

# Novice Learners in Cyberspace

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Since the Internet was introduced in the field of Educational Technology, it has predominantly been seen as an instructional tool. A number of educational technologists point out that the Internet can be a powerful instructional tool that encourages learners to be involved in problem-solving by using a great deal of information and to enlarge and deepen their knowledge by sharing their opinions through a variety of communication tools such as emails, threaded discussions and chat rooms (Harasim, Calvert, & Groeneboer, 1997; Herrington & Oliver, 2000; Jonassen & Hernandez-Serrano, 2002; Khan, 1997; McCormack & Jones, 1998; Ritchie & Hoffman, 1997; Romiszowski, 1997). These researchers have studied how teachers can use the Internet to help learners construct meaningful learning for problem-solving in real life context and to allow them to be engaged in learning. In addition, they have done research on how to create useful and effective learning environments including design of specific contents, development of instructional strategy, and educational evaluation using the Internet. The popularization of the term web-based instruction shows how many researchers and educators think of the Internet by as tool for teaching and learning.

This paper, however, raises another perspective on the Internet in the field of Educational Technology, considering it as a cultural space. Cyberspace, first discussed in a science fiction novel by Gibson (1984), is an appropriate term to describe the space of this perspective. In general, cyberspace refers to the interactive digital space created by computer networks, in particular the Internet (Mann & Stewart, 2000). Many researchers and scholars argue that beyond an instructional tool, the Internet provides a cultural space where people have interactions, communicate with each other, and build online communities (Bell, 2001; Bell & Kennedy, 2001; Correll, 1995; Hine, 2000; Markham, 1998; Turkle, 1995). These researchers assert that cyberspace has an influence on the way people think, behave, feel, and communicate with others in terms of race, gender, class, religion, etc. In addition, they point out that people in cyberspace represent themselves in certain ways that might not resemble how they represent themselves in physical spaces<sup>2</sup>. In this light, Turkle (1995) states that cyberspace is part of people's everyday life. Thus, in this perspective on the Internet, cyberspace as a cultural space, human interaction, recognition of selves and others, and people's experiences can be centered in cyberspace

Given that cyberspace is a cultural space, it is obvious that learning occurs in cyberspace and that it is embedded in social and cultural contexts in which learning occurs. While there are many studies on cyberspace as a cultural space, a majority of these studies have concerned online identity or online community, not educational environments. Little research on learning in cyberspace has been conducted. As large numbers of students come to be involved in learning in cyberspace at university and K-12 levels, it is necessary to understand how students learn in cyberspace when they cannot see their teachers and other students face-to-face.

As many social theorists argue for physical space, we need to take a social theory of learning for examining learning in cyberspace. Situated learning, a well-known social theory of learning by Lave and Wenger (1991), can be an appropriate theoretical lens for this examination. According to Lave and Wenger, social, cultural, and historical interactions always bring about situated activities or situated learning. Given that cyberspace is a cultural space based on communities and cultures, I argue that learning in cyberspace is situated learning that leads novice learners to participate fully in the community of practice through the legitimate peripheral participation. In this light, it is of importance to understand how novice learners become part of the community in cyberspace.

Since situated learning in cyberspace occurs in social and cultural space, a cultural studies approach focusing on discourse, subjectivity, and agency is useful for understanding learning, knowledge, and power in cyberspace. As Lave and Wegner (1991) argue, learning and knowledge, whether in physical spaces or in cyberspace, is always related with power relationship between novice learners and experts (eg. teachers). In other words, discourses of both novice learners and experts, novice learners' multiple and fluid subjectivities, and the way novice learners exercise their agency in a certain extent and condition can influence the negotiations and constructions of meaning in cyberspace learning contexts.

Thus, the purpose of this qualitative study is to investigate how novice learners become part of a cyber community through the legitimate peripheral participation in cyberspace in terms of discourse, subjectivity, and agency. This paper addresses an issue of situated learning in cyberspace using a cultural studies approach that will include the data collection process and a preliminary analysis of data.

## **Conceptualization of Cyberspace as a Cultural Space**

The term cyberspace is not an easy word to define in that it describes a virtual world that is mediated by a computer network. Due to this uniqueness, cyberspace is conceptualized in a variety of ways. Benedikt (2000) defines cyberspace as “a world in which the global traffic of knowledge, secrets, measurements, indicators, entertainments, and alter-human agency takes on form: sights, sounds, presences never seen on the surface of the earth blossoming in a vast electronic light” (p.29). On the other hand, he also describes cyberspace as “a common mental geography, built, in turn, by consensus and revolution, canon, experiment; a territory swarming with data and lies, with mind stuff and memories of nature, with a million voices and two million eyes in a silent, invisible concert to enquiry, deal-making, dream sharing, and simple beholding” (p.29). His conceptualization of cyberspace implies that cyberspace is not only a simple space created by machine, computer network, but also a concrete place where millions of people exist, stay for a while, and live for a certain time of their lives with active human interactions.

Bell (2001) makes this broad and complicated conceptualization of cyberspace much clearer. He conceptualizes cyberspace as a cultural space that is lived and made from people, machine, and stories in everyday life. He defines cyberspace by using three modes of story-telling. First, he defines cyberspace in terms of hardware that facilitates a form of interaction between remote actors, which calls material stories. As an alternative definition, he defines cyberspace as an imagined space between computers in which people might build new selves and new worlds, which he calls symbolic stories. According to Bell, cyberspace is all this and more. In other words, cyberspace is hardware and software and “image and ideas” (p.7). In this light, these two stories are inseparable. Moreover, Bell argues that the ways we experience cyberspace represent a negotiation of material and symbolic elements, which he calls experiential stories. In Bell’s definition, human interaction, recognition of selves and others, and people’s experiences are centered in cyberspace. In this light, he emphasizes that cyberspace is always cyberculture in that any and every thing around us is the product of culture.

Turkle (1995) has a similar point of view to Bell. She sees cyberspace as a cultural space of simulation in that even though they might not see others, people have the opportunity to build new kinds of communities in which they participate with others from all over the world, others with whom they have conversations everyday, or others with whom they may have deeply intimate relationships. In this regard, like Bell, she focuses on people’s interaction and experiences in cyberspace and believes that cyberspace provides people with a new environment for social and cultural interaction. Differing from Bell, however, she emphasizes specific local contexts in cyberspace. In the explanation of constructing identity in cyberspace, she argues that experiences in cyberspace can only be understood in the larger cultural context.

In sum, cyberspace is not only a virtual space mediated by computer networks but also is conceptualized as a cultural space in which human interaction takes place, social and cultural communities are built, and human experiences are situated in the social and cultural context in which they work.

## **Situated Learning in Cyberspace**

Situated learning is based on an assumption that learning is constructed by the individual’s negotiation of meaning in a specific social and cultural context (Lave & Wenger, 1991; Wenger, 1998). Since cyberspace is a cultural space, I argue that learning in cyberspace is situated learning and conceptualize cyberspace as the site of situatedness. In other words, borrowing from Lave and Wenger’s (1991) argument on situated learning, I argue that there is no activity in cyberspace that is not situated. Through negotiation of meaning, learning in cyberspace is an integral part of generative social practice in the lived-in world. Consequently, novice learners in cyberspace will become experts through legitimate peripheral participation through the community of practice in cyberspace. Thus, the assumption of situated learning fits into learning in cyberspace in that any novice learners’ activity in cyberspace is situated in a given context and thus, needs to negotiate meaning with their experts through written text.

As the findings of many studies show (Hine, 2000; Markham, 1998; Turkle, 1995), cyberspace provides people with online communities in which they spend a great deal of time, they see what is happening, they exchange their ideas, they learn, and they practice what they learn. In this light, it can be said that online communities are communities of practice for situated learning (Hung & Chen, 2002). While many studies on communities of practice in cyberspace have begun, almost all communities of practice in the studies are non-educational communities.

Although Lave and Wenger (1991) contend that schooling cannot be exactly situated learning because its characteristic is institutional, many scholars seem to consider that schooling is situated learning in that every activity is situated (Brown, Collins, & Duguid, 1989; Hung, 2001). They see classroom environments as communities of practice that allow learners to become part of communities in terms of learning topics or issues. Consistent with this view, it is possible to think of teaching and learning processes in cyberspace as constructing communities of

practice.

Online middle and high schools can be a good example of an educational community in cyberspace. In general, online schools provide students with qualified teachers and state-wide approved learning content. Teachers and students at online schools have a continuous bond and interactions for an academic year in an online community even though they do not need to meet each other face-to-face. Like novices in physical places, novice students who start going to online schools for the first time need to negotiate both the meaning of learning and the online community culture where they belong to in a situated context. When they negotiate these with their teachers as experts in cyberspace, as Lave and Wenger (1991) argue, there are always power relationships between novice learners and teachers that affects learners' meaningful learning. These power relationships should be understood and analyzed in a specific local and cultural context.

### **A Cultural Studies Approach to Situated Learning in Cyberspace**

Cultural studies differs from traditional academic disciplines having definite areas for investigation and its own particular methodology in that a variety of disciplines such as philosophy, psychoanalysis, sociology, anthropology, history, language, semiotics, poststructuralism, postmodernism, and feminism have had a great deal of influence on cultural studies (During, 1993; Grossberg, Nelson, & Treichler, 1992). While some researchers call cultural studies interdisciplinary, other theorists consider cultural studies anti-disciplinary in that it is hardly easy to define it in terms of academic disciplines. Rather than finding its simple origin, cultural studies tends to be understood as "a discursive formation" (Hall, 1993, p.98). Cultural studies has focused on a political perspective in order to articulate how dominant groups manipulate subordinate ones within culture. Most cultural studies theorists believe that every social meaning and knowledge production is based on power relationships.

In the field of cultural studies, discourse, subjectivity, and agency can be core concepts for understanding the connection between social relations and meanings. Discourse is defined as not only language-in-use in everyday life but also a system that has its own rules and constraints, produces meaning through practice in social, cultural, and historical contexts (Foucault, 1972, 1978). Language creates a perspective by which human subjects make sense of the world. Each perspective imposed by language requires human subjects to negotiate meanings in social and cultural contexts, which is always political (Gee, 1999). This political characteristic of language leads cultural studies theorists to pay attention to discourse in terms of learning, knowledge, and power. Subjectivity refers to the positions of the individuals (subjects) within a particular discourse. In other words, subjectivity can be defined as locating one in a particular social position. Subjectivity is crucial in cultural studies in that it connects identity existing in individual's mind with social and cultural contexts. Agency means capability of people to think, determine, and act autonomously. Some forms of agency can be the finding of new directions while others can be resistance and struggle. Agency can be considered as the most important issue in cultural studies because the most critical concerns of cultural studies is the ways in which culture shapes human action (Smith, 2001). The three concepts of discourse, subjectivity, and agency are interrelated with each other rather than discrete.

Taking the heavy reliance on written texts in cyberspace into account, it can be said that discourse has more effect on situated learning in cyberspace than that in physical spaces in that novice learners and experts must represent their every activity as written texts. This unique type of discourse in cyberspace can have different influences on people and their situated learning. Some people may feel comfortable in using written texts for their learning and some other people may not. In addition, the written discourse in cyberspace allows people to observe and learn how to write, how to behave, how to respond, etc. In this light, it can be said that discourse in cyberspace has similar characteristics to that in physical spaces. Thus, it is necessary to investigate how novice learners and experts have an influence on the learners' negotiation for meaningfulness in cyberspace learning contexts.

Like that in physical spaces, discourse in cyberspace has an influence on subjectivity. In addition to this issue, cyberspace can allow people to posit their subject position falsely on purpose because of invisibility. This situation can frequently happen in online communities. However, in a school-based online community, it is expected that students and teachers tend to expose their subjectivity without deception. Since there are few studies on subjectivity in situated learning in cyberspace, it is necessary to examine how novice learners' multiple and fluid subjectivities influence negotiation for meaningfulness in cyberspace learning contexts.

Regarding agency, due to the characteristics of invisibility and heavy reliance on written texts, cyberspace can allow people to act, determine, and represent in different ways from physical spaces. Novice learners' agency in negotiating meaning in cyberspace can differ from that in physical spaces. In this light, it can be important to do an inquiry on how novice learners become agents overcoming experts' dominant power through legitimate peripheral participation in cyberspace learning contexts.

## Method

### The Interpretive Paradigm

This study is based on the interpretive paradigm because I focus on the understanding how novice learners negotiate meaning in terms of their discourse, subjectivity, and agency. Unlike positivism, the interpretive paradigm assumes that there are multiple realities that are socially and experientially constructed in specific and local contexts (Guba & Lincoln, 1994). These realities come from human interactions for meaning making. Consistent with this, the interpretive paradigm assumes that knowledge consists of “the reconstruction of intersubjective meanings” (Greene, 1990, p.235). Knowledge of a topic or an issue is not unique but plural because multiple reconstructions of meaning are possible. In addition, knowledge is value-added rather than neutral since a viewpoint on knowledge can be different based on race, gender, class, ethnicity, sexuality, or religion as well as individual’s belief or value. Thus, the findings of investigations are created (Lincoln & Guba, 2000) rather than discovered. In consequence, the interpretive paradigm pursues the interpretive understanding of the meanings people construct in a local and specific context and how these meanings interrelated with each other for making them integrated.

The ontology and epistemology of the interpretive paradigm lead interpretive researchers to pay attention to a cultural space embedded in power relations such as cyberspace as well as physical space because they believe that “social reality is defined by the nature and distribution of domination, power, and influence” (Mezirow, 1996, p.161). With attention to culture, the interpretive paradigm tends to focus on discourse that has an effect on people’s subjectivity and agency in everyday life in terms of social, cultural, and historical aspects. In this light, it argues that one must gain an access to culture and participate in it for an in-depth understanding of nature of reality and knowledge. This argument can provide an ethnographic qualitative approach in terms of methodology of the interpretive paradigm.

### An Ethnographic Qualitative Research

My study on situated learning in cyberspace is based on culture. Even though it does not allow novice learners and experts to see each other face-to-face, in general, cyberspace provides them with social and cultural interactions, allows them to build communities, and has an influence on the way they think and behave through written text-based communication (Bell, 2001; Hine, 2000; Markham, 1998; Turkle, 1995). Each community of practice in cyberspace has its own particular language, norms, beliefs, values, and local histories. Thus, an ethnographic qualitative approach was useful for conducting this study focusing on understanding how novice learners become part of the community of practice in cyberspace.

In the interpretive paradigm, people’s actions are inherently meaningful and are understood in social and cultural contexts that constitute the action (Schwandt, 2000). Based on this approach, the interpretive paradigm researchers select a natural place where the participants live in everyday life instead of experimental settings for understanding how people make a sense of their life toward the world. In the natural site, researchers play a role in interpreting the participants’ actions embedded in social, cultural, economical, historical, and political aspects as ethnography researchers.

Cyberspace has a great number of natural places as research sites for an interpretive paradigm inquiry. Any websites that provide dynamic interactions using communication tools such as email, discussion boards, chat room, or instant messenger without any control to people who go to the websites can be viewed as natural sites. Online communities are the most well-known research sites for ethnography researchers (Baym, 1995; Denzin, 1999; Hine, 2000).

Online community has different purposes and diverse forms using different communication tools. Despite these differences, online communities commonly allow people to post their opinion or idea, to read others message, and to reply to them without any limit of time and place. Some people may only read others’ postings as lurkers without any response. Other people may go to an online community irregularly or stop going there suddenly. In general, online communities are open to anyone from the world and cannot control people and their message. In addition, while they are involved in these online communities, people think, feel, change, and learn naturally (Markham, 1998; Turkle, 1995). Thus, it can be said that all activities that occur in online communities are natural. Whereas many studies on online communities have been conducted, there are few studies on online communities related with education, especially schooling. Like other online communities, online communities for schooling can have common ties such as academic topics or subjects and social interactions between teachers (experts) and learners (novice learners).

### Research Site

The research site of this study was a virtual community school that is a non-profit public school for

students in a mid-west state. This school offers a statewide, comprehensive educational program for students in grades K-12, is established under The Charter School Law of the state, and is governed by the School Board of the state. This school runs all courses on cyberspace during a whole academic year. Students are provided a computer and all kinds of technologies they need for learning such as a scanner, a printer, the Internet service, etc. Students are required to take an introductory computer literacy class before their classes start. After classes begin, students will have access to the virtual classroom, the learning website, for twenty four hours per day and seven days per week. In order to access the website, they need a user ID and password. This website allows only students and teachers at this school to access it.

The learning website was created specifically for this school by a business company, instead of using a platform such as Blackboard or WebCT. Each subject, regardless of grade, has a consistent structure in the website and has the same items: Teachers' Homepage, Meet the teacher, Class help, Timeline, Syllabus, Get started, Go to school, Email, Forum, Chat, Office Hours. Students can use email or telephone for communicating with their teachers. Forum enables students to communicate with their teachers and other students for asking a question about their learning or assignments and to post messages related with content area and reply to other students' messages for active discussion. In addition, teachers provide students with synchronous communication tools, chat rooms and Elluminate, once a week. Any students who have some questions about their learning or assignments can attend teachers' chat session. They can leave chat rooms early before the chat session is over if they get answers from their teachers. Elluminate is a virtual classroom where teachers and students gather together and talk to each other by using a headset with a microphone in cyberspace. This school started using Elluminate in every subject of the middle school at the second semester of 2003-2004. I conducted this study during the entire second semester of 2003-2004 in this school.

### **Participants**

In the interpretive paradigm focusing on an in-depth understanding, an ethnographic researcher relies on small samples in order to learn a great number of issues of central importance to the purpose of the research. In this light, unlike quantitative research, selecting samples in qualitative research tends to be purposive rather than random (Patton, 1990). Thus, the participant selection for my study was based on a purposeful sampling.

The participants were a Language Arts (LA) teacher and seventeen students in 8<sup>th</sup> grade at the virtual community school. For recruitment of the teacher, a school director at this school made a connection between the teacher who was willing to participate in this study voluntarily and me. Since teachers at this school worked at their home around the state, I could not meet any teachers at the school building when I met the director. I was informed about the teacher by email a few days later and then, sent her the first email introducing myself and this study. She replied to me right away and also introduced herself a little bit. She has eighteen years of teaching experience in physical schools and it was her first year to work at this school. Even though we did not meet each other face-to-face at that moment, I felt that she was comfortable with me and excited about being part of this study. I had a few chances to meet her face-to-face during this study but in general, she and I met in cyberspace by email.

For recruitment of students, I asked the teacher to announce this study on her homepage where every LA student visited for their learning. A few days later, she emailed me that three girls out of around ninety students wanted to work with me and gave me their names for me to contact them. In order to recruit more students, I decided to send each 8<sup>th</sup> grade student an email introducing myself and this study. I also attached a recruitment letter for parents to each email. It took a few hours to finish sending all 8<sup>th</sup> grade students an email. Surprisingly, I had several emails from some students who were interested in being part of this study while I was sending emails to every student. Finally, I had eight more students, six girls and two boys, before the second semester started. However, I lost a girl a few weeks later after the second semester began because I could not get any emails from her. Just in case to lost more students as time went by, I asked the teacher to keep announcing this study on her homepage. As the second semester went by, I had seven more students at different times. Some of them started working with me at the beginning of the second semester and other students joined this study in the middle of the second semester. The reason why I decided to work with them was because I thought that each student had his/her own valuable experiences of going to this school and then, their experiences could contribute to this study.

All of the participants participated in this research voluntarily. As for informed consent, I sent each participant (and parents) an informed consent form by mail and received all informed consents by mail.

In order to create rapport with my participants, I sent them emails right away after they had sent me an email telling me that they wanted to be part of this study. All of my participants were willing to introduce themselves to me and felt comfortable with me from the beginning of our communications even though we had never meet together face-to-face before. I did not have any chances to meet any of my participants during my data collection.

## **Data Collection Procedure**

Data was collected by Interviews, participant observation, and document analysis. These are described in detail in the following section.

### **Interview**

For ethnographic research based on the interpretive paradigm, interviews are “the most common and powerful ways” (Fontana & Frey, 2000, p. 645) in which we can understand other people. Interviews attempt to understand the world from the participants’ points of view, to unfold the meaning of people’s experiences, and to uncover their lived world (Kvale, 1996). Kvale (1996) states that interviews have strength in that researchers can see participants’ inner view instead of simply getting answers to their questions. Based on its characteristics, interviews are selected as a main research method for data collection in cyberspace (Correll, 1995; Markham, 1998).

Researchers can use email or chat rooms for having an interview. Email has strength in that participants can take enough time to answer to interviews questions and then, can provide a researcher with rich data (Correll, 1995; Ferri, 2000; Hine, 2000). However, it lacks in the flexibility of an “in person” interview because participants tend to answer all questions without communicating with a researcher. Chat rooms provide the flexibility of face-to-face interviews in cyberspace in that it is conducted synchronously in real time (O’Connor & Madge, 2000, cited in Mann & Stewart, 2000). In this light, I used chat for conducting interviews with my participants.

The interviews with my participants were conducted once a week. I met each participant at a chat room of Language Arts class for an hour. In order to make sure all of my participants felt comfortable with having an interview at this chat room, I had two informal chats with each of them before the first interview. My participants and I used email the virtual community school provided to make an appointment for an interview or to change their interview schedule. At the beginning of the first interview, I told my participants some instructions they needed to remember for having an interview. One of the instructions I gave them was to write down “done” or “next”. Because I could not see them face-to-face, it was hard for me to know whether they finished telling me their stories to an interview question. Another important instruction was that they did not have to answer some questions that made them feel uncomfortable. Fortunately, there were no interview questions that made them feel uncomfortable. In general, my participants were pretty open-minded and willing to talk to me about their experiences at the school.

In addition to one-on-one interviews, I conducted group interviews for three weeks. Since my participants were diverse in terms of gender, race, and previous schools background before going to the virtual community school, I decided to have three group interviews for three weeks. I made each group have three or four participants and let them talk to each other about some broad interview questions. It took around one hour or one and half hours. From these group interviews, I found that my participants were so excited about talking to other students and got to know each other quickly in cyberspace even though they had never met together face-to-face. After three group interviews, I resumed one-on-one interviews for the last two weeks.

### **Participant Observation**

Participant observation is considered as central to most of ethnographic research (Wolcott, 1999). While observation allows researchers to see the participants’ actions objectively as the stance of the “fly on the wall” (Roman, 1993, cited in Proweller (1998)), participant observation makes researchers involve in active interactions such as participation in classroom discussion or group activities with participants within the research site. This participant observation provides researchers with better understanding the context.

It is participant observation that many researchers strongly suggest for an ethnographic research in cyberspace (Mann & Stewart, 2000). What researchers can observe in cyberspace is not participants’ visible actions but written texts they write in email or chat room or on discussion boards. Since people cannot have face-to-face interactions in cyberspace, all interactions, in general, depend on written texts. Even though we need to admit that cyberspace provides more than text, it can be said that written text is a unique form of interaction in terms of online communication (Mitra & Cohen, 1999).

I conducted both observation and participant observation. For observation, I observed the school announcement that was the first webpage after students logged in in daily basis in order to understand what was going on at the school. I also observed the Language Arts teachers’ homepage in daily basis. Observing the LA teacher’s homepage helped me understand what was going on in her classroom and how she communicated with her students in cyberspace.

I observed chat rooms of Language Arts once a week. Since the LA teacher used chat rooms for students asking a question about their learning content or assignments/projects instead of discussion, participant observation was not needed. The LA teacher used chat room for communicating with her students until in the middle of the

second semester. After the middle of the second semester, she used only Elluminate.

I also observed Elluminate of Language Arts once a week from the beginning of the second semester. Unlike chat rooms, Elluminate allowed only nine students to attend at a time. Thus, the LA teacher announced the day and time of Elluminate at the first day of the week on her homepage and encouraged students to attend it. In order to attend Elluminate, students needed to have ID and password and needed to have new ones for every time. Since there were not many students who attended Elluminate every week, I was able to observe every Elluminate session during the whole second semester. At the beginning of the each Elluminate session, the LA teacher asked students to introduce themselves to the class since they could not see each other face-to-face. All students and the teacher could see in the Elluminate was their ID instead of real name. In Elluminate, the LA teacher encouraged students to be more engaged in their learning. When she explained part of the learning content, for instance, she wanted to check if students understood her well. For doing this, she frequently asked students if they had any questions so far while explaining. Each student answered to her whether they had a question or not by speaking to her directly or by clicking on "Smile" button. In addition, students were allowed to click on "Raise hand" button whenever they had a question. Even though Elluminate was a virtual classroom in cyberspace, interactions between the teacher and students were active and dynamic. While I observed Elluminate, I wrote field notes as ethnographic qualitative researchers in physical spaces do.

For participant observation, I observed Forum of Language Arts and participated in it. Around a month after the second semester started, the LA teacher wanted to encourage students to be involved in discussion on some learning contents in Forum. Since she used Forum for the first time at the school, she wanted me to participate in making some discussion questions and replying to students' postings. I read the learning contents for discussion and read and replied to all of students' postings in Forum.

I also conducted participant observation by reading some students' projects. A couple of students wanted me to take a look at their projects and to give them some feedback on it before they submitted them. They sent me their projects as an attached file by email and then, they and I exchanged our opinions on them by email.

### **Document Analysis**

In an ethnographic qualitative approach, documents analysis is important as much as interviews and observation in that documents reflect historical situations as a stable source and are embedded in individual's social and cultural contexts in everyday life (Hodder, 2000; Lincoln & Guba, 1985). While some researchers distinguish documents and records on the basis of whether the texts are personal or private (Lincoln & Guba, 1985), any kinds of documents can be counted for document analysis according to research purposes. In this respect, documents include public records such as government reports or media accounts, private documents such as diaries, reflection journal, or letters, books, photographs, video, etc. (Schwandt, 2001).

With the advent of the Internet, cyberspace produces another kinds of documents that have never existed before in physical spaces. Web pages, emails, postings on discussion boards, and messages on chat rooms or instant messengers are related with people's day-to-day lives. Thus, researchers who conduct an ethnographic qualitative inquiry in cyberspace may need to analyze some of these new kinds of documents for an in-depth understanding of participants' actions.

For this study, web pages of school announcements, web pages of the LA teachers' announcements, learning content of Language Arts, emails my participants exchanged with each other, and messages my participants posted in Forum were collected for document analysis. Since all of these documents were on the Internet, I did not have to print them all. Instead, I was able to copy and paste hundreds of emails and many postings in Forum into a Microsoft Word file. For collecting the two kinds of web pages, I saved them as image files using "PrintScreen" on the keyboard. I printed out only learning content of Language Arts because it was hard to copy and paste them.

### **Preliminary Analysis of Data**

In this section, I briefly present three emerging findings I have found and these findings will be elaborated in further analysis.

#### **Perception of Online School**

Some of my participants seemed to think that the reason for going to their online school was to have flexibility of studying. A boy told me that it was easier to learn at his own space in his online school. A girl told me that she liked that she could make her own hours to study. Another boy said that he got to do his work at his own space and anytime during day pretty much. For this boy, he liked to study during afternoon or night instead of morning. But, there was a negative case of this. A girl told me that she could go more at her own speed in homeshool.

Other my participants seemed to think that going to their online school would make them enjoy going to school. Several students told me that it was pretty cool to work on the computer and a kind of fun because they liked being on the Internet itself and because schoolwork was a little easier than public schools or homeschool.

A few students seem to think that going to their online school was to go to an actual school. A girl said to me “I mean we have homework that is due at a certain time and if it isn't done than there are consequences. WE have teachers, who grade your papers and correct what you need to be corrected. We have administration. A principal.” Another girl also told me that she felt going to “a school” because she had an actual teachers.

### **Learning in Cyberspace: Email as a Communication Tool**

Even though the school email was a main communication tool between teachers and my participants, all of my participants told me that no one at the school taught them how to use it. Thus, it was interesting to understand both how my participants learned how to use the school email and how they practiced for fully participation in communication with their teachers and other students in the school. Some of my participants who already experienced using regular email seemed to feel comfortable with the school email at first. They were a little familiar with a basic structure of email. Based on their previous experiences of a regular email, they tried clicking on every button in the school email system. They had some problems of sending an email or replying to an email at the beginning of their trial. In this case, some of my participants asked their parents to help them out. One boy told me that his neighbor showed him how to use the school email and that he observed what she had done.

Other participants who had never used a regular email before their online school had a little different experience of learning how to use the school email. They seemed to try to find some information from the online school first. One girl told me that she took a look at a section “getting started” at one of the teachers’ homepage first. She read all of the information about using email in the section and then, tried to follow the direction. Even though she needed to practice for using the school email for a while, she was satisfied with the way the school provided information.

### **Teachers/Students Power Disparity**

Almost all my participants tended to think that teachers at the school were nicer, understanding, and friendly. They seemed to think that the relationship between their teachers and themselves were more equal, in general. A girl told me that she was very surprised when one of her teachers always replied to her and talked to her about her daughter once. She said to me that she was very happy because the teacher really “talked” to her. However, I also found different interaction between teachers and students in communicating by email. A girl told me that she was frustrated and finally stopped emailing one of her teachers when she argued with the teacher about some wrong answers from quiz. Since this was a preliminary analysis on power disparity between teachers and students, I need to analyze this in detail.

### **Further Analysis**

With an elaboration of above findings, I am going to analyze data on online identity of students, online school activities, novice students’ practice in online school community, and discourse, subjectivity, and agency of students and teachers in online school community.

<sup>1</sup>This paper is based on part of the author’s dissertation research at The Ohio State University, Suzanne Damarin, advisor.

<sup>2</sup>In this paper, I use the term physical space instead of “real environments” or “reality” because these two words tend to signify dualism – physical space is real and cyberspace is not real.

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