academic Press.

Schenkein, Jim (1978). Identity negotiations in conversation. In Jim Schenkein (Ed.), *Studies in the organizational interaction* (pp.57-78). New York: Academic Press.

Scollon, Ron & Scollon, Suzie Wong (2004). *Nexus analysis: Discouse and the emerging internet.* London: Routledge.

Scribner, Sylvia & Cole, Michael (1981). *The psychology of literacy.* Cambridge, MA: Harvard University Press.

Sturtevant, Elizabeth; Padak, Nancy & Sturtevant, Lee (1998). "der nansy I miss you": A beginning writer connects through electronic mail. *Ohio Reading Teacher*, *32*(2), 12-21.

Sutherland-Smith, Wendy (2002). Weaving the literacy web: Changes in reading from page to screen. *Reading Teacher, 55*(7), 662-669.

Suthers, Daniel; Dwyer, Nathan; Satrapu, Ravi & Medina, Richard (2007). An abstract transcript notation for analyzing interactional construction of meaning in online learning. *Proceedings of the 40th Annual Hawaii International Conference on System Sciences,* http://csdl.computer.org/comp/proceedings/hicss/2007/2755/00/27550004c.pdf *[accessed December 2007].*

Tao, Liqing & Reinking, David (2000). E-mail and literacy education. *Reading and Writing Quarterly: Overcoming Learning Difficulties*, *16*(2), 169-174.

Tao, Liqing; Montgomery, Thomas & Pickle, Michael (1997). Content analysis in e-mail research: A methodological review. In Charles Kinzer, Kathy Hinchman, & Donald Leu (Eds.), *Inquiries theories and practices. Forty-sixth yearbook of the National Reading Conference* (pp.474-482). Chicago: National Reading Conference.

Teale, William H.; Leu Jr, Donald J.; Labbo, Linda & Kinzer, Charles (2002). DEPARTMENTS— Exploring literacy on the Internet—The CTELL project: New ways technology can help educate tomorrow's reading teachers. *The Reading Teacher*, *55*(7), 654.

Trathen, Woodrow & Moorman, Gary (2001). Using e-mail to create pedagogical dialogue in teacher education. *Reading Research and Instruction*, *40(3),* 203-224.

Valmont, William (1999). Technology: Impact on literacy development. *Computers in the Schools*, *15*(1), 73-79.

Vološinov, Valentin Nikolaevich (1994). Extracts from marxism and the philosophy of language. In Pam Morris (Eds.), *The Bakhtin reader: Selected writings of Bakhtin, Medvedev, and Voloshinov* (pp.50-62). London: Edward Arnold.

Vygotsky, Lev (1986). *Thought and language* (A. Kozulin, Trans.). Cambridge: The MIT Press.

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