Understanding private discourse in a public online forum

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Clare Brett & Jim Hewitt, Department of Curriculum, Teaching and Learning, OISE, University of Toronto

Abstract

Private entries (i.e. individual, unpublished material as well as one-to-one and small group communications) within areas of public discourse may provide opportunities for particular kinds of social or cognitive moves and activities that are supported differently, or perhaps not supported, by entirely public online spaces. Through analysis of conference entries from 12 graduate level online courses, and with follow up interviews with faculty and students, we outline the various social and pedagogical uses that faculty and students made of this functionality, and suggest how such activities may support community knowledge building.

Online courses that engage students in asynchronous computer conferencing typically offer a different set of tools, or different virtual spaces, for private communication. A computer conference serves as a shared public artifact in which a group of learners collaboratively solve problems and/or discuss issues relating to the content of the course. When students wish to engage in private communication -- for example, with another classmate -- they usually turn to another technology (e.g., email, chat, telephone), or they create a separate conference area where they can work privately. Thus, in most online conferencing environments, there is a spatial separation between public and private discourse. The purpose of the current study is to examine new designs for online conferencing environments that merge public and private communication so that students can move seamlessly between the two in a single shared environment. Using our experimental conferencing environment, students can opportunistically embed private messages – i.e., messages that are only visible to certain people in the class – within a publicly shared asynchronous discussion. The current study examines how instructors and students made use of this new functionality in two graduate level courses.

We seek to understand how private entries, embedded within a public online conference, can be harnessed to more deeply support knowledge building. Private entries in this context include any use of a "private" note function introduced in an online environment to broaden the range of available idea development tools. Through analysis of the conference entries from 10 online courses, and with follow up interviews, we hope to identify the various purposes served by private entries. These may include entries private only to the author, those directed between one person and another in an otherwise public conference (somewhat in the way that email is used) and private entries shared among, a small group of course participants.

Prior research has acknowledged the existence and value of private emails as a source of instructor feedback (e.g. Harasim, 2000; Swan & Shih, 2005; Muelinberg & Berge, 2000), the value of private workspace areas for particular groups within a complex multi-group environment, as well as the importance of messages between course participants (e.g., Lou, Abrami & d'Appolonia, 2001; Vrasidas & McIsaac, 1999).

Researchers to date have not really investigated the potential social and cognitive benefits of embedded private communication in particular. In reference, for example, to using private communications as part of online discussions, Harasim (2000) suggested students could use email for that process. In other contexts, text chat has often been used for private discussions (e.g. Aragon, 2003). Consequently, prior research really has not yet paid much attention to ways that private messaging might be effectively utilized in a course in a more integrated and embedded way. In particular, more research is needed into the role of such private communications within the overall online course experience, and how such communications may be best structured and supported.

The assumptions held for understanding how communities sustain themselves influences hugely the design of online community support components. Much literature about online communities based around online courses makes particular assumptions. First, they tend to emphasize the sharing nature of the interactions and typically take a consensus-based view where differences are negotiated and essentially solved.

Secondly community involvement may be viewed as a relatively unitary thing--online communities are usually singular--such as the in-service teachers involved in the Tapped In community, for example, or are focused on resource-rich contexts, such as that offered by MERLOT. We also know that community has both potential advantages as well as limitations. A location that creates a sense of safety and in which one feels a legitimate contributor may provide a supportive learning context (Brett, 2004). However, the degree to which community involvement pushes people towards conformity or stifles discussion because of a subtle press towards adopting community norms should not be ignored. Hodgson & Reynolds (2005) for example, see the challenge of truly participatory networked communities requiring the inclusion of difference and working to support multiple, but interacting, networked communities. Such multi-layered environments may thereby avoid the marginalization that can occur in conventional community structures. For example, Noddings (1996) has noted the potentially oppressive nature of communities in cases where dissent is discouraged in case it caused a fracturing of community.

The subtle pressures that may affect the ways people do and do not choose to participate seems even more important in knowledge building contexts, where collective cognitive work and collaborative discourse lie at the centre of an effective knowledge building community. It is important therefore, to understand more about how such private space may be used both for social as well as learning reasons, and then include the appropriate range of discourse structures within knowledge building environments. This may include designing online spaces where students can work privately—alone and with others in small groups--as well as publicly with the larger community.

Methods

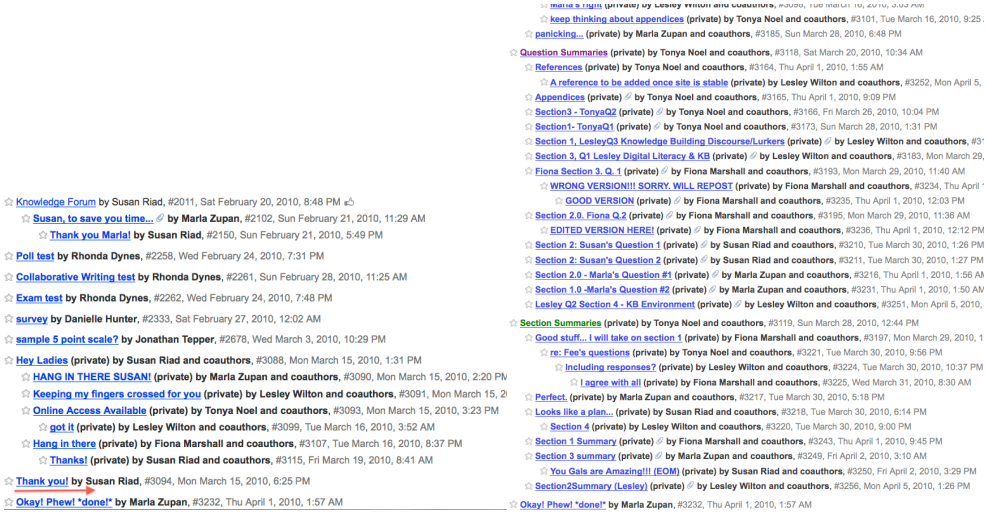
Lave and Wenger's (1991) Communities of Practice model provides a theoretical frame for conceptualizing the role of private and public activity through the notion of legitimate peripheral participation. Opportunities to made drafts of documents to become public, to discuss issues with small groups before making them public to larger groups, would all support the development of practices for the larger communities, developed first in private or small group activity contexts. A variety of data collection methods are being employed including questionnaires, interviews and content analysis of online contributions.

From a knowledge building perspective (Scardamalia 2002; Scardamalia & Bereiter 2006) that values student agency and innovation, design features that support students in different aspects of the development of their ideas, may encourage greater

levels of particular kinds of collaborative interaction, for example, opportunistic collaboration (Zhang, Scardamalia, Reeve & Messina, 2009), which can encourage higher levels of knowledge building.

We conducted an analysis of private messages within 12 graduate-level distance and blended education courses at the University of Toronto. The courses all utilized an asynchronous discussion environment called Pepper (Powerful Explanations through Peer-to-Peer Electronic Research). In this environment, notes can be public to the community or private to an individual or group. The initial intent of this feature was to provide students with the ability to privately draft a note, or co-author a document, that would eventually be made public. To the surprise of the researchers, however, one course was found to contain 367 private notes that were never made public. Further analysis revealed that students were using this facility to hold private group discussions and for other purposes. This discovery inspired the current study. It is important to note at the outset however, that not all students and faculty were fully aware of this functionality, it was one feature among many, and many participants were only introduced to it by its use by the instructor or a peer. In future iterations of this work, we will be introducing the feature specifically at the outset to everyone.

Figure 1 shows a screen shot of the class view compared to the small group view of a conference containing private notes. Group members saw the "Group View" on the right. This list included many private notes that were only visible to the members of that group. Other students and the course instructor were shown the "Class View" on the left and were not aware of the existence of these notes.



A: Class View B: Group View

Figure 1. Class view and group view of a conference containing private notes.

Participants

The participants included 274 students and 10 instructors from 12 graduate-level education courses taught fully online using the platform described above. For the preliminary interviews, we interviewed 4 instructors and 2 students.

Measures

The main data source were the entries themselves, from the student and instructor participants. Frequencies of private note use were calculated across classes.

We looked at the proportion of users (faculty or students) using private notes; the overall proportion of private notes used in conferences and the amount that were initially private and either individual or shared but that became public, versus those that remained private.

In addition, the notes themselves were coded for categories of use, using a grounded approach (Glaser and Strauss, 1967; Strauss and Corbin. 1990). This analysis of the private notes involved identifying all private notes in a variety of different courses and then examining them within the context of the view within which they were generated. Before embarking on the study, we sought informed consent from the participants. Notes were coded as to their function in the conference.

Finally, certain participants, the most frequent users among both instructors and students were interviewed, and their interview statements also coded in relation to the categories of use established by the analysis of the online notes.

Results and Discussion

We offer two types of data in this paper, the first consisting of overall quantitative frequency descriptions of private note activity across the 12 courses and secondly, reports from a number of selective interviews from faculty and students who used the private function a lot integrated with an initial content analysis to ascertain the range of uses faculty and students developed for private entries. These data allow us to demonstrate the functional value of the private notes within the online social context.

We are in the process of conducting a more comprehensive content analysis in an effort to determine whether qualitative differences can be observed between the content or framing of messages within the private versus the public discourse.

Instructors- Frequencies and descriptions of private note use

There were 12 courses taught by 10 different instructors, and uses of private notes by instructors are summarized in Table 1. One course was co-taught in 2 different terms by the same 2 instructors in each term. Of this group of instructors only 1 used no private notes at all. Of the remaining instructors, frequency of private note use ranged from 5-39 notes. In the rightmost columns of Table 1, the total number of notes written by the instructors is shown next to the final right-hand column that shows the percentage of the total number of notes that were private. We can see a large range of instructor differences in percentages as well as in overall contribution levels, and later we will see how these numerical differences are reflected in the different uses of the private notes function.

As can be seen from column 3, Private Co-authored notes, the bulk of all the private notes were collaborative, rather than individual, suggesting that faculty were using this feature as a communications tool with students, rather than as a means to, for example, create drafts of entries to be edited later and finally published. Amounts in the private note column minus the amounts in the private Co-authored column indicate the notes left at the end of the course that were still private.

In fact, as can be seen from the right 2 columns, Formerly Private, and Formerly Private Co-authored, the majority of private individual notes were eventually made public (indicating the private status was a temporary one, and more in line with what we expecting people to use this function for), while the lower numbers in the rightmost column, Formerly Private Co-authored indicate that those private co-authored notes

were mostly not made public and thus were being used for particular group

Instructor ID #	Private notes	Private Coauth	Formerly Private	Formerly Private Coauth	Other notes	% Private notes
1	11	9	7	0	143	8%
2	39	38	5	1	100	39
3	2	1	2	0	102	2
4	33	31	5	0	51	65
5.1	0	0	14	0	60	0
5.2	1	0	15	0	98	1
6	8	8	8	1	102	8
7	38	30	19	0	184	21
8.1	21	19	5	1	174	29
8.2	30	18	14	0	184	16
9	2	0	7	0	57	4
10	0	0	0	0	169	0

communication purposes.

Table 1: Instructor use of Private notes across 12 courses

Students--Frequencies and descriptions of private note use

As with the instructors, there was tremendous variation in how much students used this function, both within, and between classes. Table 2, column 2 shows the percentage of students in each class who used private notes and in only two classes 1 & 4) did *all* students use private notes to some extent. The right 3 columns show the raw totals of the private notes and whether they were coauthored or not, and whether they were finally made public, or remained private. We see from even a cursory scan of the private co-authored column and the Formerly Private Co-authored column that, with the exception of one course, 8.1, most private co-authored notes remained that way, suggesting that students, like instructors were using this feature for communications and

Instr ID # Course	% students per class using Priv Nts	Private Note Average	Private Coauth	Formerly Private	Formerly Priv Coauth
1	20%	5	14	3	0
2	100%	5.67	207	26	3
3	19%	2.14	11	9	0
4	100%	2.07	52	3	0
5.1	33%	0.83	0	3	1
5.2	21%	2.25	1	10	0
6	40%	3.27	12	25	7
7	46%	2.28	12	0	0
8.1	73%	6.78	57	90*	22*
8.2	22%	1.3	10	9	5
9	78%	2.76	20	22	5
10	43%	40.1	359	24	3

Table 2. Student aggregate use of private notes in 12 courses

not just sequential editing of drafts of a note. From an examination of the data from the outlier course, it appears that a group of about 6 students were using the private function to make drafts of entries and edit those entries several times before making them finally public (Formerly Private). In this same class two students (2 of the other 6) also used a similar strategy for some group notes that they initiated and eventually published. By contrast, and supporting that contention, a greater number of the formerly private notes (column 5) were eventually made public, suggesting that they were being used for draft development activities.

The variation between courses in both percentage of students using the private functionality and in the amount this function was used, is better assessed through examination of the note content itself, and it is to these data that we now turn.

Selected interview and note analysis summary

The categories emerging from the initial analyses are described in the following section, starting with individual uses and then describing collaborative uses.

Individual uses of the Private facility

- Some individuals, used the private facility to store personal notes and ideas related to the week's readings. Students used this strategy more than instructors. These notes resembled the kind of notations that are typically found in a personal notebook, including partially formulated ideas. One instructor used this facility to keep a list of ideas for improving the next offering of his course (e.g., new readings and web resources to use, timing issues, and so forth). While this was one of uses we expected to see, we in fact found only a small number of notes that fit this category.

Instructor and Students two-way communications

- A number of Instructors used the private note facility to provide confidential feedback to individual students. One frequent user of this strategy explained that he did this to avoid a variety of reactions he had experienced over the years as a classroom teacher and later an online teacher. In particular he wanted to avoid the competitiveness that sometimes arose when students saw his comments as a form of instructor affirmation. He felt this changed the nature of the discussion to from one in which the learners took responsibility to one in which instructor responses became the "prize" sought by students. In such cases, the quality of the discussion suffered because the focus was no longer on the ideas.

- Although private notes might be viewed as a promising means of providing critical feedback, one experienced instructor considered them to be equally useful for positive comments. He explained that public praise was often experienced as embarassing by students – even adult students. Consequently, he felt that private notes were a more effective way of providing individual encouragement and feedback to students.

- One instructor suggested that using private notes for communication purposes was advantageous because it maintained a contextual link with the student's online work. If he sends a private message using email, the private message is separated from the online coursework. However, if he writes a private message as a reply to a particular student's work, the message is contextually linked. He can then review a conference and easily view all of the private feedback he has given students.

- Students did not specifically mention feeling insecure about seeing their classmates receive positive feedback, but this is an area that needs to be explored more explicitly in future research. Such a finding would be consistent with other research on students attitudes and motivations in online contexts (e.g., Peters & Hewitt, 2010).

- Students who received instructor feedback via private notes also seemed to start to use it as a way to give personal feedback about note entries to other classmates, and in this way the process spread through the class. Also students experiencing this in one course, tended to continue the process in other online courses that offered this functionality.

- One student described private notes as a way to avoid putting questions into an already busy database. Another student described them as an online version of a note passed in class. She saw these as a means of social validation that, over time, helped to maintain a strong sense of connection and collective responsibility among group members.

- Private notes also allowed the sharing of knowledge unrelated to actual class content. For example, one student asked another for directions on a particular set of web programming tags. She felt this use of private messages avoided cluttering the database with non-course related material and also avoided other class members seeing her as lacking knowledge

- Individual students in some classes used private notes as a means of submitting assignments to the instructor. In essence, the subconference took on the functionality of a web-based dropbox.

- For the instructors, the "dropbox strategy" meant that all course related communications remained within the overall scope of the discussion environment, rather than located in other spaces (e.g., email), making it easier to keep track of course activities and ensuring that important communications were not mislaid, such as advice about final assignment choices and so forth. For the instructor, this process brought coherence to the course experience.

Collaborative uses of the Private facility

Particular students in different classes adopted private collaborative notes as a means of organizing and focusing group projects. The private structure helped to keep the groups separate in situations where groups were already large and had done a lot of preparation work. The advantages of collaborative uses of private notes mentioned during student interviews included the following:

- Private messages allowed group members to ask questions within a smaller

committed, and trusted group, thus avoiding any social embarrassment about not knowing something.

- These messages were also viewed as a means to offer support and thanks to individuals and / or group members without "cluttering up" the larger course environment with such social commentary that might be seen, by some, as irrelevant to the development of content discussions.

- Private messages provided a location for groups to plan and negotiate aspects of collaborative assignments, particularly to coordinate and deliver different aspects of the required tasks, as in this example: "*Yep - "assessment" is my biggest qualm about KB, too. How do you measure something that doesn't have predetermined outcomes? Do you have a baseline and measure growth….. Other may wish to build on this idea further, too (Jane and I have talked about evaluating KB classrooms a couple times in the past, too).*

- Students used private notes to explain themselves, for example sharing what had been going on in their lives that was affecting their work plans or timetables. Events such as illness of themselves or their children; problems in their jobs, or a sudden increase in workload or responsibility were described in private notes resulting in both an outpouring of support and encouragement from the other group members. This avoided the type of misunderstandings that often arise in collaborative projects, particularly in online classes, where the larger context of student's lives is less visible.

- Private notes were viewed as a safe space in which to acknowledge confusion, or fear and uncertainty. For example, in one private group conversation a student's note title read, *" I am totally confused".* The note went on to describe her confusion that was quickly allayed within a three-note set of helpful responses from other group members.

- Students also mentioned that a more informal tone was possible within the private group note space, and that this in turn helped build a sense of community within the group. For example, "*I really love the questions people have posted. I should rework and revise mine and I will attend more carefully this week (with the case study (from hell), moderating this week and a crazy work life, i have been remiss."*

- In 2 databases from this dataset the discussion evolved to a point where the group needed some guidance from the instructor. At that point, one of the students would email a question of the instructor and then wait for a response. When the response came, he or she then shared it with the others in the group. While this was an efficient strategy for the group, according to their subsequent comments, it might have been even more efficient if the communication had been entirely within the database, again with both students and instructors using the embedded private functions.

- Also in these two databases there were examples of group discussions each with a particular invented structure. The two invented models were first, a single private group note with authors using a different font colour to denote specific authors, and which created a linear discussion within a single note. The second model was that of a private threaded discussion visible only to a selected group of members, but where

each entry was uniquely identified by name in a similar manner as the public discussion entries.

Discussion

Overall, while there are still a number of outstanding questions remaining to be researched and investigated more fully, having this private functionality appears to offer students and instructors a number of advantages. One is the embeddedness that comes from being able to keep all commentary within the course environment. This is valuable for instructors and can help students, by maintaining coherence among elements of the course.

Private notes also appear to be advantageous in terms of providing a safe and convenient medium for providing complimentary feedback (i.e., feedback that contains little new information but rather is intended to provide encouragement). Personal expressions of support and praise are undoubtedly important in an online community; receiving such messages can increase a person's sense of belonging and reduce doubts and insecurities regarding the value of one's work. However, such messages tend to have less valuable for non-recipients (i.e., people in the community who are not the author of the note). In a course-based context, reading compliments that are directed to a fellow student can heighten one's sense of insecurity. Moreover, a conference containing many such messages can add unnecessarily to students' reading load and make it more difficult to follow the thread of the discourse. Thus, the use of "Private Notes" for complimentary feedback appears to be a useful mechanism for facilitating a supportive online culture, but without diluting the intellectual richness of the public discourse.

A third advantage of private notes is that they offer an opportunity for opportunistic, small-group collaboration. One problem with completely open environments is that learners may be reluctant to publicly share nascent ideas, for fear that they will be ridiculed or criticized, or that the professor will think less of them. To nurture knowledge-building it may be productive to provide students with the option of creating safe private spaces where they can test out new ideas with sympathetic audiences. This is analogous to the academic world, where researchers often begin their exploration of a new idea by first sharing it with one or two trusted colleagues. This "trying out" period is important because it allows researchers to better identify strengths and weaknesses so that they can re-work and improve their idea. As their idea is progressively refined, it can then be brought to progressively larger audiences for increasingly more rigorous analysis and critique, culminating in formal peer review and publication. Thus, for the purposes of online knowledge building, the process of idea refinement may be facilitated by software functionality that allows people to work opportunistically in small private groups.

However, the actual design of how the private notes are flagged in the database, may need tweaking. Specifically, at this point the term "private note" appears in the note list and the very presence of this label, without the ability to access the content, may itself cause anxiety and a sense of exclusion. We will be trying out designs where the presence of private notes is not flagged for those who are not recipients of those messages.

Conclusions and Educational Implications

The “private note” tool was initially introduced as a way for students to keep drafts private until they were ready to be shared with the class. We were surprise to discover that students and instructors were using them for a wide variety of individual and collaborative purposes.

Embedded private notes are superior to email because it keeps the private discourse framed in the context of the bigger (public) discussion. It is also more opportunistic in the sense that students can initiate a private discussion at any time in any conference. They don't have to go to a different environment or a special area.

Researchers often discount the potential social and cognitive benefits of embedded private communication. Consequently, the literature really hasn't paid much attention to ways that private messaging might be effectively utilized in a course.

While there may be some superficial similarities between the kinds of private uses of notes described in this paper and similar functionality in the context of small group work using multiple technologies (such as chat or email and a discussion board) we would argue that the integrated and seamless nature of embedded private notes allows them to be used in flexible ways that could also be used within the context of small group work—using the kinds of models we observed students spontaneously use here, both private group notes involving a linear discussion within a single note or a private threaded discussion—or possibly other models.

Further research on private notes could productively focus on more comprehensive analyses integrating interactive as well as cognitive and discourse dimensions (e.g. Schire, 2006) in order to assess the larger educational and learning impact of private notes on the learning of both the individual and that of the class. For example, it may be that many online environments impose a kind of "forced openness" in that students are expected to share notes with everyone in the class. Facilities are usually not provided (within the environment) for private discussion. Students typically therefore turn to other forms of communication (e.g., email, chat) if they wish to confer privately with the instructor or a classmate. Understanding more about the learning impacts of such differences in functionality would be a productive area for deeper study.

Additionally, embedded private notes may potentially offer a more effective learning solution than either email or text chat because it keeps the private discourse framed within the context of the bigger (public) discussion. It is also a more opportunistic solution in that students can initiate a private discussion at any time in any conference, rather than having to go to a different environment or a special area. The next phase of this research will investigate this issue further by examining tracking data on timing of public and private entries by specific participants and gathering more detailed interview data on student perceptions of private notes versus separate text chat affordances.

In terms of how such functionality may support knowledge building, we see the kind of group discourse in these private discussions as resembling the opportunistic collaboration model, described by Zhang, Scardamalia, Reeve & Messina (2009), in the way small teams form and disband based on their emergent goals. Such processes are effective ways to promote “collective cognitive responsibility, knowledge advancement, and dynamic diffusion of information, p.8 (Zhang et al, 2009) and, we would argue, are further supported by the social dynamics enabled through offering private spaces embedded within public learning environments.

References

Aragon, S. R. (2003). Creating social presence in online environments. *New Directions for Adult and Continuing Education,* 100, 57-68

Brett, C. (2004). Offline factors contributing to online engagement. *Technology, Pedagogy and Education*, *13*(1), 83-95.

Di Mauro, V. & Gal, S. (1994). Use of telecommunications for reflective discourse of science teacher leaders. *Journal of Science Education and Technology*, 3(2), 123-135.

Glaser and Strauss. 1967. *The Discovery of Grounded Theory*: *Strategies for Qualitative Research*. Sociology Press.

Harasim, L. (2000). Shift happens: online education as a new paradigm in learning. *The Internet and Higher Education*, 3(1-2), 41-61.

Hodgson, V., Reynolds, M. (2005), "Consensus, difference and 'multiple communities' in networked learning", *Studies in Higher Education*, Vol. 30 No.1, pp.1-24.

Lave, J. & Wenger, E. (1991). *Situated Learning: legitimate peripheral participation* Cambridge: Cambridge University Press.

Lou, Y, Abrami, P.C. & d'Apollonia, S. (2001). Small Group and Individual Learning with Technology: A Meta-Analysis. *Review of Educational Research*, v71 n3 p449-521 Fall 2001

Muilenberg, L. & Berge, Z. (2000). A framework for designing questions for online learning, DEOSNEWS, 10, (2). {Accessed: May 12, 2010: http://www.ed.psu.edu/acsde/deos/deosnews/deosnews10_2.asp

Noddings, N. (1996). On community. *Educational Theory*, 46(3), 245-268.

Peters, V., & Author (2010). An investigation of student practices in asynchronous computer conferencing courses. Computers & Education, 54, 951-961.

Scardamalia, M. (2002). Collective cognitive responsibility for the advancement of knowledge. In B. Smith (Ed.), *Liberal education in a knowledge society* (pp. 76-98). Chicago: Open Court.

Scardamalia, M., & Bereiter, C. (2006). Knowledge building: Theory, pedagogy, and technology. In R. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 97-117). Cambridge, UK: Cambridge University Press.

Schire, S. (2006). Knowledge building in asynchronous discussion groups: Going beyond quantitative analysis. *Computers & Education,* 46: 49-70.

Strauss and Corbin. 1990. *Basics of Qualitative Research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications, Inc.

Swan, K. & Shih, L.F. (2005). On the Nature and Development of Social Presence in Online course Discussions. *Journal of Asynchronous Learning Networks*, 9 (3),

115-136.

Vrasidas, C. & McIsaac, M. S. (1999) Factors influencing interaction in an online course, *American Journal of Distance Education*, 13: 3, 22 — 36.

Zhang, J., Scardamalia, M., Reeve, R. & Messina, R. (2009). Designs for collective cognitive responsibility in knowledge-building communities. *The Journal of the Learning Sciences,* 18: 7-44.