To the Graduate Council:

I am submitting herewith a dissertation written by Kevin Mark Thomas entitled “Weblogs used as Online Discussion Boards in the Secondary Classrooms.” I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.

Jay Pfaffman
Major Professor

We have read this dissertation and recommend its acceptance:

Susan Groenke
Ed Counts
Gary Skolits

Acceptance for the Council:

Carolyn R. Hodges
Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)
Weblogs used as Online Discussion Boards in the Secondary Classrooms

A Dissertation
Presented for the
Doctor of Philosophy Degree
The University of Tennessee, Knoxville

Kevin Mark Thomas
December 2007
Copyright © 2007 by Kevin Mark Thomas

All rights reserved.
DEDICATION

This dissertation is dedicated to my family. My wife, Kiki McDonald, who supported me throughout this process even though I did not consult with her as I should have, and my two children, Finn and Mei. And to my parents, Bill and Beckie Thomas, the best people I know.
ACKNOWLEDGEMENTS

I would like to thank my committee members: Dr. Jay Pfaffman for being there when I needed him most; Dr. Ed Counts for his humor, optimism and guidance over six long years; Dr. Susan Groenke for her insightful advice and support, and Dr. Gary Skolits for his cheerful and wise assistance. Thank you for your time, hard work and support of me in the realization of this lifelong goal.

I would also like to thank Missy Sherrod who assisted me in the editing and formatting of this document. Thanks to all my colleagues in the program: Thilla Sivikumaran, who was a friend and mentor to me early in the program when I was often floundering; Bill Wishart, a solid man if ever there lived one; and Chris Greer, who was always up for a long drive on a short trip.

I would like to thank all of my colleagues in Knox County who supported me in this effort. I would like to thank my principal, Mr. Jon Miller, who allowed me to conduct my study under his watch. I want to also thank Judy Sullivan, Valeta Norris and the rest of my colleagues in the English Department for their participation in the study. And thanks to my long time friend and mentor, “the Grammar Guru,” Terry Runger.

And finally, my hiking buddy, Clovis.
ABSTRACT

The purpose of this study was to explore the use of weblogs as discussion boards (WeBo) in a secondary English department. Five classes of students enrolled in English in the fall of 2006 and their three teachers were organized into four groups. Groups 1 and 2 were made up of two sections of advanced placement English, twelfth and eleventh grades. Group 3 consisted of two lower level sections of 11 Regular English, and Group 4 consisted of one section of tenth grade College Prep. All of the group–members’ assignments were posted on the WeBo by their teachers. Participation by all teachers and students was voluntary.

Using a qualitative methodology, the primary data were collected from students’ posts, which were then used to develop a survey for further data collection. These two data sources were used to guide the interview of a purposeful sample of participants. Once all data were collected, an analysis of the entire data-set was conducted.

Analysis revealed that students found the WeBo beneficial in expanding the boundaries of time and space associated with the traditional classroom by allowing them to access course material and communicate with their peers and teachers from home. Seventy % of participants indicated they used the WeBo for a number of course related activities: checking assignments, asking and answering questions, interacting, collaborating, reflecting, and venting about course work. This finding indicates the importance of teacher involvement in the use of WeBos in the classroom.
However, only a small percentage of all students (34%) voluntarily used the WeBo. In other words, 66% of the students did not receive the course-related benefits provided by the WeBo. This finding demonstrates the lack of equity created by the implementation of the WeBo. Barriers included the usual culprits: a lack of access and technical problems. But surprisingly, analysis of the data showed the main impediment to students’ adoption of the WeBo was their preference for using other means of communicating about course work with peers (cell phones, MySpace, instant messaging). This finding merits further research to explore how these means of communication can be utilized to enhance instruction.
# TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION ............................................................................1  
Organization of the Study ...........................................................................5  
Statement of the Problem ...........................................................................6  
Purpose of the Present Study .....................................................................7  
Significance of the Study ..........................................................................7  
Research Question .....................................................................................9  
Assumptions of the Study .........................................................................9  
Limitations and Delimitations of the Study ..............................................9  

CHAPTER 2: REVIEW OF LITERATURE ..........................................................11  
Introduction ...............................................................................................11  
Benefits of Computer-Mediated Communication in the Classroom ..........12  
Using Weblogs in the Classroom ...............................................................13  
Benefits of Using Weblogs in the Classroom ..........................................14  
Limitations of Using Weblogs in the Classroom ....................................18  
Discussion Boards in the Classroom .........................................................20  
Limitations of Using Discussion Boards in the Classroom ....................28  

CHAPTER 3: METHODOLOGY..........................................................................35  
Theoretical Paradigm ..................................................................................35  
Selection of Methodology .........................................................................35  
Context of the Study .................................................................................36  
Participants ...............................................................................................37  
Data Sources .............................................................................................42  
Data Collection ..........................................................................................45  
Data Analysis .............................................................................................47  

CHAPTER 4: FINDINGS AND DISCUSSIONS...................................................57  
Introduction ...............................................................................................57  
Findings: Expanding the Boundaries of the Classroom ............................59  
Discussion: Expanding the Boundaries of the Classroom .......................61  
Finding: Questions and Answers ...............................................................61  
Discussion: Questions and Answers .........................................................63  
Finding: Venting ........................................................................................65  
Discussion: Venting ..................................................................................66  
Findings: Interaction .................................................................................67  
Discussion: Interaction .............................................................................68  
Finding: Collaboration ................................................................................71  
Discussion: Collaboration ........................................................................73  
Finding: Procedural ...................................................................................80  
Discussion: Procedural ............................................................................81  
Finding: Socializing ..................................................................................82  
Discussion: Socializing ............................................................................83  
Finding: Technical Posts ..........................................................................86  
Discussion: Technical Posts ....................................................................87  
Finding: Other Means of Communication ..............................................93  
Discussion: Use of Other Means of Communication ................................93  
Conclusion .................................................................................................95
<table>
<thead>
<tr>
<th>Chapter/Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAPTER 5: IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH</td>
<td>98</td>
</tr>
<tr>
<td>Introduction</td>
<td>98</td>
</tr>
<tr>
<td>Motivating Students to Use the WeBo</td>
<td>101</td>
</tr>
<tr>
<td>Lack of Instructional Equity</td>
<td>103</td>
</tr>
<tr>
<td>Different Academic Levels Used the WeBo Differently</td>
<td>106</td>
</tr>
<tr>
<td>Conclusion</td>
<td>108</td>
</tr>
<tr>
<td>Recommendations for Further Research</td>
<td>109</td>
</tr>
<tr>
<td>References</td>
<td>111</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>120</td>
</tr>
<tr>
<td>Appendix A</td>
<td>121</td>
</tr>
<tr>
<td>Appendix B</td>
<td>132</td>
</tr>
<tr>
<td>Appendix C</td>
<td>139</td>
</tr>
<tr>
<td>Appendix D</td>
<td>140</td>
</tr>
<tr>
<td>Appendix E</td>
<td>145</td>
</tr>
<tr>
<td>Appendix F</td>
<td>151</td>
</tr>
<tr>
<td>Appendix G</td>
<td>155</td>
</tr>
<tr>
<td>Vita</td>
<td>156</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1. Breakdown of Interviews ................................................................. 121
Table 2. Teachers in the Study ................................................................. 122
Table 3. Presentation of Groups ................................................................. 123
Table 4. Purposeful Sample of Interviewees ................................................. 124
Table 5. Categories for the Analysis of Data ................................................. 125
Table 6. Group 1 Usage of the Course WeBo ................................................. 128
Table 7. Group 2 Usage of the Course WeBo ................................................. 129
Table 8. Group 3 Usage of the Course WeBo ................................................. 130
Table 9. Number of Participants Who Use Other Means of Communication Weekly ................................................................. 131
Table 10. Number of Participants in the Four Groups ........................................ 131
LIST OF FIGURES

Figure 1: Data Sources for each of the groups .................................................132
Figure 2. Information required by users to post a comment on the WeBo .......132
Figure 3. Number of posts each participant in Group 1: 12 AP made on their class WeBo.................................................................133
Figure 4. Number of posts each participant in Group 2: 11 AP made on their class WeBo.................................................................133
Figure 5. Number of posts each participant in Group 3: 10 CP made on their class WeBo.................................................................134
Figure 6. Number of questions and answers by participants .....................134
Figure 7. Number of venting comments made in posts by class section.......135
Figure 8. Number of participants’ interactive posts ..................................135
Figure 9. Number of participants’ collaborative posts ...............................136
Figure 10. Number of participants’ reflective posts ....................................136
Figure 11. Number of participants’ procedural posts .................................137
Figure 12. Number of participants’ social posts .........................................137
Figure 13. Number of participants’ technical posts ....................................138
CHAPTER 1: INTRODUCTION

As a graduate student, I often worked the registration counters of professional conferences to cover my conference fees. The SITE conference in Phoenix, Arizona in 2004 was no different. One of the benefits of working these events is the opportunity to meet many people on both sides of the registration counter. At this particular conference, I met a graduate student, Jon (All names in this study have been changed.), who was giving a presentation on two exotic-sounding web-based instructional tools, weblogs and wikis. This was the first I had heard of “weblogs” and “wikis,” and they sounded more like something that might appear on the screen in the next episode of Star Wars than like an instructional tool. While we worked together behind the registration counter, Jon gave me a brief introduction to weblogs and wikis on his laptop, and I left the conference excited about the potential classroom applications of both of these technologies.

After returning to my job working for a PT3 grant in the College of Education at a state university, a colleague and I decided to present a “Brown Bag” lunch lesson on weblogs for the faculty and staff in the college. In preparing for this session, I learned that weblogs, blogs for short, are frequently updated web sites that are often of a personal nature. Many think of weblogs as a combination of commentary and personal thoughts with links to support the writer’s assertions (Blood, 2000; Downes, 2004), a sort of journal/diary/website. It is from this journal/diary aspect that the weblog takes its name “web-log”, a usage originally coined by Jorn Barger (Blood, 2000; Downes, 2004), and it is as
journals/diaries that weblogs have traditionally been used in the classroom (Cobanoglu, 2006; Oravec, 2003; and Stiler & Philio, 2003).

When the grant ended, I returned to my job as a high school English teacher, excited about the new tools I had learned about on my hiatus from the classroom. I was eager to find ways to incorporate them into my classroom curricula. After much consideration, I decided to create a weblog for my 11 AP classes (32 students in two sections) and to conduct a pilot study of my experience.

Although most people think of weblogs as personal journals, they share many characteristics with online discussion boards. Like a discussion board, a weblog is a computer-mediated communication tool that allows asynchronous (not real time) communication between users. In other words, one user can make a post on the weblog, and someone else can respond to that post. Furthermore, like discussion boards, users’ comments are timed, dated and stored in reverse chronological order. In its capacity as a tool for supporting online discourse, the term *weblog* actually fails to describe this technology. I use the term *WeBo* to describe the hybrid form of *WEb page* and *discussion BOard* (thus, *WeBo*). If weblogs are so much like discussion boards, one may ask, why not just use a discussion board like Blackboard or WebCT instead? Due to their high cost, prepackaged programs like Blackboard and WebCT are not accessible to most K-12 educators. Of course, free course management systems like Moodle exist, but many teachers do not have the technological expertise to create and maintain these systems. In contrast, weblogs are extremely simple to create and
use, and, best of all, they are free. K-12 classroom teachers can go to Blogger.com and start their own classroom weblogs for no cost, which is what I have done, along with 12 million other adults who have created blogs (Pew Internet and American Life Project, 2005). It should also be noted that 4 million teens have also created weblogs (Pew Internet and American Life Project, 2005).

After going to Blogger.com and creating my weblog, I discovered that this provider housed some blogs that were not appropriate for teenagers and were, therefore, blocked by my school system’s filtering device. I then did a web search and found a free provider of educational websites (Edublog.org) and created a weblog using their service.

My goals in creating my first classroom weblog were modest. I hoped to establish an online presence that would allow me to post students’ assignments so that, if students were absent or got home and realized they had forgotten their homework, they could go to the course blog and access it. It was also my hope, with the emphasis on the word hope, that students might use the weblog to ask the occasional course-related question that might arise after school hours.

Weblogs are an attractive tool to classroom teachers because they have the potential to create a learning environment that can foster constructivist learning (Jonassen, Peck & Wilson, 2002) and expand the boundaries of time and space that the traditional classroom imposes on learning. Technologies like weblogs can assist students in the construction of knowledge by providing a forum that allows them a space and the time to reflect on their course work and personal experiences. Weblogs can do this by making it possible for students to
communicate and collaborate through written comments and observations (Jonassen, 1994). Vygostky (1978) believes that language is at the heart of teaching and learning. Through our various language experiences, we acquire knowledge and shape our understanding of the world around us. Technologies like weblogs provide students and teachers another venue for communication outside of the classroom. This creation of a communication space is extremely important because learning and questions about learning do not stop at the school house door.

After creating my course weblog, I introduced it to my students. I told both sections of my class that they would have a “class weblog” to share. I explained what a weblog was and how I would post assignments on it for them to access. I also let them know that it was a way for them to ask questions of their classmates or me. To my surprise, the majority of the students quickly embraced the new technology. They often went to the weblog to ask me for assignments when I forgot to post them or to ask me to clarify questions about the assignments. Much to my surprise, students began to take responsibility for the weblog themselves. When assignments were not posted by me, other students began to post them for their classmates. Furthermore, they started answering each other’s questions, as well as asking me for answers.

Students ended up making 451 posts on the weblog. I used the posts as my first data source for a pilot study of my experience with the weblog. The second data source was a questionnaire I developed to collect basic demographic information, computer use trends, and overall impressions of
students’ use of the Weblog. The questionnaire consisted of several open-ended questions that addressed users’ impressions of the weblog and their reasons for using it or not using it.

I used the qualitative methodology of content analysis to analyze the data. Students’ posts and surveys revealed several insights about their use of the weblog. For example, some students were on the weblog day and night. They sought moments during the school day to make posts; once at home, they made posts in the evening, in the early morning (one as early as 3:00 A.M.), and on the weekend. In fact, 30 of the 32 students used the weblog over the course of the semester. Furthermore, students’ comments were not limited to asking and answering questions. For example, one student who used the weblog just decided out of the blue to quote lyrics from *My Fair Lady*. Students used the weblog to debate and/or argue and to regulate and mediate comments and discussions. However, these hardly addressed all of the ways students chose to utilize the weblog, and I wondered about all of the different ways students utilized the weblog over the course of the semester.

**Organization of the Study**

This study is organized into five chapters. Chapter One introduces the problem, describes the purpose of the study, presents the research questions and identifies the significance of the study. Chapter Two reviews relevant literature. Chapter Three describes the research methodology. Chapter Four presents findings from and discussions of the data. Chapter Five presents the implications of the study’s findings and recommendations for practice and future
research.

Statement of the Problem

Constructivists like Vygotsky (1978) hold that knowledge is constructed socially by people based on their personal experiences and knowledge. Learning involves both a personally constructed meaning and a socially negotiated meaning (Ikpeze, 2007); much of the construction of meaning takes place through discourse. Technology has the ability to promote constructivist learning by facilitating students’ abilities to interact and communicate with others, as well as to reflect on their own perspectives and experiences (Jonassen, Peck & Wilson, 2002; Ikpeze, 2007).

Additionally, technology can provide an environment for learning beyond the classroom; it transcends the restrictions of time and space (Bennett & Green, 2001; Jeffries, 2005; King, 2001; McAlpine, et al., 2002; Yu & Tsao, 2003; Weston & Barker, 2001). WeBos are an attractive online technology because they are free, easy to set up and use, and can potentially support student’s abilities to communicate with their peers, articulate their ideas, and reflect on their own learning.

Communication technologies of all kinds have a great deal of potential in the classroom, and WeBos are no exception. However, to realize their full potential, we must have a full understanding of the questions and problems associated with their application in the classroom. As indicated by my pilot study in the fall of 2005, students will use WeBos, but this finding raises even more important questions about how they will use WeBos as learning tool, and how
not. To improve my use of WeBos as a support for classroom learning and to advise others about how to use them effectively, I needed to understand what activities students were engaged in on the WeBo.

**Purpose of the Present Study**

The overall purpose of this qualitative study was to understand how the WeBo can be incorporated into a learning environment. To accomplish this, the study describes how public high school English students used a WeBo.

**Significance of the Study**

WeBos are a hybrid, interactive web technology somewhere between a web page and a discussion board and are generally used for online journaling (Herring, 2004). WeBos are used for online journaling because, like web pages, they allow users to post text, pictures and links. Once they are created, updates can be made frequently. WeBos are like discussion boards because they allow users to read and record posts and these posts are timed, dated and stored in reverse chronological order. In fact, because WeBos share the characteristics of web pages and text-based computer-mediated communication devices like discussion boards, they serve as a sort of bridge between the two.

Because of their capacity to facilitate interactive communication, their ease of use and their affordability (They are free!), there is much potential for WeBos to be used in public school systems as an inexpensive alternative to course management systems. WeBos could also be used by administrators and teachers as a way to communicate with students and parents.
Although much research has been conducted on the usefulness of web pages, weblogs (as a means of online journaling) and discussion boards (as interactive communication devices) in educational settings, the potential of the hybrid technology of the WeBo as a learning and teaching tool has yet to be fully explored. Whereas the content of web pages and discussion boards are controlled and monitored by the user or a system administrator, the same is not true for WeBos. The content of a web page is to a large extent controlled by the administrator of the site. Furthermore, web pages and discussion boards allow only users with permission to make comments. The same is not true of public WeBos like the one used in this study. Public WeBos can be read, and posts made, by anyone with a computer and an Internet connection. Also, unlike web pages and discussion boards, WeBos are extremely easy to use (Cobanoglu, 2006; Herring, 2004; Stiller and Philleo, 2003) and free. This makes the WeBo much more accessible than web pages and discussion boards.

This qualitative study in a public high school adds to the growing body of research concerning the use of WeBos in educational settings by exploring the perspectives of those involved, uncovering the complexity of human behavior in this virtual environment and presenting a holistic interpretation of what happens when students use a classroom WeBo. Furthermore, this study provides insight into the degree to which WeBos create an online learning environment that promotes learning by making it possible for students to be actively engaged in the construction of knowledge through collaborative, reflective discourse with classmates at anytime and from anyplace with a computer and Internet.
connection. The rich, thick description of the analyzed data collected from the WeBo posts, interviews and surveys of students adds to the body of research that is beginning to help educators understand how students are using, and can benefit from, course WeBos.

**Research Question**

The central research question in this study was “How did students use the WeBo?”

**Assumptions of the Study**

I assume that, based on the criteria for selection and placement into these courses, students in advanced placement courses will be more academically motivated than their peers in lower sections. I assume that since the students in the Grade 12 AP section of Group 1 used the WeBo in the pilot study, they will make comments on it again. I assume that students’ posts will not be influenced by the fact that they know they are writing on a school WeBo, and that their comments could be monitored by teachers and school administrators. I assume that students’ posts will not be influenced by the fact that they are participating in a study. I assume that students’ comments during the survey and interview portion of the study will be truthful.

**Limitations and Delimitations of the Study**

Delimitations of this study included the scope of the study. The study used five classes of students taking English in the fall semester of 2006. Data were collected from only those students that returned signed consent forms.
qualitative research, the primary instrument is the researcher. Therefore, I needed to be sensitive to my biases and preconceptions prior to and through all stages of the study. My biases and preconceptions included the belief that technology can be beneficial to teachers and students by assisting them in communication, collaboration and interaction. I also presumed that students’ levels of use would vary on a sliding scale depending on students’ grade-level and academic level. I expected the more highly motivated students in the AP courses to use the WeBo the most, the CP students to use it some, and the students in the Regular section to make little use of it.

One limitations of the study was the interview method. Interviewing has inherent limitations: 1) it provides indirect information filtered through the views of interviewees; 2) it provides information in a designated place, rather than in the natural field setting; 3) the researcher’s presence may bias responses; and 4) not all people are equally articulate and perceptive (Creswell, 1994).

Another limitations was the fact that because the researcher was also an instructor at the high school and his three classes were used in the study, his presence could influence the participants’ use of the WeBo, thus creating a bias.
CHAPTER 2: REVIEW OF LITERATURE

Introduction

There is a wealth of literature on the benefits of using computer-mediated-communication (CMC) to augment face-to-face instruction (Dutt-Doner and Powers, 2000; Gilbert and Dabbagh, 2005; Hernandez-Ramos, 2004; Ikpeze, 2007; Jetton, 2003; MacKinnon, 2000; Maples, Groenke, and Dunlap, 2005; Nicholson and Bon, 2003; Pfaffman, 2007; Thomas, 2002; Tiene, 2000; Wickstrom, 2003). One type of CMC that has been frequently used in educational settings is the discussion board. Discussion boards provide a forum for student-to-student, student-to-teacher and student-to-content interaction. By allowing students to communicate with peers and teachers from anywhere and at any time, discussion boards expand the temporal and spatial boundaries of the classroom. Unfortunately, discussion board software is expensive and therefore generally unavailable to public school teachers.

The growing popularity of Web 2.0 software, like weblogs, has made CMC more accessible for everyone, including teachers. Weblogs have great potential in the classroom because they are extremely easy to set up and use (Oravec, 2003; Cobanoglu, 2006; Stiler and Philleo, 2003), and, unlike discussion boards, they are inexpensive; in fact most are free. Also, weblogs already have many users in many demographic groups. According to two Pew Internet and American Life Project studies, 15 million American adults read blogs and 12 million keep them (Lenhart and Fox, 2006). Likewise, 8 million teens read blogs and 4 million
maintain their own blog (Lenhart and Madden, 2005). From a technical perspective, weblogs are extremely similar to discussion boards in that they allow users to make asynchronous comments, and they allow others to respond to these comments. Like discussion boards, weblogs time, date and store all posts so that users can view, reflect and respond to comments at their leisure (Blood, 2000; Clyde, 2005; Downes, 2004; Embrey, 2002; Herring et al., 2004).

However, weblogs have typically been used in the classroom only as a tool for online journaling (Brescia & Miller, 2006; Cobauglu, 2006; Oravec, 2003; Stiler & Philleo, 2003). Little research has been done using them as hybrid discussion boards in the K-12 setting. This study was designed to fill this void and demonstrate the potential and/or limitations of the application of weblogs as discussion boards in a secondary English program.

**Benefits of Computer-Mediated Communication in the Classroom**

The use of computer-mediated communication to augment face-to-face instruction is supported by social constructivist learning theories (Dewey, Jonassen, Peck & Wilson, 2002; Vygotsky, 1978). Social constructivists emphasize that, in order for learning to take place, collaboration and social interaction with peers or a teacher is necessary. By allowing students and teachers to form communities of learning from a distance, either during class time or in addition to it, online discussion tools provide a format for social interaction to take place (Dewey 1997, Jonassen, Peck & Wilson, 2002; Vygotsky, 1978).

Social constructivists place language at the center of this interaction; they
see language as the engine of teaching and learning (Dewey, 1997; Jonassen, Peck & Wilson, 2002; Vygotsky, 1978). Computer-mediated communication tools allow electronic discourse to take place among students, their instructors and their course content. It is worth noting that for all the existing asynchronous, online discussion tools (email, list serves, discussion boards, weblogs), this interaction takes place through written language. Furthermore, given the increasingly ubiquity of computers and the Internet, this interaction can take place from any place and at any time (Jonassen, Peck & Wilson, 2002). This nearly omnipresent medium allows students and instructors to stretch the boundaries of their communication space into times and spaces not commonly associated with the classroom.

Social constructivism also holds that electronic discourse can serve as a motivational tool for learning. Motivation, like learning, has both intrinsic and extrinsic dimensions (Vygotsky, 1978). Obviously, learners must have some degree of individual motivation in order to learn. However, because of the social element of learning described above, learners are motivated to a degree by their learning communities. For this reason, computer-mediated communication can assist in motivating learning by providing a place online where learning communities can develop.

**Using Weblogs in the Classroom**

A review of the literature reveals much research on the use of weblogs in a traditional fashion as a tool for online journaling (Brescia and Miller, 2006; Cobanoglu, 2006; Oravec, 2003; Stiler and Philleo, 2003); many of these online
journals represent communities of common interest connected through hyperlinks (Oravec, 2003; Stiler and Philleo, 2003). The weblog in this study will not be used as a journal or have as a primary function of facilitating hyperlinking; instead, it will be used in a hybrid fashion as a discussion board. Nonetheless, it is important to explore the literature surrounding the application of the weblogging tool in instructional settings in order to better understand its potential and limitations.

**Benefits of Using Weblogs in the Classroom**

Research on the use of weblogs to augment face-to-face instruction and in online classes has found that students benefit from the use of this tool. For example, one benefit of weblogs is their ability to promote student interaction. This finding is supported by the Cobanoglu (2006). Using a convenience sample of two sections of a hospitality-technology course, Cobanoglu surveyed 42 face-to-face and 10 online students to determine their perceptions of the weblog as a learning tool. Students responded that they felt the use of the weblog was an interactive way of learning. Cobanoglu’s findings were supported by Brescia and Miller (2006). In their study, Brescia and Miller sought to understand university faculty’s perception of weblogs used in the classroom. They used a snowballing sampling technique to identify 24 university professors who used blogs to supplement their instruction. Participants were sent an electronic survey asking them to identify five characteristics that they believed made blogging a uniquely effective tool for supporting instruction. The research indicated that these “weblogging experts” found weblogs to be an excellent tool for promoting
interaction.

Unlike some forms of online discussion (email, instant messaging, social networking sites), weblogs create an online public space where all students can benefit from social interactions. Because weblogs time, date and store all of users’ comments, classmates can profit from each other’s questions, answers, and discussions related to the course. The research of Oravec (2003) supports the benefits of having a public space for class participants to use. Oravec maintains that weblogs exceed the benefits offered by other means of online communication such as email because the public nature of weblogs allows all users to follow and benefit from conversations related to course material. The limitations of email also apply to other means of online communications such as social networking sites (MySpace) and instant messaging.

By providing a public space where users can follow discussions over a long period of time, weblogs can foster reflection. Reflection is an important part of learning because it allows students to construct knowledge through the exploration of issues; taking a position on an issue and then discussing and arguing for their position among others can lead students to reflect on and re-evaluate their own views (Brescia and Miller, 2006; Cobanoglu, 2006; Gilbert & Dabbagh, 2005, Jonassen et al., 1995; Oravec, 2003). The assertion that weblogs promote user reflection is also supported by the research of Stiler and Philleo (2003), who used two classes of preservice teachers, Multicultural Education (n=48) and Technology in Education (n=15), to determine from students who used weblogs in their classes their level of satisfaction with the
technology, their views on the ease of use, and their suggestions for change and future classroom applications. The two groups of students were given two different surveys. Students in the Multicultural Education class were given a seven-question survey asking them about their use of the weblog. The students in the Technology in Education class were given a survey of open-ended questions to collect more in-depth responses. The researchers found that students liked the weblog’s capacity to allow them to look back at the posts and keep track of what was going on in their class, as well as to reflect on the full archive of comments/discussions. Brescia and Miller (2006) also found that the format of weblogs provided students an opportunity to reflect before responding. A limitation of these findings is that in all these studies, weblogs were used as journals, and reflection is an inherent part of personal journaling. More research is needed to determine if this benefit would be present in a weblog used as a discussion board for all class participants.

The ability to reflect that is a benefit of weblogs is in many ways a product of the asynchronous nature of computer-mediated communication tools that allow users to access and use them from anywhere and at anytime. In face-to-face discussion student have to respond immediately. This is also true of synchronous tools like instant messaging. In contrast, weblogs allow students to spend as much time with material as is necessary and to respond when it is convenient for them. In support of the weblog’s capacity to afford students a place outside of the classroom to engage course content, Brescia and Miller (2006) found that blogs provide an opportunity to bring students back to the
subject matter outside of the classroom, giving them additional opportunities to return to a question, to comment on a topic of discussion, work through it and provide feedback for other users.

Although this is not necessarily an instructional benefit, researchers did find weblogs easy to use. This benefit is of particular importance, not only to the students but to the teachers who might want to implement weblogs as discussion boards in their classrooms. Cobanoglu (2006) and Stiller and Philleo's (2003) studies both found the development of personal weblogs by students, for use in their courses, to be a simple process. Cobanoglu described creating a weblog as a three step process: 1) create an account, 2) name the blog, and 3) choose a template. Ease of use makes weblogs an accessible tool for students and teachers.

Regardless of the ease of use, the literature calls into question users’ perceptions regarding the applicability of weblogs in the classroom. After being required to use a weblog in Stiler and Philleo’s study, students indicated that they would not use it in their own teaching, nor would they recommend it to a friend. Also, it should be noted that all of these studies were conducted on college students who were required to use a weblog as a journal for part of their grade. The validity of these findings with high schools students voluntarily using a weblog as a discussion board is largely unexplored. Further research is necessary to understand if these benefits can be realized when students are given the opportunity to use this tool, of their own accord, as a discussion board.
Limitations of Using Weblogs in the Classroom

In order for students to realize the benefits of computer-mediated communication tools like weblogs, they have to use them. Unfortunately, research on the implementation of weblogs in the classroom has found a degree of reluctance on the part of students to make use of weblogs in the classroom. It is impossible for weblogs to be of value to students if they are not motivated to use them. Hernandez-Ramos (2004) found that making the tool available to students was not enough to motivate them to use it. In his study of 53 pre-service teachers in an Instructional Technology class, students were required to create and make posts to a personal weblog. At the end of the semester, all of the students were required to print off and turn in a record of the posts on their blogs, which were then analyzed. Data revealed that in order to motivate student to use the weblogs, student’s grades must be tied to their use. This assertion was supported by the students in Cobanoglu’s (2006) study, who stated that they would not have used the weblog if it had not been a requirement. However, requiring students to use the weblog comes with its own problems. Brescia and Miller (2006) maintain that if students are required to post, they will comment for the sake of it and not be involved in the process of learning.

Another barrier to students’ adoption of weblogs was the perception on the part of the students that blogging was too time-consuming. In their studies, Cobanoglu (2006) and Oravec (2003) both required students to keep personal weblogs as well as to read and comment on other students’ blogs. Students in both studies expressed dissatisfaction with the weblogs. They felt that reading
and responding to other students’ comments on the weblogs took too much time. Considering that students in Cobanoglu’s study also reported that the weblog was “of no instructional value,” their reluctance to use the weblogs could have been based on the belief that the end did not justify the means. Although not addressed in the research here, the perception that blogging is time-consuming could be a barrier to adoption by teachers in a secondary setting and warrants further investigation.

Technical problems also present a barrier to students’ use of weblogs (Cobanoglu 2006; Stiler and Philleo, 2003). Students in Stiler and Philleo’s study were frustrated by a loss of posts and the server being down. Technical frustrations often resulted in a reduction or complete abandonment of use.

Research does suggest limitations of the use of weblogs in the classroom: a lack of student- and teacher-motivation being one of the more serious limitations. Hernandez-Ramos (2004) believes that more research is necessary to understand how to motivate students to respond to each other’s posts. Other limitations include the perception that blogging is time-consuming and the frustration associated with the technical difficulties that seem to be inevitable with most technologies in an instructional setting. However, as was pointed out in the section on benefits, these limitations were found with college participants who were required to post. The applicability of these finding with a different population—K-12 -- using the tool in a different fashion --as a discussion board-- and without the motivation of grades—voluntary--merits further research.
Discussion Boards in the Classroom

Although the computer-mediated communication tool being used in this study is a weblog, it is being used as a discussion board. For this reason, this section will review the literature concerning the use of discussion boards in the classroom. Before beginning, it is important to note that the majority of research on the use of discussion boards in the classroom has been conducted on college populations (Dutt-Doner and Powers, 2000; Gilbert and Dabbagh, 2005; Hernandez-Ramos, 2004; Ikpeze, 2007; Jetton, 2003; MacKinnon, 2000; Nicholson and Bon, 2003; Poole, Thomas, 2002; Tiene, 2000; Wickstrom, 2003). There appears to be a void in the research concerning the use of discussion boards in the K-12 setting. Furthermore, the majority of these studies have required students to make posts on the discussion board, again suggesting a lack of research exploring students’ voluntary use of a course-related discussion board.

Benefits of Using Discussion Boards in the Classroom

Research on the use of discussion boards reveals a variety of potential benefits of asynchronous computer-mediated communication in the classroom. The most prominent benefit is the capacity of discussion boards to broaden the boundaries normally associated with the classroom. By allowing students to access and discuss course content at their convenience, discussion boards give students time to review and reflect on material and discussions before commenting. This ability is further supported by the asynchronous design of the forums. Since comments are timed, dated and stored, students can participate in
any time and space that is convenient for them. Discussion boards also provide a forum where all students have an opportunity to speak and where teachers and students share the control over knowledge, so that a more equitable distribution of the responsibility for learning results, and, thus, more opportunities for self-directed learning on the part of the students.

Discussion boards have the ability to allow students to transcend the time/space barriers of the face-to-face classroom. Discussion boards, like other means of online discussion, let students connect with their classmates at a time that is convenient to them and from any place with a computer and Internet connection (Jonassen, et al., 1995). As Tiene (2000) found in his study of students in five graduate-level IT courses (N=66) over a two-year period, students liked the convenience that discussion boards provided them by allowing them to post from any place and at any time. Using an online survey he developed with the help of a previous group of online students, he discovered that students enjoyed being able to extend their conversations beyond the classroom. With ever increasing demands on classroom time, the idea of extending conversations outside of the classroom is an attractive one. Likewise, in the second of two studies presented in their paper on online discourse, Ferdig and Roehler (2004) found the discussion board to be an extension of the face-to-face classroom. In this study, 331 pre-service teaching students from 12 classroom and five universities were required to use discussion boards as part of their classes. During interviews, students and teachers alike commented that there was never enough time in class, and that the discussion board provided a
forum for the continuation of their classroom discussions. Also, Ferdig and Roehler state

Internalization requires time and social interaction beyond the class session. This meant that extra time was needed for students to reflect and for social interaction to occur. Forums alleviated this problem when the discussion assignments became opportunities for elaborating and extending course content” (p. 129).

Because discussion boards offer students opportunities to increase the amount of time they spend with course content, they make it possible for them to interact more often with their peers, instructor and course material.

By extending the time and space of the classroom, discussion boards give students and teachers additional opportunities to interact with each other, the instructor and course content outside of the classroom. These interactions have the potential to support discourse while modifying the role of the teacher and opening the way for more self-directed learning on the part of students. Teachers can also benefit from the ability to monitor student’s discussions and understandings of course content. Finally, the discussion board, unlike the classroom, provides a space where everyone has the ability to take part in the discussion.

Discussion boards provide a space for students to be engaged in a number of course-related activities. Much of the interaction involves students talking about course work: asking questions, seeking help, giving assistance. In their study of 14 graduate students in an instructional design course, Davidson-
Shivers, Muilenburg and Tanner (2001) determined that the majority of students’ posts were of a substantive nature and involved students asking questions and responding and reacting. These finding are supported by the work of Kanuka and Anderson (1998). By conducting on a content analysis of 16 students’ posts, as well as a survey and semi-structured telephone interview, they found that the majority of the messages were of a sharing and comparing type, which they defined as “ordinary observations, statements of problems, or questions, as well as observation, opinion, agreement, corroborating example, clarification and/or identification of a problem. In their study of 24 pre-service teachers using Blackboard for an education course, Curtis and Lawson (2001) found participants used the board to actively seek help and feedback. Wickstrom (2003) found similar results in his study of 45 undergraduate students enrolled in a one-semester reading assessment course. For his study, students were required to post to a WebCT discussion board over the course of the semester. After conducting a content analysis of students’ posts, Wickstrom concluded that students used the discussion board to request assistance and to give positive feedback and encouragement to their classmates. This supportive behavior is also evident in the research of Dutt-Doner and Powers (2000) and Jetton (2003). Both of these studies found students empathizing with one another and offering support to their classmates. As Jetton noted in his study, many of these activities result in the sharing of multiple perspectives on issues. This sharing and reflection on multiple perspectives may be a natural outgrowth of this medium, where students can read and reread each other’s comments. One possible
outcome of the reflection fostered by discussion boards is increased student learning. Much of the behavior described in these studies is of a collaborative nature: students working collaboratively to ask and answer questions, make connections and share information (Jetton, 2003, Selwyn, 2000). As a result of students' collaborative efforts, several of the studies found the emergence of online learning communities on the discussion board (Brown, 2001; Dutt-Doner and Powers, 2000; Jetton, 2000; Wickstrom, 2003).

The research on discussion boards' capacity to provide a forum for all students to speak and interact is mixed. Much of the research supports the claim that computer-mediated communication allows all students to participate in class discussions (Dutt-Doner and Power, 2000; Hernandez-Ramos, 2004; Tiene, 2000; Wickstrom, 2003). Often there is not time during a class period for everyone's comments to be heard. Sometimes individual students will dominate the class conversation, thus inhibiting others from participating. The studies listed above found discussion boards to be a forum where, in fact, everyone's comments could be heard. In support of this, Dutt-Doner and Power (2000) found that certain things came out in the online discussions that did not come out in the classroom. Like the students in Tiene's (2000) study, participants in the Dutt-Doner and Power's study attributed this openness to the fact that they perceived it to be easier to make comments on the online forum. Tiene credited this to the fact that no one was watching them in the online forum as opposed to the classroom. However, research findings are mixed. Other studies have found this public quality and lack of privacy a barrier to participation. Wickstrom (2003)
found in his study that students who did not speak in class did not speak on the board either. Likewise, those who were verbal in class were verbal online. In an interesting twist, Thomas (2002) found that just because everyone is talking, does not mean anyone is listening. In his study of undergraduate students using a discussion board in an Environmental Studies course, he found that while everyone maybe able to be heard; over half of his students’ comments received no responses. He likened the discussion board to a place that did not promote dialogue, but rather “poorly interrelated monologues.” In an attempt to explain the large number of “no responses” in their study, Kanuka and Anderson (1998) observed that it is much easier to ignore a question online that face to face.

Discussion boards, like other forms of computer-mediated communication, also provide a space for students/teacher interaction. In the online community, there is a shift in power; the teacher is no longer the only one in control of content knowledge (Dutt-Doner and Powers, 2000). Online, teachers may become coaches, facilitators or collaborators (Brown, 2001; Ferdig and Roehler, 2004; Poole, 2000). In fact, teachers must be careful in their online interactions with students not to appear to be the authority or their word will be perceived as the last word and inhibit students’ participation (Jetton, 2003). As a result of this shift in power relations, discussion boards have the potential to contribute to the development of student/teachers relationships. Teachers can also use their participation on the board to monitor student learning and areas of concern and need for further instruction (Dutt-Doner and Powers, 2000; Hernandez-Ramos; 2004; Ferdig and Roehler, 2004)
The shift in power in regards to the control of knowledge on discussion boards allows student the opportunity to take more control of their learning. The discussion board can become a catalyst for self-directed learning by students. In their study of 68 elementary education students using a discussion board, Dutt-Doner and Powers (2000) realized that although students were required to post, they were posting much more than required. Findings from the students’ posts, recorded impressions and a discussion group indicated “students learning how to take responsibility for their own learning by suggesting and talking about each other’s ideas.” Students began to rely on each other instead of the teacher, and their self-directed discussion created an environment for active participation that resulted in the integration of new information, and thus, an expansion of their knowledge. Findings from Ikpeze’s (2007) study of 31 graduate students support this finding. By analyzing students’ required posts and then surveying and interviewing students, Ikpeze was able to determine that computer-mediated discussions promoted student empowerment and active learning by increasing social relationships in which members encouraged and facilitated each other’s efforts through peer teaching, as well as the meaningful exchange of information and joint problem solving.

As mentioned above, the freedom afforded by this transcendental quality of discussion boards allows student to reflect before posting comments. This ability is further supported by the asynchronous nature of the discussion board, and still more by the fact that all comments are stored on the board, where students can look back over comments and conversations prior to making their
own contributions. Hara, Bonk and Angeli (2000) used content analysis of 20 college students’ required posts and reported that the asynchronous nature of discussion boards provided a delay that allowed students the opportunity for reflective learning. Ferdig and Roehler’s (2004) findings in the first of their two studies support those of Hara et al. In their study, Ferdig and Roehler observed 32 pre-service teachers in a year-long reading methods course in which students were required to post on a discussion board. Their posts were analyzed using qualitative (constant comparison analysis) and quantitative methods (correlation analysis) and demonstrated that because ideas are recorded, learners can go back and review their own thoughts or peruse and respond to the thoughts of others. Likewise, Tiene (2000) found that students liked the asynchronous nature of online discussion because it permitted them to participate at their own convenience. This way, students reported they could read and reflect before responding. Jetton’s (2003) study of nine pre-service teachers also found reflection to be a benefit of discussion boards. Jetton’s participants were required to make posts on the board as part of their grade. Data consisted of instructor’s field notes, researcher field notes, observations, students’ posts on the Blackboard discussion board, and interviews. According to her findings, computer-mediated discussions can provide opportunities for reflective learning and thus can enhance the learning process.

All of these studies were conducted with college students. Most of the studies required students to posts on the course discussion board. Also, in most of the studies, the teacher or designated moderators/facilitators posted prompts
or directed the students’ discussions. These facts reveal a need for further research to explore the use of a voluntary course discussion boards in the K-12 setting.

**Limitations of Using Discussion Boards in the Classroom**

The implementation of discussion boards in to the classroom is not without its problems. Perceived benefits like the asynchronous nature of discussion board communication can be regarded as a negative from other perspectives. For example, while students enjoy the benefits of being able to respond in their own time, others are frustrated by the lack of immediate feedback (Gilbert and Dabbagh, 2005; Jetton, 2004; Kanuka & Anderson, 1998). Another barrier to students’ use is a lack of participation. Students’ reasons for not participating in the discussion boards are complex and often multi-faceted. Students choose not to participate in discussions online because of a lack of motivation, access, content knowledge, and privacy. These problems are compounded by the frustration students experience due to the inevitable technical problems associated with the introduction of any new technology into the classroom. Finally, students and teachers have found the use of discussion board to be time-consuming, and many simply do not have the time to use them. All of these factors often result in a lack of participation by students.

Research on the use of discussion boards in the classroom suggests that one limitation is the lack of motivation on the part of students and teachers (Jetton, 2003; Ikpeze, 2007). Several studies (Dutt-Doner & Powers, 2000; Ikpeze, 2007; Wickstrom, 2003; Thomas, 2002) concluded that in order to
motivate student participation, posting should be a requirement for their grades. However, tying students’ grade to posts on a discussion board comes with its own set of problems. For instance, requiring participation calls into question the authenticity of students’ posts. In Thomas’s (2002) study, 80% of posts were made right before the posting deadline. Based on this time line of students’ use, Thomas concluded that students were not motivated to use the board for anything as lofty as self-directed learning but only because it was part of their grade. Similarly, MacKinnon (2000) found in his study that students’ comments became more concise as the semester progressed and wondered if they were getting better at expression themselves or better at playing the game. He also wondered if requiring posts actually allowed students to participate spontaneously. Tying participation into grades creates questions about the authenticity of students’ use of the discussion board.

Although the findings were slightly mixed, much of the research suggests that to encourage students to participate, it is necessary to have a moderator to facilitate and foster the online discussion. Poole (2000) collected and coded posts and surveyed 14 graduate students in an education course. His findings suggest that, to a large extent, the discussion were driven by the moderators. His findings were supported by Thomas (2002) who again stressed the need for moderators to facilitate the online discussions. Gilbert and Dabbagh (2005) concluded that the efforts of a facilitator working with specific guidelines, increased the number of posts and increased the meaningfulness of the discourse. In contrast, Ikpeze (2007) and Nicholson and Bon (2003) concluded
from their studies that moderators were not needed to facilitate the conversation on the boards. In their study of 17 preservice teachers’ voluntary use of a class discussion board, Nicholson and Bond found that interns did not need moderators to provide topics, guide students’ post or monitor the post’s content. These mixed findings indicate that further research on the necessity or superfluity of moderators on the discussion board is warranted.

Any attempts to tie students’ grades to participation are also complicated when students have limited access to the technology. Several of the studies presented here found access to be an issue for college students (Dutt-Doner & Powers, 2000; Tiene, 2000). Although statistics regarding teenage use of the Internet have shown sharp increases in access in recent years--87% were online in 2005 as compared with 73% in 2000 (Lenhart, Madden & Hitlin, 2005)--access is not 100%, and as long as there is one student who does not have a computer or Internet connection, tying grades to participation in an online discussion board is not an option in the K-12 setting. Additional research exploring the use of a voluntary discussion boards in the classroom can make an important contribution as educators grappling with the issue of access.

Students may also be apprehensive about using discussion boards due to their public nature and a perceived lack of privacy regarding their comments. For example, in her study of 17 pre-service teachers, Hawkey (2003) found students were hesitant to post message due to the public and permanent nature of their posts. Reflecting on whether they might use discussion boards with their own students, these pre-service teachers worried that students might use it to post
“hurtful messages” (Hawkey, 2003, p.173). Some students may be uncomfortable having their comments posted for the entire world, including their peers, to see and critique. Unlike comments made in a classroom, comments posted online are in black and white for everyone to read and return to again and again. If a person misspells a word, uses incorrect grammar or just says something they believe to be stupid, there is not way to delete it. This concern is supported by the findings of several studies. Jetton (2003) and Wickstrom (2003) found in their studies that students had difficulty writing on a board where their post would be viewed and critiqued by all their peers. Likewise, as Hernandez-Ramos (2004) found, many students have become accustomed to writing for an audience of one, their teacher, and feel uncomfortable writing for a larger, unknown, audience. The students in Hernandez-Ramos’ study felt there was a lack of privacy in the forums.

Related to this concern about others seeing their posts is the reluctance some students feel to reveal what they perceive to be deficits in their knowledge of course content. This reluctance was observed by Jetton (2003) who found that students’ lack of content knowledge may have inhibited their use of the discussion board in his study. These students did not want to write something that everyone was going to see and ask a “dumb question” and look stupid. This finding was supported by Ferdig and Roehler (2004), who found that several students were not participating in online discussions because they “felt unprepared” (p. 128) in the sense that they did not have the necessary “common knowledge base” (p. 131) to feel comfortable sharing their views online.
Technical problems can also inhibit students’ use of the discussion board (Wickstrom, 2003; Tiene, 2000). Technical problems generate frustration on the part of the users, and frustration often results in a lack of use. For instance, Dutt-Doner and Power (2000) and Tiene (2000) both found that students experienced varying degrees of dissatisfaction with their discussion board because of the server being down. In both studies, this technical glitch resulted in a lack of use on the part of participants. Volery (2001) also found that ease of access related to technical issues was an issue that affected students’ participation in the online discussions. In her study, 47 students in an online Global Business class used WebCT for various course-related communications. Based on an SPSS analysis of survey data, Volery concluded that ease of access is absolutely essential for students’ success in the use of computer-mediated discussion. This conclusion was supported by the findings of Curtis and Lawson (2001). Students in this study were able to use the email or discussion board function on Blackboard. An examination of students’ email and discussion board posts revealed that the 24 pre-service teachers preferred to use email instead of the discussion board because they were 1) more familiar with it, and 2) it was easier to use (It required only one mouse click to access the email whereas accessing the discussion board took four mouse clicks.).

One of the main barriers to students’ use of discussion boards is time: students report having a lack of time to use the boards (Hernandez-Ramos, 2004; Krentler and Willis-Furry, 2005; Wickstrom, 2003) and 2) a perception that discussion boards are time consuming (Dutt-Doner and Powers, 2003; Poole,
Thomas (2002) found that students' use of the discussion board in his study decreased as the semester progressed and their work loads got heavier, with assignments coming due and exams approaching. Interestingly, Ferdig and Roehler (2004) claim that students did not use the discussion board in their study because in addition to not having enough time, they felt they saw each other enough in the face-to-face class that they did not need to use it. Students in Jetton's (2004) study also reported not using the discussion board because they spent a great deal of face-to-face time together already and did not need another means of communicating with each other. For teachers as well, concern about the lack of time and the time-consuming nature of discussion forums is a barrier to their use. Wickstrom (2003) noted that the discussion board, by serving students as one more place where they could do course work, just gave him one venue where he had to respond to their work. He admitted that this addition of a virtual classroom space put a strain on his time. Brown's research with 21 college students supported Wickstrom's findings. According to Brown, teachers felt that providing feedback to students' post was extremely time consuming.

A limitation of these studies that warrants further research concerns their population. All of these studies were conducted with post-secondary populations; their applicability to K-12 education is a question that merits further study. Furthermore, the majority of these studies required students to post as part of their grade. As has been noted previously, the non-voluntary nature of participation sets all these studies’ findings in question. Also, when one considers
that compulsory use is not an option in the K-12 setting, due to issues of access, a study of a voluntary application of a discussion board in a K-12 setting seems warranted.
CHAPTER 3: METHODOLOGY

Theoretical Paradigm

My ontological and epistemological views are consistent with a constructivist philosophy. Ontologically, constructivists believe there is no absolute reality. Rather, reality is constructed by the individual and is contextually-bound; therefore, there are multiple realities. Epistemologically, constructivist qualitative researchers hold that reality is co-constructed by the participant(s) and the researcher (Hatch, 2002). In other words, reality is embedded in the experiences of the participants; the meaning of experiences is mediated through one’s own perceptions (Merriam, 1998). Using a course WeBo with high school students allowed me to discover the participants’ reality in regard to why they used weblogs, how they used them, and why, in some cases, they chose not to use them.

Selection of Methodology

The choice of a qualitative methodology was a logical one for this study because, in contrast to quantitative methodology, it supported my theoretical paradigm. Qualitative research is based upon the philosophy that reality is constructed through individuals interacting with their social worlds and that qualitative research can help a researcher understand this reality (Merriam, 1998). Furthermore, this methodology was most appropriate for addressing the purpose and answering the research questions of my study. The purpose of my study was to discover how students used a course weblog; therefore, a
This study was framed as naturalistic qualitative research because this approach makes it possible for a researcher to discover the meaning constructed by individuals in a given situation; it is the general method of data collection and analysis for constructivists (Lincoln & Guba, 1985). Naturalistic qualitative research methods are appropriate because the objects of this study are people in their natural settings, and the research questions aim at understanding how these people make use of the weblog (Hatch, 2002).

Context of the Study

The study was conducted at an urban high school in a school system located in a southeastern state. The high school is on a block-scheduling format. In this format, the school year is divided into two semesters (90 days per semester). Students take four classes per semester for a total of eight classes per year. Each class meets for 90 minutes each day.

The high school serves students in the ninth through twelfth grades and has a total enrollment of 1,253 students. There are 395 students in the ninth grade, 354 in the tenth grade, 337 in the eleventh, and 320 in the twelfth. Of these students, 81% are white, 15% are African American, 2% are Hispanic, 0.9% is Asian, and 0.2 % are Native American. The State Department of Education lists 47% of the students at the high school as being economically disadvantaged. Attendance is 91% and the percentage of students who graduate is 69%.

Every classroom at the high school has two Internet connections and a
minimum of one computer, typically for the teacher’s use. Additionally, the library has a computer lab with 25 Internet-connected desktop computers running Windows XP. Students have access to this lab, and therefore had access to the course WeBo, before school from 7:30-8:30 am, during their 35-minute lunch break, and after school from 3:30-4:00 pm. The library computer lab is a popular site for students and is always in use. Although at times the library lab may have been in use by classes during lunch, students always had access to computers before and after school. Additionally, the technology was such that students could access the weblog from home or any other location that had an Internet connection. Based the survey administered at the end of the semester, 100 of the 106 participants, or 94%, had a home computer with Internet access.

Participants

The term participants will always be used to indicate both students and teachers involved in the study. The participants for this study were the students and teachers in five English classes at the high school in the fall of 2006. Students are required to take English all four years of high school. Every grade has four levels: AP/Honors, College Prep, Regular and Fundamental. The content of these courses can be seen in Appendix D. Students were placed in one of these English sections based on recommendations made by their eighth grade teacher. These recommendations were based on a number of criteria, including but not limited to students’ prior classroom achievements, aptitude test scores, and motivation levels (See Appendix C).
Students

Students at this high school are tracked, placed in different classes based on academic level (See Appendix C). Classes were selected for this study using two criteria of interest. First, I was interested in seeing if there was a difference in the use of the WeBo by students at different academic levels, on different tracks (AP, College Prep, Regular). Second, I wanted to ascertain whether there might be a difference in how the different grade levels used the WeBo. Thus, Group 1 was set up to include all of the students in the 12 AP English class, Group 2 to include students in one section of 11 AP, Group 3 to include one section of 10 CP, and Group 4 to include two sections of 11 Regular. In all, there were a total of 106 students in these five classes.

The 12 AP section in Group 1 had 20 students. Many the students in this class had participated in the pilot study the previous year. The 11 AP class in Group 2 had a total of 21 students. This class was the same as the one that had participated in the pilot study. Group 3 consisted of one sections of 10 CP with 24 students. Group 4 was comprised of one class with 24 and another with 26 students. These groupings provided the opportunity to observe similarities and differences in regards to course and grade level. For example, Group 1 and 2 were the same academic level, AP, but different grade levels, 12 and 11. Groups 2 and 4 were the same grade level, 11, but different academic levels, AP and Regular. There were also differences across grades and levels, with twelfth, eleventh and tenth graders represented, as well as Advanced Placement (AP), College Preparatory (CP) and Regular classes. The ability to look at similarities
and differences in grades and academic levels made it possible for me to analyze the posts-data for patterns in how the different groups used the WeBo. The range of different grade levels and academic level was intended to reveal a more detailed picture of how participants use the WeBo.

**Similarities and Differences in the Groups**

All groups had class work and homework assigned by their teachers posted on the weblog.

All groups had class work and homework assigned by their teachers posted on the weblog.

Academic Level:

- Group 1: 12 AP
- Group 2: 11 AP
- Group 3: 10 CP
- Group 4: 11 Regular

Grade level:

- Group 1: twelfth grade
- Group 2: eleventh grade
- Group 3: tenth grade
- Group 4: eleventh grade

No students were required to use the WeBo in any way.

No students were required to use the WeBo in any way.
WeBo Participants

Although all 106 of the students in both groups had access to the WeBo, only 35 (33%) students used the weblog by either viewing or making posts on it.

Survey Participants

All 106 of the students in the two groups completed a survey.

Interview Participants

The selection of my interviewees (See Table 1 in Appendix A) was dictated by my research questions, my beliefs and the themes that emerged from the post- and survey-data. The selection of interviewees was limited to those who had turned in consent forms. Interviewees were selected using purposive sampling. Purposeful sampling involves picking participants (the sample) based on their ability to provide information that will assist in answering the questions of the study, and thus address the purpose of the study.

Since I was interested in understanding why and how students used the WeBo, I interviewed one male and one female who had used the WeBo from each Group 1 and 2, and 4. I interviewed two males and two females in the 10 CP section of Group 3 because two of the students (a male and a female) who I picked as the “Did not use” interviewees based on the posts-data, actually had used the WeBo but had not made posts. I also interviewed the teachers from Group 1 and 2 who used the WeBo. Because I was interested in understanding how students used the WeBo, I interviewed a male and female from each of the
groups to ascertain if there were any barriers that prevented students from using the WeBo.

**Teachers**

At the beginning of the semester, the two teachers (See Table 2 in Appendix A) in the English Department who taught the twelfth (Group 1) and eleventh (Group 2) grade AP courses were asked if they would be willing to participate in a study using the WeBo. Both of the teachers consented. By consenting, the teachers agreed to allow me to come to their class at the beginning of the semester and give their students a hand out (See Appendix E) and brief presentation on weblogs. (See Table 3 in Appendix A.) During my visits to each of their classes, I went over the handout with the students. I told them that they could use the weblog to communicate with each other, and I explained to them the process of logging onto the weblog using the screenshots included in the handout. I also told them that they were in no way required to use the weblog and that their grades would in no way be affected by their use of the weblog. Students and teachers were given a chance during this time to ask questions. Finally, I showed them the URL to their course weblog on the back page of the handout.

Beyond allowing me to come to their classes and present the WeBo to their students, the instructors agreed to post class work onto their course WeBo for students to access and to periodically check the WeBo to answer questions that students may have posted. The researcher was the instructor for Groups 3 and 4 and, like the instructors in Groups 1 and 2, posted class work onto the
course WeBos for students to access, and periodically checked the WeBo to answer questions that students may have posted.

Data Sources

In this study, data were collected from three sources: comments posted on the WeBo by students and teachers (the primary data source), a survey of all the student-participants, including both those that used the WeBo and those who did not, and interviews with selected students, including some who used the WeBo and some who did not (See Figure 1 in Appendix B). As a participant-observer, I also kept field notes to chronicle any of my own thoughts that emerged during data collection and analysis. The multiple sources of data produced a rich, thick, description that provides enough detail and triangulation so that the reader can see that the study’s conclusions are supported by the data (Merriam, 1998).

The use of multiple sources of data helped to validate conclusions based on the data, while at the same time assisting in identifying inconsistent and contradictory data. Additionally, triangulation helped to ensure the reliability of the study. Qualitative research achieves reliability by demonstrating that the findings of the study accurately reflect the data. The use of a triangular method of data sources strengthens a study’s reliability. Also, the production of a rich, thick description from data sources helps to ensure external reliability by providing readers with enough information to allow them to draw any comparisons or relevance to their own situation.
Posts

Any participant could comment on the WeBo. All that was required to make a comment was for participants to enter a name, email address and comment (See Figure 2 in Appendix B). Every time a post was made by a participant, an email was sent to the researcher notifying him that a post had been made. At this time, the researcher could view the posts, edit the posts, or delete the posts.

Survey

A survey was used in lieu of direct observation to collect data. The survey provided insight into the participants’ demographics (See Appendix F) as well as their perception concerning the use or lack thereof of the WeBo. A survey had initially been developed for the WeBo pilot study in the fall of 2005. The survey used for this study was a modified version of this 2005 survey. The survey was modified to assist in answering the three research questions; its design was informed by the findings produced by the posts-data. The first 16 questions of the survey were multiple-choice. These questions gathered demographic information as well as information concerning the participants’ computer and Internet use. These questions helped the researcher determine whether there were any differences arising from age, sex, grade or academic level between those who used the WeBo and those who did not. Likewise, they assisted in establishing whether there was any difference between those who did and did not use the WeBo in regard to computer and Internet use.

Question 17 asked student to answer “yes” or “no” to whether or not they
used the course WeBo. If students answered “no” to Question 17, they were asked to answer Question 18. Question 18 asked them to explain why they did not use the WeBo, thus helping to answer the third research question. If they answered “yes” to Question 17, then they were asked to answer questions 19-26. These questions were modified based on the themes that had emerged from the posts-data and addressed various aspects of their use of the WeBo. Questions 19-26 assisted in answering my first, second and third research questions. Finally, an open ended question at the end of the survey asked for any additional comments.

Interviews

Interviews were also used as a data source. Interviewing is necessary when observation is not possible because interviewing is an excellent method of understanding the reality that individuals construct in a given situation or environment (Merriam, 1998). The interviews were semi-structured. The less structured format of the semi-structured interviewing process makes the assumption that respondents define their world in unique ways (Merriam, 1998). Taking a semi-structured approach to the interviewing of participants allowed me to probe the various perspectives and meanings that participants constructed. The list of questions and topics I used as a guide for the interviews were generated by the questions and themes that emerged from the posts-data and survey data. Interviews were conducted by the researcher between the hours of 8:00 a.m. and 4:00 p.m. in a conference room in the high school library or in the participating teachers’ classroom. Interviews lasted between 15 and 45 minutes.
and were audio-taped. I also kept notes to record the interviewees’ comments as well as my own comments, observations, and questions.

Data Collection

In order to answer the research questions, data were collected from student and teacher comments on the course WeBo, a survey given to all of the participants at the end of the semester, and interviews with a purposeful sampling of participants.

WeBo Comments/Posts

Starting on September 1, 2006, the WeBo was active and participants could view and make comments on it. Students’ and teachers’ comments (as well as spam) were posted on the WeBo from September 1 through December 22 of the first semester of the 2006-2007 school year. Data from posts began to be collected as soon as the study received IRB approval on November 30. The collection of posts was relatively simple. The Edublogs.org software sent me an email each time a post was made. All posts were then copied and placed in a Microsoft Word document (one for each individual class). This document served as a back-up in case anything happened to the online version of the WeBo.

Surveys

At the end of the semester, all participants were given the survey (see Appendix F). Surveys were placed in manila envelopes marked with the name of the teacher and the course section on the outside. Placed inside the envelope
was a memo (see Appendix G) explaining how the teachers were to administer and collect the surveys. Enough surveys for each student in each class were placed in the envelopes. The envelopes were then placed in each teacher’s mailbox in the teacher mailroom. Once the surveys were administered and collected by each teacher, they were, according to the instructions, placed back into my mailbox in the teachers’ mailroom.

*Interviews*

To achieve purposive sampling, a minimum of one male and one female who used the WeBo were selected from each of the two groups. Likewise, one male and one female participant who had not used the weblog were interviewed from each of the two groups. The selection of one student of each gender was made to assist in answering my research question about how students used the WeBo. In order to do this, I needed to know if there was any difference in how males and females used the WeBo. I also needed to discover if there were any barriers that prevented students who had not used the WeBo from using it. Only students who had turned in consent forms could be interviewed. Table 4 (See Appendix A) shows the breakdown of the participants who were interviewed.

The interviews were conducted after I had analyzed the posts and surveys. Since the purpose of this study was to discover why and how two groups of secondary students used a course WeBo, I selected participants who, based on their posts (or their lack of posts) and surveys, would be most helpful to me in answering the questions and elaborating on the themes that had already emerged from the previously analyzed data, the posts and surveys.
The interviews were conducted individually with the participants during my planning period or after the regular school day. All of the students' interviews took place at the high school in a neutral environment, the library. Participating teachers were interviewed in their rooms. The length of the interviews ranged from 15 to 45 minutes. The researcher used the interview guide described above to direct the interview, but was also cognizant of the fact that, in qualitative research, the researcher must remained sensitive to the respondent's answers and used probing questions when their responses called for them (Merriam, 1998). Interviews were audio-recorded and later transcribed by the researcher. During the interview, I made notes to record my reactions to the interviewees’ comments, their nonverbal behavior as well as emerging themes.

**Data Analysis**

Using qualitative content analysis techniques, the data was analyzed in phases by “organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what was important and what was to be learned” (Brogdan and Biklen, 1982, 145) so that findings could emerge. Although I began an informal analysis of the data as soon as I started collecting it, I did not conduct a formal analysis of each of three sources of data until each set was collected in its entirety.

The preliminary data analysis was guided by my pilot study, research questions and the themes and questions gleaned from an initial review of literature on the topic of weblogs and discussion boards. I continued to read literature concerning my research throughout data collection. While this research
guided my analysis of the data, I was careful to not be “blinded” by the “preformed conceptual themes” presented in the literature, but rather to stay open to any unique themes emerging from my data sources (Brogdan and Biklen, 1982, 153).

Much of the subsequent analysis of the data involved me reading and re-reading my data and looking for themes to emerge. I recorded any themes and questions in the margins of each of the hard copies produced of each of the three data sources. I also took time to reflect on the data, which helped to me produce new insights and questions concerning the data and the emerging themes. Based on my pilot study, my research questions, my review of literature and my preliminary analysis of the literature, emerging themes were used to create a coding system to further organize the data, that is, to sort the data into relevant categories (see discussion of coding system below).

Data triangulation was use to ensure the trustworthiness of the analysis and findings. The analysis of the content of the posts in light of information from the surveys and interviews provided the necessary triangulation of data sources (See below).

Posts

Due to the emergent nature of qualitative research, data analysis often occurs simultaneously with data collection (Brogdan and Biklen, 1982; Merriam, 1998). Once students started to make posts on the WeBo, their comments were collected and organized, and analysis began. To analyze the data, a table was created for each class in a Word document. The table recorded the following
The table provided an organized document of the posts with all of the necessary data for analysis. It also allowed me to read and analyze the posts in the order they were made. Analysis involved me reading and rereading the post looking for any patterns and themes that might emerge. While reading the data, I recorded thoughts and questions in the margins. Keeping in mind my pilot study, research questions and initial review of literature, I underlined important phrases/passages and circled key words. It was these patterns and reoccurrence of words, phrases, and patterns of behavior that informed my development of a coding system for my data (Brogdan and Biklen, 1982).

**Coding System**

After the initial reading of the students’ posts, I used an open coding system (Strauss and Corbin, 1990) to break down, examine, and conceptualize the data. As Brogdan and Biklen point out, developing a coding system involves several steps: First, I searched through my data for regularities and patterns as well as for topics of interest; then I wrote down words and phrases to represent these topics and patterns. These words and phrases became my coding categories. The coding categories allowed me to sort the data so that the
“material bearing on a given topic [could] be physically separated from other data” (Brogdan and Biklen, 1982, p. 156). Data may have been coded with more than one coding category from more than one coding family (Brogdan and Biklen, 1982, p. 157).

The categories that emerged from the data are as follows (See Table 5 in Appendix A):

*Expanding Time and Space*

I was initially motivated to use weblogs by research that suggests that an advantage of computer-mediated communication (CMC) is its potential to expand the boundaries associated with the classroom (Jonassen, Peck & Wilson, 2002). Expanding the boundaries of the classroom is important for several reasons. Often, the time limitations of the classroom do not allow students to ask or teachers to address all of students’ questions. Also, important questions may arise after class, as students reflect on the lessons or complete homework assignments. In other words, learning does not stop at the end of the school day, and CMCs like the WeBo used in this study have the potential to provide a forum in which students can continue to engage in course-related matters even after the bell has rung.

I had also found during my pilot study that students used the weblog primarily from home, thus expanding the boundaries of the classroom and allowing student to address school-related issues in a time and space of their convenience. My preliminary review of data supported the use of the WeBo for this purpose; therefore, the first categorization-scheme I created was intended to
analyze how students used the WeBo to expand beyond the classroom in time and space. My experience with the pilot study informed me that the times and dates the students accessed the weblog (which were recorded each time they made a post) would be an indicator to students’ use of the WeBo outside of the normal school hours or on weekend and other days school was not in session.

The times and dates were one indicator of participants’ attempt to use CMC for the expansion of the classroom. Another indicator of participants’ efforts to expand the classroom was the nature of the posts. Posts were grouped into categories such as “Talking about Course work”, “Reflecting”, “Collaborating”, and “Interacting” as well as “Procedural” to capture how and whether participants used the WeBo to extend the classroom beyond the schoolhouse doors. Each of these categories is explored further below.

Course work. The pilot study and preliminary analysis of the data showed that one way students used CMCs was to ask each other questions about course work. This type of behavior is supported by the research on CMCs (Bennett & Green, 2001; Jeffries, 2005; King, 2001; McAlpine, et al., 2002; Yu & Tsao, 2003; Weston & Barker, 2001). Davidson-Shrivers, et al. (2001) refer to such content-related questions, commands or requests which attempt to solicit a response as soliciting. The category of question was defined as one course-related interrogative sentence; the number of questions was calculated by counting the total number of these sentences in each group’s posts. Participants also attempted to answer their peers’ questions (Curtis and Lawson, 2001; Davidson-Shrivers, Muilenburg and Tanner, 2001;), and students also used the WeBo to
vent about the course work, or school in general. In such posts, students expressed strong, usually negative, emotions, which Brescia and Miller (2006) refer to as “blowing off steam,” about class work, homework, or school in general.

**Reflection.** The pilot study and the review of literature (Brescia and Miller, 2006; Cobanoglu, 2006; Gilbert & Dabbagh, 2005; Jonassen et al., 1995; Oravec, 2003) also indicated that computer-mediated communication tools are often used by participants for reflection. Borrowing from the definition used by Ikpeze (2007) in his study of small group collaboration in electronic discourse with pre-service teachers, this study defined reflection as “responses that elaborated on previous messages and in addition, the speaker relates discussion to prior experiences” (Ikpeze, 2007, p. 390).

**Collaborating.** Analysis of the posts indicated that students were using the WeBo for giving and receiving help, exchanging information, sharing knowledge and other of the actions Johnson and Johnson (1996) identify as indicators of student collaboration.

**Interacting.** Students’ (and teachers’) exchanges information, ideas, and opinions between/among each other were categorized as interaction (Ferdig and Roehler, 2004).

**Procedural.** Many of the posts made by the instructors were class and homework assignments. These fall under the category of procedural comments.

**Social.** Not all use of the WeBo was school-related. Participants also used the WeBo for socializing. One could make an argument that social interaction is as much a part of the classroom/school environment as course content and
teachers. Regardless, social comments are addressed in this study separately from those that are directly related to course work or school.

As in the pilot study, in this study, the initial analysis of posts indicated that participants were also using the WeBo for socializing. This use of CMCs is supported by the research of Ikpeze (2007), Davidson-Shrivers, et al. (2001) and Curtis and Lawson (2001). Socializing posts were identified as personal statements not related to course or school.

**Technical.** Although the technical problems participants talked about may have been encountered while attempting to communicate about course work, these comments are addressed in this study separately from those directly related to school. These were comments or questions or observations by participants about how to use the WeBo tool or about problems they encountered in using it. These posts included comments about the server being down or about spam on the site.

**Survey**

After the participating teachers had returned the surveys, each survey was individually coded and numbered based on the group, teacher, grade/section and student. I then created an Excel document for each of the groups and entered the data from each survey into the appropriate group, keeping the surveys from each class section separate. My analysis of the surveys consisted of me pouring over the data collected in the Excel spreadsheet. This analysis was informed by the themes that had emerged from the WeBo posts, my research questions and the review of literature I had begun. As with all the other data analysis, I was
constantly making a conscious effort not to blinded or biased by the themes that had already emerged and to remain open to the emergence of new themes in the surveys.

After entering the data into a spreadsheet, I tallied all of the responses and percentages for each of the 17 multiple-choice questions for all of the surveys, in order to establish if there were any marked patterns of variation in the responses to any of the questions when looking at all the participants.

I also tallied the responses and calculated the percentages of all of the answers for each of the 17 multiple-choice questions for each class in each group to establish if there were any marked patterns of variations in the responses to any of the questions in any of the classes/groups.

Members of each of the groups were also categorized into several sub-groups based on several criteria. First, I divided each group into two sub-groups: those who had and those who had not used the WeBo. I then calculated the percentages for each question for each of these sub-groups to determine if there were any major discrepancies between the two.

I then divided the groups into two different sub-groups: those who had computers/Internet access outside of school and those who did not. After doing this, I calculated the percentages for each question for these two sub-groups to establish if any major discrepancies existed.

Students’ responses on Questions 17-26 as well as any Additional Comments were then transcribed into a Word document table. The table consisted of two columns, one for the students’ comments and one for my
comments, observations and/or coding of the student’s remarks. Using the themes that were established in the analysis of participants’ posts, I read and re-read the students’ comments on the surveys making notations on the document. At the completion of my analysis of the surveys, I tallied all of the coded comments and placed them in tables.

**Interviews**

The themes that I identified in the participants’ posts and students’ surveys were used to create a set of questions that I then used in the semi-structured interviews I conducted with selected students. The interviews, which lasted between 15 and 45 minutes, were conducted in a conference room in the high school. Although the list of questions I had developed guided the interview, I was open to new themes that might emerge from the interviews and did not allow myself to be bound to the list of pre-establish questions. After each interview concluded, I transcribed the audio-recording of the interview to a Word document. I then read through the interview transcripts, highlighting points that supported themes that had already emerged from the posts or surveys and/or recording new themes that were emerging. I also made comments in the margins of the transcribed interviews. These comments included insights, questions, and other relevant points. On more than one occasion, I had to contact an interviewee a second time for clarification of an answer. Once I had poured over the transcripts and made my notations, I once more looked back over the posts-data and the surveys for specific comments I thought were supported by what had been said in the interview. I kept a record of the group, class and posts
numbers and the survey numbers so that I return to these data-sources to test the validity of my findings through triangulation.

I ceased data analysis when the research questions had been fully addressed and I was satisfied that I had achieved the following: 1) exhausted the sources, 2) reached a level of saturation of categories, and 3) reached a point where the data being revealed was far removed from the focus of the research (Merriam, 1998).
CHAPTER 4: FINDINGS AND DISCUSSIONS

Introduction

The findings presented in this chapter were developed following the research methodology explained in Chapter 3. This introduction provides a brief overview of the purpose of the study, the selection of participants, the analysis of data, and findings. For a more in-depth explanation of these issues, see Chapters 1 and 3.

The purpose of this qualitative study (See Chapter 1) was to explore the use of a voluntary weblog set up as a discussion board (referred to here as a WeBo) as an educational tool in a secondary setting. The study was designed to answer the following research question: How did students use the WeBo? To answer this question, the study centered on five classes of high school English students: 12 AP, 11 AP, 10 CP and two classes of 11 Regular. The five classes were placed into four groups: Group 1 (12 AP), Group 2 (11 AP), Group 3 (10 CP), and Group 4 (11 Regular).

These classes were selected because they provided a variety of grade and academic levels. Students at this high school are tracked into classes based on their academic level. By observing how students at different levels (AP, CP, and Regular) used the WeBo, it was possible to investigate how these differences might affect students’ use of the tool.

The participants’ posts on the course WeBo were the primary data source. Posts were analyzed to identify themes and categories. To help ensure validity, data from the posts were triangulated using survey-data and interview data collected from the participants. The analysis of posts-data suggested questions...
that lent themselves to the development of a survey. The survey allowed me to explore further the themes and categories emerging from my analysis of the posts-data as well as to become aware of new themes and categories these data might yield. The analysis of the surveys, along with my findings from the analysis of the posts, suggested another set of questions best answered by interviewing a purposive sample of participants—both those that did and those that did not make use of the WeBo as a learning tool. Data from each source were coded and categorized.

The main finding to emerge from the data concerned how participants attempted to expand the boundaries of time and space associated with the classroom through their use of the WeBo. Findings concerning participants’ attempts to transcend the barriers of the classroom encompassed a number of behaviors on the WeBo that were sorted into the following categories: asking and answering questions, interacting, collaborating, reflecting and doing procedural work (See Figures 3-5 in Appendix). Findings also indicated that participants used the WeBo for socializing, discussing technical issues related to the WeBo, and discussing the use of other means of online communication.

The findings are presented below in the following manner: findings for each of the four groups will be presented individually. For each group, the post findings are presented categorically. A discussion of the findings directly follows the description of results for each category.
**Finding: Expanding the Classroom**

The analysis of the posts revealed that students were attempting to expand the boundaries of their traditional classroom in a number of ways. Their ways of doing this fell into several categories: talking about course work (asking questions, offering answers, venting), reflecting, collaborating, and interacting with classmates. Since all of these behaviors are course-related, they were deemed to be indicative of participants’ attempt to use the WeBo to increase the boundaries of the classroom by allowing them a time and space outside of the confines of the physical school house to address issues related to school matters. Survey and interview data supported the findings from the posts-data.

**Group 1: 12 AP**

Group 1, the 12 AP section had 20 students (10 male and 10 female). Of these 20, eight, or 40% (5 males and 3 females), posted on the WeBo (See Figure 3 in Appendix B). These eight posted a total of 215 comments. The teacher made 76 comments, the majority of which were procedural comments, homework assignments, and the researcher made ten. Based on these numbers, the participating students made 26.8 comments per student.

Participants in the 12 AP class were involved in all categories of course-related activities (See Table 6 in Appendix A). In fact, 132 of the 215 (61.4%) posts by students in Group 1 fell into one or more of the course-related categories. These numbers do not include procedural posts made by the teachers.
**Group 2: 11 AP**

In Group 2, the 11 AP section, there were 21 students (8 males and 13 female). Eight, or 38%, of the 11 AP students (4 males and 4 females) used the WeBo, and made a total of 58 posts (See Figure 4 in Appendix B). Therefore, the 11 AP students made 7.25 comments per student. The teacher made an additional 14 posts and the researcher made 10.

In Group 2, the posts-data revealed that the 11 AP users of the WeBO participated in a number of activities associated with their class (See Table 7 in Appendix A). In this group, a total of 31 of the 58 (53.4%) posts by students were related to the categories identified above. These numbers do not include procedural posts made by the teachers.

**Group 3: 10 CP**

In Group 3, the 10 CP section, there were a total of 24 students. Of those 24 participants (10 male and 14 females), six students or 25 % (1 male and 5 females) reported using the WeBo (See Figure 5 in Appendix B). These six students made a total of 17 posts, and the teacher made 49 posts. Most of the teacher’s posts were homework assignments.

Although Group 3 did not make many posts on the WeBo, they had the highest percentage of posts related to course activities (See Table 8 in Appendix A). Of the 17 posts made by students on the 10 CP WeBo, 23 (73.9%) fit into one or more of the course-related categories. These numbers do not include procedural posts made by the teachers.
**Group 4: 11 Regular**

None of the 41 students in the two sections of 11 Regular English posted on the WeBo. The only comments on this WeBo were the assignments that were posted by the instructor. It is impossible to address the three research questions for this data source due to the lack of data. The teacher recorded 25 procedural posts.

The 11 Regular sections of Group 2 did not make any posts. All of the posts made by the teacher were procedural. These numbers do not include procedural posts made by the teachers.

**Discussion: Expanding the Boundaries of the Classroom**

Participants’ use of their course WeBos indicates a desire to expand the boundaries of the classroom. The posts-data also demonstrates a discrepancy in the frequency with which participants in each of the four groups utilized their WeBos. These discrepancies will be addressed in the presentation of the findings for each of the categories below.

The survey and interview data support the identification of these categories: questioning, answering, venting, reflecting, interacting, collaborating, procedural, social, technical, and other means of communication. The survey and interview findings concerning each of these categories are discussed after the presentation of findings below.

**Finding: Questions and Answers**

Analysis of the data showed that one way students were using the WeBo was to ask questions (See Figure 6 in Appendix B). A question was defined as
one interrogative sentence about class work. Since all of these questions were asked after school hours, the WeBo allowed students potentially to get answers to course-related questions they might not otherwise have asked or had answered. This finding demonstrates the capacity of WeBos to help students expand the time/space boundaries of the classroom.

Posts-data analysis also showed that peers and instructors responded to and attempted to answer many of the questions that were asked on the WeBo. Answering was defined as one student or more than one responding and attempting to answer a previously asked course-related question.

**Group 1: 12 AP.** Group 1 asked 52 questions. These constituted 24% of all the posts by students in the 12 AP class. Of the 52 questions asked by the students in Group 1, less than half (48%), or 26, were answered by 12 AP participants. Of these 26 answers, 17 prompted answers from the teacher or researcher. These constituted 65% of the answers.

**Group 2: 11 AP.** Students in Group 2 asked only four questions. These amounted to only 7% of the overall 11 AP posts. However, Group 2 offered twice as many answers (8) as questions (4). Only one (13%) of these answers was offered by the 11 AP teacher. It is interesting to note that one student was responsible for four (50%) of the answers.

**Group 3: 10 CP.** Group 3 asked seven course-related questions. These constituted 41% of the overall posts on the 10 CP WeBo. Group 3 asked six questions and got seven answers. Data suggested that this was the number-one
reason students used the WeBo. All of the questions in this group were answered by the teacher.

**Group 4: 11 Regular.** None of the participants in the two 11 Regular sections asked or answered any questions.

**Discussion: Questions and Answers**

Analysis of the posts-data indicated that, to a varying degree, the WeBos allowed students in Groups 1, 2, and 3 to ask questions and receive answers outside the framework of the traditional classroom. However, there were some discrepancies concerning these findings in regard to the various groups. A closer look at the posts-data sheds some light on these discrepancies. As noted above, course-related questioning was the number-one reason that the students in the 10 CP section used the WeBo. This finding would indicate that the 10 CP section used their WeBo for a limited, specific purpose. They logged onto the WeBo to ask a question and then got off. Also, the dates of the questions were spread over the semester, which would indicate that students were not on the WeBo when others had asked their questions and would not have the opportunity to answer them. On the other hand, the 12 AP and 11 AP classes used their WeBos primarily for socializing (See the category on Socializing below.). The second-most popular category of posts for 12 AP and the number-one category for 11 AP was socializing. Students in these two sections were often on their respective class WeBos just hanging out and cutting up with friends; therefore, when someone got on to ask a question, it was more likely that a peer would be
on the WeBo to see and answer it. Unlike Groups 1 and 2, for Group 3, 10 CP, socializing was the fourth-most popular use of the WeBo. All of this socializing took place the first two weeks the WeBo was in use, whereas questions were asked over the course of the entire semester.

Survey and interview data supports the finding that the course WeBos assisted students in increasing the boundaries of their respective classes by allowing them to ask and receive answers to their questions (Curtis and Lawson, 2001; Davidson-Shivers, Muilenburg and Tanner, 2001; Kanuka and Anderson, 1998) from beyond the school door. This benefit highlighted by one student during his interview:

[On using the WeBo] You’re outside of the brick and mortar of the regular classroom. I can go home and see what questions other people are asking that I may have. I can ask my own questions and get a response from them in a fairly timely manner. Whereas, when it is just school and home and there is not a connection between them, you go to school and you hear these questions in class, the bell rings, you go home; you forget what you wanted to ask about. So the WeBo really helps with that jump between school and home, and it really connects it and you know it is always there for you. You need to get online and see what homework is, maybe you have forgotten to study something, and it helps you be more prepared.

In fact, six (55%) of the 11 students in 12 AP who used the WeBo stated on their surveys that they used the WeBo to ask questions. Likewise, four (36%) of the 11
users in 10 CP did the same. However, 11 AP surveys data indicates that only one (12%) of the eight students used the WeBo for asking questions. Group 4, 11 Regular, made no posts on their WeBo.

Finding: Venting

Students also used the WeBo for venting about their classes (See Figure 7 in Appendix B). Venting was defined as the expression of a strong negative or positive emotion concerning course work/school (Brescia and Miller, 2007). By providing the students a forum to express their opinions about school, the WeBo allowed them to expand the classroom beyond its normal time and space.

Group 1: 12 AP. In Group 1, there were 19 instances when students vented about school. These comments constituted 8% of their overall posts. It should be noted that one student was responsible for 8 of the 19 (50%) of the venting posts. All but two the nine students who used the 12 CP WeBo made at least one venting comment.

Group 2: 11 AP. Group 2 only had three venting comments. These equaled 5% of the class’s posts. All three of these comments were made by the same student. The nine other students who used this classes WeBo did not vent online.

Group 3 10 CP. Group 3 had only one student make a comment venting about school. As in Group 2, this equaled 5% of the groups overall posts.

Often, class work can be frustrating. At other times, students feel a great deal of elation about completing an assignment or acing a test, Regardless of
whether it is positive or negative, venting is a part of school. As indicated by the students’ use of their course WeBos for venting, the WeBo gave students an alternative place to go where they could express and share strong emotions about school.

Discussion: Venting

Participants’ posts showed that some students chose to address stress and frustration related to the course in general and to specific assignments and material in particular by venting. According to the posts-data, the three groups had roughly the same percentage of venting posts. Students’ rants and raves were generally about some course-related assignment.

Student: OH MY GOD!! THIS PAPER IS KILLING ME IN A WAY THAT NOTHING ELSE CAN! WORDSWORTH IN NOT REALLY IN MY MINE WORTH MORE THAN THE WORDS #$%^@&^$#@@

This finding would appear to indicate that the WeBo provided students a forum outside of school to go and let out a cyber scream, as indicated by the capital letters in the above post. Furthermore, unlike the classroom, the WeBo environment appeared to allow students to vent to a degree not permissible in school even if the profanity was only that of a comic strip nature. However, not all venting was negative.

Student 1: No more Research Paper!!! Woo Hoo!!

Student 2: AP STUDENTS!!!!!!!

Shout to the heavens….Our lives have become easy…no more research
projects, no more notecards, no more college essays, no more feeling guilty for spending more time looking at this blog than doing those papers!!.

As the posts above indicate, students also used the WeBo to go online and figuratively jump for joy after the end of a particularly difficult assignment.

Posts indicate that the WeBo was a place that students in Groups 1, 2 and 3 could go and “blow off a little steam.” As previously mentioned, school is stressful, and often students will commiserate with their peers. This behavior is as much part of school as tests and homework. The data indicate that the WeBo provided a space for students to express these course-related emotions.

Findings: Interaction

Students also used the WeBo to interact with one another about course- and school-related topics (See Figure 8 in Appendix B). Interaction was defined as students and teachers exchanging information, ideas, and opinions between and among each other (Ferdig and Roehler, 2004).

Group 1: 12 AP. The posts-data revealed that students in Group 1 used their WeBo to interact more than they used it for any other category of post. With the exception of two students, all of the users of the 12 AP WeBo interacted with other participants by engaging in the sharing of opinions, ideas and information with their fellow classmates, the teacher and researcher. Data showed there were 77 instances of participants interacting. These constituted 26% of the overall posts by all participants in Group 1. Steve and Cindy, who used the WeBo
the most (constituting 40% of the overall posts by students) were also responsible for 39% of the interaction. The teacher and researcher constituted another 30% of the interaction on this course WeBo. Therefore, 4 of 13 people who used the 12 AP WeBo were responsible for 69% of the interaction that took place on this class’s WeBo.

**Group 2: 11 AP.** In Group 2, interaction was the second highest category of usage (tied with collaboration). The participants in 11 AP interacted with other participants for 26 of the 82 posts that were made by all the participants. These constituted 32% of the overall posts. Of course, 11 of the 26, or 42%, of the instances of interaction were made by the student who made over half of the student posts, Dave (54% of all students’ posts). Another 36% of the interactions involved the teacher and researcher.

**Group 3: 10 CP.** There were only three instances of interaction in Group 3. These constituted 12% of the posts by all participants on the 10 CP WeBo. Two (66%) of these were by the teacher.

**Discussion: Interaction**

One way that CMCs like WeBos are able to extend the classroom beyond the school house is their ability to support interaction among students (Brescia and Miller, 2006; Cobanoglu, 2006) and between students and teachers ((Dutt-Doner and Powers, 2000). Interaction was the first- and second-most popular uses of the WeBo by Groups 1 and 2, respectively. In regard to the overall percentage of posts, participants on the 12 AP and 11 AP WeBos interacted,
sharing their opinions, ideas or information over twice as much as students in 10 CP. Whereas only 12% of posts on the 10 CP were interactive, 26% of the 12 AP and 32% of the 11 AP posts were interactive. It is my opinion that the degree of interaction among students in the first two groups was directly linked to the overall amount of time they spent on the WeBo. In order to interact, students have to 1) be on the WeBo, and 2) have a purpose beyond simply asking a question, getting the answer from the teacher, and getting off---as was the case for Group 3. As previously noted, Groups 1 and 2 spent much of their time on their WeBos socializing. The amount of time the participants in these two groups spent on their WeBos put them in a position to interact with their peers.

Likewise, the students, not the teacher or researcher, in 12 AP and 11 AP were the ones involved in the sharing of their opinions, ideas, and information much more than the students in 10 CP. For example, students in 12 AP were responsible for 70% and 11 AP students for 64% of interactive posts on their WeBos, whereas the students in 10 CP were only responsible for 44 % of the interactive posts on their WeBo.

Survey data shows that students in all of the groups noted that the WeBos gave them a forum for interacting with their peers and classmates. In fact, two students in 12 AP, three students in 11 AP and one student in 10 CP commented on the capacity of the WeBo to support interaction on their surveys. Students’ comments on their surveys indicated that the WeBos permitted them to have answers to questions explained by peers and teachers, to hear others’ opinions, and to talk with classmates about class assignments. This finding was also
supported by the comments of several students in their interviews. As a student in the 11 AP section noted, the WeBo provided her a means of interacting and communicating with her peers after school.

*Lots of people will call me at home to ask what the assignment is, I am kind of the go to person, so it [posting on the WeBo] was an easier way to get that word out to a lot of people as opposed to talking to several people a night before the test.*

For this student the WeBo was a means of communicating with all of her peers at once, thus avoiding the numerous phone calls she might receive on a given night asking questions about assignments. In this regard, the WeBo transcended other forms of communicating like phones, MySpace, email, and instant messaging. These forms of communication only allow one-to-one interactions. The WeBo is beneficial because students’ comments can be read by everyone, thus allowing more than one person to benefit from the interactions between students.

Several students’ comments on this subject during the interviews revealed that they did not perceive the WeBos as necessarily the best tool for interacting with their peers concerning school work. As one student in 11 AP stated,

*If I just want to give someone the assignments I would rather put it on the blog and say we are reading this and this and these are the main points she covered. But if it something that you are going to have a lot of questions about I think IM would be better, easier because I know they are going to want to ask me questions.*
Her observation was supported by the comments of another student in 12 AP.

*IM is much better for conversation like we are doing back and forth because it is instant, right then and you’re speaking in short phrases.*

*MySpace is better for longer messages, better announcement because they stick. You send someone a message on MySpace and it’s going to be there, you can look back and refer to it. Say you want to ask someone to meet you somewhere. MySpace is probably the way to do it because they probably don’t forget what time and MySpace is better for stuff like stretched out writing like on a blog.*

Although the posts-data, the survey and the interviews all support the use of the WeBo as a tool for class related interaction, students’ comments like those above hinted at their perceptions concerning other means of online communication, in this instance MySpace. These perceptions are address below in the discussion of the findings on Other Forms of Communication (see below).

**Finding: Collaboration**

Students and teachers also used the WeBo to collaborate with one another (See Figure 9 in Appendix B). Based on the research of Johnson and Johnson (1996), collaboration is defined as students sharing and exchanging ideas with peers and/or the teacher about a course or school. The indicators of student collaboration were:

- Giving and receiving assistance
- Exchanging resources and information
- Explaining or elaborating information
• Sharing existing knowledge with others
• Giving and receiving feedback
• Challenging other’s contributions
• Advocating increased effort and perseverance among peers; engaging in small group skills
• Monitoring each others’ efforts and contributions (Johnson and Johnson, 1996)
• The analysis of the posts-data showed participants in Groups 1, 2 and 3 to be engaged in more than one of these activities on the class WeBos. Of course, Group 4 made no posts on the WeBo.

**Group 1: 12 AP.** Group 1’s posts demonstrated participants involved in giving and receiving help, exchanging resources and information, explaining and elaborating on information, sharing existing knowledge with others, giving and receiving feedback as well as advocating increased effort and perseverance among peers. In all, the 12 AP group had 38 posts that were collaborative to some degree. These constituted 13% of participants’ overall posts. Although all but two of the students making posts were involved in collaborating with their peers through their posts, the teacher and researcher were responsible for 20, or 53%, of these collaborative posts.

**Group 2: 11 AP.** Collaboration was the second highest (tied with interaction) category of use for the participants in Group 2. In all, Group 2 made 26 collaborative posts. These were 32% of all the participants’ posts. Only seven
of the 12 participants who posted on the 11 AP WeBo collaborated with peers. Also, 11 of the 26 (42%) collaborative posts were made by the same student with the most posts on the WeBo. This finding would support the assertion made above that students who engaged in behaviors beyond asking questions were generally those who were spending time on the WeBo engaged in socializing. Another 9 of the collaborative posts (35%) came from the instructor.

**Group 3: 10 CP.** Only one student in Group 3 made a collaborative post. This constituted 5% of the posts in 10 CP.

The WeBo helped students to collaborate outside of the classroom by allowing them to ask questions, post additional resources, elaborate and explain material and to encourage each other. These entirely course-related activities would not have been possible without the WeBo, and in that regard it helped to expand the boundaries of the class for students and teachers.

**Discussion: Collaboration**

Collaborative posts reveal students to be involved in a variety of collaborative activities. The AP sections far exceeded the two lower academic sections in the number of collaborative posts, with the 11 AP class collaborating more than the 12 AP grade class.

Collaboration was between students. The online environment permits students to collaborate by asking for and offering assistance with school-related problems that occur after students have left the school building (Davidson-Shivers, Muilenburg and Tanner, 2001; Jetton, 2003; Selwyn, 2000). For
example, in one post a female student asks for assistance:

So, is the paper supposed to be contrasting the elements used in both of the essays or am I way off?

Forty-six minutes later, another female student responds,

You sound right on. Try looking over the chart we began in class. I think Mrs. N really wants to see classifications you can create, such as...both men appeal to emotion by one guy blah, blah, and the other chooses to bleh, bleh. Blank makes a good choice in supporting his purpose by using this tactic, where if he had done otherwise, the result might not have been quite so powerful...They both like to use his imagery, but where one makes use of it like such, the other....

Does that help?

Best of luck!

In this example, the WeBo provided a forum where classmates could join forces in an exchange of knowledge to better understand the classroom assignment (Jetton, 2003; Kanuka and Anderson, 1998; Selwyn, 2000). In this regard, the WeBo provided a space where students could take more responsibility for their own learning through collaboration (Dutt-Doner and Powers, 2000). One student’s interview comments noted this capacity of the WeBo:

Student: I think for the people who used it (the WeBo) in my class you definitely heard a little more from them than you might in class. Because classroom discussion one person talks at a time and the teacher kind of
controls where that conversation goes and on the internet that doesn’t happen, so that was different.

This comment reflects two characteristics of WeBos: 1) computer-mediated communication allow all students to participate in the class discussion (Dutt-Doner and Power, 2000; Hernandez-Ramos, 2004; Tiene, 2000; Wickstrom, 2003), and 2) because CMCs like WeBos allow students to take more responsibility for their own learning, teachers have to change, modify their normal roles as the fount of knowledge, to become, instead, coaches, facilitators and collaborators (Brown, 2001; Ferdig and Roehler, 2004; Poole, 2000).

Other collaborative behaviors that students were involved in on the WeBo included the sharing of resources (Kanuka and Anderson, 1998),

Question (8:22 P.M.): Does anyone know what to do when you are only quoting one source in a paper? I mean, do you have to keep putting the author’s name in the parentheses? And do you have to put the chapter if it has chapters?

Response (8:47 P.M.): This website should help you:
http://owl.english.purdue.edu/owl/resource/557/01/

Response (8:48 P.M.): Just scroll down to where it says “In-Text Citations” and check out what it says there.

They also challenged each other’s comments,

Student: You seem to have misinterpreted my meaning. The problem that I have with material which we are forced to read is not in the uneducation
of the characters, but rather in the REASON they are uneducated, which is to make the moral development and emotional maturation so simplistically presentable.

When I read The Adventures of Huckleberry Finn and I realize from a subtle passage, statement, action, et cetera, that Huck feels he is above apologizing to Jim solely because he is a black man, I am alright with that. But when I read sentences like “It was fifteen minutes before I could work myself up to go and humble myself to a ~”, I wonder why the publisher didn’t just print that line with bold text, underlined, and with an arrow in front of it. The essential qualm I have is the severe lack of subtlety in the presentations of characters’ emotions, opinions, and morals. Seeing a character’s perspective is fine. Having it spelt out for me in the last paragraph of every chapter is not.

Also, as easy as it would be to consider me a closed-minded, condescending teenager because I am critical of people WHO DO NOT ACTUALLY EXIST, I can assure you that I disagree with principles and perspectives, not individuals. Disagreement is not a declaration of superiority.

Students and teachers alike also encouraged each other (Dutt-Doner and Powers, 2000; Jetton, 2003; Wickstrom, 2003),

Example 1

Student: Hey! I just wanted to say I was really impressed with everyone’s
efforts today on the peer editing. Thanks to all who helped make my paper better! : )

Example 2

Teacher: Don’t stress o much overt this research project. IT is important, but not more important than your health---physical and mental. Get enough sleep. Eat breakfast. Drink lots of water. Be happy. You will survive this time in your life.

In addition to student-to-student collaboration, the WeBo provided a space where the students and their teacher could collaborate. The best example of students and teachers collaborating involved their attempting to determine how to create italics on the WeBo in both Group 1 and 2 (See the Technical Findings/Discussion below).

Unfortunately, neither of these behavior occurred in Groups 3 and 4, the lower academic levels. This could have been because of an overall lack of participation, a lack of participation that could have stemmed from students’ different perceptions of the intended use of the WeBo. As noted above, Groups 3 and 4 students got on the WeBo with a purpose, usually to get an assignment, and got off. Interaction, collaboration and reflection are behaviors that require participants coordinate their responses in real time. Data suggests that students in 10 CP and 11 Regular were not interested in spending large amounts of time on their WeBos, and so they could not count on meeting each other in this virtual space to interact, collaborate or reflect.
Finding: Reflection

One of the ways that students used the WeBo was to reflect (See Figure 10 in Appendix B). Reflection was defined as a response that elaborated on previous messages about the course or school, and/or pointed out a relation between the current discussion and prior experience or prior course assignments.

Group 1: 12 AP. Eight of the 11 participants posting on the Group 1 WeBo made reflective posts. In all they made 24 reflective posts. These constituted 8% of the overall posts on this group’s WeBo. Three students were responsible for 16 of the 24 reflective posts, or 67%.

Group 2: 11 AP. Only five of the 12 participants in Group 2 made reflective posts. These five made 10 reflective posts. These constituted 12% of their overall posts. Again, the most prodigious student-user of the WeBo, Dave, made half of the reflective posts. Again, the posts-data suggest that this student spent more time on the WeBo than any of the other participants. It is my belief that behaviors like reflection require the participant to spend time reading and reflecting on others posts, as well as responding. This might explain Dave’s dominance of this behavior. Groups 3 and 4 made no reflective comments.

Students used the WeBo to put their reflections into words. They reflected and then elaborated on other participants’ posts, on their course work and on the relevance of their daily lives to course material, and all of this took place outside of the classroom.
Discussion: Reflection

Reflection is an important part of learning because it allows students to construct knowledge through the exploration of issues, to take a position on these issues and then to discuss and argue their positions before reflecting and re-evaluating them (Brescia and Miller, 2006; Cobanoglu, 2006; Gilbert & Dabbagh, 2005, Jonassen et al., 1995; Oravec, 2003). The assertion that weblogs promote user reflection is also supported by the research of Stiler and Philleo (2003).

Seventy-two percent of the 12 AP students and 41% of the 11 AP students were involved in reflective posts on their WeBos. They reflected and then elaborated on other participants’ posts, on their course work and on the relevance of their daily lives to course material. This reflective behavior so necessary for the construction of learning took place outside of the classroom. Although only a few users dominated the contribution of reflective posts in both of these groups, it is noteworthy that students were the source of most of these posts, not teachers.

Unfortunately, as was the case with collaboration, only the two AP courses were using the WeBo to reflect; the lower academic levels in Groups 3 and 4 were not. It would appear that, as with collaboration, the lack of reflective posts from Groups 3 and 4 was tied to their perceptions of how the WeBo was to be used. Students in these two groups went to the WeBo to check assignments or ask questions. The patterns of their use seems to suggest they were not on the WeBo long enough to reflect on other’s comments.
Finding: Procedural

One of the categories to emerge from the analysis of data was posts of a procedural nature: assignments, scheduling information, announcements, and logistics (Davidson-Shrivers, et al., 2001; Poole, 2000). All of the participating teachers agreed to post assignments on their class WeBos, so the posting of procedural comments from the teachers was not surprising (See Figure 11 in Appendix B). However, in Groups 1 and 2, students also made procedural posts.

Group 1: 12 AP. In Group 1, there were 65 procedural posts. The teacher made 55 of these posts. Four students were responsible for making six procedural posts. The researcher made four procedural posts.

Group 2: 11 AP. In Group 2, there were a total of 14 procedural posts. One student was responsible for making half, seven, of the procedural posts. The reasons for the large number of procedural posts were explored during her interview and are addressed in the discussion section below. The teacher made six and the researcher made one.

Group 3: 10 CP. In Group 3 the teacher made all 41 of the procedural posts.

Group 4: 11 Regular. The teacher in Group 4 made all 25 procedural posts.

The course WeBos gave teachers and, in the case of Groups 1 and 2, students as well, the ability to post comments related to the course such as
assignments, meeting places and times and reminders about various other course-related topics.

**Discussion: Procedural**

The posts-data suggests that students went to the course WeBos to check on assignments. The survey data supports this finding. According to the survey responses, all of the participants in Groups 1, 3, and 4 went to their WeBos for class work. Three of the eight students who used the WeBo in Group 2 stated on their surveys that they went to the WeBo for class work. This finding would suggest that the posting of class assignments served as a motivational factor to get students to visit the WeBo. Once on the WeBo, students would have a greater chance of further participation.

In regard to the posting of procedural comments by other students, one student posted the time and place her class project group was to meet. A student in the 11 AP posted assignments for her classmates. According to her interview, she did this because,

*There were one of two people that had called me at the beginning of semester in English that would continually forget to write down the pages she had said to read that night and I think some of them actual used the blog there were a couple of people who would check the blog and say “hey, thanks for posting that last night I almost forgot.”*

This student found using the WeBo as a bulletin board to posts assignments benefited her by allowing her to place assignments and thus cut down on the number of queries she received from her peers on a nightly basis.
**Finding: Socializing**

Not all use of the WeBo was for course-related work. Participants also used the WeBo for socializing (See Figure 12 in Appendix B). Socializing was defined as personal statements, jokes, introductions and greetings (Davidson-Shivers, Muilenburg, Tanner, 2001).

**Group 1: 12 AP.** With the exception of interacting, Group 1 used the WeBo to socialize more than anything else. In fact, eight (73%) of the 11 participants who used the WeBo in 12 AP made 72 social comments. These constituted 23% of the overall posts by participants. Of these 72 posts, three participants made 41 comments or 57%. The teacher made eight (11%) of the 72 social comments.

**Group 2: 11 AP.** Socializing was the number one use of the WeBo by the participants of Group 2. In all, ten (83%) of 12 participants' accounted for 29 posts of a social nature. These constituted 35% of the overall posts by participants in the 11 AP group. Once again, the most prolific of the users of the 11 AP WeBo, Dave, accounted for a large percentage of these posts, 35%. It is interesting to note that, as was the case for Group 1, in Group 2 the teacher accounted for six, or 21%, of the social posts.

**Group 3: 10 CP.** Whereas socializing was either the first- or second-most popular use of the WeBo in the first two groups, socializing was only the fourth-most popular use of the WeBo by the participants in Group 3 behind: 1) questioning, 2) answering, and 3) procedural posts. Only three (38%) of the eight participants made social posts. The teacher for this group made no social
comments.

Much of the activity on the WeBos consisted of students socializing. Often, socializing consisted of students cutting up and being humorous. Having said that, a great deal of the humor was about school work, and most of the posts usually ended with students asking a question or making a more serious comment about some facet of the class.

Discussion: Socializing

Socializing was prominent on both the 12 AP and 11 AP WeBos. In fact, socializing was second and first in number of posts in 12 and 11 AP, respectively. In both of these classes, a similar number of the students socialized on the WeBo, 73% in 12 AP and 83% in 11 AP. Also, although a small percentage of participants made a large percentage of the posts in each of these classes, the majority of students were involved in socializing on their class WeBos. Based on the analysis of data concerning students' use of the WeBo, it is my opinion that the degree of socializing that took place on the course WeBos directly influenced whether students were involved in course-related activities. In other words, socializing increased the likelihood that students would participate in answering questions, reflecting on peers' posts, or interacting and collaborating with other participants on course matters. In order to engage in course-related activities, students had to be spending time online. This time online socializing put them in a position to engage in answering questions, reflecting, interacting and collaborating.

As pointed out in the section on Questions and Answers, students in
Group 3 were more interested in using the WeBo for a specific course-related reasons than for socializing. Reflecting this is the fact that only 38% of the students in Group 3 who did post on the WeBo engaged in socializing.

In all three of the groups who posted on their WeBos, much of the social posts consisted of students acting silly. However, many of these humorous social posts were either about school:

*Mrs. Sullivan: Remember: Review Jane Eyre.*

*Student Response: Or, for the vast majority of us, read the rest of Jane Eyre past the part where boredom finally crippled your reading abilities.*

Or came back to school-related topics at some point in the posts. For example, a student in 12 AP wrote:

*I haven’t been able to make an effort towards anything during this break. My grandmother died last Saturday, I had to help my mom with all the funeral arrangements and then attend the funeral on Monday. After that, I worked on this paper and I’m having the same problem then as I am now. And I keep asking myself the same question: what in Gods’ name am I trying to say in this paper?*

This post is of interest for several reasons. First, this student is using the WeBo to air an extremely personal matter; however, the student is not speaking to anyone in specific. Rather, he is engaged in a sort of “open” conversation. By “open” conversation, I mean he is openly expressing his emotions to an unspecified audience. Unlike other means of online discourse, for example,
instant messaging and MySpace, where there are names and icons to indicate who is online, WeBos do not give users information about who is online utilizing the WeBo at any given time. Thus, these comments are intended for everyone or no one at all. He could be talking to the entire class, or he could be talking to himself depending on who is online. What is interesting is that he, and other students, were talking, and, as indicated by the example above, they were at times talking about quite serious issues (the death of a grandmother). What is also of interest is how the student, as mentioned above, comes back to the course work at the end of the posts. The WeBo provided him a forum to vent his frustration associated with both personal and academic struggles to his classmates.

Students’ desire to socialize on the WeBo was supported by the survey data. Three students in Group 3 and four students in Groups 1 and 2 stated that one of the reasons they went to the WeBo was to socialize with their peers. However, the posts-data showed that students were not the only ones socializing on the WeBo. Teachers in Groups 1 and 2 were also socializing with their students. This finding is supported by interview data. As the teacher for 11 AP noted when asked about using the WeBo:

Yes, I felt like I was a little more relaxed and that I wasn’t as pressed for time to get things done. Sometimes in the classroom I feel like I don’t have time to sit and have conversations with the kids because we have so much to get done but on the weblog we could chat about various things.

This sentiment was echoed by the 12 AP teacher. When questioned about her
views of the WeBo’s effect on her relationship with students, the teacher for 12 AP stated, “It wasn’t quite teacher-student. It was more collegial.” According to several students in these groups, this social interaction helped to change their perceptions of the teacher. This included making the teacher “seem more like a person” as one student noted. A student in 11 AP had the following to say when asked if the WeBo had any effect on her perception of the teacher:

I think so, yeah. I don’t know what it was but at the beginning of the year, but there was this distance between the class and Mrs. ____. They were less willing to open up to Mrs. ____. So she would mention what she and her husband had for dinner and it made her more personable.

The WeBos provided a forum for students to go online and socialize with their peers and teacher. Much of the socializing consisted of participants acting silly and being funny. However, students were also sharing personal information with others. Also, being on the WeBo to socialize allowed them to be online when students asked questions and thus put students in a position to answer, reflect, interact, and/or collaborate with other participants on course-related matters. Teachers were socializing online as well, and, according to the teacher and several students, this online activity helped to improve their relationship with at least some of the students.

Finding: Technical Posts

Participants were also involved in talking on the WeBos about a variety of topics of a technical nature (See Figure 13 in Appendix B). These posts covered
a wide range of topics from how to make the font appear in italics to the
preponderance of spam and the possibility that the blog had “eaten their
comments.”

Group 1: 12 AP. Group 1 had the majority of the technical posts. Eight
(73%) of the 11 participants made 27 posts about technical issues. These 27
posts only equaled 8% of the overall posts. Of these 27 posts, 20 (74%) were
made by the teacher, the researcher and one student.

Group 2: 11 AP. Group 2 only made six technical posts. These six posts
were made by two (16%) of the twelve participants: the teacher made three
technical posts and the most avid user of the 11 AP WeBo, Dave, made the other
three. These technical comments constituted seven percent of the overall posts
by Group 2.

Group 3: 10 CP. One student (13%) out of eight made a single technical
post in Group 3. This constituted 5% of the posts in this group.

Discussion: Technical Posts

Technical problems can create frustration on the part of the user and
reduce participation in online communication and severely disrupt the
effectiveness of these tools to expand the boundaries of the classroom
(Cobanoglu 2006; Stiler and Philleo, 2003). Most of the posts on the 12 and 11
AP WeBos were participants attempting to solve a simple technical problem, how
to italicize on the WeBo. Italics were important because so often in English
courses, titles need to be placed in italics. Having said this, it is no surprise that the teachers in both the 12 and 11 AP classes, who were posting the assignments, were the ones to initially question how to italicize text on the WeBos. What happened after their initial queries is interesting. The teachers' questions allowed the students to take on a teaching role, instructing their classroom teacher in how to do something. This kind of behavior, exemplified in the passage below, demonstrates the blurring of roles that can take place in online learning environments (Brown, 2001; Ferdig and Roehler, 2004; Poole, 20000). The exchange occurred on the 12 AP WeBo.

Teacher: Study for test on The Canterbury Tales. Begin thinking about credo paper– “This I believe. . . .” Does anyone know how to do italics on this thing?

Student 1: I’m not sure, lets experiment. this should be in italics

Student 1: just use the standard html code for italics.

Student 2: (less than sign)i(greater than sign)(text you want in italics)(less than sign)/i(greater than sign)

Change the “i”s to “b”s for bold, “u”s for underline. And that forward slash is supposed to be there.

Teacher: I did it again! Egad! It’s supposed to say: “I’m not sure why you would need to use you. . . .”

Student 3: Just type everything in really really slowly.
Teacher: Hey! I used the italics correctly! It’s going to be a great weekend.

Work hard, gang, and take care.

Other technical problems were not as simple to solve as the italicizing of words. Another problem addressed in the participants’ posts was spam. The spam problem was twofold: the amount and the content. In regard to the former, there was an excessive amount of spam that appeared on the WeBo. However, it was the profane and scatological content of much of the spam that was most offensive and elicited the comments by participants in Groups 1 and 2. Students who did utilize the WeBos in these two sections dealt with the spam differently. Some participants found the spam humorous:

Post 1: We have some spam that really needs to be attended to. I don’t think the “Masturbation guide” is considered classic literature.

At other times they found it frustrating:

Post 2:

ahhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh

hhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh!!! more

spam!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

It is interesting to note that the first post, albeit loosely, refers back to the course. It was an attempt by the researcher to eliminate the spam that led to the most serious technical problem in the 12 AP section. I made changes attempting to eliminate or at least limit the spam in the middle of October. I was able to block some of the spam and held other spam mail in an offline cue for moderation by the administrator. Unfortunately, at times the participants’ comments were also
being held for moderation. In other words, no post could be seen on the WeBo until the administrator had approved the post being held for moderation. This administrative requirement would frequently create a delay between the time the user made the post and the time the post appeared on the WeBo for other participants to see. Several of the participants, including the teacher, in this class commented on these problems:

Teacher: Mr. Thomas,

Can you check the parameters on this blog? It looks like there are postings that aren’t being posted. I'd hate to think some poor student out in research-land was being denied assistance on this, the last night before his or her research paper was due.

Participant 1: SULLY!!! I hope this blog didn’t eat my comment when you saw it…But I still need my answer please!

The frustration caused by the technical problems was pointed out by one student in her interview:

Yes, that really got on my nerves towards the end because we had like four research papers in a row, and I would ask a question and I would find out it we had any homework about it or she had change something until I got to school and I remember we had one paper and we just had to write the one paper I thought and I checked it the morning before I went to school and found out she had posted something the Friday and I didn’t get it until Monday and it said “oh yeah, stick on the work cited page” and I wouldn’t because it was time to go to school.
The problem was exacerbated by the fact that, initially, the administrator and users did not realize posts were being held out of view. Once the problem was discovered, it created a great deal of frustration on the part of the users. This problem and the resulting frustration could have resulted in a reduction in or complete lack of use. In order to circumvent the problem, the administrator had to check the WeBo hourly to make sure comments were not being block and sent to moderation, but monitoring the WeBo to this degree was not feasible.

If students are making comments and their comments are not being posted, their comments cannot be responded to by others. This greatly reduces the usefulness of the WeBo. One must assume, if the WeBo is an avenue to communicate with peers and communication is breaking down, participants will cease to visit the WeBo and look to more dependable means of communication (e.g., telephones, email, instant messaging, and MySpace---see Other Means of Communication below).

In the 11 AP sections, the technical problems were of a different nature. For reasons unknown to the researcher (who also served as the administrator for all the WeBos), the 11 AP WeBo experienced a technical difficulty that prevented users from making comments some time between September 19 and 20th. The exact date the difficulty started is not known, but the last comment was made on the WeBo on the September 18. Prior to this date, beginning with the first post on August 30, at least one post had been made every day except three, and the longest time gap between posts in the first 20 days the WeBo had been active was two days. Therefore, I assume the WeBo went down around September 19-
20. On October 4th, this researcher went into the 11 AP class to address a technical problem with one of the computers in the classroom, a visit completely unrelated to the study. It was at this time that one of the students brought it to my attention that the WeBo was not working. I immediately let the class know that I would address the problem that day, that the WeBo would be functioning by the next day at the latest, and that they should stop by my room and let me know if the WeBo was ever down in the future. A visit to the WeBo later that day revealed that, while visitors could view the WeBo, they were not allowed to make any post on either the Classwork or Miscellaneous page. Although I was unable to determine why this problem had occurred only on the 11 AP WeBo and none of the others, I was able to fix the problem and made a post, notifying students that the problem was repaired. However, after this technical problem occurred, the 11 AP students never used the WeBo again with the same frequency. In the first 20 days, between August 30, when the first post was made on the 11 AP WeBo, and September 18, when the last post was made before the technical problem arose, students contributed a total of 23 comments to the Miscellaneous page and 56 comments to the Classwork page-- an average of 3.95 comments a day. Between October 4 (when I corrected the problem) and the end of the semester on December 22, students posted a total of only three comments on the Miscellaneous page and four comments on the Classwork page-- an average of only .07 comments a day and a huge fall-off. Although I believe that the students’ abandonment of the WeBo was a result of the technical difficulties that did not allow users to make posts from September 19 through October 4, this
cannot be proved and the definitive reason will never be known.

As indicated by the posts, technical problems can create frustration on the part of the users, reducing participation in online communication and severely disrupting the effectiveness of these tools to expand the boundaries of the classroom. For example, the 12 CP teacher reported that at times she had trouble logging on, and when she did have problems, she admitted, “I would give up.” Another student in 10 CP stated during her interview that when her parents saw the pornographic spam on her class’s WeBo, they forced her to stop using it. Frustration associated with the technical problems, and spam could have caused others to abandon the blog or reduce their use.

Finding: Other Means of Communication

Posts also revealed two students in Group 1 to have posted their email addresses, requesting other students and their teacher to contact them via email, or, in one case, instant messaging. Although only three times did students ask other students or the teacher to use another means of online communication, the appearance of students soliciting the use of other CMCs on the WeBo was noteworthy. These few posts revealed a possible theme that was further explored in the analysis of the survey data as well as the interviewing stage of data collection.

Discussion: Use of Other Means of Communication

The use of other means of communicating online to communicate about course work was supported by the findings in the surveys and interviews, which indicated that of the students in the four groups, 64% used email, 46% used
instant messaging and 55% used MySpace weekly (See Table 9 in Appendix A). In fact, one of the main reasons students in all four groups reported on their surveys for not using their WeBos was because they used another medium, like MySpace, to communicate with their peers. Survey and interview data suggests that part of the reason students used these other means of communication had to do with convenience and familiarity (Curtis and Lawson, 2001).

The interviews corroborated students’ preference for using other means to communicate with their friends about school work. All of the 12 AP interviewees stated they had previously used the phone, email, instant messaging and/or MySpace to communicate with a classmate concerning an assignment. Several students in the 11 AP section at first said they did not have a need for the WeBo, but when questioned further indicated this was because of their use for other means of communicating (phone, email, instant messaging, MySpace). For example, when one student was asked if he ever went to the WeBo to check assignments or for homework, he stated, “No, I do that on MySpace or IM (instant messaging). People are there more often so you will get a quicker response.” All four of the 11 Regular and three of the 10 CP interviewees said they would call a friend if they had a school question. Three of the 11 Regular and the entire 10 CP section said they had used MySpace to ask a friend a school questions.

It is worth noting that students commented on the fact that different means of online communication (IM, MySpace, email, or WeBo) were appropriate for different kinds of communicative tasks. For example, instant messaging may be
used to carrying a conversation because of its synchronous nature, and so students might use MySpace because they could see who was on and ask someone a specific, pointed question and get immediate feedback. One 12 AP student noted:

*If I just want to give someone the assignments I would rather put it on the WeBo and say we are reading this and this and these are the main points she covered. But if it something that you are going to have a lot of questions about I think IM would be better, easier because I know they are going to want to ask me questions.*

The survey and interview data appears to reveal a pre-establish network of communication lines both on and offline that students utilize to bridge the communication gap between home and school. Of course, the major concern regarding students’ use of other means of communication, like MySpace, email, instant messaging or even cell phones, is that these circumvent one of the main benefits of WeBos, their public nature (Oravec, 2003). Any post, conversation, question, answer, collaboration or reflection posted on a WeBo is viewable by anyone with a computer and internet connection. Not so for the more private, one to one communication devices such as MySpace, email, instant messaging or even cell phones.

**Conclusion**

The analysis of the data revealed several categories related to participants’ use of their WeBos. Participants used the WeBos primarily from home, thus expanding the boundaries of time and space associated with the
classroom. Indicative of this behavior was student’s discussion of course work, asking and answer questions as well as venting reflecting, and collaborating on course work. Participants made procedural posts about the class. In addition to posting about school, students socialized and made comment of a technical nature. Finally, the posts-data revealed that students were using other means of communication to talk with their peers and teacher about course work.

Data would seem to indicate that the different groups had different perceptions concerning the use of their WeBo. Groups 3 and 4, the two lower academic levels, were primarily concerned with going to the WeBo to ask questions and view the assignments that had been posted by their teacher. This behavior would indicate a purely utilitarian approach to their use of the WeBo. For these two groups, the WeBo had a narrowly defined use. Obviously, this finding would suggest that the participation of the teacher, posting assignments on the WeBo, was important to the moderate the use and positive benefits noted in their surveys and interviews.

On the other hand, Groups 1 and 2, the two AP sections, primarily used their WeBos to socialize and interact. In the process of these two activities, students engaged in many other course/school-related activities. In other words, students sometimes went online, making silly posts about the procedural comments the teacher had made, and, once there, saw a question someone had posted and answered it. Someone else might then get online and see the previous person’s silly post, and respond both to it and to the course-related message. What was interesting is that by far the majority of the posts in all the
eventually categories returned to the topic of school and their class.

Although the 12 AP section made more posts than the other three groups combined, the posts-data suggest that the 11 AP section would have made as many as the 12 AP class if the 11 AP WeBo had not experienced technical problems in the early part of the semester that prevented students from making posts for two weeks. This technical problem resulted in an all but total abandonment of the WeBo by the 11 students who had been using it regularly prior to that point.

Finally, a small number of posts by students asking other students and the teacher to email them were revealed by the survey and interview data to be indicative of a major reason why many of the participants may have not used the WeBo. Students in all four of the groups indicated on their surveys and interviews a pre-establish means of communicating online (MySpace, email, instant messaging) with peers concerning matters related to school.
CHAPTER 5: IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

Introduction

The purpose of this study was to understand how students in a public high school would use a voluntary course weblog. Because the weblog was being used in a hybrid fashion as a discussion board, I dubbed it a WeBo (for WEblog and discussion BOard). Research supports the assertion that computer-mediated communication tools like weblogs and discussion boards have the potential to augment face-to-face learning (Gilbert and Dabbagh, 2005; Hernandez-Ramos, 2004; Ikpeze, 2007; Jetton, 2003; Nicholson and Bon, 2003; Pfaffman, 2007; Thomas, 2002; Wickstrom, 2003) and to assist students in the construction of knowledge by expanding the boundaries of the classroom beyond its physical space and time (Bennett & Green, 2001; Jeffries, 2005; King, 2001; McAlpine, et al., 2002; Yu & Tsao, 2003; Weston & Barker, 2001), thereby allowing student to access course-related content and interact with classmates and teachers at their convenience from anywhere with a computer and Internet connection.

To learn how high school students would use a voluntary course-related WeBo, five classes (106 students and three teachers) in a public high school were divided into four groups: Group 1, 12 AP; Group 2, 11 AP; Group 3 10 CP; and Group 4, two classes of 11 Regular. By choosing classes from different grades and academic levels for the study, it was possible to observe how a wide cross-section of high school students used the WeBos. Teachers from each of the classes agreed to participate in the study by posting assignments on their WeBos each day and periodically checking it for any questions directed to them.
Employing a qualitative methodology, this study used the participants’ comments (or "posts") on the WeBo as the primary data source. These posts were collected and poured over throughout the study looking for themes and categories to emerge. The posts-data were used to inform the development of a survey to further explore themes and categories. The posts-data and survey data was used to conduct a guided interview with a purposeful sample of students from each of the groups.

The main theme to emerge from the data indicated that participants used their course WeBos to expand the boundaries of time and space associated with their classes. In support of this finding was the frequency with which participants engaged in school-related behaviors on the WeBos: asking and answering questions, venting, reflecting, interacting, collaborating and making procedural posts about school work. Additionally, participants were engaged in non-course-related behaviors like socializing, discussion technical matters and asking for assistance via other modes of online communication (e.g. email, instant messaging).

The findings of this study support research findings that tout the capacity of computer-mediated communication to expand the classroom. For example, ninety-two % of the students who used their class WeBo expanded the classroom by accessing the WeBo from home. Findings showed students in the study supplemented their face-to-face instruction by using the WeBo to check class work, vent, interact, collaborate, reflect, and socialize. In fact, 70% of the students who used the WeBo remarked that they went to it because they found it
beneficial in accessing or getting help with course assignments. However, these findings do have implications for teachers thinking about using WeBos in their classrooms. For example, this study employed certain measures to entice students’ use of the WeBo that teachers thinking of implementing a WeBo in their classroom must consider.

Also, not all students used the WeBos. When one considers the fact that the majority of the students who used the WeBo found it beneficial, the gap between those who used the WeBo and those who did not creates implications of equity for classroom teachers interested in implementing this tool in their own teaching. Potential users of classroom WeBos must 1) look for ways to facilitate use by as many students as possible, and 2) explore other means of bridging the gaps for students who may, for whatever reason, be unable to use the WeBo.

Finally, it is interesting to note that the four groups in the study used the WeBo differently. Students in the higher academic levels used the WeBo more, both for course-related communications and for socializing, interacting and collaborating. The lower level classes primarily used the WeBo to check assignments and to ask questions. These findings create implications for teachers thinking of using a WeBo in their classrooms in regard to the level and grade of the class he or she is teaching. The implications of these all these findings will be addressed below.
Motivating Students to Use the WeBo

As noted above, all of the teachers in this study posted their daily assignments on their WeBos. Students in all groups stated they went to their WeBo to access course assignments and found the WeBo beneficial for this purpose. In fact, accessing course material was the primary reason students in 10 CP went to the WeBo and the only reason students in 11 Regular went to the WeBo. The implications of this finding are that any teachers who wish to implement a WeBo in their teaching must be willing to invest the time necessary to posts assignments daily on the WeBo. In addition to motivating students to utilize their WeBo, posting grades may also prompt students who go to the WeBo to see an assignment, to ask a question or answer a question posted by another student. The necessity for posting assignments to entice students to participate in course WeBos may be a barrier to the adoption of the tool by some teachers. Posting daily assignments can be time-consuming and may be perceived by teachers as just one more demand on their limited time. This implication is supported by research that found teachers believed CMCs to be time-consuming (Hernandez-Ramos, 2004; Krentler and Willis-Furry, 2005; Wickstrom, 2003). However, teachers may be encouraged by the fact that the students in this study also reported the benefits of interacting after school hours with their instructor on both a personal and instructional level. Still, these beneficial behaviors like answering student questions, reflecting on student posts, and interacting and collaborating with students are even more time-consuming than posting assignments, and teachers may be reluctant to invest this time.
One way to motivate teachers to invest the time would be to convince them of the instructional benefits of WeBos. As this study indicates, WeBos allow students and teachers to take the learning process beyond the school walls. WeBos can function as a social gathering place for school related behaviors: questions and answers, discussions and collaboration. Proponents of tools like the WeBo used in this study must work to educate teachers about the WeBo’s capacity to create a public space from which all students can benefit.

Once teachers make the commitment to investing their own time, they may also need to sell the students on the benefits to be reaped from a course WeBo. Participants in the two AP groups did utilize their WeBos for posting assignments and answering questions for their peers. As one student noted, she posted assignments on the WeBo so two or three people would not call her nightly looking for the homework. However, findings suggest the key to ensuring students would find information like this on the WeBo seemed to be the frequent use of the WeBO, especially for socializing. Modifications to the WeBo could help to further motivate students to go to the WeBo to socialize. As the analysis of posts on the AP WeBos showed, these social exchanges almost always came back to school work. Two modifications that surveys and interviews indicated would benefit the adoption of the WeBo by students are to 1) set up the WeBo so that students can see who is on the WeBo at any time, and 2) to create an instant-messaging-like feature where discussions could be saved and posted on the WeBo for the benefit of all. Finally, by using the WeBo in class and engaging the students online, teachers can model for students the benefits of this tool.
Regardless of how the assignments get posted on a class WeBo, the findings of this study imply that the placement of assignments on the WeBo was perceived to be beneficial to students and served as a motivational factor for their use.

**Lack of Instructional Equity**

Seventy percent of those who used the WeBo at all academic and grade levels found it beneficial in regard to their class. On the other hand, only 34% of all the students used their WeBo. The small percentage of students who used and benefited from the WeBos could create issues of equity for any teacher considering implementing one in their classroom (See Table 9 in Appendix A).

The teachers in this study posted assignments on their WeBos and as noted above, 66% of the students still chose not to use their class WeBo. These students were not receiving the same instructional benefit as the students who were accessing their assignments and possibly interacting in course related discussions with their peers and teacher. However, lack of student participation is not a new issue in the CMC research (Jetton, 2003; Ikpeze, 2007). One possible solution to the problem is mandatory participation for students. In fact, several studies (Dutt-Doner & Powers, 2000; Ikpeze, 2007; Wickstrom, 2003; Thomas, 2002) concluded that mandatory participation was necessary to ensure participation when using CMCs for instructional purposes. Unfortunately, this approach is problematic. First, research has called into question the authenticity of student’s posts when posts are required for class grades. As Brescia and Miller (2006) found in their study, mandatory student comments often result in...
students’ posting just for the sake of it. Also, when teachers make the use of the WeBo mandatory, the problem of access arises. In any public education environment, this problem must be addressed before students are required to use computers with Internet connections from outside of school.

Findings from this study indicate the chief barrier to adoption of the WeBo by students was a propensity for using other means to communicate with their peers concerning course work. Students had many choices: cell phones, MySpace, instant messaging and email. The survey data indicate that on average, 64% used email, 46% used instant messaging and 55% used MySpace weekly (See Table 10 in Appendix A). This finding is not surprising and is supported by the research of Curtis and Lawson (2001), who found students tend to use the technology they are most familiar with. This finding is further supported by statistics from the Pew Internet & American Life Project that show teens spending 7.8 hours talking with friends via technology like the telephone, email, IM, or text messaging. Furthermore, students stated in their interviews that they were already on MySpace so why would they go to the blog? They also noted that it was faster to just call someone.

To address the issue of students’ propensity for using other means of communicating with peers concerning course work, it may be necessary to educate teachers who have adopted this tool-- so that they can stress this to their students-- that the benefits of communicating via WeBos exceed those of other forms of communication in regard to the classroom. Unlike the telephone, email, MySpace pages and instant messaging, WeBos provide an open, public space
where comments can be viewed by all users. As was evident in the posts by participants in this study, when someone posts on a WeBo, all the students can see each other’s questions, answers, discussions and reflections. They can respond to each other and collaborate. When a student calls another student with a question about class, only those two benefit from the discussion. When a student asks a peer a question on his or her MySpace page, they are the only two who benefit from the discussion. When students instant-message their classmates about their course, they cannot reap the benefits of a discourse with other members of the class. Likewise, these conversations exclude any input from the instructor. In contrast, WeBos are a public forum that allows everyone to follow a discussion or line of thought over a period of time and to benefit from the communal production of knowledge (Oravec, 2003).

Since the findings of this study show that students prefer using their MySpace pages and are more familiar with them than WeBos, an alternative to the WeBO might be to have teachers create a MySpace page for their classes. In this way, all students could join the page and, as with a WeBo, they could view and join any classroom discussion. Unfortunately, this proposal is problematic for several reasons. First, most schools block access to MySpace on their Internet servers. There are a number of reasons for this. First, many in the public have a negative perception of sites like MySpace. This negativity comes in part from the media reports of incidents involving the site and its lack of privacy. Of course student confidentiality is paramount in the public school environment. Although MySpace has made strides to protect users’ privacy (users can now set their
sites as “private” and choose who can and cannot view them) the negative perceptions persist. I tried to establish one for my classroom this year and was told that the state department of education would not unblock it so that I could post on it at school and students could access it from the library. Although I could have created the site and managed it from home, without the approval of the state, I felt that the liability associate with using it in my classroom was too great.

More than half of the students in the study did not access their WeBo. Of those students who did access the WeBo, well over half said they found it beneficial to their success in the class. These findings indicate a gap in instructional equity that must be considered by anyone wishing to implement a WeBo in the classroom. Furthermore, this finding implies a need for further research to explore ways to overcome this gap and ensure all students have the opportunity to benefit.

**Different Academic Levels Used the WeBo Differently**

Findings indicate that the frequency and type of posts differed depending on the academic level of the group. Depending on the academic level of the classes, the implications of these finding could vary for any teacher thinking of using WeBos. There does not appear to be any relationship between the grade level and the degree/type of use by students.

In regard to the frequency of use, the two AP classes (Group 1: 12 AP and Group 2: 11 AP) made more posts on their WeBos than students in Groups 3 and 4 (10 CP and 11 Regular). The AP students made a total of 273 posts and the 10 CP class made a total of 17 posts; the lowest academic level did not make
any post. For teachers who wish to implement this tool in their classes, these findings suggest that students in higher academic level are more likely to embrace and make use of this tool. Conversely, teachers of lower levels classes will have to work harder to find ways to motivate their students to utilize their class’s WeBo. Again, as was discussed above, adding features common on more popular tools, such as icons to indicate which users are online, and a instant-messaging type of synchronous communication feature, could possible draw students away from these more popular tools and onto a course WeBo where all students could benefit from course-related discourse.

The way the students in the groups used the WeBo also differed depending on the academic level of the group. For instance, the posts of students in the 10 CP class revealed that they primarily went to the WeBo to ask questions about class work. These questions were spread over the course of the semester. The content and pattern of their posts showed students to be making brief visits to the WeBo for a specific purpose. In other words, these students got on and got off the WeBo quickly. In contrast, posts-data showed students in the two AP courses were primarily using their WeBos for socializing and interacting. By spending time on their WeBo just cutting up and socializing, students in these classes were in a position to be able to engage in other behaviors (answer questions, interact, reflect on posts and collaborate) when another student posted on the WeBo. Of course the 11 Regular classes did not make any posts, but did go to the WeBo to check assignments. As was the case with the amount of use, teachers of AP classes may find their students more likely to be self-
motivated to use their course WeBo as more than a glorified bulletin board for looking up assignments. Advanced placement students may be more likely to use their WeBo to interact with course work, peers and possibly their teacher. On the other hand, teachers in lower levels who may wish to use WeBos will be challenged to find ways to get students in lower levels to use their WeBo for social interactions with their peers (and possibly their teacher) so that they can also reap the benefits of course-related communication.

Students in AP classes tend to be highly motivated, and their use of the WeBo reflected this. Teachers in AP classes can expect a degree of adoption by their students that exceeds that of lower academic courses. Teachers of classes other than AP must work to find ways to motivate students in these classes to make full use of the course WeBos they have developed.

**Conclusion**

Classroom teachers looking to utilize WeBos in their classroom can benefit from the implications of this study. First, teachers should realize that the use of a classroom WeBo will demand a certain amount of time on their part. Findings indicate teachers will need to post comments to motivate students to go and use the WeBo. However, although posting assignments might initially get students to the WeBo, this type of use, going and checking assignments, fails to make full use of the potential of CMCs like WeBos. To overcome this, teachers will have to sell students on the ways in which their use of the WeBo for other course-related behaviors (asking/answer questions, interacting, reflecting on posts and collaborating with peers) can promote their success in the class.
Findings also imply that teachers of students in high academic classes such as advanced placement courses will find their students more motivated to make use of their class WeBos. Likewise, these AP students will make more productive use of the WeBo than their peers in lower academic level classes. Teachers of lower academic levels may find that the lower the level, the less the students will use the course WeBo. These teachers will be challenged to find ways of enticing their students to use of their classroom WeBos. Finally, although students in this study indicated a preference for more familiar means of communicating with their peers (MySpace, IM, telephones), these tools do not benefit the entire class like WeBos can. Developers should work to incorporate the characteristics of tools like MySpace to attract students to adopt WeBos. Also, teachers who adopt WeBos should continue to educate and model through their own use the benefits of this tool.

Recommendations for Further Research

This study was limited to the 2006 fall semester of English students at one high school. Based on the review of literature and conclusions of this study, the following recommendations for future study are:

*Explore how students are already using public forms of computer-mediated communication like MySpace and instant messaging to communicate and collaborate with peers concerning course work.*

*Explore ways teachers can use these pre-established public forms of computer-mediated communication to augment face-to-face instruction.*
Explore how these public computer-mediated communication tools can be used in instructional settings to create learning communities that draw together students taking the same courses at different schools in a school system, for example, by creating a MySpace page for all eleventh grade English students in a school system.
References


Appendix A

Table 1

Breakdown of Interviewees

<table>
<thead>
<tr>
<th>Groups</th>
<th>Used WeBo</th>
<th>Did Not Use WeBo</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 AP</td>
<td>1 Male</td>
<td>1 Male</td>
</tr>
<tr>
<td></td>
<td>1 Female</td>
<td>1 Female</td>
</tr>
<tr>
<td>11 AP</td>
<td>1 Male</td>
<td>1 Male</td>
</tr>
<tr>
<td></td>
<td>1 Female</td>
<td>1 Female</td>
</tr>
<tr>
<td></td>
<td>Teacher</td>
<td></td>
</tr>
<tr>
<td>10 CP</td>
<td>2 Males</td>
<td>1 Males</td>
</tr>
<tr>
<td></td>
<td>2 Females</td>
<td>1 Females</td>
</tr>
<tr>
<td>11 Regular</td>
<td>1 Male</td>
<td>1 Males</td>
</tr>
<tr>
<td></td>
<td>1 Female</td>
<td>1 Females</td>
</tr>
</tbody>
</table>
Table 2

Teachers in the Study

<table>
<thead>
<tr>
<th>Group</th>
<th>Teacher</th>
<th>Years experience</th>
<th>Years at this school</th>
<th>Technology skills</th>
<th>Prior use of Weblogs</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 AP</td>
<td>Smith</td>
<td>15</td>
<td>7</td>
<td>Moderate</td>
<td>No</td>
</tr>
<tr>
<td>11 AP</td>
<td>Nesmith</td>
<td>14</td>
<td>4</td>
<td>Moderate</td>
<td>No</td>
</tr>
<tr>
<td>10 CP</td>
<td>Thomas (researcher)</td>
<td>14</td>
<td>6</td>
<td>Advanced</td>
<td>Yes</td>
</tr>
<tr>
<td>11 Regular</td>
<td>Thomas (researcher)</td>
<td>14</td>
<td>6</td>
<td>Advanced</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Table 3

*Presentation of Groups*

<table>
<thead>
<tr>
<th>Group</th>
<th>Degree of teacher participation</th>
<th>Grade and level</th>
<th>Student participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>-Teacher will allow researcher to create Weblog</td>
<td>12 AP</td>
<td>Voluntary</td>
</tr>
<tr>
<td></td>
<td>-Teacher will allow researcher to present Weblog and handout to classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Teacher will post assignments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2 (Taught by me)</td>
<td>-Teacher will allow researcher to create Weblog</td>
<td>11 AP</td>
<td>Voluntary</td>
</tr>
<tr>
<td></td>
<td>-Teacher will allow researcher to present Weblog and handout to classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Teacher will post assignments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3 (Taught by me)</td>
<td>-Researcher will create Weblog</td>
<td>10 CP</td>
<td>Voluntary</td>
</tr>
<tr>
<td></td>
<td>-Researcher will present Weblog and handout to classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Researcher will post assignments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 4 (Taught by me)</td>
<td>-Researcher will create Weblog</td>
<td>11 Regular</td>
<td>Voluntary</td>
</tr>
<tr>
<td></td>
<td>-Researcher will present Weblog and handout to classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Researcher will post assignments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4

*Purposeful Sample of Interviewees*

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 AP</td>
<td>Students = 4</td>
</tr>
<tr>
<td></td>
<td>o 1 male and female who used the Weblog</td>
</tr>
<tr>
<td></td>
<td>o 1 male and female who did not use the Weblog</td>
</tr>
<tr>
<td></td>
<td>Teacher = 1</td>
</tr>
<tr>
<td>11 AP</td>
<td>Students = 4</td>
</tr>
<tr>
<td></td>
<td>o 1 male and female who used the WeBo</td>
</tr>
<tr>
<td></td>
<td>o 1 male and female who did not use the WeBo</td>
</tr>
<tr>
<td></td>
<td>Teacher = 1</td>
</tr>
<tr>
<td>10 CP</td>
<td>Students = 6</td>
</tr>
<tr>
<td></td>
<td>o 2 males who used the WeBo</td>
</tr>
<tr>
<td></td>
<td>o 2 female who used the WeBo</td>
</tr>
<tr>
<td></td>
<td>o 1 male and female who did not use the WeBo</td>
</tr>
<tr>
<td>11 Regular</td>
<td>Students = 4</td>
</tr>
<tr>
<td></td>
<td>o 1 male and female who used the WeBo</td>
</tr>
<tr>
<td></td>
<td>o 1 male and female who did not use the Weblog</td>
</tr>
<tr>
<td></td>
<td>Teacher = 1</td>
</tr>
</tbody>
</table>
### Table 5

**Categories for the Analysis of Data**

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Themes/categories to emerge</td>
<td></td>
<td>Using the WeBo to communicate with peers/teacher after school hours and indicated by the time and date of the posts.</td>
<td>All but six posts were made outside of school hours.</td>
</tr>
<tr>
<td></td>
<td>Coursework:</td>
<td>-Questioning is defined as posing one interrogative about courses or school. -Answering occurs when a student(s) responds, attempting to answer a previous course-related question. -Venting occurs when a student expresses strong positive or negative emotion concerning coursework or school (Brescia &amp; Miller, 2007)</td>
<td>12 AP students: Does anyone know what we were supposed to read this weekend? Response (10:13 P.M.): 331-336</td>
</tr>
<tr>
<td></td>
<td>Interacting</td>
<td>Students (and teachers) exchanging information, ideas, and opinions between or among each other (Ferdig &amp; Roehler, 2004).</td>
<td>Student: Also, I’d have a much better weekend if I didn’t have to read, and then answer questions about a book which I hate. The Great Gatsby was alright, but the other two…I’m just tired of reading books whose [sic] symbolism and moral development have to be shown so obviously through the actions and soliloquies of ignorant, uneducated characters. Researcher: What books are you reading? I have never been a real fan of Twain's long fiction. However, I always appreciate the books more if I keep in mind the timeframe in which they were written.</td>
</tr>
<tr>
<td>Category</td>
<td>Subcategory</td>
<td>Definition</td>
<td>Example</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Collaborating |                 | Students sharing ideas with peers and/or teachers about courses or school. Indicators of student collaboration:  
- Giving and receiving help  
- Exchanging resources and information  
- Explaining or elaborating on information  
- Sharing existing knowledge  
- Giving and receiving feedback  
- Challenging other’s contributions  
- Advocating increased effort and perseverance among peers; practicing small group skills  
- Monitoring each others’ efforts and contributions (Johnson & Johnson, 1996) | Teacher: Visit the following website for more information on Mark Twain.  
http://www.ipl.org/div/litcrit/bin/litcrit.browse.pl?au=CD                                                                                                                           |
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflecting</td>
<td>Responses that elaborate on previous messages about courses or school, in which the speaker relates the discussion to prior experiences.</td>
<td>Student 1: I agree with Zach. I’d much rather try to comprehend what’s being said than trying to change my answer. I tend to not be able to get some of the things out of books that others do, so I really like listening to other people’s take on the books. Student 2: Rachel makes a good point: if we don’t know the answer at home, we’ll be writing down parts of the discussion regardless of whether or not we already had an answer.</td>
</tr>
<tr>
<td>Procedural</td>
<td>Includes scheduling information, announcements, logistics, etc. (Davidson-Shrivers et al., 2001; Poole, 2000)</td>
<td>“Okay, tomorrow we are going to the library to begin working on our papers. Make sure you have a topic in mind!”</td>
</tr>
<tr>
<td>Socializing</td>
<td>N/A</td>
<td>Student 3: I did love your black and white outfit Friday even thought [sic] that was like forever ago!</td>
</tr>
<tr>
<td>Technical problems</td>
<td>N/A</td>
<td>“OK, so I can’t figure out how to italicize without italicizing the whole line.”</td>
</tr>
<tr>
<td>Other forms of communication</td>
<td>N/A</td>
<td>I’m finishing up my research paper, and have a question. Does the thesis have to be the last sentence of the introduction? If anyone has an answer, will you email it to me at ****@comcast.net? Thanks!!</td>
</tr>
</tbody>
</table>
Table 6

Group 1 Usage of the Course WeBo

<table>
<thead>
<tr>
<th>Participants</th>
<th>Questioning</th>
<th>Answering</th>
<th>Venting</th>
<th>Reflecting</th>
<th>Interacting</th>
<th>Collaborating</th>
<th>Procedural</th>
<th>Social</th>
<th>Technical</th>
<th>Other CMC</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>---</td>
<td>11</td>
<td>---</td>
<td>1</td>
<td>10</td>
<td>11</td>
<td>55</td>
<td>8</td>
<td>6</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Researcher</td>
<td>---</td>
<td>6</td>
<td>---</td>
<td>2</td>
<td>13</td>
<td>9</td>
<td>4</td>
<td>17</td>
<td>6</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Steve</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>12</td>
<td>6</td>
<td>1</td>
<td>12</td>
<td>8</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cindy</td>
<td>16</td>
<td>1</td>
<td>8</td>
<td>5</td>
<td>18</td>
<td>2</td>
<td>1</td>
<td>12</td>
<td>3</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Nick</td>
<td>5</td>
<td>---</td>
<td>1</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>---</td>
<td>9</td>
<td>1</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>John</td>
<td>---</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>---</td>
<td>5</td>
<td>1</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Candy</td>
<td>11</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Jack</td>
<td>12</td>
<td>---</td>
<td>3</td>
<td>---</td>
<td>5</td>
<td>1</td>
<td>---</td>
<td>8</td>
<td>1</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Mark</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>April</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>2</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Emma</td>
<td>3</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Totals</td>
<td>52</td>
<td>26</td>
<td>19</td>
<td>24</td>
<td>77</td>
<td>38</td>
<td>65</td>
<td>72</td>
<td>27</td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>

Note: The dashes indicate that the participant did not make any posts falling into this category.
Table 7

Group 2 Usage of the Course WeBo

<table>
<thead>
<tr>
<th>Participants</th>
<th>Questioning</th>
<th>Answering</th>
<th>Venting</th>
<th>Reflecting</th>
<th>Interacting</th>
<th>Collaborating</th>
<th>Procedural</th>
<th>Social</th>
<th>Technical</th>
<th>Other CMC</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>1</td>
<td>1</td>
<td>---</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Researcher</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Dave</td>
<td>---</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>11</td>
<td>10</td>
<td>---</td>
<td>10</td>
<td>3</td>
<td>---</td>
<td>5</td>
</tr>
<tr>
<td>Meredith</td>
<td>---</td>
<td>1</td>
<td>---</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Karl</td>
<td>---</td>
<td>2</td>
<td>---</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>---</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Bobby</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>---</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Alice</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Mary</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>2</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Rebecca</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Donald</td>
<td>1</td>
<td>---</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Lucy</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Heather</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Totals</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>10</td>
<td>26</td>
<td>26</td>
<td>14</td>
<td>31</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: The dashes indicate that the participant did not make any posts falling into this category.
Table 8

Group 3 Usage of the Course WeBo

<table>
<thead>
<tr>
<th>Participants</th>
<th>Questioning</th>
<th>Answering</th>
<th>Venting</th>
<th>Reflecting</th>
<th>Interacting</th>
<th>Collaborating</th>
<th>Procedural</th>
<th>Social</th>
<th>Technical</th>
<th>Other CMC</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>---</td>
<td>6</td>
<td>---</td>
<td>---</td>
<td>2</td>
<td>---</td>
<td>41</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Abby</td>
<td>2</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>2</td>
<td>1</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Susan</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>2</td>
</tr>
<tr>
<td>Beth</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>2</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Hulga</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Allen</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>---</td>
<td>1</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Allie</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Tammy</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Totals</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>41</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: The dashes indicate that the participant did not make any posts falling into this category.
Table 9

*Number of Participants Who Used Other Means of Communication Weekly*

<table>
<thead>
<tr>
<th>Group</th>
<th>Email</th>
<th>Instant messaging</th>
<th>MySpace</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 AP</td>
<td>15 (75%)</td>
<td>8 (40%)</td>
<td>13 (65%)</td>
</tr>
<tr>
<td>11 AP</td>
<td>15 (71%)</td>
<td>10 (40%)</td>
<td>3 (14%)</td>
</tr>
<tr>
<td>10 CP</td>
<td>16 (66%)</td>
<td>13 (54%)</td>
<td>17 (71%)</td>
</tr>
<tr>
<td>11 Regular</td>
<td>19 (46%)</td>
<td>20 (49%)</td>
<td>28 (68%)</td>
</tr>
</tbody>
</table>

Table 10

*Number of Participants in the Four Groups*

<table>
<thead>
<tr>
<th>Group</th>
<th>% of participation</th>
<th>% of participation</th>
<th>% of participation</th>
<th>% of participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 AP</td>
<td>11/20= 55%</td>
<td>11/20= 55%</td>
<td>11/20= 55%</td>
<td>11/20= 55%</td>
</tr>
<tr>
<td>11 AP</td>
<td>8/21= 38%</td>
<td>8/21= 38%</td>
<td>8/21= 38%</td>
<td>8/21= 38%</td>
</tr>
<tr>
<td>10 CP</td>
<td>11/24= 46%</td>
<td>11/24= 46%</td>
<td>11/24= 46%</td>
<td>11/24= 46%</td>
</tr>
<tr>
<td>11 Regular</td>
<td>6/41= 15%</td>
<td>6/41= 15%</td>
<td>6/41= 15%</td>
<td>6/41= 15%</td>
</tr>
</tbody>
</table>
Appendix B

Group 1
Group 2
Group 3
Group 4

Data Sources
- Participant’s post
- Participant’s survey
- Participant’s interviews

Research Question
How do students use the blog?

Figure 1: Data Sources for each of the groups

Figure 2. Information required by users to post a comment on the WeBo
Figure 3. Number of posts each participant in Group 1: 12 AP made on their class WeBo.

Figure 4. Number of posts each participant in Group 2: 11 AP made on their class WeBo.
Figure 5. Number of posts each participant in Group 3: 10 CP made on their class WeBo.

Figure 6. Number of questions and answers by participants
Figure 7. Number of venting comments made in posts by class section

Figure 8. Number of participants’ interactive posts
Figure 9. Number of participants’ collaborative posts

Figure 10. Number of participants’ reflective posts
Figure 11. Number of participants’ procedural posts

Figure 12. Number of participants’ social posts
Figure 13. Number of participants’ technical posts
### Appendix C

<table>
<thead>
<tr>
<th>SCAP Reading /Language 569 or above</th>
<th><strong>English I (Honors)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Students above grade level in Reading and Language Arts</td>
</tr>
<tr>
<td></td>
<td>2. Students who are motivated to excel</td>
</tr>
<tr>
<td></td>
<td>3. Students who have mastered and use grammar skills correctly with very little review necessary</td>
</tr>
<tr>
<td></td>
<td>4. Curriculum: in-depth study of composition, research and literary analysis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCAP Reading /Language 534-568</th>
<th><strong>English I (Standard/College Prep)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Students at or above grade level in Reading and Language Arts</td>
</tr>
<tr>
<td></td>
<td>2. Students with a sound background in grammar skills</td>
</tr>
<tr>
<td></td>
<td>3. Curriculum: study of composition and literary analysis; basic review of grammar skills</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCAP Reading /Language 492-533</th>
<th><strong>English I (Regular)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Students at grade level and lower</td>
</tr>
<tr>
<td></td>
<td>2. Curriculum: slower, more in-depth course of study regarding grammar skills, composition and reading</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCAP Reading /Language 468 &amp; below</th>
<th><strong>English (Fundamental)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Students at three or four levels below grade level in Reading and Language Arts skills</td>
</tr>
<tr>
<td></td>
<td>2. Curriculum: study of reading, basic grammar, spelling, communication, sentence and paragraph writing skills</td>
</tr>
</tbody>
</table>
Appendix D

County Schools: Language Arts Course Descriptions

**English I (Fundamental)**

A course for students who are functioning below grade level in reading and language skills and have not mastered basic skills in reading at the 6th grade level. Students receive special help in reading, writing, language and communication skills. The curriculum includes the four strands Ð Writing, Reading, Viewing and Representing, and Speaking and Listening Ð assessed on the Tennessee State mandated English I End-of-Course exam. They may earn up to four units.

**English I (Regular)**

A course designed for students who may or may not be college bound. The course includes the development of appropriate skills in reading comprehension, grammar and language usage, composition, vocabulary development, study techniques, library use, and literature. The curriculum includes the four strands Ð Writing, Reading, Viewing and Representing, and Speaking and Listening Ð assessed on the Tennessee state-mandated English I end-of-course examination.
**English I (Standard/College Prep)**

A course for students who are functioning on grade level or above in language arts and reading. These students have demonstrated an average or above average ability to perform on-grade-level language skills. The curriculum includes a study of grammar and language, study skills, library skills, composition, literature, and vocabulary development. The curriculum includes the four strands — Writing, Reading, Viewing and Representing, and Speaking and Listening — assessed on the Tennessee State mandated English I End-of-Course exam.

**English I (Honors)**

A course for students who are functioning above grade level in language arts and reading and have demonstrated competency in grammar and composition skills in the 8th grade. They must have the motivation and desire to participate in the program. This Honors course includes in-depth study in composition, research, and literary analysis, and it requires advanced study techniques and outside readings. The curriculum includes the four strands — Writing, Reading, Viewing and Representing, and Speaking and Listening — assessed on the Tennessee State mandated English I End-of-Course exam.

**English II (Adaptive) 3002 English II (Fundamental) 3002 English II (Regular)**

Continues to prepare students who may be college bound. The course focuses on literature, grammar, composition, and vocabulary development. The curriculum includes the four strands — Writing, Reading, Viewing and
Representing, and Speaking and Listening Ð assessed on the Tennessee state-mandated Gateway Language Arts examination.

**English II (Standard/College Prep)**

A course for students who have successfully demonstrated an average or above average ability to perform on-grade-level language, analytical, composition, and reading skills. The curriculum includes further development in literary analysis, vocabulary development, and composition. All students at this level will be required to do a research project. The curriculum includes the four strands Ð Writing, Reading, Viewing and Representing, and Speaking and Listening Ð assessed on the Tennessee State mandated Gateway Language Arts exam.

**English III (Adaptive), English III (Fundamental), English III (Regular)**

A course which includes a survey of American literature with an emphasis on analytical skills in composition and discussion. Grammar and vocabulary development continue to be a focus for these students who may be college found. Special emphasis is placed upon persuasive writing which is assessed by the state of Tennessee at this grade level.

**English III (Standard/College Prep)**

A course for students who have successfully demonstrated an average or above average ability to perform on-grade-level language, analytical, composition and reading skills. The curriculum includes further development in literary analysis, vocabulary development, composition, and research. All students prepare for the
Tennessee Comprehensive Assessment Program Writing Assessment that requires a rough draft persuasive essay in response to an assigned prompt within a limited time period (25 minutes).

**English III AP (Advanced Placement)**

A course for students who have successfully completed Honors English II or have demonstrated competency in composition and rhetorical skills. The curriculum includes an in-depth study of major literary works, writers, and social/intellectual movements with an emphasis on analysis, research, and composition. Students will be expected to think critically and analytically and be able to express themselves effectively. Summer readings are required. The course is designed to help develop the cognitive and communicative skills necessary to do well on the AP English Language and Composition Test. All students prepare for the Tennessee Comprehensive Assessment Program Writing Assessment that requires a rough draft persuasive essay in response to an assigned prompt within a limited time period (25 minutes).

**English IV (Adaptive), English IV (Fundamental), English IV (Regular)**

Designed for students who are developing skills for success in both college and/or the work force. The literature component focuses on a survey of British literature with continued development of literary analysis skills. Writing, grammar, and vocabulary continue to be emphasized along with other skills assessed by college entrance examinations.
**English IV (Standard/College Prep)**

A course for students who have successfully demonstrated an average or above average ability to perform language, analytical, composition and reading skills. The curriculum includes further development of analytical, composition, and research skills in preparation for college English.

**English IV AP (Advanced Placement)**

A course for students who have successfully completed Advanced Placement English III or demonstrated competency in composition and literary analysis skills. Students must be highly motivated and have above average writing and analytical skills. The curriculum is an in-depth study of English/World literature with expectations commensurate with the first year of college English. Summer readings are required. The course is designed to help develop the cognitive and communicative skills necessary to do well on the AP English Literature and Composition Test.
Appendix E

This handout was given by the researcher to each English class at Central High School. The researcher went over the handout with each class.

What is a Weblog?

By definitions, weblogs are frequently updated websites with short post that are usually dated and organized in reverse chronological order. Weblogs are usually public (meaning anyone can look at them and make comments/posts on them).

What benefits are there to utilizing a Weblog?

Weblogs have MANY potential benefits; however, to get those benefits, you have to use them.

Some of the benefits are:

Allow you to communicate with your classmates outside of school. For example, if you left your homework assignment at school, you could go on the blog and ask someone if they could tell you what you were assigned to do that night.

Weblogs help build a classroom community. In other words, it is a great place to socialize with your friends.

Weblogs can help improved your technological skills. You can post pictures, upload files, post links or just read and write on the blog. Regardless, by doing these things, you can improve your skills on the computer.

Weblogs can help improve your reading and writing.

Weblogs provides you a place to reflect on what you have learned and to hear
and reflect on what others have learned.

Do we have access to a weblog?

This year you do! This is the first year that CHS will have a weblog. Other schools around the country have them, and I would dare say that some of you or your friends have them. However, this year the CHS English Department has create a blog called Central High School Blog to give you an additional “tool” to use in being successful in your course work.

How do I use the weblog?

If you follow these steps, using the blog will be easy!

Get on the Internet and type in the address (URL) of the CHS Blog:

http://bobcatblog.edublogs.org/

Once you have done this, you should see a page that looks like this.
3. Just click on the link to your class and it will take you to your class homepage.

Once you are on your class homepage, you should see a screen that looks like this:

Each home page has two pages associated with it: Class Work or Miscellaneous. If you want to make a comment or ask a question about something related to class, click on the Class Work page. All other comments should be made on the Miscellaneous page.
Finally, once you click on one of the two pages, you should see a page like this.

7. To leave a comment, fill in the appropriate boxes. Yes, you are required to put in your email, but no one, including the instructor, will be able to see your email. Once you have written your post, just click on Submit.

A word of warning:

This is a school related weblog. All comments or material placed on this weblog should be appropriate for the school environment. Any posts that are not appropriate will be immediately deleted, and students will face possible disciplinary action in the office.
“Free Speech’s Tangled Web: Schools weigh First Amendment rights against potentially harmful comments”

By ERICKA MELLON, mellone@knews.com

At least three high schools in the Knoxville area have disciplined students recently for comments they posted on MySpace, although the students seemingly wrote the comments off school grounds.

Administrators at Powell High School recently suspended three students for posing as a teacher and writing inappropriate comments on MySpace, according to Russ Oaks, spokesman for the district.

After consulting with the district's security chief, Steve Griffin, and the Knox County Law Department, administrators at Powell decided to suspend two sophomores and one junior. Their suspensions varied, based on their involvement, from nine to 15 to 30 days, Oaks said.
The Knox County Sheriff's Office also investigated the incident at Powell. The information now is in the hands of the Knox County District Attorney General's Office, which must decide whether or not to prosecute the students, said Sheriff's Office spokeswoman Ashley Carrigan.

At Maryville High School, Assistant Principal Lynn Brown said the school resource officer last month reprimanded some students who went on MySpace off school grounds and "belittled or made fun of another kid." After a student complained to school officials, it became the school's terrain, Brown said.

School English Blog can be accessed at

http://******.edublogs.org/
Appendix F

Central High School English Blog Questionnaire

Please take time to fill out the information below. Even if you did not use the weblog, I am interested in your answers. Please be honest in your answers and elaborate on any comments. Thank you.

Circle the correct response.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My age is</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>2. My gender is</td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>3. Do you have a</td>
<td>Desktop</td>
<td>Laptop</td>
<td>Both</td>
</tr>
<tr>
<td>4. Do you use</td>
<td>Windows</td>
<td>Mac</td>
<td>Both</td>
</tr>
<tr>
<td>5. How many hours a week do you spend on the computer at home?</td>
<td>1-3</td>
<td>4-6</td>
<td>7-10</td>
</tr>
<tr>
<td>6. How many hours a week do you spend on the computer away from home (school, friends, etc.)?</td>
<td>1-3</td>
<td>4-6</td>
<td>7-10</td>
</tr>
<tr>
<td>8. Do you use instant messaging?</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>9. If the answer to question 8 is “yes,” how often do you use instant messaging?</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily</td>
</tr>
<tr>
<td>10. Do you look at MySpace or similar Internet services?</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily</td>
</tr>
</tbody>
</table>
11. If the answer to Question 10 is “yes,” how often do you look at these?

12. Do you have a MySpace page? | Yes | No |

13. If the answer to Question 12 is “yes,” how often do you update your page? | Monthly | Weekly | Daily | Never |

14. Have you ever used a weblog before? | Yes | No |

15. If the answer to Question 14 is “yes,” how often do you use weblogs. | Monthly | Weekly | Daily | Never |

16. Do you have or have you ever had a personal weblog? | Yes | No |

17. Did you use the class weblog, Central High School English Blog? | Yes | No |

**Short answer.**

If you answered “Yes” to Question 17 above, please skip down and answer Question 19. If you have additional comments, please go to page 4.

18. Please explain why you did not use the weblog this semester?
19. Please explain why you initially decided to use the class weblog. Did your motivation change over the course of the semester?

20. What did you use the weblog for primarily (homework, questions, socializing, etc)?

21. Do you think that using the weblog helped your learning in the class or in general? Please address why or why not.

22. How would you characterize the frequency of your use of the class weblog:
   Daily user   Weekly user   Monthly User   Less than Monthly

23. Where did you primarily access the weblog from?
   School   Home   Other: (Please Explain)
24. What did you like best about the weblog?

25. What did you like least about the weblog?

26. How would you change the weblog to make it better?

Additional comments:
Appendix G

Dear Colleague,

Please find enclosed a survey concerning your students’ use of the Bobcat Blog. There are enough surveys included for each of your students. Please have the students complete the survey and return to you. Please be sure to encourage all students to complete the survey, even if they did not use the weblog. Once all the surveys have been returned, please put them back in the envelope and place it in my box. Again, thank you for your assistance in this matter.

Sincerely,

Kevin Thomas
Vita

Kevin Mark Thomas was born in Knoxville, Tennessee on August 2, 1964. He spent most of his youth in Columbia, South Carolina. In 1977 he moved to Seymour, Tennessee and graduated from Seymour High School in 1982. He earned a Bachelor of Arts degree in Academic Psychology from the University of Tennessee in 1982. He worked in the mental health field before returning to school to pursue a degree in education. He graduated from Trinity College of Vermont in 1992. After returning to Knoxville, Tennessee in 1993, he began teaching as an English teacher at Karns High School in the Knox County School System. While teaching at Karns High, Kevin earned a Masters of Science degree in Administration and Supervision from Lincoln Memorial University. In 2000, Kevin transferred to Central High School, also in Knox County, where he continued to teach a variety of English classes. Kevin began working on his Doctorate of Education with a specialization in Instructional Technology in 2001.