

THE INTERNET'S INFLUENCE ON LITERACY INSTRUCTION AND LITERACY  
DEVELOPMENT IN A MIDDLE-SCHOOL LANGUAGE ARTS CLASSROOM

by

JACQUELYN MC CLAIN CULPEPPER

(Under the director of David Reinking)

ABSTRACT

This instrumental case study explored how one exemplary eighth-grade language arts teacher's use of the Internet influenced literacy instruction and literacy development in her classroom. A transformative view of literacy and technology, suggesting a continual redefining of literacy as it converges with new technology, was the theoretical perspective that guided this investigation with 23 students and their teacher. The study attempted to capture the participants' own words by collecting the data during a four-month period in six formats: (a) descriptive fieldnotes of classroom observations; (b) email with the teacher; (c) transcriptions of informal interviews; (d) print outs of students' online discussions; (e) open-ended questionnaires; and, (f) samples of students' projects for which they used the Internet. The findings of this study are reported as a set of five assertions: (1) The use of the Internet influenced the teacher's literacy planning and instruction by facilitating the location of appropriate instruction material; (2) The use of the Internet facilitated a learning environment that encouraged student-centered, collaborative learning; (3) The use of the Internet positively affected aspects of students' reading and writing, specifically their motivation to read, their critical reading skills, and their sense of audience and word choice; (4) The use of email influenced the learning context by expanding the teacher's contact with students and parents beyond the classroom; and (5) The use of the Internet promoted new instructional outcomes and learning goals related to using digital materials, although the teacher did not abandon conventional goals. Innovations in technology are as ongoing as is the process of transformations in the use of technology in the classroom. This study's close observation of how and why the teacher created new possibilities for literacy and learning with the Internet may inform other teachers as they continue to address the problems associated with using the resources of today's technology such as the Internet in their classrooms to enhance literacy learning. Further examination is needed, however, to explore the Internet's influence of students' literacy development.

INDEX WORDS: Internet, Literacy Instruction, Literacy Development, Transformative Stance, Instrumental Case Study, Middle School, Language Arts

THE INTERNET'S INFLUENCE ON LITERACY INSTRUCTION AND LITERACY  
DEVELOPMENT IN A MIDDLE-SCHOOL LANGUAGE ARTS CLASSROOM

by

JACQUELYN MC CLAIN CULPEPPER

B.A., Baylor University, 1967

M.Ed., University of Louisville, 1986

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial  
Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2002

© 2002

Jacquelyn McClain Culpepper

All Rights Reserved

THE INTERNET'S INFLUENCE ON LITERACY INSTRUCTION AND LITERACY  
DEVELOPMENT IN A MIDDLE-SCHOOL LANGUAGE ARTS CLASSROOM

by

JACQUELYN MC CLAIN CULPEPPER

Approved:

Major Professor: David Reinking

Committee: Donna Alvermann  
James Baumann  
Michelle Commeyras  
Linda Labbo

Electronic Version Approved:

Maureen Grasso  
Dean of the Graduate School  
The University of Georgia  
December 2002

DEDICATION

*It is with great excitement  
along with a sigh of relief  
that I dedicate this dissertation to my loving husband,  
Alan Culpepper,  
my muse and greatest supporter*

## ACKNOWLEDGMENTS

This dissertation is the culmination of years of perseverance and was made possible through the influence and support of many people. First, I wish to acknowledge the members of my doctoral committee: David Reinking, who chaired this dissertation, Donna Alvermann, Jim Baumann, Michelle Commeyras, and Linda Labbo. I wish to give sincere thanks to Dr. Commeyras who was my first mentor in the program and who let me dare to journey in another direction. Although I have not had the opportunity to work closely on this study with Dr. Alvermann, Dr. Baumann, or Dr. Labbo, I thank them for their willingness to encourage me to complete this journey and for their suggestions for polishing this dissertation. I wish to especially thank Dr. Reinking for agreeing to guide me through this study, for the interest he showed in my study, and for the amount of time he afforded me. Through his exemplary guidance, my first research endeavor became a pleasant learning experience. He willingly guided me through multiple drafts of each chapter as he used the editor's tools on the computer to respond to each draft, and he promptly sent them electronically back to me.

I wish also to express my appreciation to my colleagues at Mercer University, Atlanta campus, who have always believed I would complete this journey. Thank you, Allison, Darlene, Mary, Mack, Bruce, Chris, Ismail, and Colin for your words of encouragement and advice on how to survive the arduous task of writing a dissertation.

Finally, I give special thanks to my family, Alan, Vaughn, Erin, Rodney, Chris, and Kristi, who have remained patient and encouraging during this long journey.

## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS .....	v
CHAPTER	
1 INTRODUCTION .....	1
Statement of Problem.....	1
Research Question .....	6
Significance of the Study .....	6
Method of Study .....	8
Definition of Terms.....	9
Researcher’s Transformational Perspective.....	11
Summary and Organization of the Dissertation.....	13
2 REVIEW OF RELEVANT LITERATURE .....	14
Introduction.....	14
Theoretical Orientation .....	15
Is there evidence that use of the Internet transforms literacy instruction and the learning environment?.....	21
Does use of the Internet transform students’ approach to reading and writing? .....	28

	Does use of the Internet transform teacher, student, and parent connections?.....	31
	Does use of the Internet transform instructional outcomes and learning goals? .....	35
	What are the characteristics of a “new literacy” classroom? .....	37
3	METHOD .....	41
	Introduction.....	41
	Setting .....	43
	Participants.....	49
	Researcher’s Stance .....	53
	<i>Etic/Emic</i> Perspectives.....	54
	Data Sources and Data Collection .....	55
	Ethical Perspective.....	63
	Establishing Triangulation.....	64
	Data Analysis.....	65
4	FINDINGS.....	69
	Introduction.....	69
	Assertion 1 .....	71
	Assertion 2 .....	78
	Assertion 3 .....	83
	Assertion 4 .....	90
	Assertion 5 .....	93

Conclusion .....	95
5 DISCUSSION, IMPLICATIONS, AND LIMITATIONS .....	97
Introduction.....	97
Discussion.....	98
Implications.....	107
Limitations, Future Research, and Conclusion.....	111
REFERENCES .....	114
APPENDICES .....	129
A DESCRIPTION OF ONE CLASSTIME.....	130
B SAMPLE OF FIELDNOTES .....	137
C MS. TAYLOR’S RESPONSE TO THIS REPORT.....	139
D OUTLINE OF DATA ANALYSIS .....	141
E SLAVE NARRATIVE, “RICHARD TOLER”.....	151
F RESPONSE TO PICTURES FROM HOLOCAUST .....	155
G STREAM-OF-CONSCIOUSNESS RESOPNSE TO QUOTE .....	157
H ONLINE BOOK REVIEW.....	159
I FOUND POEM FROM HOLOCAUST LITERATURE.....	162

## CHAPTER 1

### INTRODUCTION

*I teach language arts in a middle school which focuses on the communication skills of reading, writing, and speaking. ...My goal in language arts is for my students to discover their inner voices, recognize areas for improvement, and polish their communication skills. With the magic of Internet, all three come together at my students' fingertips. ...Internet in the classroom is not a new education fad that is here today and gone tomorrow; it is a necessary tool that provides students with a peek at tomorrow.*

From a middle school language arts teacher, 3/17/02

#### Statement of Problem

These are the words of a middle school language arts teacher who believes she has discovered a “magic” of Internet use in her classroom. Undoubtedly the Internet is changing the ways we work, communicate, and spend our leisure time, but is Internet use, as the above quote hints, changing how teachers teach and how students learn? Many argue that the Internet is changing the nature of literacy instruction and literacy development in today's classrooms by introducing readers and writers to information and means of communication not typically found in traditional pedagogy (Kellner, 2000; Labbo & Reinking, 1999; Leu, 2001; Reinking, Labbo, & McKenna, 1998). Although some may contend that the Internet has little to do with how we understand literacy and literacy instruction in today's classrooms, others (Leu & Kinzer, 2000) suggest we are in the midst of a convergence of literacy instruction with the use of the Internet for information and communication. Furthermore, Leu (2000) and others (e.g., Bolter, 1991; Bruce, 1997; Leu & Kinzer, 2000; Reinking, 1998; Wilhelm, 2000) have reminded us that change has always defined literacy and that literacy involves gaining the skills and

knowledge to read and interpret the text of the world and to make and communicate meaning.

An example of such change can be seen in the widespread introduction in the past few years of Internet access in the schools. Although Cuban (1986) cautioned that many technologies such as instructional television were once heralded as innovative and then later discarded, schools are investing substantially in computers and Internet access. According to the National Center for Educational Statistics [<http://nces.ed.gov/fastfacts/>], between 1994 and 2000 the percentage of public schools with Internet access increased from 35% to 98%. By Fall, 2000, 77% of instructional classrooms had at least one computer with Internet access, compared to only 3% of classrooms in 1994. Even though these statistics indicate that most public schools have Internet access, it is more difficult, as Bruce (1996) pointed out, to see if or how teachers' and students' lives are changed by connecting classrooms to the Internet.

Unfortunately, and in part due to continual change in today's technologies, the issue of how Internet use is integrated into the classroom and how it affects literacy and learning remains largely unresearched (Kamil, Intrator, & Kim, 2000; Kellner, 2000; Leu, 2000). In fact, technological changes often occur faster than they can effectively be evaluated (Kamil & Lane, 1998). The nature of literacy, in light of evolving technologies, including the Internet, seems to be transforming as newer technologies and ideas for their use appear (Alvermann & Hagood, 2000; Leu, 2002; Leu, Karchmer, & Leu, 1999; Reinking, McKenna, Labbo, & Kieffer, 1998). Although a number of literacy researchers (e.g., Karchmer, 2001; Labbo & Reinking, 1999; Leu, 2000; and Reinking, McKenna, Labbo, & Kieffer, 1998) have been exploring the changing nature of

literacy, only a dearth of empirical research exists that evaluates the Internet's effects on literacy and learning in the classroom (Kamil, Intrator, & Kim, 2000; Leu, 2000).

Therefore, the belief that Internet use may hold much promise for transforming learning and teaching practices (e.g., Karchmer, 2001; Kellner, 2000; Labbo & Reinking, 1999; Leu, 2000; Leu, Karchmer, & Leu, 1999; Leu & Kinzer, 2000; Reinking, 1998) merits investigation. Furthermore, Leu's (2000) prediction that the most important area of reading research for the near future may well be the potential of Internet resources for classroom learning adds urgency to this gap in our knowledge:

[W]e require important new work evaluating how teachers optimize learning within the Internet, how new envisionments for literacy are initiated by this resource in the classroom, how the Internet may restructure traditional student-teacher relationships, and a host of issues related to the use of Internet technologies in the classroom settings. It is likely that this will be the most important area of research in the near future as this powerful resource enters classrooms around the world. (Leu, 2000, p. 756)

Because I teach pre-service and in-service middle school teachers in a graduate reading education program, I chose to focus on how Internet use in the classroom may be transforming the learning and teaching practices in a middle-school language arts classroom. My intent was to explore if integrating the Internet into the middle-school classroom causes change in what is read and written, how teachers teach, and what students do in their classrooms.

Teachers, however, often seem ill-prepared to deal with such changes brought about by integrating the Internet into the classroom. The National Center for Educational

Statistics noted in its Fall 2000 report entitled *Teachers' Tools for the 21<sup>st</sup> Century: A Report on Teacher's Use of Technology* that only 10 % of classroom teachers described their feelings of preparedness to use the Internet for classroom instruction as "very well prepared" [<http://nces.ed.gov/pubs2000/2000102A.pdf>]. The report also noted that teachers with three or fewer years of teaching experience generally were more likely to rate themselves as well prepared than teachers with more teaching experience.

Preparation for teachers in effective classroom use of the Internet has become an important issue in the educational community. Some states are requiring more of their teachers. For instance, Georgia's House Bill 1187 (2000) [<http://www.doe.k12.ga.us/communications/releases/hb1187summary.html>] mandates that holders of a renewable certificate must pass a computer skills competency test before they can receive certification renewal. An alternative to passing such a skills competency test for certificate renewal purposes is successful completion of the phase one InTech [that is, Georgia Framework for **Integrating Technology** into the Student-Centered Classroom] training at a state educational technology training center or by a State Board of Education redelivery team. Georgia's InTech Training involves 50 hours of lab training and is offered on the elementary, middle school, or high school levels.

Today's classroom teachers should be able to teach their students more than a literacy that is confined to traditional reading and writing and carried out in a linear medium (Leu, 2000; Reinking, 2001). In a recent study, however, involving 41 members of the Reading Hall of Fame, an independent list of leaders in the field of reading education, Baumann and fellow researchers (2000), found that their respondents tended to downplay the use of technology in literacy instruction and literacy development.

Given the dramatic convergence of Internet into today's world, it is odd that these leaders did not regard the Internet use as an important issue for today's classroom teacher. Leu's warning (2000) is an opportune offer of advice for today's educators:

Traditionally, we have selected teachers who were already literate and could pass their literacy along to our children. Now, however, the very nature of literacy is regularly changing because of new information and communication technologies. Many teachers literate in older technologies quickly become illiterate as newer technologies of information and communication replace previous technologies. If educators fail to continually become literate with rapidly changing technologies, how will they help their students become literate? (p. 763).

Today, many teachers use technology in perfunctory ways that fit what they have always done (Becker, 1993; Cuban, 1986). That is, they do not integrate technology in ways that transform their instruction or that acknowledge the new literacies implied by new technologies' hypertext reading and writing. Staff training, such as Georgia's InTech Program, does not assure that today's teachers will integrate technology such as the Internet into their own classrooms. For that to happen, according to John Wiggins (2001), state director of InTech Training, insists, "You have to give teachers time to own it: when they see a student stay engaged and get excited—that's when they know this is something they want to use more often" [conversation, October 5, 2001].

Because the issue of how Internet use is integrated into the classroom and how it affects literacy and learning remain largely unresearched, it is important to acknowledge the exploratory nature of my study. Exploratory studies such as this contribute to the

research that is essential to begin to define how the Internet may restructure traditional literacy instruction and literacy development.

### Research Question

The purpose of this study was to explore the overall question, “In what way, if any, does use of the Internet influence literacy instruction and literacy development in a middle-school language arts classroom?” Embedded in this overall question were questions such as the following: (a) Does use of the Internet transform literacy instruction and the learning environment? (b) Does use of the Internet transform students’ approach to reading and writing? (c) Does use of the Internet transform teacher, student, and parent connections? And (d) Does use of the Internet transform instructional outcomes and learning goals? I addressed the overall question and these four embedded questions through the use of the case study method aimed at providing what Merriam (2001) referred to as “intensive descriptions and analyses” (p. 19).

### Significance of the Study

Specifically, this study explored how one exemplary middle school language arts teacher is using the Internet with her students. This study responded to a call (Karchmer, 2001; Leu, 2000) for new research on the potential of the Internet for classroom learning. Moreover, this study attempted to discover what ways, if any, the Internet influences literacy instruction and learning. As I began the study, I was mindful of Marshall McLuhan’s (1964) well-known dictum concerning technologies of communication: The medium is the message. If no tool is value neutral or without influence on the message it delivers, then the medium, which for this study was the Internet, is an integral part of the

message. What that means in terms of the Internet's influence on literacy instruction and development was what I attempted to discover.

Most fundamentally, this study was worth investigating because its findings may add to the current discussion in literacy and technology by providing an analysis of how one language arts' teacher created within her classroom new possibilities for literacy and learning with the Internet. Examples of effects of Internet use in the classroom that emerged from this study included how Internet use restructures traditional student-teacher relationships; and how individual differences among students relate to Internet use.

Although much is yet to be known about how the Internet's use in technology-rich classrooms effects the learning environment, the findings of this study contribute to those findings of recent studies of students using the Internet in their classrooms or computer labs. This study supports Bruce's (1997c) claim that reading and creating with hypertext is transforming students' reading and writing in today's language arts classrooms. For example, the Internet provides assistance to reading instruction with its on-line dictionary, thesaurus, and tools such as highlighter as well as additional information for the text at hand. The Internet is believed by some to be a tool with which we can transform communications among teacher, student, and parent (Luke, 2000; McKeon, 2001). Leu (2000) and others have identified this issue of how the Internet may transform communications to be an important area of research as the Internet becomes a more common resource in today's classrooms. The findings of this study revealed several ways the Internet is transforming traditional student-teacher-parent relationships.

History teaches that any time new technology is introduced, whether it is a printing press or a horseless carriage, individuals are first inclined to use it as they used the

traditional technology it replaces (Cuban, 1986; Means, 1994), and history often repeats itself. Although many literature teachers are using the Internet only superficially when it is available, some teachers are optimizing learning by using the Internet in interesting ways. For them, the question is not if the use of the Internet in the literature classroom is good or bad or even if it should be used, but rather how they can instruct their students to use the Internet in appropriate and beneficial ways. But what explains the differences between teachers who meaningfully and effectively integrate the Internet into their instruction and those who do not? More importantly how might teachers who do not gravitate toward Internet use be encouraged to do so? This study attempted to shed light on those questions. That is, part of the answer lies in understanding why and how language arts teachers who are integrating the Internet into their teaching came to do so and what the effects of Internet use are on their teaching and their students' literacy. Furthermore, the new insights and new models of instruction developed by this exemplary teacher may support work in the area of faculty development.

#### Method of Study

I chose an instrumental case study research design for this study because the case was used instrumentally to illustrate the issue (Creswell, 1998; Stake, 1995). This type of case study is referred to as an instrumental case study because its focus is on a particular issue (Internet's influence on literacy instruction and literacy development) rather than on the case (students and teacher in a middle-school language arts classroom) itself. The case then becomes a medium for better understanding the issue (Stake, 1995). Although Yin (1994) defined case study as a methodological choice, Stake (1994, 1995) and others (Merriam, 2001; Miles and Huberman, 1994) have viewed case study as a choice of

object to be studied. This inquiry was the study of a “bounded system” (Creswell, 1998, p. 61) where the focus was on the issue of Internet’s use in one eighth-grade classroom and its influence on literacy instruction and literacy development as perceived by the teacher and her students (Creswell, 1998; Stake, 1995). The case study design was also deemed the best choice for this study because as an observer, I had no control over the set of events and did not know ahead of time what would become the major themes of the findings (Merriam, 2001, p. 32).

### Definition of Terms

#### Analysis of themes

Following the description component, data was analyzed for specific themes, gathering information into large clusters of ideas. Then details were provided that supported these themes. Stake (1995) calls this analysis “development of issues” (p. 123).

#### Assertions

This, the last step in the analysis, is where I will make sense of the data and will provide an interpretation of the lessons I have learned (Lincoln & Guba, 1985; Stake, 1995). The assertions will be phrased in terms of my personal views.

#### Bounded system

The “case” selected for this study had definite boundaries of time and place (Creswell, 1998). The time was January 28, 2002 until May 22, 2002. The place was one 8<sup>th</sup> grade language arts classroom in a suburban middle school located in a southern state. Its interrelated parts (lesson plans, students’ comments and products, teacher’s

view of the learning going on in the classroom) formed a whole. Therefore, the case studied was both “bounded” and a “system” (Stake, 1995).

### Case

Stake (1995) considers the “case” as the object of study, and Miles and Huberman (1994) consider the case as “a phenomenon of some sort occurring in a bounded context” (p. 25). In this study, the bounded context was one language arts classroom, and the phenomenon or object of study was the use of the Internet and its effects on literacy instruction and literacy development within that classroom.

### Categorical aggregation

This is an aspect of data analysis in case study research where the researcher looks for a collection of instances from the data in hopes that issue-relevant meanings, or themes, will emerge (Stake, 1995).

### Constant-comparative method

This method of data analysis was developed by Glaser and Strauss (1967) as the means of developing ground theory. This method has been adopted by many researchers who are not seeking to build substantive theory (Merriam, 2001) because its basic strategy is simply to constantly compare data. From comparing the data, categories are identified that capture the participants’ perceptions of the problem.

### Literacy

The Internet’s capabilities are transforming the traditional definition of literacy by creating an electronic environment wherein we can continuously interact with electronic texts. Willinsky (1990) defined this “new literacy” as consisting of the following,

those strategies in the teaching of reading and writing which attempt to shift the control of literacy from the teacher to the students; literacy is promoted in such programs as a social process with language that can from the very beginning extend the students' range of meaning and connection" (Willinsky, 1990, p. 8).

Kellner (2000) preferred the term "multiple literacies" and defined it to be "gaining the skills and knowledge to read and interpret the text of the world and to successfully navigate and negotiate its challenges, conflicts, and crises" (p. 249).

#### New literacy classroom

Based on Kist's (2000) suggestions, a new literacy classroom would include some or all of the following features: ongoing, continuous use of multiple forms of representation; explicit discussion of symbol usage, past and present; ongoing meta-dialogues in an atmosphere of cognitive pluralism; a balance of individual and collaborative activities; evidence of student engagement; work centered around projects; and a balance of choice and collaborative activities.

#### Researcher's Transformational Perspective

My interest in the use of Internet is best described in what Reinking (1998) and others (Bruce, 1997; Labbo, 2000) have identified as the "transformational" perspective. That is, I see new technology as having potential to transform teaching and learning. The transformational perspective reinforces the point that this study appears at a time during which the potential effects of the Internet on literacy have not yet been fully realized or recognized (Reinking, 1998).

I am a former middle school language arts teacher, former high school English teacher, and presently a university instructor who teaches reading education classes for

pre-service and in-service teachers. I began using computers in 1983 as a word processor. Then in the late 1980's when I was the high school yearbook advisor, I learned how, and taught my staff, to compose layouts and text on the computers. When I left teaching high school English in 1991 we were still developing and printing our own pictures. We submitted pictures and layouts by hardcopy. We never dreamed of the speed and convenience of a digital camera.

In 1991 when I began teaching at the university level as an instructor, I learned to use the computer for yet another purpose, to communicate with others. Every faculty member (106 in the School of Education) used email much more than their phones to communicate with colleagues and others. I learned how to use the software program *Inspiration* there and taught my students to use it when they constructed webs. Through TENET (Texas Education Network), students in my young adult literature classes shared comments with high school students in two other cities on the novels they read. While teaching at this university, I also used *HyperCard* stacks with my young adult literature students to record the novels we each read.

Since moving to another university's faculty in 1996, I have learned how to create Power Point presentations, how to use Front Page to create web pages, how to put my syllabi on the Web, how to input pictures taken with a digital camera, how to create "threaded discussions" in "chatrooms," how to create WebQuests and WebHunts, and how to use Galileo and library online catalogues to locate relevant sources for research and teaching. My students weekly email me their reading logs so that I can maintain a kind of dialogue journal on-line with each of them. I regularly share my favorite web sites with my students and encourage them to share theirs with the class.

As I learn new ways of using technology to enhance teaching and learning in my classes, I am aware of how my own teaching is changing. I continue to be fascinated by the learning possibilities Internet may afford students and continue to be motivated by my own desire to use technology as a natural and intimate part of my praxis.

### Summary and Organization of the Dissertation

This dissertation consists of five chapters. Chapter 1 provides a statement of the purpose for exploring Internet's influence on literacy instruction and literacy development, presents the guiding questions of the study, discusses the significance of the study, and imparts the method of the study so that the reader is informed as to how the study came to be. I have also included definition of terms and my personal background in teaching and in technology (as suggested by Stake, 1995). Chapter 2 includes a discussion of the theoretical perspective that guided this study and a review of the relevant literature on the Internet's effects on literacy instruction, literacy development, the learning environment, teacher, student, parent connections, teacher education and staff development programs, and the teacher's role in tomorrow's new literacy classroom. Chapter 3 details the research methods used for this study, including its setting, selection of participants, researcher's stance, *etic/emic* perspectives, data resources and data collection, ethical issues, establishing validity, and data analysis. Chapter 4 presents the findings of this case study in the form of five assertions, each supported by explanation and examples. Chapter 5 begins with a discussion of the findings and continues with implications for practice, and concludes with an explanation of the study's limitations and suggestions for further research and overall conclusion of the study.

## CHAPTER 2

### REVIEW OF RELEVANT LITERATURE

#### Introduction

I begin this chapter with an argument for using a “transformative” position in relation to literacy and technology (Bruce, 1997; Labbo, 2000; Reinking, 1998). A transformative view of literacy and technology, suggesting a continual redefining of literacy as it converges with new technology, was the theoretical perspective I took as I explored the Internet’s possible influence on literacy instruction and literacy development in one middle school language arts classroom. This theoretical orientation guided my observations in the field, the questions I asked participants, and the documents I collected (Merriam, 2001).

The transformative perspective also guided the questions I used to frame this review of relevant literature. These framing questions, which are discussed in the current literature, are as follow:

1. Is there evidence that use of the Internet transforms literacy instruction and the learning environment?
2. Does use of the Internet transform students’ approach to reading and writing?
3. Does use of the Internet transform teacher, student, and parent connections? and,
4. Does use of the Internet transform instructional outcomes and learning goals?

I close the chapter with a description of transformations that some researchers are recommending for what they see as today's "new literacy" classroom (Baker, 2001; Kellner, 2000; Kist, 2000). Descriptions of such new literacy classrooms provide examples of ways at looking at transformations occurring in the classroom.

This review provides an overview of literature relevant to my study. With the studies I address under each of the framing questions, I attempt to show how the studies relate to my study and how my study may add something not yet addressed in the current literature. Following a description of what is being referred to as "new literacy" classroom, I attempt to describe how my study adds to the discussion and literature on transformations occurring in today's technology-rich classrooms as I focus on the Internet's influence on literacy instruction and literacy development in one classroom. Hence, the literature review provides a foundation for understanding how my study's findings add to current knowledge of how the use of the Internet is redefining literacy instruction and literacy development in middle-school language arts classrooms.

#### Theoretical Orientation

The question of how to describe the nature of literacy in light of new computer technologies, especially the Internet, is a current issue for many members of the literacy community (Bruce, 1997; Leu & Kinzer, 2000; Reinking, McKenna, Labbo, & Kieffer, 1998). Leu and Kinzer (2000) noted, "The convergence of literacy instruction with Internet technologies is fundamentally reshaping the nature of literacy instruction as teachers seek to prepare children for the futures they deserve" (p. 111). Justification for an increasingly closer relationship between literacy and technology can be found throughout history as the use of new technologies have contributed to the reshaping of the

nature of literacy and literacy instruction (Kaufer & Carley, 1993). For instance, Johannes Gutenberg's invention of the printing press with its movable metal type is commonly thought of as the origin of mass communication (McLuhan, 1964). However, it should be noted that the invention of the printing press did not by itself cause mass communication throughout the world. In fact, the realization of mass communication was complex, involving too many important factors to lay claim that only one single factor caused such a change in how communication occurred among people. Similarly, new technology such as the Internet should not by itself be credited with reshaping the nature of literacy instruction and development.

Various perspectives have been proposed in the literature on literacy and technology to better understand the relation between the two. Bruce (1997b) suggested that educators and researchers might choose to view technology's role in literacy from any of a number of stances: neutral, oppositional, utilitarian, skeptical, transformative, aesthetic, or transactional. Leu (2000) suggested three possible views that may lead to important insights about the relation between literacy and technology: a transformative view observing technology transforming literacy, a transactional view observing technology transforming literacy as well as literacy transforming technology, and a deictic view observing rapid and continuous changes in the nature of literacy. Reinking, McKenna, Labbo, and Kieffer (1998) chose a transformative stance for their recent handbook on literacy and technology as they emphasized that the nature of literacy as it has been known is being rapidly redefined in light of today's new technologies.

A transformative stance, observing that the use of technology can transform the nature of literacy, represents something different from merely recognizing a new

relationship between literacy and technology that replaces an older relationship. Hence, a transformative position goes beyond what Bruce (1997b) termed a “utilitarian” stance that merely views new technology as offering nothing more than useful new tools for traditional teaching and learning in the classroom. A transformative stance represents a theoretical perspective for interpreting and understanding how new technology, as noted by Reinking, Labbo, and McKenna (2000), moves teachers from merely adding new technologies for reading and writing into their existing schemata, which they compare to the Piagetian process of assimilation, toward continually creating new schemata or changing old ones to incorporate the new technologies, like the Piagetian process of accommodation. Those who favor a transformative approach view the future with uncertainty. They believe, however, that the end result will be positive, and they see their task is to understand and to help shape literacy’s transformation (Bruce, 1997b; Reinking, 1998).

It is this transformative perspective that has guided my study. I chose this stance because it enabled me to observe and understand how the potential power of the Internet (Negroponte, 1995) might be a stimulus for transforming literacy instruction and literacy development in one middle school language arts classroom. I observed, for example, how online discussion groups of what the teacher called “rich text,” student-created web pages with illustrations and sound, students’ use of laptops during class time, and the use of email by teacher, students, and parents might be a stimulus to transforming literacy instruction and literacy development in the classroom. Although my data cannot document a transformation of literacy instruction as it occurred prior to my data collection, my data can illustrate a transformative journey the teacher and students were

engaged in together. The transformative perspective thus enabled me to view my research as a study that addresses potential transformations of literacy instruction “at a time during which the potential effects” of the Internet on literacy “have not yet been fully realized or recognized” (Reinking, 1998, p. xviii).

Attempts to respond to the question, “Does technology play a strong or weak role in shaping literacy?” (Reinking, 1998, p. xviii) are often related to the notion of “technological determinism.” Thurstein Veblen is credited with having coined the notion of “technological determinism” when he questioned, in *The Engineers and the Price System* (Veblen, 1921), the role technology had in shaping our future and how the new tools determined our behavior. Technological determinism may be described in terms of degree on a scale from strong, or extreme, at one end, to soft, or weak, on the other end. McLuhan’s famous assertion of “The medium is the message” (McLuhan, 1964, p. 7) is often cited as an example of extreme technological determinism. This position views technology as the autonomous force that changes society. This view seems to deprive us of the possibility of making a difference in how, when, or why we may choose to use media. A sociocultural position that tends toward the soft end of the scale would place importance in our free will for deciding how, when, and why we choose or not choose to use the new technologies. Bruno Latour’s work (Latour, 1988, 1991) reflects his interest in sociocultural factors as he encourages the qualitative researcher to focus less on the new technology and its attributes and more on the ways the new technology is used in daily practices.

Although I view technological determinism to be extreme with its emphasis on the inevitability of uncontrolled machine-based advance (Ambrose, 2000), I agree with

McLuhan's (1964) contention that although technology's effects may come about inevitably, we are not powerless to deal with them (see Gordon's, 1997, comments on McLuhan's legacy in *Marshall McLuhan: Escape into understanding*). I also agree with the premise that "technology will inevitably continue to evolve, becoming more and more complex, and progressively more powerful and efficient" (Rose, 2000, p. 267). Furthermore, I concur with a growing number of scholars in the field of literacy who advocate a sociocultural perspective for examining the relationship between technology and literacy because such a perspective enables researchers to study the transformations that occur when new technologies such as the Internet are integrated into instruction and learning (Bruce & Hogan, 1998; Lemke, 1998; Reinking, 1998; and Trathen & Moorman, 2001). How classroom teachers, for instance, choose to use the Internet will have its effects on how much, if any, influence the Internet may ultimately prove to have on literacy instruction and literacy development.

A key factor, therefore, in the use of the Internet is the role of the classroom teacher, as well as the students. In support of using new technologies such as the Internet in the classroom, Kellner (2000) argued, "The question is not whether computers are good or bad in the classroom or more broadly for education. Rather, it is a question of what to do with them" (p. 248). Many researchers agree that what determines the potential of the Internet to transform literacy instruction and the learning environment is what teachers and students choose to do with the Internet (Bruce & Rubin, 1993; Labbo & Reinking, 1999; Miller & Olson, 1994; Owston, 1997; Proctor & Burnett, 1996). Merely having access to the Internet is not what will determine the extent of its input into classroom learning. Cuban (2001) argued in *Oversold and Underused: Computers in the*

*Classroom* that when classroom teachers do not develop creative uses for new technology, computers end up being nothing more than fancy typewriters. A familiar golf analogy offers a good comparison of the relation between new technology and the classroom teacher: it is not so much the wand, but rather it is the magician that makes the magic happen. Likewise, it is not so much the versatility and power of the Internet, but rather it is how the teacher uses the Internet that makes learning happen for the students. Kreul (2001) claimed that “teachers [not technology] are the most important component in the educational technology equation and must be prepared to use technology appropriately to improve teaching and learning” (p. 232).

Throughout this study, I was mindful of Bruce’s (1997b) warning that a transformative perspective for literacy and technology could become “fundamentally limited” if technology is viewed as a “one-way causality in which using this or that device means we will act in such-and-such a way” (Bruce, 1997b, p. 302). This warning encouraged me to focus not only on the individuality of the students’ final products, but also on how the individual participants chose to use the Internet and how their choices influenced instruction and learning. Furthermore, Bruce’s claim that “(t)echnologies do not oppose, replace, enhance, or otherwise stand apart from literacy, but rather, they are part and parcel of it” (Bruce, 1997b, p. 307) encouraged me to look for examples of what is happening to literacy instruction and literacy development when technology and literacy converge in one middle school language arts classroom.

Is there evidence that use of the Internet transforms literacy instruction and  
the learning environment?

A growing body of recent research examining the impact of Internet use on literacy instruction and the classroom learning environment supports the assertion that the use of the Internet encourages transformations in literacy instruction and the learning environment, and recent research has provided numerous insights into what such transformations may include. These insights include transformations in the following areas: motivation for both the teacher and for the students; movement from assimilation to accommodation; and collaboration with peers.

The most consistent effect of Internet use in the classroom on instruction and the classroom environment is an increase in motivation for both the teacher and the students (Kamil, Intrator, & Kim, 2000; Leu, 2000). Teachers seem to be attracted to the possibilities of use of the Internet in the classroom in part by the vast resources it offers and by the student-centered nature of the Internet environment. Increase in students' motivation is supportive of theories of motivation and constructionism. Constructionism applies to both a theory of learning (constructivist theory) and to a strategy for learning, what Papert referred to as a "reconstruction of constructivism" (Papert, 1993, p. 142). Constructivism is a general term for approaches to learning based on the assumption that students should construct knowledge for themselves. Constructivism is viewed as indispensable to best instructional practices (Vacca, Vacca, & Bruneau, 1997).

From his examination of theoretical literature on intrinsic motivation, Lepper (1985) suggested three ways computer-based learning may increase student engagement on academic tasks, each grounded in constructionism: (1) computer-based learning may

provide intellectual challenge, thus motivating the student to seek a solution to a problem; (2) computer-based learning may stimulate human curiosity a desire to resolve a problem; and (3) computer-based learning may provide a sense of independent control and mastery over the material. Johnson-Eilola's (1994) suggested that reading hypertexts is motivational because students have a greater sense of control over their reading, not like the reading of linear text: "Hypertexts, either exploratory or constructive, emphasize the readers' choice in consciously determining the flow of information (deciding if and when to follow a specific link or read a specific link or read a specific note of text)" (p. 207).

In their case studies of six classroom teachers possessing "enormous enthusiasm about the classroom Internet work" (p. 224), Garner and Gillingham (1998) reported three major changes and numerous minor changes in how these teachers conducted their classes. The major changes included the following: because of the vast resources on the Internet, teachers expanded their repertoire of materials and methods to assist them in planning learning opportunities; teachers became more reflective about what their students learn and how they learn it; and instructional methods and classroom routines changed as they took on a more student-centered, constructivist stance toward learning rather than a traditional distribution of facts and skills pedagogy. Garner and Gillingham's study originated with their curiosity to know how teachers' enthusiasm for using the Internet would unfold in their classrooms. Their case studies are especially relevant to my own study because of my similar curiosity to observe a classroom teacher who is enthusiastic about Internet use in the classroom and to observe what happens to teaching and learning in such an Internet-active classroom. The case studies illustrated how exceptional teachers were choosing to do really good teaching in rather ordinary

settings. Each teacher's story offered much insight into the changes taking place in the traditional classroom. My study will focus on an exemplary teacher at the 8<sup>th</sup> grade level, a level not included in Garner and Gillingham's study. Just as each of their case studies offered new examples of Internet-active classrooms, my study will present yet another example to add to the current literature.

An extensive body of literature has suggested that access to the immense audience which the Internet affords tends to increase students' motivation to produce quality products for online publishing (e.g., Baker, Rozendal, & Whitenack, 2000; Gallini & Helman, 1995; Karchmer, 2001). Students tend to think of such an online audience as a more authentic audience than their teacher or peers, and they take an interest in their work when their completed products are published online for a world-wide audience to view, as previous studies have found (Baker, 2001; Leu, Karchmer, & Leu, 1999). In a study of thirteen K-12 classroom teachers who had been identified by their peers as exemplary at using the Internet in the classroom (Karchmer, 2001), seven of the teachers reported an increase in students' motivation to produce quality products that would be published online. The teachers observed that students were more motivated to complete their projects when they knew their work would appear online and were more interested in the quality of their work. Unlike Karchmer's data collected entirely from email correspondence between her and the teachers, the data for this study was collected from a variety of sources: face to face teacher and student interviews, students' online discussions, class observations, email with the teacher, and debriefing sessions after each observation.

How the Internet is ultimately used in classrooms may reveal more about the teacher's concept of learning than it does about what the Internet can actually offer (Bruce, 1997c). The six teachers, for example, in Garner and Gillingham's (1996) case studies all shared similar concepts of learning: their instruction tended to be student-oriented with student-interest being linked to subject-matter learning, for these teachers technology was viewed as a means not as an end, and all six teachers shared the belief that all students can succeed. The degrees in which each teacher had integrated the Internet into their instruction could be viewed as examples of the accommodation stage (Reinking, Labbo, & McKenna, 2000). Likewise, the participant teacher in my study shared a similar type of constructivist methodology of teaching and learning, and she would admit that she has moved into the accommodation stage with Internet use in her teaching.

When the Internet is thought of as something more than a mere tool for convenience, some believe it can be viewed as a medium through which students can go far beyond what is available to them in a traditional classroom with traditional textbooks (e.g., Becker, 1999; Ford, 2000; Miller & Olson, 1994). To test this assumption, Apple Classrooms of Tomorrow (ACOT) [<http://www.apple.com/education/k12/leadership/acot/library.html>], initiated in 1985 an ongoing research project sponsored by Apple Computer, Inc. in collaboration with chosen public schools, universities, and researchers. The project's goal, which is similar to the goal of my study is to study the role technology plays in education. The ACOT project seems to parallel a focus on the transformation of literacy learning in the classroom. At the beginning of the ACOT project, Apple provided the technology

(including computers for at home and school use for each child for seven classrooms, video cameras, scanners, Internet access, and software programs) for seven classrooms in a cross section of America's elementary and secondary schools. ACOT's only stipulation was that its researchers could observe the effect the technology had on instruction and learning in the classroom. In these ACOT classrooms, technology was to be viewed as a tool for instruction and learning and a medium for thinking, collaborating, and communicating. The key question for the ACOT project was, "What happens to instruction and learning when teachers and students have access to technology whenever they need it?" This question was also key to my study. However, the findings of my study offer an example of what is happening when integrating the Internet in a regular classroom that does not have the Internet available at all times for the students. Unlike the ACOT project that supplied the classroom teacher with at school and at home Internet access, my study focused on a more realistic setting with the students having access to the Internet on designated days and with most students having at home Internet access. The findings of my study document the assignments, struggles, and outcomes of one classroom where the use of Internet is transforming what is happening behind its doors.

Research by Garner and Gillingham (1996) and by others has shown that when teachers believe that the Internet may provide opportunities for students to go beyond what is available to them in the traditional classroom and when teachers view the Internet as a medium for creating a new environment for meaningful communication, the teachers move from assimilation to accommodation and immerse themselves in the literacy and new technology equation and change their traditional teaching method and routines as they exploit the Internet as an instructional and learning tool integral to

accomplishing their instructional goals. For example, reflecting on her two years of using a website for her undergraduate reading methods students, Eldridge (2001) confessed that her teaching had changed congruously with her integration of the use of the Internet. She noted that through the process of using a web site for her class she had come to understand and appreciate the need to use the Internet to her own purposes. Through the convergence of her teaching practices and Internet usage, Eldridge admitted she was more responsive to students, more reflective about what and how best her students should learn, and more committed to supporting students' learning in as many ways as she could find. I focused in my study on how one middle school language arts teacher was finding her use of the Internet in teaching and learning was moving from assimilation to accommodation.

The movement from assimilation to accommodation does not necessarily occur when teachers are trained in the use of specific innovations. In their QUILL project where they observed the use of their classroom computer-based activities designed to improve writing and reading for meaningful purposes, Bruce and Rubin (1993) found that the activities were undermined by the teachers. Instead of stressing the learning procedures during the teacher training, the researchers learned that teachers would have an easier time moving from assimilation to accommodation if training were to foster the teachers' own creative processes by encouraging their questions into teaching and learning. Bruce and Rubin's (1993) goal for their QUILL study is also related to the goal for my study: "to contribute to an understanding of educational change" (p. 177). Just as they were more interested in understanding the different ways in which QUILL was used in different settings by different teachers and students, I was more interested in observing

how and why my participating language arts teacher chose to use the Internet to meet her own goals for classroom learning than I was to study observable attributes of the Internet. Through their situated evaluations of various settings, Bruce and Rubin concluded that “How the features of the technology interact with human needs, expectations, beliefs, prior practices, and alternative tools far outweighs the properties of the technology itself” (p. 215). This assertion cautioned me to be wary of a focus that might tend to center on the properties of the Internet alone. Papert (1987) described such a focus as “technocentric.” My findings focus on the use of the Internet rather than the Internet itself and offer another example of how the power of the social context affects the use of the Internet in education.

Some characteristics related to the Internet that may affect the social environment of the classroom have been noted in research findings. Classroom use of the Internet seems to foster higher levels of interaction and collaboration in the classroom (Leu & Kinzer, 2000). Bruce (1997c) has suggested that the use of the Internet in the language arts classroom enables the establishment of communities of student writers and the fostering of social interaction. Leu and Kinzer (2000) predicted that such social learning situations will be central to tomorrow’s literacy instruction. Reinking and Watkins (2000) reported that peer interaction was greater during multimedia book review activity than any other academic time. In support of the effectiveness of collaborative learning opportunities, researchers have found that when students are given time to collaborate with their peers, they support each other in learning how to learn about literacy (Chapman, 1994; Labbo & Kuhn, 1998). I was especially interested in observing how

students in my study engaged in collaborative learning. Would my findings support the findings of previous studies?

Does use of the Internet transform students' approach to reading and writing?

Although much is yet to be learned about how the Internet's use in technology-rich classrooms affects the learning environment, several observations related to students' reading and writing when using the Internet in their classrooms or computer labs have been identified in recent studies. First, a common characteristic of change in students' reading strategies results from students' online reading of nonlinear text in hypermedia format (Tierney, et al., 1997). Labbo (1996) and others (e.g., Baker, 2001; Labbo & Kuhn, 1998) have referred to the multiple sign systems students use when reading or creating multimedia projects. The nonlinear environment created by the Internet marks potential space for a transformation in literacy learning. That is, with the use of the Internet, reading and writing shift from a linear format to a multilayered and interactive format. Several investigators have pointed out that a non-linear format of reading and writing may substantively alter views of literacy and how it is taught (e.g., Johnson-Eilola, 1994; Reinking, 1997; and Tuman, 1992). For instance, Johnson-Eilola (1994) noted,

Technologies such as hypertext give theorists and teachers the opportunity to remap their conceptions of literacy, to reconsider the complex, interdependent nature of the times between technology, society, and the individual in the acts of writing, reading, and thinking. Adding the concept of hypertext to theory does not replace other definitions or conceptions of writing and reading; it opens those definitions up to debate and change (Johnson-Eilola, 1994, p. 204).

According to Bruce (1997c), reading and creating with hypertext is transforming students' reading and writing in today's language arts classrooms. For example, the Internet provides assistance to reading instruction with its on-line dictionaries as well as additional information for the text at hand.

Labbo and Reinking (2000) noted several advantages and disadvantages of using electronic storybooks in the classroom. These advantages and disadvantages of reading hypertext, the nonsequential writing format of electronic storybooks, are significant to my study because the same design principles of hypertext lie at the very heart of how the Internet is constructed and how it operates. The advantages they noted included: providing students with opportunities for conventional literacy development by making independent reading more interactive; providing students with experience and learning opportunities in digital literacy; and making a wider selection of books available to meet the needs of various types of readers. A disadvantage they noted was that electronic storybooks, especially those with extensive animation and music, could distract students from comprehending the story as students' attention could be drawn to the animation that illuminates a word instead of the written word. Although the students in my study were older than those in the electronic storybooks study, as my class observations progressed, I was interested to learn if the students were distracted by the numerous links available on the websites they visited.

Another characteristic of change that occurs with Internet use in the classroom is that its use increases student motivation. According to Kamil, Intrator, and Kim (2000),

In the research on the impact of computer use on the classroom structure, the most consistently found effect is an increase in motivation and closely related

constructs such as interest and enjoyment of school work, task involvement, persistence, time on task, and retention in school (p. 778).

Reinking and Watkins (2000) noted a similar transformation in students' engagement and interactions with peers and teachers during their formative experiment involving seven classrooms using Hypercard to produce multimedia book reviews. Students' differences in reading achievement that were noticeable in traditional classroom activities seemed to be less noticeable when the students were creating their multimedia book reviews on the computer. This research is relevant to my study because my students also created book reviews online. Instead of using the Hypercard program, though, my student participants created a web page including their story line, an illustration, and a one-minute audio comment. They then linked their web page to the class home page. My study provides another example of how one teacher orchestrated the use of the Internet to suit her purpose for having students share their original book reviews.

A number of recent case studies have described how the use of the Internet has influenced change in classroom learning. Because I was interested in observing how my participating teacher and her students were using the Internet to enhance their reading and writing, I was especially interested in the findings Kruel (2001) and Baker (2001) offered of the changes they noted in students' reading and writing activities that took place in the technology-rich classrooms they observed. Kruel (2001) has described how the use of the Internet has changed the way her second-grade students learn to read and write. Through using real-time communication with peers and experts, student-created web pages, and collaborative projects, her students acquired information online from a variety of resources and shared their learning with the Internet audience. As a

participant-observer for five months in a technology-rich classroom that had 35 computers and 26 students, Baker (2001) observed that these fourth-grade students were highly motivated to publish products with a professional look that included text, graphics, video, and audio bits.

Karchmer's (2001) question for her research, "Do teachers report that the Internet influences literacy and literacy instruction in their classrooms?" is especially relevant to my study. Data for her study were collected primarily from interviews conducted by email with thirteen K-12 teachers. All thirteen teacher participants had Internet access in computer labs, but only eleven had Internet access in their classrooms. She reported that all participants believed Internet use had an influence on certain aspects of literacy instruction and literacy development, especially with students' reading and writing.

Her findings were framed by three themes that emerged from the data: evaluating appropriateness of Internet material (related to reading), evaluating the accuracy of Internet material (related to reading), and publishing student work on the Internet (related to writing). Although the question that guided my study, "In what way, if any, does use of the Internet influence literacy instruction and literacy development in a middle-school language arts classroom?" was similar, my findings will contribute to those of previous studies because my findings will be unique to the study's setting and participants.

#### Does use of the Internet transform teacher, student, and parent connections?

How the Internet may transform traditional student-teacher-parent relationships has been identified by Leu (2000) and others as an important area of research as the Internet becomes a more common resource in today's classrooms. According to Negroponte (1995),

The true value of a network [like the Internet] is less about information and more about community. The information superhighway is more than a short cut to every book in the Library of Congress. It is creating a totally new, global social fabric (p.183).

Some researchers have found the Internet to be a useful tool to help transform communications among teachers, between teachers and their students, students and classmates, and teachers and parents (Labbo, 2000; Luke, 2000; McKeon, 2001; and Tao & Reinking, 1996). Teachers, for instance, have found that email communication with other teachers provides them a medium for curing “the loneliness of classroom life” (Garner & Gillingham, 1998, p. 224). Online sharing with other teachers allows classroom teachers to exchange instructional ideas and classroom victories and woes that accompany daily working with students, thus enhancing their professional teaching knowledge and attitudes (Lapp, Flood, & Martin, 1998). In a recent study involving preservice teachers enrolled in a content area reading methods course, Trathen and Moorman (2001) focused on exploring the use of email as a tool for interacting with others and jointly constructing meaning from text. Their findings supported the notion that email discussions provide a useful context for engaging teachers in pedagogical dialogue.

Another study that focused on the potential of Internet resources for enhancing communication among teachers, students, and parents is the research previously noted by Garner and Gillingham (1996). They presented data on six cases (two each at the elementary, middle school, and high school levels) in which Internet use in the classroom was integrated into the daily routines. The bulk of their data came from “eavesdropping”

on six teachers' email conversations. Their findings indicated three ways in how the teachers' use of email and the Internet transformed their classroom instruction: expansion of teachers' repertoire of materials and methods, more reflective teaching, and reform in teaching. Garner and Gillingham found these participants to be "adventuresome" (1998, p. 222) and although each was distinctively individual they shared certain common characteristics: they were student-centered in their instruction, they linked student interest to subject-matter learning, they viewed technology as a means not an end, they believed that all students can succeed, and they tried alternatives to their current daily instruction as they attempted to discover new ways to help their students learn (Garner & Gillingham, 1996). By way of email with each other, teachers found easy access to support and suggestions for their concerns and questions.

Other recent studies have noted the effectiveness of teachers and students communicating through the Internet (e.g., Albright, Purohit, & Walsh, 2002; Eldridge, 2001; and McKeon, 1999, 2001). Albright and his colleagues (2002) explored the use of Internet chat rooms involving middle school language arts and science classrooms. Their findings showed that more students participated in discussion on line than they did in their regular classroom. In her report of her personal two-year journey of integrating the Internet into a teacher education course, Eldridge (2001) found herself to be more responsive to her students because Internet use gave the class more ways to communicate with her and with each other. Through a course web site Eldridge created, her students were able to access supportive course information and resources and were able to communicate with the teacher and other classmates. McKeon (1999) investigated the nature of email correspondence between 9- and 10-year olds and her preservice teachers.

Her findings indicated that corresponding by email gave the children the opportunity “to think critically about themselves by reflecting on their interests, activities, and issues of importance to them, and then writing about them to an authentic ‘other’” (McKeon, 1999, p. 702). McKeon (2001) explored an email partnership between a pre-service teacher and a struggling fourth-grade reader and found the social nature of email to be a motivating literacy event for the fourth-grade reader. Although the fourth-grade reader admitted that she did not usually like to read, McKeon’s study suggested that the email dialogue provided the student with a liberating literacy event that she found motivating.

Not all research findings, focusing on what happens when Internet is integrated into the classroom, indicate that Internet use transforms students’ approach to reading and writing. For instance, Love’s (2002) findings on her research of online discussion groups for seven high school English students in Australia indicated that students tended to focus, as they did in classroom teacher-led discussions, more on responding to the teacher’s questions than on commenting on other students’ remarks. The online discussions were intended to provide students a “scholarly” venue in which to help clarify their response to a novel and to help them develop personal positions on issues arising from the novel. However, defining a “scholarly” response became problematic for the teachers. Although teachers attempted to model good student to student interaction, they reported that it was difficult to achieve.

How the teacher in my study used the Internet to encourage communication with her students and their parents was an aspect of her Internet use that I was eager to observe. The findings of previous studies noting how the Internet was used as a means of

communication informed my study with comparative data for my observations of participants who chose to use the Internet to communicate with one another.

Does use of the Internet transform instructional outcomes and learning goals?

The new technologies of today, such as the Internet, are forcing the education community “to radically rethink and reconstruct education” (Kellner, 2000, p. 257). Hence, instructional outcomes and learning goals, as implied by many researchers, may need to be revised as new technologies are infused into the classroom learning environment. Negroponte’s (1995) prediction that “Schools will change to become more like museums and playgrounds for children to assemble ideas and socialize with other children all over the world” (p. 102) may be too extreme. However, others have argued that today’s new technology requires a redefining of literacy instruction and literacy learning so that students may become prepared for the new literacies they will face in the future. Wilhelm (2000) argued, for example, “Technology has *everything* to do with literacy. And being able to use the latest electronic technologies has *everything* to do with being literate” (p. 4). Karchmer (2001) argued,

As the Internet becomes an important part of education, and as literacy is redefined by this new technology, it will be mandatory that teachers integrate this new resource with daily instruction so students can learn how to develop the new literacies this technology permits (p. 448).

A re-visioning of instructional outcomes and learning goals may be necessary to reflect the new literacy needs required by the use of the Internet.

Reinking (1997) noted that how teachers choose to use the computer is often guided by their values and philosophical stances. He suggested that technology be viewed “as an

especially effective means of transforming typical modes of teaching and learning toward more positive outcomes” (Reinking, 1997, p. 640). For example, Reinking suggested that easy access to the Internet in the classrooms could possibly “...encourage teachers and students to rely less on textbook-centered activities and rote learning of content in isolation, which in turn might facilitate richer discussions of text and more critical reading” (Reinking, 1997, p. 640). The credit for any actual potential for learning with the Internet, however, goes to the student learners themselves (Tergan, 1997). The engaged learners are the students who ultimately receive the benefit of learning with the Internet.

Bruce and Hogan (1998) noted that “Although it is clear that technology can enhance literacy by providing motivation, access to information, new worlds to students, faster communication with peers, using technology in educational settings requires continuing critical analysis” (280). They argued that integrating technology, such as the Internet, into the classroom does not in of itself produce enhanced student learning, but rather the key is what the teacher identifies as the instructional outcomes and learning goals and how and why she chooses to use the Internet as the medium. The teacher needs to consider what it is she wants the students to learn and then how best they will learn it. Will the use of the Internet assist their learning, or not? When the teacher chooses to use the Internet to assist instruction and learning, how it will be used will need to be as Bruce and Rubin (1993) suggested, “actively shaped and redefined to fit classroom realities and alternate goals” (p. 218).

When teachers plan projects that will require students to publish their finished work online, they are creating authentic activities for the students that will motivate them to

make sure their products are worthy of being put online. Teachers' instructional outcomes reflect the quality they expect of their students' work. Learning goals for the students will no doubt include more than the traditional goals the teachers once used to guide their instruction. For instance, students may need new or adapted reading strategies in order to deal with the non-linear text they read online. As I observed the teacher in my study, I noted how her instruction and learning goals for her students were influenced by the technology they used.

What are the characteristics of a “new literacy” classroom ?

Before reviewing proposed characteristics of a “new literacy” classroom, it behooves us to look at what is meant by a “new literacy.” In the past decade, much has been published on enlarging the definition of “literacy” (Luke & Elkins, 1998; Reinking, 1997; Willinsky, 1990). A key editorial theme in the *Journal of Adolescent & Adult Literacy (JAAL)* has been the exploration of new literacies (Luke & Elkins, 1998). Traditional definitions of literacy have been changing to include multiple perspectives. Since Willinsky's (1990) claim that a “new literacy” was resting “latent and unrealized in the teaching of reading and writing” (p. 8), several have offered definitions for this new literacy.

For example, the New London Group (1996) proposed a pedagogical framework for “multiliteracies” that included four approaches to teaching in today's new times:

- situated practices (that is, students acquire knowledge and practice its application in particular sociocultural settings)
- overt instruction (teachers scaffold knowledge within its social, cultural, historical, political contexts)

- critical framing (students read text critically within its social, cultural, historical, political contexts)
- transformed practice (students construct new meanings in new social spaces).

One member of the New London Group, Carmen Luke (2000), explained the concept of new literacy as one of multiple literacies, “the assumption that people confront and negotiate the everyday world using a diversity of literacies with which to decode the multiple and densely layered environment of symbolic and iconic, cultural and social semiotic meaning systems” (Luke, 2000, p. 429).

In a similar manner, Kellner (2000) defined new literacy by the competencies that are involved in effectively using socially-constructed forms of communication.

Emphasizing that new curricula and pedagogies are needed if education is to be relevant to the problems and challenges of contemporary life, he worded his definition of new literacy this way: “Literacy thus involves gaining the skills and knowledge to read and interpret the text of the world and to successfully navigate and negotiate its challenges, conflicts, and crises” (Kellner, 2000, p. 249).

This dissertation uses the term “new literacy” as an all encompassing concept that views literacy as “a way of conveying meaning through and recovering meaning from the form of representation in which it appears” (Eisner, 1997, p. 353). Based on his review of the new literacy literature and inspired by Eisner’s definition for “new literacy,” Kist (2000, 2002) suggested the following characteristics of a “new literacy” classroom:

1. new literacy classrooms feature daily work in multiple forms of representation;

2. in such classrooms, there are explicit discussions of the merits of using certain symbol systems in certain situations with much choice (Eisner, 1997; New London Group, 1996);
3. there are meta-dialogues by the teacher who models working through problems using certain symbol systems (Tishman & Perkins, 1997);
4. students take part in a mix of individual and collaborative activities (John-Steiner, 1997);
5. new literacy classrooms are places of student engagement in which students report achieving Csikszentmihalyi's (1990) "flow" state when flow refers to the sensation students feel when they act with total involvement.

A recent article by Kist (2002) in the *Journal of Adolescent & Adult Literacy* described the results of part of an ongoing effort to locate and document "new literacy" classrooms. Two classrooms, a first-grade classroom and a high school Western Civilization- Art Colloquium course, were ultimately chosen from nominations by a group of ten educational leaders in Kist's home state of Ohio. To be selected as a new literacy classroom, the classroom had to show evidence of the five characteristics described above. The article, focusing exclusively on the high school case, explained how the three teachers who led the Art colloquium had used a lecture format for years but that the new principal had mandated that the course be taught differently. Through inservices and one-day workshops, the three teachers redesigned the course. Instead of lectures, the course became organized around collaborative projects that culminated in multimedia projects and were presented to the entire class. The teachers' instruction began always with a question that introduced what they wanted the students to learn.

Students' grades were based on individual as well as collaborative elements for each project. A variety of themes emerged from this study's data: students learned how to evaluate information from different media, students found a higher level of fluency than they had known, and students were mostly positive about the collaborative nature of the class.

Findings from Kist's (2002) case study affirm the need to spend time observing the instruction and learning taking place in technology-rich classrooms. His case study on the meaning of new literacy and the characteristics suggested for a new literacy classroom provided me the background for understanding how teachers and students create "new envisionments for literacy and learning with Internet technologies" (Leu, Karchmer, Leu, 1999, p. 636). Leu and his colleagues described these new envisionments to be what happens when teachers and students think of and implement new visions for literacy and learning on the Internet.

In my study, I explored how one enthusiastic language arts teacher in her technology-rich classroom used the Internet to enhance literacy instruction and learning. As I focused on the Internet's influence on literacy instruction and literacy development in this classroom, I attempted to describe the new literacy practices orchestrated by the teacher and to document the types of learning experienced by both the teacher and her students.

## CHAPTER 3

### METHOD

This chapter details the methods used for this investigation of how the Internet influences literacy instruction and literacy development in one eighth-grade middle-school language arts classroom. The chapter is organized into nine sections:

(a) introduction, (b) setting of the study, (c) participants, (d) researcher's stance, (e) *etic/emic* perspectives, (f) data sources and data collection, (g) ethical issues, (h) establishing validity, and (i) data analysis.

#### Introduction

The rationale for choosing one method of study over another is related to the underlying goals of the research and to the nature of the subject to be investigated. The underlying goal of this research was to explore in what ways, if any, the use of the Internet influences literacy instruction and literacy development in the classroom. It has been noted that effective Internet use in classrooms may be dependent upon how teachers choose to make use of it; yet, this area of study has not been deeply researched (Kamil, Intrator, & Kim, 2000; Leu, 2000). The very nature of my subject, with its intent to produce a "description" (Merriam & Simpson, 1995) of the role the Internet may play in shaping literacy instruction and literacy development, required me to observe Internet's use in a classroom setting. From the participating teacher, I attempted to learn how she understood the Internet's use to be affecting literacy instruction and literacy development in her classroom.

Robert Stake (1995) suggested that a case study approach is appropriate whenever a special phenomenon is to be investigated “that we do not sufficiently understand” (p. 133). Hence, a case study approach may be chosen to gain an in-depth understanding of a situation and its meaning for the participants (Merriam, 1997). In this study, the bounded context was one language arts classroom, and the phenomenon was the use of the Internet and its effects on literacy instruction and literacy development within that classroom. For this qualitative inquiry, I chose a case study approach to carefully observe what happens in a classroom where the teacher chooses to use the Internet. The case study structure as described by Lincoln and Guba (1985) allowed me to pursue the problem, the context, the issues, and the lessons learned from observing how one teacher chooses to use the Internet. My intent was to use a nonparticipant observation of a teacher who uses the Internet to enhance instruction and learning in order to gain insights into the role the Internet may play in shaping literacy instruction and literacy development.

Bogdan and Biklen (1992) stated that in the field of education, qualitative research is often referred to as naturalistic, because the researcher observes in places where the phenomenon to be studied naturally occurs and the participants of the study engage in natural behavior. A nonparticipant, case study methodology can be justified as appropriate for this research because it allowed me to gather data in the natural setting of a classroom, observe without interfering with instruction or learning, collect my data, and then report my findings in a qualitative and descriptive manner (Wolcott, 1992). I focused on observing anything and everything that might address the questions of my inquiry, and I attempted to document carefully what I observed.

For this study, I defined “case,” as have others (Creswell, 1998; Huberman & Miles, 1994; Stake, 1994; Yin, 1994), as a phenomenon bounded by time and place. The bounded system (Creswell, 1998, Merriam, 2001) for this inquiry is the role the Internet may, or may not, play in literacy instruction and literacy development in one middle-school language arts classroom during a four-month period, from January 28, 2002, until May 3, 2002. Because this study involved the Internet’s use in the classroom, I observed, during four months, primarily on the days it was being used in the classroom.

This was an “instrumental” case study (Stake, 1995); that is, the bounded system served as a setting for gaining information concerning the effectiveness of Internet use in the classroom. It has been noted that how the Internet is integrated into classrooms is often determined by teachers’ values as well as by their own teaching practices (Bruce & Rubin, 1993; Miller & Olson, 1994; Reinking, 1997). Therefore, I was mindful of the fallacy of thinking of technology as a context-free innovation (Bruce & Rubin, 1993; Garner & Gillingham, 1996).

### Setting

To locate a technology-rich middle school, I used a process of networking referred to as “snowball or chain sampling” (Patton, 1990, p. 176). I first asked three colleagues who I knew to be familiar with the local county schools to identify which local counties and schools within those counties they believed to be most supportive of using technology in the classroom and who I might contact for more information. One of these colleagues was a former principal in the area and now directs the student teaching at the university where I teach. The second colleague directs the practicum placements at the university. The third colleague is the associate dean of the university and has been

working with local school systems for over twenty years. These three colleagues were unanimous as to which local county to consider first, and two suggested that I consider John J. Pershing Middle School (a pseudonym) within that county.

When I sought approval from the county's Director of Research and Accountability to do my research in his county, the director expressed interest in my proposed research study and assured me that the county viewed technology as an important tool for instruction and learning. I chose to focus my study at the middle school level because most of the pre-service teachers I teach will be teaching in the middle school level. Because I wanted to locate a school that was already using the Internet in the classroom, I asked the director which of the county's sixteen middle schools should be the first I consider for the setting of my research.

His first choice was John J. Pershing Middle School because he said he knew it was exemplary in its use of technology based on his professional relationship as county Director of Accountability and on his personal relationship to the school. At the time of the study, his twin sons were students there, and thus he was quite familiar with how technology was used in the school. Considering the suggestion from three of my colleagues and from the county's director of research and accountability, I made an appointment to meet Pershing's principal. When I interviewed the principal and she explained how important a role technology plays in instruction and learning at Pershing Middle School, I quickly decided that the school was a useful setting for my inquiry.

### The School

John J. Pershing Middle School, grades 6-8, is a public school located in a suburban area adjacent to a large southeastern city. The school, with a student population of 1,159

and reduced or free lunch rate of 5%, was ranked fourth among its state's outstanding public middle schools in 2001 by the state's Public Policy Foundation which is the state's only private, nonpartisan research and education organization that focuses on state policy issues. The ethnic composition of the student body was as follows: European American, 88.6%; Asian 5.4%; African American 3.5%; Hispanic 1.2%; American Indian 0.1%; and other 1.2%. In 2000-2001, Pershing's mean national percentile scores for Stanford-Ninth Edition Achievement Test at the eighth-grade level were as follow: Reading, 76%; Language, 82%; Listening Skills, 76%; Thinking Skills, 76%; Math, 82%; Social Studies, 77%; and Science, 82%. According to the school's principal these scores have continued to increase yearly since Pershing Middle School opened in 1998. It was easy for me to sense that the faculty and administrators at Pershing Middle were proud of its high level of community involvement, which included numerous business partners, parent volunteers, and a strong Parent Teacher Student Association (PTSA).

Pershing's principal explained to me that the school program was designed in such a way that students would want to come to school to learn. Since it opened in 1997, Pershing had focused on goals to improve student achievement in all its academic areas and has infused technology throughout all aspect of student learning. Its principal explained to me that she had requested before the school opened permission from the county's school administrators to hire a Director of Instruction and Technology in lieu of a third assistant principal. Her reasoning was that integrating technology into the school's program would motivate students lowering discipline problems, thus requiring fewer assistant principals. Consequently, she reported that the school office sees very

few discipline problems each week and the school is proud of having had the highest attendance in the previous three years among the county's 16 middle schools.

In addition to the principal, two assistant principals, and the director of instruction and technology, Pershing Middle School's administration and staff included the following: the a media specialist, a reading specialist, a local school technical coordinator, a technical support technician along with twenty other staff support positions and 82 faculty positions. Sixty-two percent of the teachers have master's degrees or higher, and the mean years of teaching experience is 13.3.

Pershing Middle School's instructional media and technology program is equipped with one computer science lab and one technology education lab, three curriculum integration labs (one for each grade level), and three mobile carts (one for each grade level), each with 30 wireless laptops along with a large screen monitor/TV and a wireless teacher keyboard for classroom use. The media center has an online catalog and many electronic resources such as a video production lab. The school is fully networked with its classrooms, media center, offices and labs having access to the Internet. The school has an award winning school web site that keeps parents and students informed about the school's events, homework information, and individual staff members. By accessing the Student Handbook from the school's web site, students may review the school's rules as well as current copyright laws and plagiarism warnings.

The source of all this technology begins with the principal and her vision of technology usage and implementation as key components of the instructional environment at this school. Financial support for the school's technology programs has come from a variety of contributors, including a pilot project with IBM, support from the

county public schools authorities, support from local businesses and parents, grants, and loans. The three sets of 30 wireless laptops are furnished through a pilot project sponsored by IBM, one of the school's business partners. This pilot program focuses on the instructional benefits of students using wireless devices to enhance research, reading, writing, data analysis, and technology competencies. IBM is but one of a number of the school's business partnerships. Pershing Middle School's Business Partnership Program was initiated at the opening of the school to invite local businesses to support the school. The business partners choose to fund a particular area of the school's needs. Two of those areas are Instructional Enrichment Programs, including teacher mini-grants, and Technology/Media Resources, including video equipment and instructional hardware and software. In addition to county school funds, contributions to support technology in the school are obtained from parents, local individuals, grants various teachers have received, and loans the principal has taken out for the school.

### The Classroom

The classroom I observed was located at the end of the eighth-grade hallway. It had three permanent walls with a fourth collapsible wall that could fold back, accordion style, for team teaching purposes with the adjacent classroom. The collapsible wall, however, was never folded back when I observed the class. Access to the classroom was from either a door at the hallway or a door in the collapsible wall. The classroom had only two corner windows and students were dependent on artificial lighting. The classroom, like the entire school, was inviting. The tiled floor throughout the school was always shiny clean. All bulletin boards throughout the school were eye-catching, creatively displaying information about students or displaying samples of student work.

All of the four walls of the classroom were adorned with quotes, inspiring words, samples of students' work, and important information. Over the four months I observed, the wall adornments changed with the units of study. On one occasion I noted the following on the walls: an entire wall of student's found poetry based on Holocaust narratives students found and read online, a display of "The Witty and Wise Dr. Seuss" words students had found online and illustrated, "Find a Story" information, "Read to Discover" motivation poster, "Elements of Literature" poster, "Writing Samples—How do you rate..." for modeling good writing, "Writing With the Masters" quoting from classic works of literature, "A Writer's Notebook is—A Place for Possibilities" poster created on the computer. A chart in front of the room and near the corner toward the hallway listed the class schedule. The class I observed was the teacher's fourth class of the day and met from 1:25-2:35pm. The school officially dismisses for the day at 4:00.

Although the teacher participant's teaching day ended at 2:35 when her fourth period left her room, the students had another class period and a shorter time for extra activities. Students were organized into teams and moved together from one content area classroom to another. The students sat at individual tables that were in a trapezoid shape which afforded for a variety of room arrangements by simply reversing the short parallel side with the longer. Almost always students' tables were clustered in groups of two or four. I noted how pristine the students kept the tops of those tables and how organized and tidy the classroom remained. For example, at the end of the day, students voluntarily stacked the chairs at the back of the room so that the room might be swept daily. An example of a detailed description of how the use of the Internet influenced literacy instruction and literacy development during one 70-minute in this classroom is provided in Appendix A.

### The Computer Lab

Pershing Middle School was equipped with a total of five desktop computer labs plus three mobile wireless labs. Each grade level had its own computer lab and had access to a moveable cart with 30 IBM laptops, along with a large screen monitor/TV and a wireless teacher keyboard. The computer lab for eighth-grade classes had 33 desktop IBM computers with microphones for audio recording, a color scanner, and three printers. Pershing had a director of instruction and technology, a local school technical coordinator, technicians for each desktop computer lab and student assistants for each lab. Therefore, technical help was usually available if the teacher or students needed it. Twenty-one computers were arranged in clusters of three on tables pushed up against three of the room's walls and students sitting at them would be facing the wall. Another twelve computers were arranged back-to-back, forming a rectangular island in the center of the room. The color scanner and printers were located along the room's front wall. On three occasions I observed how quickly and orderly it took the students to situate themselves at computers in the computer lab. In less than one and one-half minutes, each student moved from the classroom at one end of the eighth-grade hall to the computer lab at the other end of the hall, entered the computer lab, chose a seat, and sat down ready to begin work.

### Participants

To locate an information-rich teacher participant as my purposeful sample, I again used the process of networking referred to as "snowball or chain sampling" (Patton, 1990, p. 176). I made contact with the principal at John J. Pershing Middle School, met with her in her office for an hour, and explained what I wished to investigate and that I

was specifically looking for a language arts teacher. During that interview, the principal said that she knew several teachers at Pershing who she would identify as potential participants for this study. The principal suggested that I first talk with one particular teacher who was last year's "Teacher of the Year." The principal said Ms. Taylor (a pseudonym), an eighth-grade language arts teacher, would be an excellent participant if she were willing. The principal's praise for Ms. Taylor's use of technology seemed consistent with Reinking's (1997) observation:

I have found that teachers and colleagues who integrate technology into their teaching in more than perfunctory ways are often those who have been recognized by their peers and supervisors as being exceptionally committed and talented teachers long before they became involved in technology, which might be expected given the sometimes formidable challenges of using technology effectively in classrooms. (Reinking, 1997, p. 633.)

I sensed during my first meeting with Ms. Taylor that she was a risk-taking teacher that Garner and Gillingham (1998) identified as an important quality of teacher who integrated technology into her teaching in more than perfunctory ways. For example, she did not use the Internet in her teaching because she felt mandated by the administration to do so, but because she felt that using it would enhance her instruction and the students' learning. She had observed in her own classroom how the Internet could motivate students and encourage learning, and she was eager to discover new ways to use it. When we were well into this research, I shared with her the following comment by John Wiggins (director of InTech Training in Georgia): "You have to give teachers time to own it: when they see a student stay engaged/get excited—that's when they know this is

something they want to use more often.” Her response written response, dated March 15, 2002, reveals her passion for teaching as well as her adventuresome spirit:

I have an awesome responsibility lying before me. Each day I strive to discover new ways to create interaction between my students and their learning. Each day I try to find opportunities to inspire. Each day becomes an adventure to see what new path we walk down together. Excitement and enthusiasm are contagious. I like to spark students’ enthusiasm by asking questions and promoting inquiry. I keep enthusiasm growing by being involved with my classroom. I am a coach, a facilitator, a motivator, a teacher.

#### Teacher Participant

During that first interview with Ms. Taylor, I asked her how she felt about using the Internet in the classroom, including her competency level and general attitude. She told me how she used the Internet to locate real-life texts for her students, how students chatted on line among themselves about various readings, and how texts became alive for them as they read on line. She explained, for example, that her students heard the actual speaker’s voice of a famous speech, or saw photographs of scenes of the Holocaust, or traveled vicariously to Amsterdam to visit Anne Frank’s hiding place as they read on line. I explained that my focus would be on Internet’s influence in one of her language arts classes and that she could choose which class that would be. At our first meeting, she agreed to take part in this study, and I was confident that I had found the right teacher participant for this case study. I sensed that from her I could learn a great deal about “issues of central importance to the purpose of the research” (Patton, 1990, p. 169). Not only was it obvious that Ms. Taylor had administrative approval and technological

support to help her integrate technology into her teaching, she also appeared to be an exemplary technology-using teacher who preferred student-centered learning, viewed computers in terms of function rather than application, and planned complex project-based activities for their students (Becker, 1994; Kist, 2002).

Ms. Taylor was a 44-year-old European American language arts teacher with ten years teaching experience. She completed her masters degree in middle grades language arts in 2000 and was eager to begin her Specialist in Education (Ed.S.) degree. Ms. Taylor and her husband have two sons, one a sophomore in college and the other a junior in high school. She has been teaching at Pershing since it was founded in 1997 and was Teacher of the Year in 2001. Ms. Taylor continually improved her knowledge of reading and writing and her skills with technology through staff development courses, college courses, and conferences. For example, although the requirement for all certified staff at Pershing Middle School was to accumulate 20 hours of professional development each year, Ms. Taylor had accumulated 91 staff development hours from June 1, 2001 to February 8, 2002. These staff development hours were earned through workshops and courses before or after school hours, or during the summer, many of which were technology related.

#### Student Participants

For this study, Ms. Taylor selected her last class that met from 1:25-2:35p.m. On January 23, 2002, I met Ms. Taylor after her last class in her classroom to discuss the consent forms for the students and for their parents. After she signed her consent form, she suggested that I leave the students' and parents' forms with her and that she would explain the research and the consent forms to the students and would give the forms to

them then. I respected Ms. Taylor's request that she be the one to explain the nature of the study to her class and that she would explain the consent forms also. Although I wanted to introduce the project to the students myself, it was easier for me to remain in a nonparticipant role with Ms. Taylor explaining my presence. These participant and parental consent forms were approved by UGA's Institutional Review Board. By January 28, 2002, all of the forms were signed and in my possession. Of the 24 students in that class, 23 students with their parents' approval agreed to participate. All 23 students are from middle class families. With the exception of one male who is of Indian descent, the other 22 students, 8 girls and 14 boys, are European Americans. The one student, a girl, who did not participate in this study, was involved in domestic problems (her parents were divorcing), was in danger of failing, and her mother chose not to allow her to participate in the study. Although the girl did occasionally make comments that I would have liked to have included in the data and findings, I did not do so.

#### Researcher's Stance

I brought to this study 13 years experience teaching language arts at the secondary level and almost 20 years of computer experience. For me, the computer first became a tool that could make my work easier before it became a tool that I would use in my teaching. For example, in the late 1980's I taught myself and students on the yearbook staff at the high school where I was teaching, how to create layout designs and put together the yearbooks on an Apple computer.

My use of technology in my university teaching during the previous 11 years has increased. Early in the 1990's I began using email to communicate with colleagues and friends. I taught my students how to use the software program *Inspiration*, a program

students used to create graphic organizers, whenever they wanted to view their outlines in as a concept map or web. Through the Texas Education Network, students in my young adult classes shared comments with high school students in two other cities about the novels they read. I instructed my students in a young adult literature class how to use HyperCard stacks to record the novels they each read. I have learned how to create Power Point presentations with sound and video clips, how to use Front Page to create web pages, how to put my syllabi on the Web, how to input pictures taken with a digital camera, how to create “threaded discussions” in “chatrooms,” and how to use Galileo and Library on-line catalogues to locate important sources for research and teaching. I show my students how to create WebQuests for their particular content areas. Thus, I have a strong commitment to using technology and believe that it provides much potential to enhance teaching and learning. However, as I learn new ways of using technology to enhance teaching and learning in my classes, I realize that there is much more to learn. I am fascinated with the learning possibilities Internet may afford students, and I am motivated to use technology as a natural and intimate part of my praxis. I believe the teacher is the key to Internet’s effectiveness in the classroom.

#### *Etic/Emic Perspectives*

The *etic*, or outsider’s perspective, refers to the researcher’s viewpoint. The *emic*, or insider’s perspective, refers to the participant’s viewpoint. I attempted to adopt both *emic* and *etic* perspectives in this study to help me understand and report the findings. These two perspectives were particularly helpful when I gathered data in the form of fieldnotes. Using the *etic* perspective, I recorded my own observations and feelings and noted any questions I wanted to ask the participants. I captured the *emic* perspective by tape

recording, and later transcribing, what the participants said during class as well as what they said during informal conversations. I felt that my experience as an eighth-grade language arts teacher allowed me to understand the teacher's comments at a different level than someone outside the field of teaching. At times, I had to remind myself of Seidman's (1991, p. 101) warning that a researcher must not force the excerpts into preconceived categories, rather must allow the categories and themes to develop from the participants' own words.

Although qualitative research is primarily concerned with *emic* categories in data collection, *etic* explanations are also important in the data analysis. From my nonparticipant role, I attempted to use the *etic* perspective to make conceptual and theoretical sense of the case; this perspective helped me report the findings in a clear fashion (Patton, 1990). Together, the *etic* and the *emic* perspectives offer multiple experiences and thus a more meaningful text (Alvermann, 1996).

#### Data Sources and Data Collection

This study included not only how the use of the Internet influenced literacy instruction but also how its use influenced literacy development. Therefore, I attempted to capture the participants' own words by collecting the data in six formats: (a) descriptive fieldnotes of classroom observations of Ms. Taylor's and the students' use of the Internet that allowed me to revisit the observation later during analysis (Patton, 1990); (b) emails with Ms. Taylor informing me how and when the students would be using the Internet; (c) transcriptions of what the participants said during class and in informal conversational interviews; (d) print outs of online discussions between the students and the teacher; (e) questionnaires for Ms. Taylor and students; and, (f) samples of students'

projects for which they used the Internet. I also kept a journal throughout this entire investigation in order to document the process itself and my own thoughts along the way.

All data were organized into two looseleaf binders. Labeled dividers identified the following sections: (1) email with Ms. Taylor; (2) fieldnotes; (3) transcribed classroom intercourse and conversational interviews; (4) samples of students' work using Internet; (5) printouts of "blackboard" discussion groups; (6) findings; (7) chapter drafts; and, (8) detailed description of setting.

The data collection occurred between January 28, 2002 and May 3, 2002.

Ms. Taylor's planning period followed this class time so open-ended interviews with her were often debriefing sessions wherein we would discuss what had been observed during the preceding class time. I wanted to be able to use Ms. Taylor's own words to describe Internet's influence in her classroom because by doing so I might find out why she chose to use the Internet for certain experiences and if she felt like its use achieved the desired result. Therefore, with her permission, I audio taped whenever possible and later transcribed our conversations.

### Fieldnotes

Fieldnotes refers to notes taken in the natural setting of an investigation (Bogdan & Biklen, 1992). In the present investigation they include description and dialogue relevant to how Internet was used in the classroom and what it meant to the participants (Bogdan & Biklen, 1992). These notes, including descriptive information, quotes from participants, my thoughts and reactions to what was observed, allowed me to return to each observation later when I analyzed the data and wrote the report. A sample of the fieldnotes is included in Appendix B.

I observed on the days students actually were using Internet. I observed fifteen class sessions during a fourteen-week time frame. In order to record the classroom interactions accurately, I often audio taped what was happening in the classroom while I took notes. I used a header to record the date and number of students present that day. I divided each page with a line all the way down the page about a third of the way from the left edge. In the right section of each page I wrote descriptive notes and quotes from Ms. Taylor and the students, and in the left section of each page I wrote my own reflective notes as suggested by Creswell (1998). To assure that I documented everything she told the students during class, I audio taped the class as I took notes by hand. Ms. Taylor's and her students' comments and dialogue were then cross-checked by comparing the transcriptions of the audio recording of the class to my notes.

#### Email with Teacher

Ms. Taylor and I emailed each other throughout the data collection. Unfortunately students did not always have access to the computers or to Internet and sometimes Ms. Taylor's plans to use the Internet in class had to be changed. She would email me whenever her plans had changed and the Internet was not going to be used in class. She also would email me information she thought might be related to this study. For instance, she emailed me directions for going online and reading her students' online discussions about Civil War slave narratives and short stories they had read online. Whenever she remembered something she wanted to add to our after-class informal conversations, she email the information. On May 2, for example, she wrote the following note about a response to one of her student's book review webpage,

I forgot to tell you that yesterday I received a comment for a student's

webpage. The comment was from the author of the book! It was so exciting. The look on the student's face was priceless. I can't believe I forgot to tell you because that had to be the highlight of my day!

Ms. Taylor also sent me the email notes she sent to the parents of the entire class which previewed upcoming projects involving the Internet.

### Interviews

Two types of interviews were used in data collection as described by Patton (1990): (a) the informal conversational interview, and (b) the open-ended interview. The informal conversational interview proved effective for interviewing a student who had completed the day's tasks but who did not have time to start on a new task before the end of class. The strength in this type of interview was that it allowed me to be sensitive to the individual students' differences and own work. For instance, when five students finished putting their book reviews online and the rest of the class were still working on theirs, I asked each of the five students individually to show me their work online, and then we discussed something specific about what they had produced. I might ask, for example, to tell me how they produced their illustration. One student chose to scan a colored-pencil drawing she had done, and the other four had used a paintbrush program to create their illustrations.

The open-ended interview (Bogdan & Biklen, 1992) was used when I debriefed Ms. Taylor after each classroom observation. This type of questioning was critical to my data collection because I wanted her to respond in whatever way she chose. Often, as we would talk after the students had left, we began with small talk (Bogdan & Biklen, 1992), which developed accord. Then, I would ask Ms. Taylor how she thought the use of the

Internet had influenced her planning and instruction that day, or if its use had influenced her instructional outcomes and learning goals. Another question I would ask included if she thought the use of the Internet influenced her students' reading and writing abilities. During these interviews she would also discuss how she felt about their quality of work. During one of these sessions after class, Ms. Taylor explained how email had become an important medium for communications between herself and students and parents.

### Online Discussions

Ms. Taylor, by taking advantage of Blackboard.com's invitation to use their online resources free for four months, set up a website where students could find what Ms. Taylor called "rich" literature, and then students would engage in threaded discussions. Such rich literature included, for example, Ambrose Bierce's short story, "Occurrence at Owl Creek Bridge" and personal Civil War narratives. All 23 students who took part in this study have at home computers with Internet access. Ms. Taylor would invite students to go online from their homes during after school hours and read a piece of literature and then discuss it with their peers. No grades or credit was assigned for their participation.

Ms. Taylor allowed me to enroll online as a class observer. Although I remained a non-participant, I was privileged to see and read every student comment she received and every comment she wrote back. I compiled 147 comments students made on Blackboard.com. The students' comments often revealed much about the quality of their reading comprehension and about what they found to be challenging. For example, during the week of March 13-20, 2002, Ms. Taylor posted Ambrose Bierce's "An Occurrence at Owl Creek Bridge" short story and explained that the author narrated a story set in the

Civil War period. After reading the story, the students were to discuss the story online. The following comment, by student #2, was an example of the kind of responses students wrote about the short story,

At the beginning of this story, it seemed a bit confusing, but after I finished I realized what it was about. The last sentence explains it if you can't figure it out before the end. I really like this story because it "explodes the moment" effectively, which is a very cool writing technique when used right. The mere fact that the sound of his watch was worrying him lets you feel his anxiety.

On Thursday, after all the students had read Bierce's short story, Ms. Taylor led a class discussion by using ten student-generated questions about the story. It seemed that the online discussions had caused the students to give considerable thought to the events in the story and to their interpretation of it.

### Questionnaires

On two different occasions, in February and again in April, I asked Ms. Taylor to respond to questions I had written for her. She agreed and kept the questions for about a week before she returned them with her written responses. The open-ended questions I gave her in February were as follow:

1. What do you think about using the Internet in the classroom? Do you feel it supports literacy instruction and literacy development?
2. How do you feel Internet reading and writing are different from traditional reading and writing?
3. How do you feel the Internet is affecting reading and writing in your classroom?

In April, 2002, I gave her the following probing questions to cross check and clarify the themes emerging from the data:

1. When you identify “to discover their inner voices” as a goal for your students, what do you mean by their “inner voices”? Are you referring to how they think and feel personally about something? [This question probes what she meant to an earlier response in which she had used the phrase “to discover their inner voices.”]
2. Can you give other examples of how Internet use may help your students discover their inner voices?
3. You mentioned that it was important that your students recognize areas for self improvement: in what ways may the Internet help your students recognize areas for self improvement?
4. You commented that Internet use helps students polish their communication skills: how does using Internet assist students to polish their communication skills?
5. Regarding lesson planning, how much of a resource do you feel the Internet been for you?
6. How often do you use it for lesson ideas and finding suitable material (“rich text, illustrations, primary documents, music, and photographs”) for classroom use?
7. How often do you use the Internet for communicating with students and/or parents?

8. How would you rate the Internet's usefulness against the adopted textbooks?  
[How do you feel it affects motivation to improve personal skills in reading and writing, standardized testing preparedness.]
9. Are there any other ways you can think of today that the Internet has assisted you in the way you do literacy instruction with your students?

At the conclusion of data collecting I gave Ms. Taylor a questionnaire to distribute to the students. All participating students responded to the following nine questions, and their responses provided useful data for me to complete my documentation:

1. Is there a computer in your home? How many?
2. How much time daily do you spend on the Internet? In school? At home?
3. When you are at home, in what ways do you use the Internet? [for email? Research? Others?]
4. What are some of your favorite websites?
5. How often do you go to the Pershing Middle School website?
6. Would you rather read a short story in a language arts textbook, or go online and read a short story that does not appear in your textbook? If you would rather read online, please explain why reading online is more agreeable to you.
7. What did you think about chatting online about short stories your class read this year? Did discussing a short story online seem to help you understand and appreciate the story?
8. Do you think using the Internet in language arts classroom has encouraged you to read more and write more? If you do think the Internet has helped, please give examples of when it has encourage you to read more and write more.

9. You have used the Internet to help you produce several interesting projects. Has using the Internet helped you create projects that made you proud of your project?

If so, please explain.

### Artifacts

I collected 28 examples of projects students produced using the Internet. These examples include the following: (a) the “found poetry” students wrote from Holocaust narratives they found online in preparation for their reading of *Diary of Anne Frank*; (b) “found poetry” students wrote based on slave narratives during their Civil War unit; (c) student’s personal comments of a famous quote; (d) book review of a state book award nominee; and (e) student’s thoughts on two photos from the Holocaust. The found poetry students wrote was poetry they created from words and phrases they “found” in written texts.

### Ethical Perspective

Glesne and Peshkin (1992) noted, “There seems to be no consensus or unanimity on what is public or private, what constitutes harm, and what the benefits of knowledge are” (p. 94). Nonetheless, I made some ethical decisions that guided my data collection and analysis. Most prominently, I did the following: (a) from the outset of this investigation, I explained the purpose of the study and did not engage in deception about the nature of the study; (b) In reporting my data and findings, I protect the anonymity of the participants by assigning a pseudonym to the teacher and assigning numbers to individual students; (c) and, I kept all recorded responses, with each tape carefully labeled and dated, in a safe place in my home and plan to erase them the day after my oral defense of this work.

From the first time I contacted Ms. Taylor by email in November, 2001, introducing myself and the nature of my study and why she was the teacher I was inviting to participate, I carefully explained the purpose of the study and what participation entailed for her and the students. For being a participant, she would receive from me the following: (a) my agreement to provide assistance with professional activities (e.g., willingness to advise, present at school's parents' night); (b) inclusion in co-presenting at professional conferences; and (c) a guarantee that she will be given the opportunity to read anything and everything written about data collected about her and her students. I assured her that no discomforts or stresses were foreseen and no risks were foreseen. I also explained that the results of her participation will be confidential and will not be released in any individually identifiable form without her prior consent.

In late January, 2002, when the data collection was about to begin, I respected Ms. Taylor request that she be the one to explain the nature of the study to her class and she would explain the consent forms also. Although I wanted to introduce the project to the students myself, it was easier for me to remain in a nonparticipant role with Ms. Taylor explaining my presence. These students were quite accustomed to being observed, and my presence in the classroom never seemed to be distracting.

#### Establishing Triangulation

I sought triangulation of information through cross checking observational fieldnotes, transcribed interviews with students and conversations with the teacher, and through teacher feedback after we had discussed my findings. Whenever I needed to cross check my data or findings, I would email Ms. Taylor, and she would promptly respond. I would stay after every observation to discuss with her what I had observed in

class and to ask her if she perceived things differently from what I had seen. Because Ms. Taylor's teaching day ended when her fourth period left the room, she was usually available to meet with me for another 30 to 45 minutes. Her interest in the research encouraged me to regularly discuss with her my conjectures about the data I was gathering. Ms. Taylor read the entire draft of this study, and then she emailed me her reactions to it. A copy of her emailed message, dated November 7, 2002, is attached to this study as Appendix C.

### Data Analysis

I accumulated 534 double-spaced typed pages including interview transcripts (transcriptions from audio tape recordings with teacher and students), fieldnotes, email correspondence, hard copies on on-line discussions among classmates and teacher, and hard copies of students' projects during the four months of data collection took place. Analysis occurred throughout the data collection and writing using the constant comparative approach (Glaser & Strauss, 1967) in an attempt to create categories that captured the participants' perspective. This method involved continuously creating categories and checking them for consistencies and inconsistencies against the data and revising them as needed. Constant comparison analysis continued until the data became redundant (Glaser & Strauss, 1967).

The data analysis for this study involved the following steps as guided by Stake (1995):

1. Managing Data (creating and organizing the data collected during the study). The purpose was twofold: (a) to organize the data into a form that would facilitate

analysis and check it for completeness; and (b) to start the researcher on the process of analyzing and interpreting the data.

2. Reading/Memoing (reading fieldnotes, transcripts, personal memos, observer comments, journal). The goal of this step was to get an overall a sense of the data. It entailed my writing notes in the margins as I began the search for common themes in my notes.
3. Describing (developing thorough and comprehensive descriptions in my personal journal on the phenomena studied). The description focused on painting a verbal picture of the context, processes, and outcomes as viewed from the participants' perspectives.
4. Classifying (breaking down the data into smaller units and determining the importance of these units).
5. Interpreting and Synthesizing (putting the units together again, identifying themes, and seeking triangulation of the data).

As I collected data, I highlighted key words and phrases and then made a list of those most frequently used. This list became my initial categories and started my process of analyzing and interpreting the data. In order to get a sense of the data, I wrote notes to myself in the left margins of my fieldnote pages. I also maintained a personal journal including my impressions of what I observed. My personal notes recorded in my fieldnotes and in my journal provided an opportunity for me to think about how the data related to my research question and to reflect on the biases I brought to this study.

I next read the fieldnotes, transcripts, and email from Ms. Taylor to check if the data supported my thoughts. New categories were added to the original list as they emerged

from the data. The themes emerged from these categories when I shared the categories with her on several occasions following class. Because I was able to discuss my observations and findings with her after every observation so that she could judge the accuracy and credibility of the findings, I was able to implement a member checking strategy. This technique is regarded by Lincoln and Guba (1985) to be “the most critical technique for establishing credibility” (p. 314).

Finally, I developed assertions (Stake, 1995) from analyzing the data. I organized my findings into an eight-page outline and identified supporting data for each category (see Appendix D for outline). I coded the type of data as “E” for email, “N” for fieldnotes, “T” for transcribed tapes, “A” for artifacts, and “B” for printouts of online discussions; and then I recorded the page numbers. For example, N-3 “What’s the difference between writing and talking?” indicated that in my fieldnotes, page 3, I would find students’ response to Ms. Taylor’s question. In drawing conclusions, I compared and contrasted these assertions with published literature on Internet’s influence on literacy instruction and learning.

In this chapter, I have presented the method used for this case study of how the Internet influences literacy instruction and literacy development in one eighth-grade middle school language arts classroom. The object of study in this case was how the Internet influenced literacy in one classroom. Introduced and described in this chapter were the following: (a) introduction, (b) setting of the study, (c) participants, (d) researcher’s stance, (e) *etic/emic* perspectives, (f) data sources and data collection, (g) ethical issues, (h) establishing validity, and (i) data analysis.

The following chapter four presents the findings of the study, including Ms. Taylor's and her students' perceptions of Internet's influence on literacy instruction and learning in their language arts classroom. Chapter four is constructed around five assertions that emerged from the collected data.

## CHAPTER 4

### FINDINGS

#### Introduction

*The Internet encourages my students to summarize information, to read intelligently, to use their minds and inquisitive spirits, and to continue on the learning journey. It is a tool I will continue to use as I continue to learn.*

Quote from Joy Taylor, May 1, 2002.

This chapter presents the results of my investigation of how the use of the Internet influenced literacy instruction and literacy development in one middle-school language arts classroom. The quote from Ms. Taylor, the classroom teacher, which begins this chapter, indicates her commitment to using the Internet and her belief that it plays an important role in her teaching and in her students' learning. In this chapter I present evidence from my data collection that documents the effects of that commitment and belief.

All data were collected during the four months that I gathered data in her classroom. The case study method was used to gain a valid picture of the Internet's influence on literacy in Ms. Taylor's classroom. Fieldnotes were kept on each classroom observation. With one exception, informal interviews were conducted with Ms. Taylor following each observation. Realizing that much went on in the classroom that might be missed, with Ms. Taylor's permission I audio taped and later transcribed the verbal interactions in the classroom and informal discussions, and then analyzed them for their evidentiary value. The 534 pages of data collected and analyzed drew on multiple sources of information (Creswell, 1998) that included these transcribed interactions and informal discussions

with Ms. Taylor and various students, fieldnotes, samples of students' work, printouts of online student discussions, and written responses to questions posed to Ms. Taylor and to the students. Each type of data was arranged in chronological order and kept in two loose-leaf binders.

Using a constant comparison approach to analyzing the data (Glaser, 1978), emerging themes led to the formulation of five assertions (Stake, 1995) that illustrate the ways the use of the Internet was influencing literacy instruction and literacy development in Ms. Taylor's classroom. The data analysis involved five steps as suggested by Stake (1995): (1) managing the data in a format that would facilitate analysis; (2) reading the data throughout the process of data collection to get an overall sense of it and to note emerging themes; (3) describing the case in detail; (4) classifying the data; and (5) synthesizing and interpreting to identify themes and to develop assertions about the case. The findings of this study, revealed and documented in the remainder of this chapter, are reported as a set of assertions. Presenting the findings as a set of assertions is an accepted way of reporting the lessons learned from a case study (Creswell, 1998; Stake, 1995).

Ms. Taylor's use of the Internet influenced how she planned instruction, how she taught literacy in her classroom, how she communicated with her students and their parents, and how the students' approach to reading and writing was changing. That is, I repeatedly found evidence that her use of the Internet was not a superficial addition to conventional literacy instruction, but that it had transformed her instruction on multiple levels (Bruce, 1997a; Reinking, McKenna, Labbo, & Kieffer, 1998). Thus, the results from this case study extend research about that transformational process and inform the field's understanding of the potential of the Internet to redefine literacy instruction

(Karchmer, 2001). The data also reveal and document how her students responded to the transformations of her teaching and thus how their literacy development came to accommodate new digital technologies (Leu, 2001; Leu, 2002; Leu & Kinzer, 2000).

Assertion 1: The use of the Internet influenced Ms. Taylor's literacy planning and instruction by facilitating the location of appropriate instructional material.

Ms. Taylor described herself as a “techie nerd” who daily surfed the Internet to find new material and ways to nurture students' literacy development. The Internet was an on-going resource, integral to her planning literacy instruction. In an emailed note, she wrote, “I enjoy research [on the Internet].... I like to glean needed (and sometimes not needed, but I just want to include it) information and talk about it with my students.” In her previous 10 years of teaching, she had planned her literacy instruction primarily using the conventional resources of textbooks, curriculums, and state approved objectives. The Internet, however, had transformed how she planned for her literacy instruction as it became increasingly a resource beyond the textbooks or curriculum guides for locating appropriate material that would enrich and complement her literacy instruction.

The data collected for this study repeatedly documented that Ms. Taylor used Internet resources to enhance the readings her students found in their textbooks. For example, Ms. Taylor located and directed her students to online sources that provided them with real-life texts that were relevant to the instructional outcomes and learning goals. In a written response to the question, “How is Internet reading and writing different from traditional reading and writing,” Ms. Taylor wrote, “Gone are the days of Dick and Jane. The Internet brings texts to the students' desktop that can enhance students' anthologies. It allows relevant and real-life text to enter their world.”

Fieldnotes and transcribed verbal interactions in the classroom documented the students' use of such relevant and real-life texts when they found and read famous speeches and quotations online as springboards for their public speaking and persuasive writing projects. For example, Ms. Taylor had the students read online Martin Luther King, Jr.'s "I Have a Dream" speech [the National Civil Rights Museum website, <http://www.mecca.org/~crights/mlk.html>] and then listen to an online recording of the actual speech in preparation for the book reviews they would create and place online. These reviews were about a book each student had chosen to read from the State Book Nominee List, and each student's book review included an illustration, storyline, their audio reaction, plus a reader's comment link. I observed the students as they listened to King's speech, and I recorded the following observations in my fieldnotes:

Students listened to MLK's speech while they followed on-line with the text. In doing so, they heard which words were emphasized, when the audience applauded, laughed, responded in shouting out "Amen," or "yeah." While the students followed the text, they dialogued with themselves on their laptops, or blocked and saved phrases and words into a word document, others kept switching back and forth between their notes and text as they listened. One girl shrunk her personal screen and watched both at the same time.

Ms. Taylor then asked the students what difference if any they had noticed between the written and the spoken forms of King's speech. The students' responded that by listening to the spoken form of King's speech, they could hear the emphasis he had placed on certain words. They also noted his use of the dramatic pause which allowed the audience

to think about what he had said. Their responses demonstrated what they were learning about the power of the spoken word.

Ms. Taylor spent time regularly surfing on the Internet to locate what she called “rich texts.” These rich texts included, for example, primary documents such as Sojourner Truth’s “And Ain’t I a Woman” speech and excerpts of Anne Frank’s diary. Other rich texts included websites that allowed students to hear famous speeches, view authentic photographs and artwork, travel vicariously throughout the world, and read famous quotes, speeches, short stories, and poetry. Examples of these sites included the Great American Speeches website, <http://www.pbs.org/greatspeeches/timeline/index.html>; Sojourner Truth’s speech for women’s suffrage, <http://www.discover.net/~dansyr/truth.html>; The History Place: Great Speeches Collection, <http://www.historyplace.com/speeches/previous.htm>; and excerpts of Anne Frank’s diary, <http://www.annefrank.nl/eng/diary/diary.html>.

Ms. Taylor believed that such rich texts could become topics for class discussions or models for her students’ writings. In an informal conversation she commented on her belief that using the Internet could enrich and complement the students’ textbook readings by bringing rich texts to them. She also recognized logistical advantages. For example, she did not have to think about how many copies of a text she needed to provide for her class. In an email, dated March 15, Ms. Taylor noted her enthusiasm for such quality text in the following way,

My biggest thrill is when I can give my students primary documents to read and examples of how the masters write and why they write. What awesome patterns to use for student writing! Text becomes alive when students can hear

voices, see pictures, and travel with their reading. We are not facing the age of pen and paper, but the age of access and speed.

In addition to surfing the Internet for rich texts, Ms. Taylor regularly spent time on the Internet locating lesson plan ideas that would enrich and complement her literacy instruction. During an informal conversational interview (Patton, 1990), she gave this explanation as to how the Internet assisted her planning,

The Internet is a resource for my lesson planning, but I always want more than I can find. I look for ready-made lessons, of which there are many, but I still must tailor make the lesson to fit my needs. ...It encourages me to find information, adapt it to my students' needs, and give it my own tweak to make it work in my classroom. ... I am on the Internet everyday looking for more ... it brings out the learner in me, and my enthusiasm definitely spreads to my students.

When asked in another informal conversation if her enthusiasm for using the Internet to locate instructional material had resulted from some sort of technological break through, she responded without hesitation. She quickly retorted, "It was evolving. It was just the thing to do because I love to just surf. There's so much out there." An example of when and why Ms. Taylor would surf the Internet when planning instruction was illustrated by her explanation March 5 during an informal conversation after class of how, in collaboration with their Earth Science teacher, she was teaching the students how to write business letters requesting information on careers for a project they had,

[For Earth Science, students] are going to be sending letters to different occupations, so I have to teach the business letter format. So...I went online to see if anybody does it [using the Internet]. I just don't want to say, "Open up your

book and look at the template”—I just can’t do it that way. And so I was trying to find if someone had some creative way to do that.

Ms. Taylor’s method of instructing often included a combination of challenging the students with difficult texts to read and discuss, allowing them choices, and encouraging them to collaborate with one another and to make meaning through reading and writing. Turner and Paris (1995) suggested that these factors promote students’ self-efficacy and influence students’ motivation for literacy. An example of how Ms. Taylor encouraged her students’ self-efficacy and motivation for literacy was noted from reading printouts of online student discussions of a slave narrative, “Richard Toler, Cincinnati, Ohio,” written during the Civil War (see Appendix E, for a copy of the slave narrative).

[ <http://xroads.virginia.edu/~hyper/wpa/toler1.html> .] Ten of her students discussed “Richard Toler” online for a week in the evenings from their homes. Their online conversations illustrate how such discussions with peers enhanced their understanding of the text.

Student #2: I’m not quite sure what Richard Toler means when he says he has a broken stomach, but I think he may not literally have his stomach broken. Maybe him [sic] saying he has a broken stomach is a metaphor for something else.

Student #21: I think that his “broken stomach” is due to a rupture of sist [sic]. Probably from the malnutrition that he got on the plantation. I bet a lot of slaves were not very healthy due to the bad conditions that they had to live under. I feel sorry for him. I think that life on that plantation must have been even worse than he said it was. With all the bad food they had to eat, and how they slept.

The students' reading abilities varied greatly, and Ms. Taylor believed the Internet's format offered a needed variety for students of differing abilities. She commented by email,

Teachers need a hook to grab those who are not doing well and help them find ways to improve. Encouraging curiosity and inquiry nudges students forward. The Internet provides information ... so students can find things they would not have found otherwise.

Students received assistance from peers through online discussions of texts and from working on projects in collaborative groups. The Internet also gave students access to information in pictorial format and audio format as well as written texts. For example, some students chose pictorial or audio formats over text format when given the choice.

Despite her investment in and enthusiasm about using the Internet in her classroom, Ms. Taylor maintained fervor for using and exposing her students to conventional printed texts. When asked how she would rate the Internet's usefulness versus the standard textbooks, Ms. Taylor responded, "It allows students to read and see more.... However, in reality, an e-text just does not feel the same as a book. It is hard to feel passionate about a document, but a book is a tale of beauty."

As Ms. Taylor became more proficient researching and finding information online, she realized that there were new literacy skills and that she needed to accept responsibility for developing her students' mastery of those skills too. For example, she commented one day, after I had observed the students as they researched information for their Civil War vignettes, that using the Internet effectively for research purposes involves knowing the key words to use in searches. She believed that if she could

provide them with the knowledge of how to identify key words, she would have done her job. She realized that they would need this skill to use the Internet efficiently in the future. The data documented that she pointed out, either incidentally when needed or when a teachable moment arose, how to determine the key words to use for a search.

An important factor that influenced Ms. Taylor's decision to use the Internet to locate appropriate instructional material was the availability of access to the Internet as well as to technological support from the school staff. Having the technology and the technical support were essential for her to be able to explore new ways of teaching using the Internet. She indicated in several informal conversations that her students would have used the Internet more often in class if the computers had been more readily available. As described in Chapter 3 of this dissertation, the instructional media and technology program at Pershing Middle School was equipped with a total of five desk-top computer labs plus three mobile carts with 30 wireless laptops, a large screen monitor/TV, and a wireless teacher keyboard. One of the computer labs and one of the mobile carts with 30 wireless laptops were designated for 8<sup>th</sup> grade use. Internet access was provided with each desktop and laptop computer. Ms. Taylor could reserve either of the two labs designated for 8<sup>th</sup> grade use for one week each grading period and on days it was not in use by another class. Pershing had a director of instruction and technology, a local school technical coordinator, technicians for each computer lab, and student assistants for each computer lab. Therefore, whenever Ms. Taylor needed technical help, there was usually a staff person available to assist her and the students.

In summary, Ms. Taylor had moved beyond viewing the Internet as more than a new fad in education and beyond seeing it as simply a supplement to conventional instruction

based on printed texts. It was integral to her planning of literacy instruction because it allowed her to access an almost unlimited number of rich texts and lesson plan ideas. Ms. Taylor used the Internet daily because of its speed and access to resources. She noted in an email her keen interest in searching for suitable lesson ideas and materials that would enhance student literacy learning. In that same email she stated that the Internet with its unlimited resources was a tool that prompted her to keep searching until she ultimately suffered from what she referred to as the “just-one-more-time syndrome,” meaning that although she had been at it for some time, she would nevertheless search one more time for something that might add to her teaching before she would finally sign off. She clearly saw the Internet as a rich source of materials and ideas that shaped her literacy instruction. The convenience of that access provided by the diversity of materials on the Internet and the availability of technology and logistical support fueled her and her students’ enthusiasm, which in turn stimulated and reinforced her integration of technology into her instruction.

Assertion 2: The use of the Internet facilitated a learning environment that encouraged student-centered, collaborative learning.

Ms. Taylor’s Internet-based instruction was focused on students’ learning rather than on teacher-centered learning. Although the topics of the units and the websites related to the topics were chosen by Ms. Taylor, she encouraged the students to choose the related links that interested the students most. For example, before the students began reading a play of Anne Frank’s life from their anthology textbook, Ms. Taylor had the students look at Holocaust websites on their own. Although she had provided the list of websites they were to visit, she encouraged the students to look at whatever links on the sites were

of interest to them. As the students did their online reading, my data indicated there was absolute silence. They wrote notes and reactions that they would later use to create their own Holocaust poetry. The Holocaust sites they visited were linked to the school's website and included the following: <http://www.giver.homestead.com/holosites.html>; <http://www.annefrank.com/index1.html>; <http://www.annefrank.nl/eng/default2.html>; and <http://www.annefrank-online.de/e-index.html>. Another example of student-centered learning was observed during the Civil War unit Ms. Taylor taught at the same time students were studying the Civil War period in their Social Studies class. To enhance their understanding of this period in history, Ms. Taylor placed online at [www.Blackboard.com](http://www.Blackboard.com) and instructed the students to read one of four slave narratives, their choice of diary entries and letters written during the Civil War, as well as the Ambrose Bierce short story, "Occurrence at Owl Creek Bridge." To help them visualize the war experience, she directed the students to view their choices of photographs from the Library of Congress' American Memory collection of photos, <http://memory.loc.gov/ammem/cwphtml/cwphome.html>. She also had them read aloud the novel *Bull Run* by Paul Fleischman.

The culminating assignment for this Civil War unit was for the students to write a script for a five-minute skit. Their script was to be in the form of a vignette depicting an incident from the Civil War period. Ms. Taylor gave very few instructions. She told them that they could work on their vignettes alone or in groups of no more than three. They were to include stage directions in their script and their oral presentations were to be five minutes long. Students were allowed to decide what they wanted to research and how they would present their findings to the class. As students pulled together what they

had studied in Social Studies and what they had researched online in Language Arts and wrote their scripts, Ms. Taylor assumed the role of facilitator and coach.

The students engaged in constructing and shaping their own knowledge when they were allowed to choose what they wanted to research, which also created a learning environment that was distinctly collaborative. They often helped each other make meaning from what they were reading, or seeing, or hearing online. For example, during class one day each student had a wireless laptop and was looking up famous quotations as a prompt for the book reviews each would soon be creating for online publication. In a non-threatening way, one student was corrected by the student sitting next to her as she announced out loud,

Student #4: What is this? “To ærr is human.”

Student #1: No it’s “air.” You know, like in “error.”

Student #4: Oh. Sure, I get it. Thanks.

Again in a non-threatening manner, online discussion groups in the evenings helped students comprehend texts that at first posed a problem for them to understand. For instance, when Shelly (a pseudonym) had trouble understanding the dialect in a slave narrative about Richard Toler that Ms. Taylor had posted for them to read on [www.Blackboard.com](http://www.Blackboard.com) during their Civil War study, Ben (a pseudonym) offered the suggestion, “Try reading it out loud to see if it will make better sense.” Online discussions of the slave narrative “Richard Toler” also aided the students’ comprehension because as student #3 explained in an informal conversation, “The chatting and being able to ask questions and receive answers from other students helped when I was confused about something.” Although all the students in this study had Internet access at

home, there were times when some were not allowed to use it at home. These times included when students were disciplined by losing Internet privileges, or when someone else in the family had a more urgent need to use it. However, if students could not participate in the online discussions, they recorded in their reading journals their questions and thoughts about the reading and then entered into discussions during class time.

As noted already in relation to this assertion, my data indicated that the use of the Internet encouraged collaboration among the students, which seemed to increase achievement. Group discussion and cooperation promoted discovery, encouraged high-quality cognitive strategies, and seemed to increase students' motivation to learn. Students often worked on projects in collaborative learning groups, sometimes choosing a number to determine which group they would be in or sometimes forming their own group with no more than the maximum number delineated by Ms. Taylor. These collaborative learning groups might be formed for a short project that lasted only two days or for a project that would take several more days to complete.

One example of a short-term collaborative project that seemed to promote discovery, encourage high-quality cognitive strategies, and motivate students to learn was a two-day lesson in a unit on the Holocaust. Students drew a number to determine which group they would work with. Then each group went online to view Holocaust drawings by David Olére at <http://fcit.coedu.usf.edu/Holocaust/resource/gallery/Olere.htm>. The websites students visited were linked to the school's website. Their instructions were to view their assigned drawing online by slowly scrolling down the drawing so that they focused on each segment of the picture and to zoom in and look at the details. Then in

their groups, students talked about what they saw in the drawing. Questions were provided for each drawing to assist the students in their discussion. As details of the drawings were noted, they were recorded by the group's scribe. Then, the students went online [<http://fcit.usf.edu/Holocaust/arts/litSurvi.htm>] and read excerpts from *Night* by Elie Weisel and each group decided if any of the excerpts described their group's drawing and might be used as a caption or title for their drawing. If they found nothing appropriate for their drawing, they created a caption. I noted in my fieldnotes that the group discussions were lively and intent as students pondered the meaning of the symbols and the details in the drawing and decided on an appropriate title or caption for the drawing. On the following day, each group presented their findings of the drawing to the class.

In summary, the use of the Internet seemed to foster and facilitate an environment that encouraged student-centered, project-based learning. Online discussions and collaborative learning activities seemed to increase student achievement by enhancing motivation and discovery and enriching the learning experience by blending students of a variety of ability levels and experiences. During all my observations of students working in collaborative groups, I never noticed a single student off task or seemingly uninterested in the group's learning activity. Cooperation among peers also promoted highly positive relationships in the classroom and beyond it.

Assertion 3: The use of the Internet positively affected aspects of students' reading and writing, specifically their motivation to read, their critical reading skills, and their sense of audience and word choice.

The Internet motivated both the students and the teacher to read more because it provided quick access to more engaging texts than they found in their textbooks. In response to the question, "Do you think using the Internet in Language Arts class has encouraged you to read more and write more?" Student #1 wrote,

I think the Internet has definitely helped us. By reading stories on the Internet, we were sometimes encouraged to read others like that. Having a discussion made us write down our comments and react to the stories and think more in depth about them.

Although, Ms. Taylor remarked during a conversation after one class that she would not say with certainty that the use of the Internet helped students improve their reading skills, she was confident that when the students used the Internet for research purposes, they were motivated to read more than if they would have been limited to conventional print. The reason they were motivated to read more was because the Internet as a tool helped them to find and to read more about what interested them about the subject being studied in class and thereby helped them to explore the subject on a more meaningful and critical level. One student seemed to articulate the feelings of the class when he explained why he preferred to research online: "In textbooks, they might not have all the information you need, so you might have to look in all kinds of books. But online, it is just a mouse click away."

One example of how the Internet encouraged students to explore a subject on a more meaningful and critical level than would have been possible from their textbook occurred when they used the Internet to research the Holocaust before they read the “Anne Frank” play that was in their textbook. The Holocaust websites included the following: Holocaust Links at [www.giver.homestead.com/holosites.html](http://www.giver.homestead.com/holosites.html); Anne Frank Center website at [www.annefrank.com/index1.html](http://www.annefrank.com/index1.html); Anne Frank House at [www.annefrank.nl/eng/default2.html](http://www.annefrank.nl/eng/default2.html); Historical Context of Anne Frank Diary at [www.annefrankonbroadway.com/anne-cgi/af?studyguide/2.html](http://www.annefrankonbroadway.com/anne-cgi/af?studyguide/2.html); and Nicole Caspari’s Anne Frank Website at [http://annefrank-online.de/e\\_index.html](http://annefrank-online.de/e_index.html). Ms. Taylor’s instructions to the students are found in the transcribed verbal interactions in the classroom on April 17,

See how many of these websites have links. I encourage you to look at those links.... Look at the links that peak your interest.... There are many that have photographs. There are some on Auschwitz, Dachau, a lot of concentration camps. They take you into those concentration camps, and you can look at some of what was there and some of the comments, so you’re going to be pretty much on your own, going where your interests lie. What I’m asking you to do is once you find a site that you would like to really look at and investigate further, ... you can either make a response in regard to whatever you’re reading or looking at, or you can take on a perspective.

An example of one student’s response to pictures from the Holocaust may be found in Appendix F. As the student’s response illustrates, authentic photographs and virtual tours helped students visualize the Holocaust experience realistically. Although pictures from

the Holocaust can be located in sources other than the Internet, the ease and speed with which these pictures were located were noted in my fieldnotes and in the transcribed verbal interactions in the classroom and informal discussions.

The students' excitement over independent discoveries fueled their motivation to find and learn more. When they worked on their Civil War vignettes, for example, some students were interested in locating maps of various battle sites while others searched Civil War narratives, or journals. The students had learned the importance of using what Ms. Taylor referred to as "key words" to do Internet searches for what they wanted to know. Each find led them to want to search further and ask other questions. This process of research also seemed to advance their strategic reading skills as they asked themselves what they needed or wanted to find next. They also integrated what they were learning from their online research with what they had learned in their social studies class. The students' heightened interest in the content of the texts and their searches seemed to advance their literacy skills in the following ways: how they found, scanned, read, evaluated, discussed, and synthesized the texts. For example, when two students wanted to learn more about the Civil War battle at Adairsville, Georgia, they did an Internet search for the battlefield and found strategic maps of the area, estimated casualties, and other information that they were able to use as they wrote their Civil War vignette.

Students exercised their critical reading skills as they thought deeply about the short stories they read and discussed online or when they responded to online material and wrote in a stream-of-consciousness format. For example, the following are some of the comments students made online in their discussion groups after they had read "Occurrence at Owl Creek Bridge," a short story by Ambrose Bierce,

Student #12: I like the story. At first it took me a couple of times to get it, but it came to me. I like the description in the story.

Student #2: At the beginning of this story, it seemed a bit confusing, but after I finished I realized what it was about. The last sentence explains it, if you can't figure it out before the end. I really like this story because it "explodes the moment" effectively, which is a very cool writing technique when used right. The mere fact that the sound of his watch was worrying him lets you feel his anxiety.

Student 1: This story definitely reminded me of Poe. Not only the watch thing but also his style. It all was making good sense until the last line put a new twist on it and you have to think about it again to re-understand it. That's kind of what Poe does.

Student #18: I agree. It was like really descriptive. I was getting all these images in my head, and it was so easy to understand. Well, I guess since my mom read it with me. I got a really good image from the part when he was describing the surroundings and what he was thinking. It was like I was there.

Students used this stream-of-consciousness approach often as they contemplated and responded to various texts and pictures they encountered online. (See Appendix G for an example of a student's stream-of-consciousness response to a famous quote.)

Online publishing influenced not only the quality of students' completed projects but also the process they used to create their projects. This influence was apparent when each student read a book from the State Book Award Nominee list and then each posted a story line of the book, an illustration, an audio reaction to the book, and a reader's

comment block at the end [see Appendix H for an example of a student's online book review]. The students used the Internet to read reviews online about a novel they had read, *Nothing but the Truth* by Avi (at <http://www.amazon.com>), and also to read famous quotations and to read and hear famous speeches. Next, they discussed word choice and the speaker's emphasis of words. All of these prewriting activities were intended to help them write their own reviews and decide what they would say when recording their one- or two-minute reaction to the book. The following thoughts from student #2, shared during an informal interview, indicate the sense of audience he gained from reading and discussing online reviews,

There's something about being on the computer.... It makes me a little more excited about doing [projects].... It's a nice change of pace from...just giving a report in the classroom. I think it helped to see other reviews online because you are thinking ... other people are going to see this and they are going to comment about it and ... it feels good.

Whereas Reinking and Watkins' (1996) findings indicated that middle-grade students' multimedia book reviews were influenced most by producing the book reviews using technology, students' interest in these multimedia book reviews for Ms. Taylor's class resulted from not only their learning how to produce a review online but also from the capability of the Internet to receive comments from the readers. Ms. Taylor and her students exploited Internet communication as a medium for providing an authentic sense of audience for their literacy activities. The findings of research on writing using the Internet have illustrated its potential for helping students develop audience sensitivity and writing skills (see, Hawisher & Selfe, 1998). When Ms. Taylor's students used the

Internet for communication, they wrote for a real audience of one or perhaps many. Ms. Taylor took advantage of this experience by helping students develop a sense of the audience. For example, one student received the following emailed response from the author, Barbara O'Connor, of the book he had reviewed online,

I'm the author of Me and Rubert Goody and would like to commend Chris on his perceptive insights into the story. Obviously, I'm pleased that he liked it. But more than that, I'm thrilled that he really "got it"--that he saw the important themes of the book. Thank you, Chris,

Barbara O'Connor

Many of the activities students conducted using the Internet increased their awareness of the importance of word choice. Two significant examples of how word choice was emphasized by using the Internet were (a) when they listened to famous speeches found online, and (b) when they created found poetry from children's narratives of the Holocaust. These famous speeches with their repetition and careful choice of words provided the students with models for the short speeches they would compose, record, and then link to their book review webpage.

For example, prior to students' recording their own reactions to the young adult novels they had read, they went online and read first then listened to Martin Luther King, Jr.'s "I Have a Dream" speech [<http://www.pbs.org/greatspeeches/timeline/index.html>]. They discussed his use of figurative language and use of repetition. When Ms. Taylor asked the students "What's the difference between a text and its speech?" the students responded, "Emphasis." A discussion followed as Ms. Taylor led the students through several other famous speeches that use repetition for stylistic effect, reinforcement of

meaning, and emphasis (e.g. Franklin D. Roosevelt's "Declares a State of War against Japan" speech, <http://www.pbs.org/greatspeeches/timeline/index.html>; and Sojourner Truth's "And Ain't I a Woman" speech, <http://www.discover.net/~dansyr/truth.html>). Choice of words was also examined as students looked in King's speech for examples of what Ms. Taylor called "touchstone" words and phrases, by which she meant words that would represent places and memories the audience would recognize.

As they read children's accounts of the Holocaust online [[http://www.adl.org/children\\_holocaust/children\\_main1.asp](http://www.adl.org/children_holocaust/children_main1.asp) and <http://fcit.usf.edu/HOLOCAUST/people.people.htm>], the students used the computers' highlight tool to help them mark key ideas and important phrases. Then, using the words and phrases they had highlighted, the students created "found poetry" based on those accounts. (See Appendix I for an example of those found poems). Although students could have composed poems about the Holocaust without the use of the Internet, having access to the vast amount of online information about the Holocaust, having the freedom to choose sources and information, and having the convenience and speed of the highlight tool contributed to both the quality and the speed with which students completed this project. Students enjoyed writing their found poetry and believed that doing it online had been quicker for them than if they had used a more conventional procedure with pen and paper. For example, one student stated as she highlighted words and phrases that stuck out at her, "I'll come back to the highlights and decide then if I want to use them in my poem." Students used the copy and paste tool to illustrate their poems with authentic pictures of the children in their poems. Often, students used the name of a person from

the Holocaust as the title of their poems. Most of the students also used the watermark tool to place an enlarged picture of the person discussed in their poem.

In summary, the use of the Internet influenced at least the following three aspects of the students' reading and writing: their motivation to read, their critical reading skills, and their sense of audience and word choice. Because of its quick access to more engaging texts than those found in their textbooks, both the students and the teacher were motivated to read more. Furthermore, the students' enthusiasm over independent discoveries fueled their motivation to find and learn more. Students exercised their critical reading skills whenever they thought deeply about their online reading and then either discussed the reading with peers or reflected on it using a stream-of-consciousness format. Students Internet-based writing projects helped them increase their sense of the audience and their awareness of the importance of word choice.

Assertion 4: The use of email influenced the learning context by expanding the teacher's contact with students and parents beyond the classroom.

For Ms. Taylor, email became a means of quick communication with both her students and their parents or guardians and, as such, changed the learning context. For example, it supplemented face-to-face conferences, handwritten notes, and phone calls. Although Ms. Taylor believed that email could not replace a face-to-face conference or a handwritten note or a necessary phone call, she found that email proved beneficial for the learning context because it provided another medium for communication between the teacher and students and parents. This medium for communication extended the teacher's contact with students and parents beyond the classroom. For example, at the end of the

year, Ms. Taylor encouraged her students to write good comments about each other, similar to the quotes they had found by Anne Frank about people she knew. My data showed that Ms. Taylor then used email to solicit volunteer parents to type the students' comments before she distributed the comments about the student to that student.

Ms. Taylor pointed out to me that email was a daily means of communication for her. In fact, she maintained two email accounts; one was her school email account for her 98 students and their parents, and the other was her personal account for her family, friends, and personal business. During a conversation one afternoon after I had observed her class, Ms. Taylor explained that although email would not take the place of the sound of a real voice for her, email had become so important to her and her teaching that she nightly checked her email several times at home. Ms. Taylor admitted that she left the computer on at home all the time so that she could, in fact, check her in-coming email notes frequently.

Easy access to the teacher by email provided students with an opportunity to ask for clarification of an assignment or help when they didn't understand an assignment. Email also allowed students a quick way to send a note to their teacher about an SAT vocabulary word they found in print or heard someone use. During one informal conversation after I had observed the class, Ms. Taylor sat down at the computer beside her desk, called up her email and showed me some of the most recent messages she had received from students. Students had not only emailed her when they had found a SAT word or something related to what they were studying, they had also voluntarily sent her useless but interesting information: such as, "almost" is the longest word with all the letters in alphabetical order. Ms. Taylor responded daily to every email she received. I

noted the speed of such responses was compared to delayed response that students often receive from classroom dialogue journals where the teacher responds to students' written entries and the teacher does not return the journals until the next day or longer.

These email correspondences appeared to increase students' motivation to find and use in real-life contexts the vocabulary words they were learning and their motivation to look for and share peculiar facts about the English language. Email correspondence also enabled the student with a question to receive assistance more quickly than waiting until class the next day. The communication online often extended the learning setting beyond the classroom and school hours. Naturally, the telephone could have provided the teacher, students, and parents a means for communication, but email provided a means that was less interruptive than the phone call might have been.

In summary, the use of email influenced the literacy learning by expanding the teacher's contact with students and parents beyond the classroom. That is, email became a means of quick communication between Ms. Taylor, her students, and their parents that supplemented the conventional methods of communication which include conferences, handwritten notes, and phone calls. By emailing Ms. Taylor notes about finding their SAT words in print or hearing them used, students were motivated to find and use their vocabulary words in real-life contexts. Students also asked for and received advice on assignments in a speedy fashion.

Assertion 5: The use of the Internet promoted new instructional outcomes and learning goals related to using digital materials, although Ms. Taylor did not abandon conventional goals.

An important factor that influenced the learning goals Ms. Taylor set for her students was her desire to prepare her students for literacy in an Internet world. She viewed the Internet as being a gateway to the future and believed that her students would be using it throughout their lives. She regarded the Internet as a tool to inspire interaction between her students and to encourage them, as she stated in the quote at the beginning of this chapter, “to use their minds and inquisitive spirits.” She believed that her primary goal in teaching Language Arts was enhanced by the use of the Internet, as she recounted in the following written comment to an open-ended question,

I teach Language Arts in a middle school which focuses on the communication skills of reading, writing, and speaking.... My goal in Language Arts is for my students to discover their inner voices, recognize areas for improvement, and polish their communication skills. With the magic of the Internet, all three come together at my students’ fingertips. Examples of literacy through use of the Internet can be seen through their reading of rich texts, through the poetry they write, their research, chats-on-line, streams-of-consciousness, responses to music and photographs, and their thoughtful reflection.

She explained the students’ inner voices in this way, “The voices I want my students to hear are the voices that create and reflect meaning: their meaning. These voices need to be heard and be given merit, for these are the voices that give aesthetic meaning to literacy.”

Ms. Taylor believed that the students' use of the Internet in the classroom encouraged students to discover what online text meant to them personally, to critique their own work, and to polish their communication skills. As previously noted, the students discussed in online discussion groups what they thought and questioned about text they had read online. The students' comments when they discussed "Occurrence at Owl Creek Bridge," a short story by Ambrose Bierce and when they discussed slave narratives of the Civil War period illustrated how they were actively involved in their reading of the texts. Students commented to me how reading what had been published on the Internet often caused them to be more aware of correct spelling and grammar in their own writing and that they were encouraged to proof read their original work before allowing others to read it.

Ms. Taylor believed that the use of the Internet permitted students to recognize areas for improvement and to polish their conventional communication skills. Although Ms. Taylor preferred using authentic texts online when she taught grammar, she was concerned about preparing her students for the standardized tests they would take. As she taught grammar with online texts, she took care to use the literary terms and grammatical terms she knew they would see on the tests. She noted a problem that often occurred with their online readings,

The biggest problem I have [with correlating the county's learning objectives] with students' reading online texts is with [grammar and punctuation] things that I'm supposed to be teaching them, and then the minute we get into a good story, it's thrown to the wind. The authors do not abide by the rules, and sometimes that's interesting.

Nevertheless, Ms. Taylor always encouraged her students to use proper grammar and punctuation, even though they found where authors had ignored the rules.

Ms. Taylor and her students agreed that the use of the Internet influenced the level of their research and the quality of their final projects. For example, when their work was to be published on the class website, they took special care and pride in producing something they would be pleased to have others view online. Student #1 explained in an informal interview, “Knowing our projects will be displayed on the Internet pushed us to work harder on them. It also provided more resources for us.”

During an informal conversation one day after I had observed her class, Ms. Taylor commented, “I have finally realized that the beauty of working with technology is not the end product, but the journey we take in getting there.” In other words, the process of learning with the Internet had become more important than the products students created with the Internet. Furthermore, she did not hide the fact from her students that she was learning more with the Internet as they were learning more.

In summary, the use of the Internet promoted new instructional outcomes and learning goals related to using digital materials. Ms. Taylor believed that the students’ use of the Internet in the classroom encouraged students to discover what online text meant to them personally, to critique their own work, and to polish their communication skills. The process that the teacher and students engaged in when working on Internet-based projects seemed more important to the teacher than the products students produced.

### Conclusion

In summary, the findings of this study reveal that Ms. Taylor’s use of the Internet in her classroom most directly affected access to texts, teacher and student motivation,

students' critical reading skills as they interacted with texts, communication with teacher, students, and parents, the quality of students' projects, and Ms. Taylor's goals for her teaching and her students' learning. She viewed the Internet as an invaluable learning tool with its access and speed capabilities, so it made sense to her that her students should use it whenever it was available for them.

Her goal was to help her students learn how to be both researchers and explorers as they used the Internet to engage the subject matter and to find answers to their questions. She was directly involved with her students and their learning frequently helping students when appropriate and always encouraging them to help each other. She modeled how to use the Internet by presenting directions in the first person singular and plural as she instructed them in class what they would be doing online. She implied that she was continually learning how to use the Internet effectively in her literacy instruction.

In Chapter 5, I will discuss the findings of this study and then present their implications for practice. Limitations of the study will be included, followed by suggestions for further research and an overall conclusion of the study.

## CHAPTER 5

### DISCUSSION, IMPLICATIONS, AND LIMITATIONS

#### Introduction

A decade ago, few classroom teachers considered the possibilities of using the Internet in their classrooms to enrich literacy learning, because few had access to the Internet in their classrooms. In fact, in 1994 only 3% of the classrooms in our nation's public schools had at least one computer with Internet access, according to the National Center for Educational Statistics [<http://nces.ed.gov/fastfacts/>]. Although Internet connections had been added by the Fall of 1997 to 77% of the instructional classrooms (National Center for Educational Statistics, <http://nces.ed.gov>), few teachers found ways to integrate it into their daily teaching (Leu, 2000). Today, teachers may be found throughout our world who are choosing to use the Internet in their teaching. Although many have argued that the Internet is now central to conceptions of literacy (Leu, 2000; Reinking, 1998; Vacca & Alvermann, 1998; and Wilhelm, 2000), what have we learned about how the use of the Internet in the classroom influences literacy instruction and literacy development? This investigation explored that question with one Language Arts teacher and her students.

This concluding chapter summarizes the results of my investigation and is divided into three sections: discussion, implications, and limitations. The discussion section is a review of the findings of the overall question "In what way, if any, does the use of the Internet influence literacy instruction and literacy development in a middle-school

language arts classroom?” and of the following specific questions: (a) Does use of the Internet transform literacy instruction and the learning environment? (b) Does use of the Internet transform students’ approach to reading and writing? (c) Does use of the Internet transform teacher, student, and parent connections? and (d) Does use of the Internet transform instructional outcomes and learning goals? In the second section, the instructional implications of these findings are suggested. The final section presents the limitations, suggestions for future research, and overall conclusions of the study.

### Discussion

Ms. Taylor and her students identified a number of ways they felt the use of the Internet influenced literacy learning in their classroom and their perceptions were supported by my observational data and the products they created in their classroom. The findings of this study support Ms. Taylor’s opinion that the Internet was transforming her instruction and her students’ literacy learning. The Internet was an integral part of Ms. Taylor’s planning and her instruction, and the students’ were clearly involved in literacy activities centered in the Internet, which had potential to help them become better consumers, analyzers, and producers of digital language and images. Ms. Taylor’s use of the Internet in her teaching reflected much personal time and commitment to exploring the Internet. She constantly made choices as to how to use all the tools at her disposal including the Internet to enhance her students’ learning. She developed opportunities for her students to hone their skills at analyzing, synthesizing, and evaluating what they found on line and then to create and publish online. The following is a discussion of the key findings as they relate to the four questions listed in this chapter’s introduction.

### Transforming literacy instruction and learning environment

The findings of this study indicate that the use of the Internet was transforming how Ms. Taylor planned and conducted her literacy instruction in at least three ways, each of which is supportive of the findings of Garner and Gillingham (1998) in their case studies of six classroom teachers. First, the Internet had become a necessary tool for Ms. Taylor because it represented an unlimited resource that helped her expand her repertoire of materials and methods to help her plan new ways of inspiring interaction between her students and their learning. For example, when planning a unit of study, she searched out online-lesson plans and modified them until they suited her objectives for the lesson. The Internet often provided resources for helping the students establish background knowledge for a new subject they were about to study together. For example, before the students read aloud a play about Anne Frank from their anthology, Ms. Taylor had them research children's narratives of the Holocaust and had them travel vicariously online to Anne Frank's hiding place in Amsterdam. The students also went to a variety of websites to explore information about the Holocaust. Some visited sites that posted authentic photographs of the related events, while others chose to listen to audio accounts by survivors. Other researched Hitler and listened to one of his persuasive speeches.

After students had read the play and several students had read Elie Wiesel's *Night*, about the Holocaust, Ms. Taylor followed up their readings with a study and discussion of drawings by Holocaust survivor David Olère. Students learned from their online reading of excerpts of Anne Frank's actual diary that some of the details in the play they read were not authentic in terms of historical accounts. Through their research online, their in-class reading of Anne Frank's experience, and their comparison of primary

sources to secondary sources, the students enhanced their understanding and appreciation for Anne Frank's story. Clearly, the use of the Internet was transforming how Ms. Taylor planned and implemented literacy instruction in her classroom as she moved from merely adding new technologies for reading and writing into her existing pedagogy to continually creating new ways or changing her conventional ways of teaching to incorporate new uses of the Internet (Reinking, Labbo, & McKenna, 2000).

Second, she was becoming more reflective about what her students learned and how they learned it. As she became more proficient researching and finding information online, she realized that there were new literacy skills students needed to learn and she needed to teach them. For example, she believed that it was important to provide students with the knowledge about how to identify key words to use when researching with the Internet. She implemented online discussion groups because she knew students would engage more in discussing the readings than if they only discussed the readings during class.

Third, her instructional methods and classroom routines were evolving into a more student-centered, constructivist stance (Vacca, Vacca, & Bruneau, 1997) toward learning rather than a traditional distribution-of-facts and skills-related pedagogy. That is, she encouraged her students to construct knowledge for themselves as evidenced in the Internet-based learning she planned for them. Usually these Internet-based activities were collaborative endeavors. Classroom use of the Internet fostered higher levels of social interaction and collaboration (Bruce, 1997; Leu & Kinzer, 2000). This study documents students helping each other in these collaborative learning opportunities in learning how to learn about literacy (Chapman, 1994; Labbo & Kuhn, 1998).

The use of the Internet helped create an ambience in the classroom that encouraged critical thinking and learning. Across the top of one of the classroom's walls, Ms. Taylor posted favorite quotes found online that encouraged and challenged the students to read, to think, and to be responsible for their work. The Internet provided information and made it readily available so the students could find things they would not have found otherwise. Ms. Taylor encouraged her students to share their findings with fellow students and to help each other with technological problems. Her Internet-based instruction focused on students' learning rather than on her teaching (Garner & Gillingham, 1998).

In this study, the most consistent effect of Internet use on the learning environment was enhancing and sustaining motivation for both the teacher and the students (Kamil, Intrator, Kim, 2000; Leu, 2000). Ms. Taylor's enthusiasm for researching on the Internet was caught by her students, and their enthusiasm in turn reinforced her own efforts. Students' excitement over independent discoveries fueled their motivation to find and learn more. The students' increase in motivation is supportive of theories of motivation (Lepper, 1985) and constructivism (Vacca, Vacca, & Bruneau, 1997). That is, students' enthusiasm for researching on the Internet seemed to be fueled in the following ways which are similar to those suggested by Lepper (1985): (1) Internet-based learning provided intellectual challenge, thus motivating students to seek solutions to their problems; (2) Internet-based learning stimulated students' curiosity and desire to resolve their problems; and (3) Internet-based learning provided students a sense of independent control and mastery over the material. Each of these three ways is grounded in the constructivist theory.

### Transforming students' approach to reading and writing

The use of the Internet was transforming the students' approach to how they read, wrote, and created products using the digital technologies based on the Internet. The students' preferences for reading online or reading printed texts were dependent upon the purpose of their reading. All twenty-three students stated unequivocally that they would rather use the Internet when doing research than use the library or other sources of printed books. They stated that the Internet's accessibility to endless resources and its speed when they needed to locate information were the main reasons they preferred using the Internet. However, only nine of the students said they would rather read short stories or poetry on line than read them in a book. Two students explained that they would rather read from the anthology because they thought the short stories in their text were easier to understand, and another student said she simply preferred to be able to hold a book when she read.

The short stories Ms. Taylor posted on line often required a higher reading ability than the stories in the students' anthology. One story she posted, for example, was "Occurrence at Owl Creek Bridge" by Ambrose Bierce. Although it was often read in the eleventh grade, she had chosen it for her eighth-grade students to read during their study of the Civil War period because of its setting and plot. Students exercised their strategic reading skills as they thought deeply about this story and then discussed it online.

Ms. Taylor noted that her students tended to find lengthy online texts to be more difficult for them and that they preferred to print the text so they could read from a printed copy rather than from a computer monitor. She believed it was easier for her students "to track the lines on paper versus cursoring up and down." Nonetheless, it

appeared that the use of the Internet enriched and reinforced the students' abilities to read critically. Most of the students used online threaded discussion groups to comment on the texts they read online and to ask questions whenever they did not understand something they had read.

The use of the Internet was also transforming students' approach to their writing. As they were encouraged to use technology as a tool to assist them in their learning and creating projects, the students honed their skills in using the Internet. For example, students learned to use the highlight tool to mark key ideas and important phrases as they read online. Then from those highlighted words and phrases, the students wrote summaries of the text, sometimes in the form of "found poetry." Ms. Taylor noted that students' responses to what they read on line when written at the keyboard tended to promote a stronger stream of consciousness, which to her meant they listened to their "inner voices" giving more thought to what the text meant to them personally. She suggested that the clicking of the keys in the classroom seemed to encourage the students to explore different perspectives and to write more than they would have with pen and paper. For example, when students responded to their online research on famous quotes, some students wrote what the quotes made them think of and feel in a stream of consciousness format, while others created poems inspired by the famous quote they found, and still others brainstormed a list of related thoughts.

The Internet provided the students access to the information they needed in order to write creative, authentic scripts for their Civil War vignettes. Students improved their synthesizing abilities as they worked at pulling together what they had learned in their Social Studies class and what they had found through researching online in their

Language Arts class. Their collaborative efforts produced creative scripts, which included both the dialogue and the stage directions for their five-minute Civil War vignettes.

Online publishing influenced not only the quality of the students' completed projects but also the process they used to create their projects. The students believed that they were motivated to produce their best work whenever it was going to be put online for anyone to read. When the students created book reviews online complete with illustration, storyline, their audio reaction, plus a reader's comment link, they discovered that they enjoyed learning new ways to use technology for publishing their work. Whereas Reinking and Watkins' (1996) findings indicated that middle-grade students' multimedia book reviews were influenced most by producing book reviews using technology, Mrs. Taylor's students' multimedia book reviews seemed to result from not only their learning how to produce a review online but also from the capability of the Internet for them to receive comments from the readers.

#### Transforming teacher, student, and parent connections

This study documents, as have other studies and reviews (Labbo, 2000; Luke, 2000; McKeon, 2001; and Tao & Reinking, 1996), that the Internet was found to be a useful tool to help transform communications among teachers, students, and parents. My findings support Luke and Elkins' (1998) assertion that, "...new technologies do not simply replace or erase older systems of communication. Rather they have a transformative, hybrid effect" (p. 5). For example, although email was not a substitute for communicating in person either by phone or during a conference face to face, its ease and speed made it a regular daily medium of communication among Ms. Taylor, her

students, and their parents. As a means of communication, email influenced the learning context by expanding the teacher's contact with students and parents beyond the classroom.

For example, Ms. Taylor daily replied to students' emailed questions about an assignment or to their brief notes about something they had read online, such as "almost" being the longest word that has its letters in alphabetical order or finding one of their vocabulary words used in something they read online. She alerted parents by email about what the class would be researching or reading, or to what permissions papers they should look for that would be coming home with the students, or to encourage their child to keep studying their vocabulary words and when the vocabulary test was scheduled. She also responded to parents emailed notes to her, which sometimes thanked her for teaching the class something in particular, or sometimes asking for clarification about an assignment.

#### Transforming instructional outcomes and learning goals

The use of the Internet promoted new instructional outcomes and learning goals related to using digital materials, although Ms. Taylor did not abandon conventional goals. She daily used the Internet to locate rich texts and continuously worked at transforming instruction in her classroom as she developed new ways to use the Internet and to help her students become better users of the information available through the Internet. Ms. Taylor's pedagogical goal for the year was to engage in collaborative efforts with media personnel for the purpose of developing teaching units enriched by technology. She accomplished her goal by integrating technology into many of the learning activities she planned for the class. For example, Ms. Taylor learned and then

taught her class how to create a webpage and link to it audio recordings of their reactions to novels they had read along with a link to the teacher's email for reader's comments.

Ms. Taylor wrote in a response to my question "What does the Internet offer in ways of helping your students recognize areas for self improvement?" that the use of the Internet provided teachers "with a hook to grab those who are not doing well and help them find ways to improve." She felt that encouraging curiosity and inquiry nudged students forward in their pursuits produce quality work. She believed that the Internet provides information and makes it readily available so that students might find texts and resources they would not have otherwise found.

An important factor that influenced the learning goals Ms. Taylor set for her students was her desire to prepare them for literacy in an Internet world. Her use of the Internet in the classroom was guided by her perception of the Internet as being a gateway to the future and her belief that her students would be using it throughout their lives (Reinking, 1997). Her conventional goals for her students were: to discover their own voices that create and reflect meaning, to recognize areas for improvement, and to polish their communication skills. My observational data and the products the students created in their classroom support Ms. Taylor's belief that the use of the Internet brought all three of these goals together at the students' fingertips. She viewed the Internet as Reinking (1997) suggested, to be "an especially effective means of transforming typical modes of teaching and learning toward more positive outcomes" (p. 640). The key to how and why she chose to integrate the Internet into the classroom was her desire to pursue particular instructional outcomes and learning goals. For example, as the students shared online their thoughts and questions about short stories by Edgar Allen Poe and Ambrose Bierce,

they honed their comprehension skills. They heard different points of view and became more comfortable telling their peers what they thought about the reading. The students learned how to write persuasive business letters by studying online authentic models of business letters. Before the students recorded and linked to their web page the reactions to the novels they read, they first read online the texts of speeches made by well-known historical figures. They read for instance, Martin Luther King, Jr.'s "I Have a Dream" speech and noted the use of repetition and word choice in each speech. The speeches they read and discussed as a class provided authentic models for them to consider as they composed and recorded their own speeches.

Ms. Taylor taught her students how to use the highlight tool on the computer to mark key ideas and then later to use the highlighted words to help write summaries. She also taught the students how to use the watermark tool on the computer whenever they wanted a picture to appear as background for the printed text. Although Ms. Taylor found the students to be what she termed "computer savvy," she believed that she needed to model for them how to decide which key words to use when surfing on the Internet. She thought that if the students could learn how to choose wisely those key words, they would find the information they needed at their fingertips.

#### Implications

This case study is but one example of the convergence between Internet technologies and literacy instruction in a language arts classroom. This convergence as Leu and Kinzer (2000) noted, "is fundamentally reshaping the nature of literacy instruction as teachers seek to prepare children for the futures they deserve" (p. 111). The purpose of this study was not specifically to identify factors that created a transformation in

language arts instruction in order make instructional recommendations. Instead, it was to document how the Internet was transforming language arts instruction in a technology-rich classroom where the teacher was already invested in using the Internet in her teaching. Nonetheless, implications can be drawn from this study to inform those interested in a transformative perspective of the Internet's role in literacy and in teacher education and staff development as they relate to Internet's use in the classroom.

First, teachers' personal beliefs about the role of technology in their classrooms seem critical in determining how and when and why teachers will integrate technology into their instruction (Reinking, 1998; Rogers, 2000). Although the federal government made a commitment to wire all schools for telecommunications by the year 2000, having access to the Internet does not alone seem to transform instruction (Labbo & Reinking, 2000). Beers (2000) stated that Internet access by itself does not create better thinkers. She argued, "For that to happen, our understanding of how and when and why to use technology in the classroom must extend far beyond the 'if we build it, they will come' mindset" (Beers, 2000, p. 2). Many researchers agree that what determines the potential of the Internet to transform literacy instruction is what teachers and students choose to do with the Internet (Bruce & Rubin, 1993; Labbo & Reinking, 1999; Miller & Olson, 1994, Proctor & Burnett, 1996). In this study I found that Ms. Taylor's belief in the Internet as a useful tool for enhancing students' language arts' skills seemed to motivate her interest in exploring new opportunities for integrating the Internet into her instruction.

Second, schools who wish to encourage Internet use in the language arts are likely to be successful only if they provide teachers with assistance and allot special time for them to "envision" (Leu, Karchmer, & Leu, 1999) new possibilities for literacy and learning on

the Internet. While Ms. Taylor described herself as a “techie nerd” who daily surfed the Internet to find new material and ways to nurture students’ literacy development, she admitted that this was time consuming. The development of teachers’ positive attitudes toward use of Internet in the classroom has been linked to staff development (Mann & Shakeshaft, 1997). How classroom teachers will receive staff development is an important issue. Becker (1998) argued that an important resource for the development of teacher expertise in the use of technology is the accessibility of personal technical assistance. According to his study, Becker (1998) found that less than 5 % of all schools in the United States have such a staff person. Furthermore, when such help was available, his findings revealed that the technology coordinators spent more time teaching students in computer labs and less time assisting teachers.

Ms. Taylor’s situation was consistent with Becker’s conclusions because she had available ample technical assistance to help her plan and implement Internet-based activities with her students. Technology integration into the students’ learning experience received strong support from the administration, business partners, and parents. Through business partnerships, the school was able to provide ample up-to-date equipment along with Internet access.

Third, as more is learned about this convergence of Internet technologies with literacy instruction, the implications for teacher education need to be explored. Although Ms. Taylor favored the transformative nature of Internet’s use in today’s curriculum, she gave the following warning in response to the question, “What challenges do teachers face when integrating the Internet into their classrooms?”

“The Internet is more than an addition to the curriculum; it is necessary in order to navigate through the future. But, we must be prepared for the changes. Students are exposed to unfiltered sights and sounds. Validity of sources must be challenged, and the impact of school budgets are of constant concern. The Internet takes us down a wild path, but I feel that the bumps and turns can be smoothed out with teacher education and innovation.”

As her warning and her own integration of the Internet into her classroom suggest, teacher preparation programs must inform teachers of the literacy skills necessary to succeed in the future (Bruce, 1997a). For example, Ms. Taylor engaged her students in acquisition, communication, and problem-solving skills as they used the Internet to enhance their literacy learning. Her perspective and experience, as documented in this study, might provide guidance for teacher educators in preparing teachers to integrate technology into the language arts curriculum.

Although no technology is a panacea for improving students' learning in the classroom, we know that the future of education is going to be influenced by the use of the Internet. This case study presented a description of the role Internet played in literacy development and literacy instruction in one literature classroom. The findings may have value in teacher education classrooms and in staff development as an example of how the use of the Internet is shaping literacy development and literacy instruction in one classroom where the teacher integrated the use of the Internet into her literature instruction.

### Limitations, Future Research, and Conclusion

The results of this research should be interpreted in relation to two limitations. First, the method of participant selection limited the study to the perspective of one eighth-grade language arts teacher and twenty-three of her students. As Bruce and Rubin (1993) stated, technology is not a context-free innovation; in other words, the use of the Internet in one classroom is not the same as in other classrooms and various factors may influence how the Internet is used and what its effects may be. The purpose of this study was not to determine what factors might explain successful or unsuccessful use of the Internet in literacy instruction. Instead, its purpose was to examine how literacy instruction was being transformed in a classroom that gave some evidence that transformation was underway. Therefore, because the reason for a case study is particularization (Stake, 1995), no attempt is made to generalize that the participants' views are similar to those of other teachers or students.

Second, the process of member checking (Stake, 1995) to verify if the data and the analysis were accurate was limited to the principal participant, Ms. Taylor. Most of my informal conversations (Patton, 1990) were with Ms. Taylor rather than with the students. Because I did not want to interfere with what the students were doing in class, I did not often discuss with them their thoughts about how the Internet affected their learning. When the class time ended, the students moved quickly to their next class. However, because the class I observed was Ms. Taylor's last class of the day, she was available immediately after each observation to informally discuss with me how the Internet had influenced literacy in the class that day. The findings of this study might

have proved to be different had I pursued the students' perspectives in a manner equal to my pursuit of the teacher's perspective.

Labbo and Reinking (1999) have reminded us that the results of current research may quickly become outdated or irrelevant due to the rapidly changing use of technology. Within the awareness of change and uncertainty of the Internet's role in shaping literacy instruction and literacy development is the need for research like this case study to investigate the transforming changes brought about by new insights and new models of instruction developed by teachers like Ms. Taylor.

I hope this instrumental case study exploring the Internet's influence on literacy instruction and literacy learning may provide literacy researchers with additional issues to explore further. Further examination, for example, is needed to explore classroom teachers' solutions to the numerous problems they may face when attempting to infuse new technologies such as the Internet into their literacy instruction. These problems have been categorized by Reinking (1997) to include logistical, technological, financial, pedagogical, curricular, and interpersonal or public relations issues. Also, further examination is needed to explore what influence the use of the Internet can have on students' literacy development. For example, how might critical literacy, which Myers, Hammett, and McKillop (1998) defined as "the intentional subversion of meanings in order to critique the underlying ideologies and relations of power that support particular interpretations of a text" (p. 63), be influenced by hypermedia? That is, how might the reading and discussing of texts from the Internet, which in its hypermedia form includes not only words, but also images, music, and video, foster a critical stance toward what is read? As Lewis (2001) and others have indicated, critical reading includes both critical

thought and critical action. Although Lewis (2001) acknowledged that this kind of reading is not the only kind worth promoting in school, she suggested that “this is an important role of literature that is largely overlooked in school” (p. 150).

In conclusion, innovations in technology are as ongoing as is the process of transformations in the use technology in the classroom. The goal of this case study was to contribute to this understanding of educational change as I explored how and why Ms. Taylor chose to use the Internet to enhance literacy learning in her classroom. This study’s close observation of how and why Ms. Taylor created within her classroom new possibilities for literacy and learning with the Internet may help other teachers as they continue to address the problems associated with using the resources of developing technology such as the Internet in their classroom to enhance literacy instruction and literacy development. The transformative journey of Internet use that Ms. Taylor and her students were engaged in is akin to the transformative journey involving technology that the literacy research community is currently traveling through. Unlike many of our journeys that have precise destinations, this and other journeys involving new technologies may be never ending.

## REFERENCES

- Albright, J., Purohit, K., & Walsh, C. (2002). Louise Rosenblatt seeks [QtAznBoi@aol.com](mailto:QtAznBoi@aol.com) for LTR: Using chat rooms in interdisciplinary middle schoolclassrooms. *JAAL*, 45, 8, 692-705.
- Alvermann, D. E. (1996). On writing qualitative research. *Reading Research Quarterly*, 31, 1, pp. 114-120.
- Ambrose, D. (2000). Wold-view entrapment: Moral-ethical implications for gifted education. *Journal for the education of the gifted*, 23, no. 2, 149-86.
- Atkinson, R., & Hansen, D. (1966), Computer-assisted instruction in initial reading: The Stanford project. *Reading Research Quarterly*, 2, 5-26.
- Avi, (1991). *Nothing but the truth: A documentary novel*. Orchard.
- Baker, E. A. (2001). The nature of literacy in a technology-rich, fourth-grade classroom. *Reading Research and Instruction*, 40 (3), 159-184.
- Baker, E. A., Rozendal, M. S., & Whitenack, J. W. (2000). Audience awareness in a technology-rich elementary classroom. *JLR*, 33, 3, 395-419.
- Baumann, J. F., Moon Ro, J., Duffy-Hester, A. M., & Hoffman, J. V. (2000). Then and now: Perspectives on the status of elementary reading instruction by prominent reading educators. *Reading Research and Instruction*, 39 (3), 236-264.
- Becker, H. (1993). Decision making about computer acquisition and use in American schools. *Computers and Education*, 20, 341-352.

Becker, H. (1999) Internet Use by Teachers <http://www.crito.uci.edu/TLCJ> [Center for Research on Information Technology and Organization].

Becker, J. H. (1994). How exemplary computing-using teachers differ from other teachers: Implications for realizing the potential of computers in schools. *Journal of Research on Computing in Education*, 26 (3), 291-321.

Becker, H. J. (1998). Running to catch a moving train: Schools and Information technologies. *Theory into practice*, 37 (1), 20-30.

Beers, K. (2000). Editor's Message: Technology, Bus Rides, and the Digital Divide, *Voices in the Middle*, 7, (3), 2-3.

Bogdan, R. C., & Biklen, S. K. (1992). *Qualitative Research for Education*. 2<sup>nd</sup> Edition. Boston, MA: Allyn and Bacon.

Bogdan, R. C., & Biklen, S. K. (1998). *Qualitative research in education: An introduction to theory and methods*. Boston: Allyn and Bacon.

Bolter, J. D. (1991). *Writing space: The computer, hypertext, and the history of writing*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Bruce, B. C. (1996). Forward. In R. Garner and M. G. Gillingham's *Internet Communication in six classrooms: Conversations across time, space, and culture* (pp. ix-xii). Mahwah, NJ: Lawrence Erlbaum Associates.

Bruce, B. C. (1997a). Current issues and future directions. In J. Flood, S. B. Heath, & D. Lapp (Eds), *Handbook of research on teaching literacy through the communicative and visual arts* (pp. 875-884). New York: Macmillan Library Reference.

Bruce, B. C. (1997b). Literacy technologies: What stance should we take? *Journal of Literacy Research* 29 (2), 2, 289-309.

Bruce, B. (1997c). Roles for computers in teaching the English language arts. In John P. Keeves (Ed.), *Educational research, methodology, and measurement: An international handbook, 2<sup>nd</sup> edition*. Tarrytown, NJ: Elsevier Science Inc. [Pergamon]

Bruce, B. C., & Hogan, M. P. (1998). The disappearance of technology: Toward an ecological model of literacy. *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. 269-281). Mahwah, NJ: Lawrence Erlbaum Associates.

Bruce, B. C., & Rubin, A. (1993). *Electronic quills: A situated evaluation of using computers for writing in the classroom*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Center for Applied Special Technology. (1996). *The role of online communications in Schools: A national study*. [Online] Retrieved September 1, 2001, from URL <http://www.cast.org/about/Research505.cfm>.

Chapman, M. L. (1994). The emergence of genres. Some findings from an examination of first-grade writing. *Written Communication, 22*, 348-419.

Clark, C., Moss, P. A., Goering, S., Herter, R. J., Lamar, B., Leonard, D., Robbins, S., Russell, M., Templin, M., & Wascha, K. (1996). Collaboration as dialogue: Teachers and researchers engaged in conversation and professional development, *American Educational Research Journal, 33* (1), pp. 193-231.

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

Csikszentmihalyi's, M. (1990). *Flow: The psychology of optimal experience*. HarperCollins.

Cuban, L. (1986). *Teachers and machines: The classroom use of technology since 1920*. New York: Teachers College Press.

- Cuban, L. (2001). *Oversold and underused: Computers in the classroom*. Cambridge, MA: Harvard University Press.
- Eisner, E. (1997). Cognition and representation: A way to pursue the American dream? *Phi Delta Kappan*, 78, 349-3553.
- Eldridge, D. B. (2001). Confessions of a technology integrator: They thought I was out to get them. *Reading Research and Instruction* 40 (3), 233-242.
- Fleischman, P. (1993). *Bull Run*. HarperTrophy.
- Flood, J., Heath, S. B., & Lapp, D. (Eds.). (1997). *Handbook of research on teaching Literacy through the communicative and visual arts*. New York: Simon & Schuster Macmillan.
- Ford, K. (2000). To what extent should English teachers embrace technology: eight good reasons to move cautiously. *English Teacher*, 90 (2), 24-26.
- Gallini, J. K. & Helman, N. (1995). Audience Awareness in technology-mediated environments. *Journal of educational computing research*, 13, 245-261.
- Garner, R., & Gillingham, M. G. (1996). *Internet communications in six classrooms: Conversations across time, space, and culture*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Garner, R., & Gillingham, M. G. (1998). The Internet in the classroom: Is it the end of transmission-oriented pedagogy? In D. Reinking, M. McKenna, L. D. Labbo, & R. Kieffer (Eds.), *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. 221-231). Mahwah, NJ: Lawrence Erlbaum Associates.
- Glaser, B. G., & Strauss, A. L. (1967). *Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.

- Gordon, W. T. (1997). *Marshal McLuhan: Escape into understanding*. New York: BasicBooks/HarperCollins Publishers.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. In N. K. Denzin and Y. S. Lincoln (Eds.) *Handbook of Qualitative Research*. Pp. 105-117. Thousand Oaks, CA: SAGE Publications.
- Guskey, T. R. (1985). The effects of staff development on teachers' perceptions about effective teaching. *Journal of Educational Research*, 78 (6), 378-381.
- Hawisher, G., & Selfe, C. (1998). Reflections on computers and composition studies at the century's end. In I. Snyder (Ed.), *Page to screen: Taking literacy into the electronic era*. London: Routledge.
- Huberman, A. M., & Miles, M. B. (1994). Data management and analysis methods. In N. K. Denzin and Y. S. Lincoln (Eds.) *Handbook of Qualitative Research*. Pp. 428-444. Thousand Oaks, CA: SAGE Publications.
- John-Steiner, V. (1997). *Notebooks of the mind: Explorations of thinking (revised ed)*. New York: Oxford University Press.
- Johnson-Eilola, J. (1994). Reading and Writing in hypertext: Vertigo and euphoria. In Cynthia L. Selfe and Susan Hilligos (Eds.), *Literacy and computers: The complications of teaching and learning with technology*. New York: The Modern Language Association of America.
- Kamil, M. L., Intrator, S. M., & Kim, H. S. (2000). The effects of other technologies on literacy and literacy learning. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, and R. Barr (Eds.), *Handbook of Reading Research, Volume III* (pp. 771-788). Mahwah, NJ: Lawrence Erlbaum Associates.

Kamil, M. L., & Lane, D. M. (1998). Researching the relationship between technology and literacy: An agenda for the 21<sup>st</sup> century. In D. Reinking, M. McKenna, L.D. Labbo, & R. Kieffer (Eds), *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. 323-342). Mahwah, NJ: Lawrence Erlbaum Associates.

Karchmer, R. A. (2001). The journey ahead: Thirteen teachers report how the Internet influences literacy and literacy instruction in their K-12 classrooms. *Reading Research Quarterly*, 36 (4), 442-466.

Kaufer, D. S., & Carley, K. M. (1993). "Written Content as Emergent Phenomena." *Communication at a distance: The influence of print on sociocultural organization and change*. Hillsdale, NJ: Lawrence Erlbaum Associates, pp. 21-53.

Kellner, D. (2000). New technologies/new literacies: Reconstructing education for the new millennium. *Teacher Education*, 11 (3), 245-265.

Kist, W. (2000). Beginning to create a new literacy classroom: What does the new literacy look like? *Journal of Adolescent & Adult Literacy*, 43 (8), 710-718.

Kist, W. (2002). Finding "new literacy" in action: An interdisciplinary high school Western Civilization class. *Journal of Adolescent & Adult Literacy*, 45 (5), 368-377.

Kreul, M. (2001). New Tools for teaching and learning: Connecting literacy and technology in a second-grade classroom. *Reading Research and Instruction*, 40 (3), 225-232.

Labbo, L. D. (1996). A semiotic analysis of young children's symbol making in a classroom computer center. *Reading Research Quarterly*, 31(4), 356-385. Newark, DE: International Reading Association.

Labbo, L. D. (2000). What will classrooms and schools look like in the new millennium? *Reading Research Quarterly*, 35 (1), 130-131.

Labbo, L. D., & Kuhn, M. (1998). Electronic symbol making: Young children's computer-related emerging concepts about literacy. In D. Reinking, M. McKenna, L. D. Labbo, & R. Kieffer (Eds.), *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. 79-91). Mahwah, NJ: Lawrence Erlbaum Associates.

Labbo, L. D., & Reinking, D. (1999). Theory and research into practice: Negotiating the multiple realities of technology in literacy research and instruction. *Reading Research Quarterly*, 34, (4), 478-492.

Labbo, L. D., & Reinking, D. (2000). Once upon an electronic story time. *The New Advocate*, 13 (1). 25-32.

Lapp, D., Flood, J., & Martin, D. B. (1998). Teachers online: Using personal visual literacy skills to enhance professional teaching knowledge. *The Reading Teacher*, 51, 8, 702-705.

Latour, B. (1991). Technology is society made durable. In J. Law (Ed.), *A sociology of monsters: Essays on power, technology, and domination* (pp. 103-131). New York: Routledge

Latour, B. (1988). Mixing humans and non-humans together. The sociology of a door-closer. *Social Problems*, 33, 293-310.

Lemke, J. L. (1998). Metamedia Literacy: Transforming Meanings and Media. In D. Reinking, M. McKenna, L. D. Labbo, & R. Kieffer (Eds.), *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. 283-301). Mahwah, NJ: Lawrence Erlbaum Associates.

Lepper, M. (1985). Microcomputers in education, motivation and social issues, *American Psychologist*, 40:1, 1-18.

Leu, D. J. Jr., (September 1997). Caity's question: Literacy as deixis on the Internet. *The Reading Teacher*, 51(1), 62-67.

Leu, D. J., Jr., (2000). Literacy and technology: Deictic Consequences for Literacy Education in an Information Age. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, and R. Barr (Eds.), *Handbook of Reading Research, Volume III* (pp. 743-770). Mahwah, NJ: Lawrence Erlbaum Associates.

Leu, D. J., Jr. (2001). Internet Project: Preparing students for new literacies in a global village. *The Reading Teacher*, 54 (6), 568-572.

Leu, D. J., Jr. (2002). Exploring Literacy on the Internet: Internet Workshop: Making time for literacy. *The Reading Teacher* 55 (5), 466-472.

Leu, D. J., Karchmer, R.A., & Leu, D. D. (March 1999). The Miss Rumphius effect: Envisionments for literacy and learning that transform the Internet. *The Reading Teacher*, 52(6), 636-642. online from the World Wide Web: <http://www.readingonline.org/electronic/RT/rumphius.html>

Leu, D. J., Jr., & Kinzer, C. K. (2000), The convergence of literacy instruction with networked technologies for information and communication. *Reading Research Quarterly*, 35 (1), 108-127.

Leu, D. J., Jr., & Leu, D. D. (1998). *Teaching with the Internet: Lessons from the classroom* (2<sup>nd</sup> ed.). Norwood, MA: Christopher-Gordon.

Lewis, C. (2001). *Literary practices as social acts: power, status, and cultural norms in the classroom*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: SAGE Publications.
- Love, K. (2002). Mapping online discussion in senior English, *JAAL*, 45 (5), 382-396.
- Luke, C. (2000). New literacies in teacher education. *JAAL*, 43:5, 424-435.
- Luke, A., & Elkins, J. (1998). Reinventing literacy in New Times.” *Journal of Adolescent & Adult Literacy*, 42, 4-7.
- Mann, D. & Shakeshaft, C. (1997). *The Impact of Technology in the Schools of the Mohawk Regional Information center Area*. New York. ED 405893.
- Manguel, A. (1996). *A history of reading*. New York: Viking.
- Mayer, R. E. (1997). Multimedia learning: Are we asking the right questions? *Educational Psychologist*, 32(1), 1-19.
- McKeon, C. A. (1999). The nature of children’s e-mail in one classroom. *The Reading Teacher*, 52, 7, 698-706.
- McKeon, C. A. (2001). E-mail as a motivating literacy event for one struggling reader: Donna’s case. *Reading Research and Instruction*, 40 (3), 185-202.
- McLuhan, M. (1964). *Understanding media: The extensions of man*. New York: McGraw-Hill Book Company..
- Means, B. (Ed.). (1994). *Technology and education reform: The reality behind the promise*. San Francisco, CA: Jossey-Bass Publishers.
- Means, B., & Olson, K. (1994). Tomorrow’s schools: Technology and reform in Partnership. In B. Means (Ed.), ). *Technology and education reform: The reality behind the promise* (pp. 191-222). San Francisco, CA: Jossey-Bass Publishers.

Merriam, S. B. (2001). *Qualitative research and case study applications in education: Revised and expanded from Case study research in education*. 2<sup>nd</sup> Edition. San Francisco, CA: Jossey-Bass Publishers.

Merriam, S. B., & Simpson, E. L. (1995). *A guide to research for educators and Trainers of adults*. 2<sup>nd</sup> Edition. Malabar, FL: Krieger Publishing Company.

Miller, L., & Olson, K. (1994). Putting the computer in its place: A study of teaching with technology. *Journal of Curriculum Studies*, 26(2), 121-141.

Miller, L., & Olson, J., (1998). Literacy research oriented toward features of technology and classrooms. In D. Reinking, M. C. McKenna, L. D. Labbo, & R. D. (Eds.). *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. 343-360). Mahwah, NJ: Lawrence Erlbaum Associates.

Myers, J., Hammett, R., & McKillop, A. M. (1998). Opportunities for critical literacy and pedagogy. In D. Reinking, M. McKenna, L. D. Labbo, & R. Kieffer (Eds.), *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. 63-78). Mahwah, NJ: Lawrence Erlbaum Associates.

Negroponte, N. (1995). *Being Digital*. New York: Alfred A. Knopf.

Owston, R. D. (1997). The World Wide Web: A technology to enhance teaching and learning? In *Educational Researcher*, 26 (2), 27-33.

Papert, S. (1993). *The children's machine: Rethinking school in the age of the computer*. New York: Basic Books.

Papert, S. (1987). Computer criticism vs. technocentric thinking. *Educational Research*, 16, 22-30.

- Patton, M. Q. (1990). *Qualitative Evaluation and Research methods*. 2<sup>nd</sup> Edition. Newbury Park, CA: SAGE Publications.
- Procter, R. M. & Burnett, P. C. (1996). Computer attitude and classroom computers. *Computers in the schools*, 12 (3), 33-41.
- Reinking, D. (1997). Me and my hypertext☺ A multiple digression analysis of technology and literacy (sic). *The Reading Teacher*, 50, (8), pp. 626-643.
- Reinking, D. (1998). Synthesizing technological transformations of literacy in a post-typographic world. In D. Reinking, M. McKenna, L. D. Labbo, & R. Kieffer (Eds.), *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. xi-xxx). Mahwah, NJ: Lawrence Erlbaum Associates.
- Reinking, D. (2001). Multimedia and Engaged Reading in a Digital World. In L. Verhoeven, & C. Snow (Eds.). *Literacy and Motivation* (pp. 195-221). Mahwah, NJ: Lawrence Erlbaum Associates.
- Reinking, D., & Bridwell-Bowles, L. (1991). Computers in reading and writing. In R. Barr., M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of Reading Research* (Vol. II, pp. 310-340). New York: Longman.
- Reinking, D., Labbo, L., & McKenna, M. (1997). Navigating the changing landscape of literacy: current theory and research in computer-based reading and writing. In J. Flood, S. B. Heath, & D. Lapp (Eds.), *Handbook of research on teaching literacy through the communicative and visual arts* (pp. 77-92). New York: Simon & Schuster Macmillan.
- Reinking, D., Labbo, L. D., & McKenna, M.C. (2000). From assimilation to

accommodation: A developmental framework for integrating digital literacy research and instruction. *Journal of Research in Reading*, 23(2), 110-122.

Reinking, D., McKenna, M. C., Labbo, L. D., & Kieffer, R. D. (Eds.). (1998). *Handbook of literacy and technology: Transformations in a post-typographic world*. Mahwah, NJ: Lawrence Erlbaum Associates.

Reinking, D., & Watkins, J. (2000). A formative experiment investigating the use of Multimedia book reviews to increase elementary students' independent reading. *Reading Research Quarterly*, 35, (3), 384-419.

Rogers, D. L. (Spring/Summer, 2000). A paradigm shift: Technology integration for higher education in the millennium. *Educational Technology Review*, 19-27, 33-34.

Rose, C. B. (2000). Monsters, Tools, and Quasi-Objects: The many faces of technology in educational computing. *Review of Educaiton/Pedagogy/Cultural Studies*, 22, 3, 267-284.

Seidman, I. E. (1991). *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. New York, NY: Teachers College Press.

Stake, R. E. (1994). Case studies. In N. K. Denzin and Y.S. Lincoln (Eds.) *Handbook of Qualitative Research*. Pp. 236-247. Thousand Oaks, CA: SAGE Publications.

Stake, R. E. (1995). *The Art of Case Study Research*. Thousand Oaks, CA: SAGE Publications.

Stake, R. E. (2001). The case study method in social inquiry. In N. K. Denzin and Y. S. Lincoln (Eds.) *The American Tradition in Qualitative Research, Vol. II*. Pp. 131-138. Thousand Oaks, CA: SAGE Publications.

Tao, L., & Reinking, D. (1996). What research reveals about email in education. Paper presented at the annual meeting of the college reading association. November 3, 1996. ED 408-572.

Tergan, S. O. (1997). Conceptual and Methodological shortcomings in hypertext/hypermedia design and research. *Journal of Computing Research, 16, 3*, 209-235.

The New London Group (1996). A Pedagogy of multiliteracies: Designing social futures. *Harvard Education Review, 66 (1)*, 60-92.

Tierney, R. J., Kieffer, R., Whalin, K., Desai, L, Moss, A. G., Harris, J. E., & Hopper, J. (1997). Assessing the impact of hypertext on learners' architecture of literacy learning spaces in different disciplines: Follow-up studies. *Reading Online*. Retrieved March 25, 2002, from the World Wide Web:  
<http://www.readingonline.org/research/impact/index.html>.

Tishman, S., & Perkins, D. (1997). The language of thinking, 368-374.

Thurlow, R. (2000). How do I begin to use technology in my classroom? In S. B. Webner, W. J. Valmont, and R. Thurlow (Eds.) *Linking Literacy and Technology: A Guide for K-8 Classroom*. Pg. 19-39. Newark, Delaware: International Reading Association.

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

Truman, C. (1992). *Literacy online: The promise (and period) of reading and writing with computers*. Pittsburgh, PA: University of Pittsburgh Press.

Turner, J., & Paris, S. (1995). How literacy tasks influence children's motivation for literacy. *The Reading Teacher*, 48, 8, 662-673.

Vacca, R. T., & Alvermann, D. E. (October 1998). The crisis in adolescent literacy: Is it real or imagined? *National Association of Secondary School Principals Bulletin*, vol. 82, no. 600, 4-9.

Vacca, R. T., Vacca, J. L., & Bruneau, B. (1997). Teachers reflecting on practice. IN J. Flood, S. B. Heath, & D. Lapp (Eds), *Handbook of research on teaching literacy through communicative and visual arts* (pp. 445-449). New York: Macmillan.

Veblen, T. (1921). *The engineers and the price system*. New York: B. W. Huebsch, Inc.

Wepner, S. B., Valmont, W. J., & Thurlow, R. (Eds.) (2000). *Linking Literacy and Technology: A Guide for K-8 Classroom*. Newark, Delaware: International Reading Association.

Wiesel, E. (1958). *Night*. Penguin Book.

Wilhelm, J. (March 2000). Literacy by design: Why is all this technology so important? *Voices from the Middle*, 7(3), 4-14.

Willinsky, J. (1990). *The new literacy: Redefining reading and writing in the schools*. New York: Routledge.

Wolcott, H. F. (1992). Posturing in qualitative research. In M. D. LeCompte, W. L. Millroy, and J. Preissle (Eds.) *The Handbook of qualitative research in education*. Pp. 3-52. San Diego, CA: Academic Press, Inc.

Yin, R. K. (1994). *Case Study Research: Design and method*. 2<sup>nd</sup> Edition.  
Thousand Oaks, CA: SAGE Publications.

APPENDICES

APPENDIX A  
DESCRIPTION OF ONE CLASSTIME

## Appendix A

The following vignette provides a detailed description of how the use of the Internet influenced literacy instruction and literacy development during one seventy-minute period in the eighth-grade Language Arts classroom observed in this study.

The eighth-grade Language Arts class I observed met with their teacher Ms. Taylor from 1:25 pm until 2:35pm, five days each week. Students wasted no time in or between classes. At 1:25pm students moved from one classroom to the next, and within two minutes, all 23 students, including 8 girls and 15 boys, were seated at their desks and ready to begin class. With the exception of one boy who is of Indian descent, the other 22 students are European Americans. The students sat at individual tables that were each in a trapezoid shape which afforded easy clustering in groups of two, three, or four. I noted how pristine the students kept the tops of their tables and how orderly the room remained between and during classes.

Each of the students had read a novel of their own choosing from the State Book Award Nominee List and during this class Ms. Taylor was going to introduce how they were to create their own book review in the form of a webpage. Their webpages would include three parts: a collage/illustration that depicted the book, using colors and symbols to help tell the story; a description of their book, including title, author, genre, and storyline that described the story without providing a summary; and an oral reaction to the book, either describing how the book was interesting, memorable, or instructive, or responding to how the student reacted to the book, or exploring how the book raised issues, or relating how the book affected the reader and how the book related to larger issues.

Ms. Taylor started class with an announcement, “I need help passing the laptops out! Who will help me? Alex and Matt, come on down!” For the next 2-3 minutes as she took laptops from the drawer of the wireless-lab cart and handed each to the student helpers who then hand delivered one to each student’s desk, Ms. Taylor began telling the class that they were about to create their own webpage based on the novel each of them had read. The students were going to create three files: a “gif” file for their illustration; an “htm” file for their storyline; and a “wav” file for the oral reaction. Then these three files were to be used to create their own webpage which would then be linked to the class webpage that was linked to the school’s website. Two of the laptops were not working correctly and were quickly replaced with working laptops. The laptops had wireless accessibility to the Internet and to a printer on the wireless cart.

Ms. Taylor helped students create a model for their online book review. She instructed the students to go to their school’s website and to take out their yellow legal pads. On the legal pads, students were told to make a vertical line half way down the page. Ms. Taylor explained that they were going to be multitasking as they created a practice book review on Nothing but the Truth by Avi which was the last novel they had read as a class and as each of them created a review on the novel they had chosen to read. At the top left side of their page, students were to write Nothing but the Truth and then (1) title, (2) author, (3) genre. Students were then instructed to write the title of the book they chose to read at the top of the right side of their page and were told that they would need to supply on the right side of the page the information that pertained to the book they were going to review.

Ms. Taylor directed the class as they filled in information on the left side of their page about Avi's novel. When she asked them to tell her what type of novel they thought Nothing but the Truth to be, one boy said, "It's a documentary novel, because it's told with documents, diaries, and memos. When she asked them to tell her what came to mind when they thought of this novel, the students' responses included, "patriotism," "Star Spangled Banner," and "pride." She encouraged them to use headlines, words, or quotes that came to mind about this novel and to be able to support them. When writing their storyline, they were to go as far as they could without telling the climax.

To provide another form of modeling for students' book reviews, Ms. Taylor instructed the students to go to <http://www.amazon.com> and to look for Nothing but the Truth. She noted that this is just one site that has several of the books they had read, and that she often used this website to look up what others have thought about a book she had heard or and wanted to know something about. The students seemed to have no problem navigating on line with their wireless laptops. Ms. Taylor solicited examples of what they were finding online. One student noticed "reading level, ages 9-12." Ms. Taylor read aloud one review for Nothing but the Truth and asked as she read: "Why did they put these three words, "respectful, silent attention," in quotation marks?" and students responded, "Because it's a quote!" One student noticed a misspelling in one of the online reviews which led to a discussion of the importance of proofreading before posting anything online. Ms. Taylor then asked students to scroll down to the Horn Book review. She called on a student to read the next to last line of the review: "The construction is flawless, the characters are painfully human." This, she explained, was an example of what she wanted the students to write for their oral responses. When Ms. Taylor asked

the students what the difference was between writing and talking, the students responded, “Emphasis.” She explained that the oral responses that they would record as a wav file could not be more than two minutes. She explained that students would have their own rating systems, using stars, one to five with five being their favorite.

Concerning the collage/illustration they were to create, Ms. Taylor explained that they could use the Microsoft Paint Software Program to draw it, or they could use the scanner to change their original drawings or collages to a gif file. Students seemed to understand immediately what she meant by both means of creating their illustrations.

After they had read the reviews on Avi’s novel, they were instructed to look up other books they had read recently and to see what reviews they could find. Ms. Taylor warned them to be sure the title they looked up was by the same author they had read. The students were to note if they agreed with the ratings and to observe the language and techniques used to create the reviews. They were to look at what the reviewer had done to make them interested in the book. The students shared their findings quietly with the students on either side of them. They shared bad as well as good reviews with each other, occasionally sharing with the entire class. The students were seeing for themselves what worked and what did not work in these online reviews. One student commented, “This review about Avi says he goes into too much detail in his books, but I disagree, I like the detail.” One student shared the following from a review: “This review claims that the book is ‘unexpectedly great!’ I think that’s an interesting combination of words.”

Ms. Taylor allowed the students some time to explore other reviews of books they had recently read, and then explained to them that they were to write their own reviews during that week, and as they wrote them, they were to be observant of their word

choices. To illustrate the importance of word choice, Ms. Taylor directed the class to look at Martin Luther King's "I Have a Dream" speech, which he delivered on the steps at the Lincoln Memorial in Washington D.C. on August 28, 1963.

She instructed the class to follow her to another website, and as she did she explained that its URL was a tricky one because it included a tilde, or squiggly mark. The site was <http://www.mecca.org/~crights/mlk.html>, the site for the National Civil Rights Museum. Ms. Taylor explained that she was going to read the speech and they were going to talk about the power of its words. As she read the speech, the students followed along reading silently from their screens. Ms. Taylor began reading King's speech aloud and stopped at the end of the first sentence to ask the students what "5 score" meant. One student responded that it meant 20 years. Then Ms. Taylor asked the students to highlight the words in the speech that stood out for them. Students had no trouble using the "highlight" tool on their laptops. After reading the first paragraph, Ms. Taylor asked the students to volunteer what they had highlighted. One student said the word "still" in "...we must face the fact that the Negro is still not free" stood out to her because it emphasized for her that all people were not yet treated equally. Another student volunteered that she had marked "beacon of light" referring to the Emancipation Proclamation as a light that guides. As Ms. Taylor continued to read and to intermittently stop for discussion, the class discussion included how the use of imagery, repetition, "touchstones" (that is, things the audience would know and relate to), acknowledgement of every section of the nation, and the words from "My Country, 'Tis of Thee" contributed to the overall greatness of the speech. Students remarked that it was the repetition that they thought was the most effective literary technique King used in his

speech. Ms. Taylor explained that they would listen to the actual speech given by King during class the next day so they could talk about his delivery of the speech, and they would be asked if the speech took on a different interpretation when they heard it than from when they read it. They would also look at other great speeches to find literary techniques used in them as well.

For homework, Ms. Taylor asked the students to watch and listen to the president's State of the Union Speech. She commented that it hasn't been all that long that we've been able to watch on television and listen to the president's State of the Union speech. In fact, she noted that Jefferson sent a written speech to congress and did not even give it in person. She asked the students what they thought President Bush might talk about in his speech. Their suggestions included: economy, war, terrorism, and patriotism.

Ms. Taylor then called for the students to shut down their laptops and to begin turning them back into the cart for storage over night. The laptops were shut down and collected in order according to the number printed on them, 1 through 30, within three minutes. Ms. Taylor reminded the students that they were to be working on their rough drafts for their storyline and another draft for what they planned to say orally as their reaction to the book. She reminded them also they could record for no more than 2 minutes.

The class time had been utilized to the fullest, and with the class time now over, the students walked out of the room in orderly fashion toward their next class.

APPENDIX B  
SAMPLE OF FIELDNOTES

## APPENDIX B

## SAMPLE OF FIELDNOTES

1-28-02

-2-

## SAMPLE OF FIELDNOTES

Devish A. had brought a tape recorder - so I could observe more and transcribe G.T. later.

G.T. asked class to tell her what type of novel Nothing But the Truth is. One boy said, "It's a documentary novel."

G.T.: why do we call it that?  
Student: because it's told with documents, diaries, and memos

G.T.: "Now let's look on our half sheet of paper."  
"I want your eyes here!"

"What comes to mind when you think of Nothing But the Truth?"

Students' response: patriotism  
Star Spangled Banner  
Pride

G.T.: You can use headlines/words/anything that comes to mind about this novel - but please be able to support it. Sometimes you might want to use just single words or quoted

G.T.: When you're writing your storyline we want to go as far as we can - but stop before the climax

G.T.: Let's look at some reviews on line. I want you to type this in - [www.amazon.com](http://www.amazon.com)

this is just one site that has several of the books we're going to be talking about - search for Nothing But the Truth. I do this all the time for a book I've heard of and want to know something about it. Make sure the book you want to look for is by the same author you need. [AVI]

Students seem to have no problem navigating on line - they look very comfortable with the 'lap tops'!

APPENDIX C

MS. TAYLOR'S RESPONSE TO THIS REPORT

## APPENDIX C

## MS. TAYLOR'S RESPONSE TO THIS REPORT

The following is the response I received by email from Ms. Taylor after she had read the entire draft of this study. The email was dated November 7, 2002. The text was reproduced to use the name Ms. Taylor, the teacher's pseudonym used throughout this study.

Jacque,

Wow, what an eye-opening experience this has been by giving me the ability to see myself and my students through the eyes of a third person. Upon reading your work, it crystallized in my mind what I try to do each day. As we discussed many times, I don't feel like I am doing anything new; I am still presenting needed information to my students, but I do look for ways that I feel will enhance and encourage their learning. I have come to realize that the Internet encourages me in at least two ways to enhance inquiry learning in my classroom. One way is the capability of providing students with a bigger, better, and faster tool to help them learn, and the second way is presenting learning experiences in a creative format. I believe in finding applications that encourage authentic learning. It is not only important to read and hear information, but also to find opportunities to apply learning quickly and in multiple formats.

I enjoyed reliving last year again. Thank you for taking the time to listen to the voices of my students and to me. Much can be learned through our stories. All it takes is an audience. As Studs Terkel so succinctly states in Will the Circle Be Unbroken, "The journey is what it's all about."

Ms. Taylor

APPENDIX D  
OUTLINE OF DATA ANALYSIS

## APPENDIX D

## OUTLINE OF DATA ANALYSIS

## OUTLINE OF DATA ANALYSIS: KEY

E=Email

N= Field Notes

T= Transcribed tapes

A= Artifacts

B= Blackboard printouts

Ways found that Internet use influences literacy instruction and literacy development

Teacher on-line: Literacy Instruction

1. Planning instruction
  - \*Internet provided endless resources to help plan new ways of inspiring interaction between students and their learning.
  - a. Surfing for resources
    - \*goal was for students to discover their inner voices, recognize areas for improvement, and polish their communication skills. By the magic of Internet, all 3 come together at students' fingertips.
2. Instructing
  - \*Internet enriched/reinforced critical reading skills
  - \*drafting on line promoted a stronger stream of consciousness
  - \*encouraged students to use new tools to assist them in their learning and project making
  - a. fostering reading skills
  - b. fostering writing skills
  - c. using tech's new tools
3. Communicating via email
  - \*authentic sense of author p. 16
  - \*what to look for from school/what would be studying next
  - \*car rider
  - \*"almost"
  - a. email with student families
  - b. email with parent
  - c. email with student

Students on-line: Literacy Development \*\*9/23 preferred reading short stories on line; all preferred doing research online

1. Accessing resources \*key words needed to surf (25) for research  
\*visuals and sound contributions

- a. reading assigned text
- b. choosing links
- c. exploring art
- d. accessing sound

2. Obtaining assistance \*quality assistance from teacher, tech, peer

- from teacher
- a. from technician
  - b. from peers

3. Communicating online \*online discussions enhanced their reading comprehension

- a. in peer discussions

4. Producing projects \*Online publishing influenced not only the quality of students' completed projects but also the process they used to create their projects.

Students improved their technology skills as they learned how to record and attach a sound file to their webpage.

The use of the computer's highlight tool proved beneficial for the students by helping them locate key ideas and important phrases. Students then turned highlighted words into their own found poetry.

The Internet provided the students access to the information they needed in order to write good, authentic scripts for their Civil War vignettes.

Students improved their synthesizing abilities as they worked at pulling together what they had learned in another class and what they had found through researching online and bringing it altogether in a script.

- a. publishing online
- b. found poetry
- c. script writing

Teacher on-line: Literacy Instruction

1. Planning instruction

- a. Surfing for resources

T-121 "I love to surf" interest/expertise is evolving.

T-121 out of 98 students, less than 5 do not have access to Internet at home

- T-18 encouraging students to “open their minds” writer doesn’t expect  
 Reader to see the same thing—that’s the beauty of it
- E-38 learning goals; rich text
- E-38 my biggest thrill is when I can give them primary documents...
- E-40 Motivation: I have an awesome responsibility lying before me.  
 Each day I strive to discover new ways to create interaction....

## 2. Instructing

- [T-32, just another tool/don’t have to have one laptop for each student]
- E-19 on the brink of standardized testing and felt compelled to get  
 picky skills in

### a. fostering reading skills

- E-8 looked at Speeches and Quotes as springboards into public  
 speaking and Persuasive writing
- E-12 importance of own reactions to reading
- E-38 lengthy text online difficult for students
- E-44 online research on careers for earth science; write business letters  
 Requesting info for various careers; some went on-line to  
 Further investigate the careers
- E-47 Holocaust sites (children accounts), writing notes and reactions,  
 then  
 Creating poetry based on those accounts
- E-48 reviewed primary accounts of Holocaust victims and wrote found  
 Poetry, took virtual tour of Anne Frank’s hiding place for back-  
 Ground of the period of history as pre-reading of play, The  
 Diary Of Anne Frank
- N-1-2 students “multitasking” as teacher models how they will create  
 A webpage for their State Book Award Nominee book  
 Go to <http://www.amazon.com>; search for Nothing but the  
 truth
- N-8 State Book Award Nominee (illustration, description, oral  
 reaction)
- N-5 Martin Luther King, Jr. speech—to talk about the power of words
- N-6 State of the Union Speech
- N-9 online speeches  
[www.pbs.org/greatspeeches/timeline/index.html](http://www.pbs.org/greatspeeches/timeline/index.html) MLK  
[www.discover.net/~dansyr/truth.html](http://www.discover.net/~dansyr/truth.html) Sojourner Truth  
[www.historyplace.com/speeches/previous.htm](http://www.historyplace.com/speeches/previous.htm)  
[www.oprah.com/omagazine/2002.02/omag\\_20002.02mission\\_cal.jhtml](http://www.oprah.com/omagazine/2002.02/omag_20002.02mission_cal.jhtml)
- N-10 [while students followed the text of MLK’s speech, they
- Dialogued with self-on lap top
  - Blocked/saved phrases/words

- Kept switching back and forth between their notes and text as they listened
- One girl shrunk her personal screen and watched both at the same time]

N-11 “Notice the touchstones” of MLK’s speech and repetition

A-1 student #21 responds to Ambrose Bierce’s quote

A-3 Student #5 poem in response to Langston Hughes’ “Hold fast to dreams”

A-6 Student #9 list of responses to quote

N-17 famous quotations

N-18 famous quotes

N-28 brainstormed questions about An Occurrence at owl creek bridge

N-29 problems reading on line: students solutions

N-42 poetry online [www.poets-corner.org](http://www.poets-corner.org)

Crews web—ACADEMY OF American Poets

[www.poets.org](http://www.poets.org)

N-45 Poetry lesson—find an online poem: 1. title, ponder the title before reading

the poem. Contemplate the poem for meaning beyond the literal.

Consider how

imagery, symbolism, and sound devices reflect the poem. Enjoy the language.

2. connotation. What do you think it means? Highlight figurative language,

identify type. 3. attitude. What was poet’s attitude? 4. Theme.

What was the point—what is he trying to get across to you. Example:

Jabberwocky

A-37 Lewis Carroll poem, discussed by Student #16

T-97 highlight the figurative language, then tell what it is (alliteration, personification, imagery)

F-6 alliteration in MLK’s speech, repetition

N-45 identifying poetic devices helps us enjoy poetry

T-97 highlight the figurative language, then tell what it is (alliteration, personification, imagery)

F-6 alliteration in MLK’s speech, repetition

N-45 identifying poetic devices helps us enjoy poetry

b. fostering writing skills

T-1 spell check does not catch all; underlining title of book

T-19 writing is improved with writing

T-49 concern with getting grammar skills taught/punctuation

T-49 pulling together information from a variety of sources

T-58 the minute we get into a good story or novel, it’s through to the wind

E-17 teacher frustration—students forgetting passwords

- E-28 skill work for testing
- E-44 online research on careers for earth science; write business letters  
 Requesting info for various careers; some went on-line to  
 Further investigate the careers
- E-47 Holocaust sites (children accounts), writing notes and reactions,  
 then  
 Creating poetry based on those accounts
- E-48 reviewed primary accounts of Holocaust victims and wrote found  
 Poetry, took virtual tour of Anne Frank's hiding place for back-  
 Ground of the period of history as pre-reading of play, The  
 Diary Of Anne Frank
- N-1-2 students "multitasking" as teacher models how they will create  
 A webpage for their State Book Award Nominee book  
 Go to <http://www.amazon.com>; search for Nothing but the  
 truth
- N-8 State Book Award Nominee (illustration, description, oral  
 reaction)
- N-3 "what's the different between writing and talking?" emphasis
- N-4 One student noted a misspelling on line
- N-14 draft of reaction—audio recording instructions
- N-14 avoid weak words—like, got
- N-15 led practice on identify prepositions from excerpt of Farewell to  
 Arms  
 while laptops re-charged in drawers of wheeled cart
- N-16 "Why do we need prepositions and prepositional phrases in our  
 own writing?"
- N-16 Homework: choose a part of your novel, identify prepositional  
 phrases.  
 At the top of your page write title, author, your name. Remember to  
 Underline the title of the book.
- N-35 SAT words (3 a week)

c. using tech's new tools

- T-3 powerpoint; highlighter for 2-column notes/main points  
 summarized/found poetry
- T-79-T-80 enlarge a pix
- T 14 scanner
- T-14 put work on Webpage—attach 3 files
- T-32 students surf the web-key words—"little keys to unlock mass of  
 info"
- T-91
- T-97
- T-26
- T-68
- E-12 LCD projector
- E-12 highlight key ideas

N-21 scanning directions taped to top of scanner lid  
 N-21 save webpage links as gif (picture), htm (text), or wav (sound)  
 N-22 Student #12 had trouble finding his sound file, tech called it up  
 N-22 recording problems  
 N-36 Student #5 is highlighting info instead of writing everything—  
 then she'll "come back to it" and decide if she wants to use this  
[www.adl.org/children\\_holocaust/children\\_main/html](http://www.adl.org/children_holocaust/children_main/html)  
<http://feit.usf.edu/HOLOCAUST/people/people.htm>  
 N-36 look at your word choice: Germans invaded, not came into  
 N-36 students given a 2-column sheet Notes/Reactions  
 N-37 make it a watermark  
 N-40 pix small, put it on a word document and enlarged it  
 N-43 Note: one laptop had been left on each table so when students  
 came into the room, they were able to lose no time, went right  
 to searching poetry.

### 3. Communicating via email

T-62-63 still phone/Internet is just another addition/does not take place  
 of  
 T-63 problem  
 T-63 check email often  
 T-64 maintains 2 email accounts [school for 98 student families;  
 personal]

#### a. email with parent

T-51 email parent and ask for help  
 N-33 my child is sick; reinforcements; does not take place of phone  
 N-33 like the girls' skit, I was so proud of what they accomplished  
 T-62 parents emailing about kids webpage-thanking her

#### b. email with student families

T-20  
 E-9 letter to parents (summarize this)  
 E-33 note to parents-State Book Award Nominee Web Page is up

#### c. email with student

T-61-T-62 examples  
 "almost" is longest word with all letters in alphabetical order

### Students on-line: Literacy Development

#### 1. Accessing resources

T-10 makes me more excited  
 T-24 Internet's great! I found info I can really use

T-13 #3 at home use of Internet

F-2 students seem to have no problem navigating online—they  
Look very comfortable using the laptops

a. reading assigned text

T-6 #1 prefers using Internet to check out books

B-Blackboard discussions

Historychannel.com/speeches/index.html

b. choosing links

T-8 #2 speeches “make you a little more curious”

T-10 it’s all right there

T-77 see what’s available

T-103 dated ?’s on standardized texts

E-28 working on Civil War vignettes—looking up statistics of  
Battles; looking at journals

N-40 some chose essays, while others were attracted to  
visuals/sounds

N-40 #3 I don’t think I can look at these pictures. They’re  
Disturbing

E-47 Holocaust sites

E-44 online research on careers for earth science

c. exploring art

E-61 Holocaust art pieces by David Olere

<http://fcit.coedu.usf.edu/Holocaust/resource/gallery/Olere.htm>

N50-70 Olere works

N-71 Elie Wiesel’s Night

E-8 looked at American Memory collection of photos as a  
parallel to Social studies lessons of Civil War

Library of Congress’ American Memory site

<http://memory.loc.gov/csphtml/cwphome.html>

Also [www.loc.gov/spcoll/048.html](http://www.loc.gov/spcoll/048.html)

d. accessing sound

N-9 online speeches

N-14

N-3

Websites (audio) [avoid vague words]

2 Obtaining assistance

d. from teacher

T-18 encouragement to open minds and say what you think

T-24

## e. from technician

T65 Dr. Blanchett is located in 6<sup>th</sup> grade lab, but is for 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup>; techs run each desk-top lab with student tech assistants

T-76 sign up times for computers

## f. from peers

T-27 discussions enhanced with blackboard; dialect reading

T-18 I don't get this part

T-10 inspires to comment more

T-14 cool to discuss on line difficult text

T17-T18 "Cask of Amontillado"

N-18 to err as in error

## 3. Communicating online

T-13 #3 Blackboard discussions

E-28 students grounded from Internet

E-60 comment from the author of the book for one of student's webpage

B-2-11, 115-125 Discussing "A Worn Path"

B-16-24, 38-49, 65-83, 88-89 Slave Narrative, Toler

B-35 Slave narrative

B-94-114, B-130 Occurrence at owl creek bridge

## a. in peer discussions

T-27 dialect reading

T-18 I don't get this part

T-10 inspires students to comment more

## 4. Producing projects

## a. publishing online

T-9 #2 published on line

T-10 #2 inspires to comment more

T-10 #2 convenience

T-11 #3 scanned in drawing

T-4 #1 spends more time on projects that are to be placed on line

T-16 list time to put something on Web page

T-7 #2 nice change of pace

E-8 each student read a State Book Award Nominee, and each posted a story line of the book, an illustration, and an audio reaction to their book, complete with a comment block at the end.

A-9-28 Webpage of Book review

b. found poetry

A-7 Student #4 poem about Elsie Wall

A-32-36 poem of Holocaust narrative

A-38-46 more found poetry on Holocaust

c. script writing

N-34-- 2 soldiers and a USO show

T-49 synthesizing

T-21

Chapter summary

Quotes for Chapter 5

E-39 Mrs. Taylor: tech takes us down a wild path, but I feel that the bumps and turns can be smoothed out with teacher education and innovation

APPENDIX E

SLAVE NARRATIVE, "RICHARD TOLER"



***Richard Toler  
Cincinnati, Ohio***

Interviewed by Ruth Thompson

"Ah never fit in de wah; no suh, ah couldn't. Mah belly's been broke! But ah sho' did want to, and ah went up to be examined, but they didn't receive me on account of mah broken stomach. But ah sho' tried, 'cause ah wanted to be free. Ah didn't like to be no slave. Dat wasn't good times."

Ricard Toler, 515 Poplar Street, century old former slave lifted a bony knee with one hnarled [sic] hand and crossed his legs, then smoothed his thick white beard. His rocking chair creaked, the flies droned, and through the open, unscreened door came the bawling of a calf from the building of a hide company across the street. A maltese kitten sauntered into the front room, which served as parlor and bedroom, and climbed complacently into his lap. In one corner a wooden bed was piled high with feather ticks,

and bedecked with a crazy quilt and an number of small, brightly-colored pillows; a bureau opposite was laden to the edges with a collection of odds and ends - a one-legged alarm clock, a coal oil lamp, faded artificial flowers in a gaudy vase, a pile of newspapers. A trunk against the wall was littered with several large books (one of which was the family Bible), a stock of dusty lamp shades, a dingy sweater, and several bushel-basket lids. Several packing cases and crates, a lard can full of cracked ice, a small, round oil heating stove, and an assorted lot of chairs completed the furnishings. The one decorative spot in the room was on the wall over the bed, where hung a large framed picture of Christ in The Temple. The two rooms beyond exhibited various broken-down additions to the heterogeneous collection.

"Ah never had no good times till ah was free", the old man continued. "Ah was bo'n on Mastah Tolah's (Henry Toler) plantation down in ole V'ginia, near

[end p. 97]

Lynchburg in Campbell County. Mah pappy was a slave befo' me, and mah mammy, too. His name was George Washington Tolah, and her'n was Lucy Tolah. We took ouah name from ouah ownah, and we lived in a cabin way back of the big house, me and mah pappy and mammy and two brothahs.

"They nevah mistreated me, neithah. They's a whipping the slaves all the time, but ah run away all the time. And I jus' tell them - if they whipped me, ah'd kill 'em, and ah nevah did get a whippin'. If ah thought one was comin' to me, Ah'd hide in the woods; then they'd send aftah me and they say, 'Come, on back, - we won't whip you'. But they killed some of the niggahs, whipped 'em to death. Ah guess they killed three or fo' on Tolah's place while ah was there.

"Ah never went to school. Learned to read and write my name after ah was free in night school, but they nevah allowed us to have a book in ouah hand, and we couldn't have no money neither. If we had money we had to tu'n it ovah to ouah ownah. Chu'ch was not allowed in ouah pa't neithah. Ah go to the Meth'dist Chu'ch now, everybody ought to go. I think RELIGION MUST BE FINE, 'CAUSE GOD ALMIGHTY'S AT THE HEAD OF IT."

Toler took a small piece of ice from the lard can, popped it between his toothless gum, smacking enjoyment, swished at the swarming flies with a soiled rag handkerchief, and continued.

"Ah nevah could unnerstand about ghos'es. Nevah did see one. Lots of folks tell about seein' ghos'es, but ah nevah feared 'em. Ah was nevah raised up undah such supastitious believin's.

"We was nevah allowed no pa'ties, and when they had goin' ons at the big house, we had to clear out. Ah had to wo'k hard all the time every day in the week. Had to min' the cows and calves, and when ah got older ah had to hoe in the field. Mastah Tolah had about 500 acres, so they tell me, and he had a lot of cows and ho'ses and oxens, and he was a big fa'mer. Ah've done about evahthing in mah life, blacksmith and stone mason, ca'penter, evahthing but

*[end p. 98]*

brick-layin'. Ah was a blacksmith heah fo' 36 yea's. Learned it down at Tolah's.

"Ah stayed on the plantation during the wah, and jes' did what they tol' me. Ah was 21 then. And ah walked 50 mile to vote for Gen'l Grant at Vaughn's precinct. Ah voted fo' him in two sessions, he run twice. And ah was 21 the fust time, cause they come and got me, and say, 'Come on now. You can vote now, you is 21.' And theah now - mah age is right theah. 'Bout as close as you can git it.

"Ah was close to the battle front, and I seen all dem famous men. Seen Gen'l Lee, and Grant, and Abe Lincoln. Seen John Brown, and seen the seven men that was hung with him, but we wasn't allowed to talk to any of 'em, jes' looked on in the street. Jes' spoke, and say 'How d' do.

"But ah did talk to Lincoln, and ah tol' him ah wanted to be free, and he was a fine man, 'cause he made us all free. And ah got a ole history, it's the Sanford American History, and was published in 1784. But ah don't know where it is now, ah misplaced it. It is printed in the book, something ah said, now written by hand. And it says, 'Ah am a ole slave which has suvved fo' 21 yeahs, and ah would be quite pleased if you could help us to be free. We thank you very much. Ah trust that some day ah can do you the same privilege that you are doing for me. Ah have been a slave for many years. (Note discrepancy.)

"Aftah the wah, ah came to Cincinnati, and was married three times. Mah fust wife was Mannie. Then there was Mollie. They both died, and then ah was married Cora heah, and ah had six child'en, one girl and fo' boys. (Note discrepancy) They's two living yet; James is 70 and he is not married. And Bob's about thutty or fo'ty. Ah done lost all mah rememb'ance, too ole now. But Mollie died when he was bo'n, and he is crazy. He is out of Longview (Home for Mentally infirm) now fo' a while, and he jes' wanders around, and wo'ks a little. He ha'mless, he wouldn't hurt nobody. He ain't married

*[end p. 99]*

neithah.

"After the wah, ah bought a fiddle, and ah was a good fiddlah. Used to be a fiddlah fo' the white girls to dance. Jes' picked it up. It was a natural gif. Ah could still play if ah had a fiddle. Ah used to play at our hoe downs, too. Played all those ole time songs - Soldier's Joy, Jimmy Long Josey, Arkansas Traveler, and Black Eye Susie. Ah remembah the wo'ds to that one."

Smiling inwardly with pleasure as he again lived the past, the old Negro swayed and recited:

Black Eye Susie, you look so fine,  
 Black Eye Susie, ah think youah mine.  
 A wondahful time we're having now,  
 Oh, Black Eye Susie, ah believe that youah mine.

---

And away down we stomp aroun' the bush,  
 We'd think that we'd get back to wheah we could push  
 Black Eye Susie, ah think youah fine,  
 Black Eye Susie, Ah know youah mine.

Then, he resumed his conversational tone:

"Befo' the wah we never had no good times. They took good care of us, though. As pa'taculah with slave as with the stock - that was their money, you know. And if we claimed bein' sick, they'd give us a dose of castah oil and tu'pentine. That was the principal medicine cullud folks had to take, and sometimes salts. But nevah no whiskey - that was not allowed. And if we was real sick, they had the Doctah fo' us.

"We had very bad eatin'. Bread, meat, water. And they fed it to us in a trough, jes' like the hogs. And ah went in may [sic] shirt till I was 16, nevah had no clothes. And the flo' in ouah cabin was dirt, and at night we'd jes' take a blanket and lay down on the flo'. The dog was supe'ior to us; they would take him in the house.

"Some of the people I belonged to was in the Klu Klux Klan. Tolah had fo' girls and fo' boys. Some of those boys belonged. And I used to see them turn out. They went 'round whippin' niggahs. They get young girls and strip

[end p. 100]

---

'em sta'k naked, and put 'em across barrels, and whip 'em till the blood run out of 'em, and then they would put salt in the raw pahts. And ah seen it, and it was as bloody aroun' em as if they'd stuck hogs.

"I sho' is glad I ain't no slave no moah. Ah thank God that ah lived to pas the yeahs until the day of 1937. Ah'm happy and satisfied now, and ah hopes ah see a million yeahs to come."

[end p. 101]

Source: *The American Slave*, Vol. 16: 97-101.

---

<a href="#">Top of Document</a>	<a href="#">Index of Narratives</a>	<a href="#">Home Page</a>
---------------------------------	-------------------------------------	---------------------------

*Send comments and suggestions to [Bruce Fort](#)*

*Last revised: August 10, 1997*

---

APPENDIX F  
RESPONSE TO PICTURES FROM HOLOCAUST

## APPENDIX F

## REPOSE TO PICTURES FROM HOLOCAUST



These are the most horrifying pictures I have ever seen in my life. Seeing these pictures make you realize how awful this time was, and how many lives were lost. You also see the conditions that the people had to live in. Looking at the gigantic ditch you can't help to wonder how many bodies there actually are in there. Also, that seems down right horrible to me that these people just get thrown in a ditch when they die like they don't even matter, as if they weren't even people. When you look at the picture you can see how thin the people bones are, which tells you something about the food situations. The people in the first picture are crammed into hallways with no room to even wiggle, freezing with nothing but little blankets to keep some warmth. Seeing the number of people on the ditch, there are probably many dead in the hall as well. It makes me wonder how they actually found all the dead, it is like they just came around and picked up dead people and tossed them over their shoulders into a ditch without even having a care in the world. It makes me wonder if these people even had hearts.

By Student #6

APPENDIX G

STREAM-OF-CONSCIOUSNESS RESPONSE TO QUOTE

## APPENDIX G

## STREAM-OF-CONSCIOUSNESS RESPONSE TO QUOTE

By Student #5

“Hold fast to dreams  
 For if dreams die  
 Life is a broken-winged bird  
 That cannot fly.” –Langston Hughes

- You need dreams to succeed in life
- Without dreams you have no drive
- Keep dreaming
- Dreaming is good for the soul
- A rich fantasy life can make up for a lot of bad stuff in reality.
- Day dreaming—ahhhhhhhh

## Dreaming

## Day dreaming

## During class

- can get you in trouble for not paying attention
- can get u confused on a concept especially math.

## Imagining

- using your imagination
- broaden your horizons of creativity.

## Slumber

## Nightmares

- scary
- wake you up from sleeping
- unusual and strange images.

## Pleasant Dreams

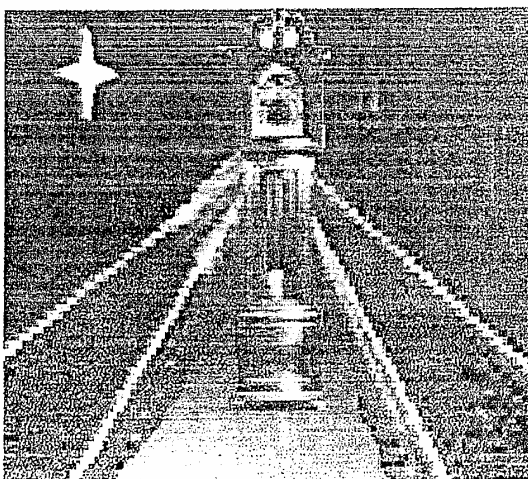
- can express your deepest desires, even the ones you didn't know you had.
- inspire you to do something such as paint, dance, sing, or go out for a team
- surreal and impossible themes or images.

- Dreaming is the gateway to success: do you dream?

APPENDIX H  
ONLINE BOOK REVIEW

ONLINE BOOK REVIEW

2001-2002

**Georgia Book Award Nominee**Reviewed by: **Andrea B.****Title:** True North: A Novel of the Underground Railroad**Author:** Kathryn Lasky**Genre:** Historical Fiction

**Storyline:** "I am breaking the law, dear child. I am breaking the law every and any chance I get." These were the words of an abolitionist to his granddaughter, Lucy, who seeks freedom from the strict rules of her Boston upbringing. Meanwhile, a fugitive slave, Afrika, dreams of the words, "Steal away... steal away," and runs from slavery. Lasky weaves the two stories into one as their tracks cross on the Underground Railroad. When Lucy learns the truth about her grandfather, only a few secrets are exchanged before sudden tragedy drops Lucy into womanhood by following her grandfather's footsteps as a conductor on the Underground Railroad. Afrika is sleeping by day and walking miles by night on the Underground Railroad, when she stops at a safe house along the way. It happens to be the home of Lucy's grandfather, where a

---

---

fugitive slave and white girl are pushed to walk on the same track of the Underground Railroad. Together, the determined heroines must interpret the codes, signals, and roads that will lead them to their "True North."

[Click here for my reaction](#)



**E**nter your comments in the space provided below:

Be sure to include the name of the book and reviewer to whom you are responding.

Submit Comments

Clear Form

---

[Return to Main Page](#)

APPENDIX I

FOUND POEM FROM HOLOCAUST LITERATURE



## Abraham Beem

By: Student #8

Born on June 13, 1934.  
 A schoolboy living in Leeward, Holland.  
 His father Hartog and his mother Passette.  
 The Jewish family that would get involved in their culture.  
 The Germans invaded his country in May of 1940.  
 He was only five years old.  
 So young, so innocent.



During the next few years,  
 The times were terrible.  
 The liquidation of businesses,  
 And the restrictions put on this fine group of people.  
 The rich became poor.  
 The poor just getting poorer.  
 Jews were forced into ghettos,  
 Wearing only the yellow star of David.

Now young Abraham,  
 Getting older,  
 Seven years of age.  
 Two years of worrying.  
 Wondering if he'll ever get taken away.  
 Wondering and dreaming like a normal kid.  
 Yet this is different.  
 Those times were under different circumstances.

1942 and the Jews were rounded up.  
 The Jews from Holland,  
 The Jews from Abraham's country.  
 These nice people were taken to death camps.  
 How sad, how horrific,  
 The Nazis thought of it,  
 Only has terrific.

Abraham went into hiding.  
 Found himself a Christian family.  
 Posing as a non-Jew in a rural area.  
 That is the extent that he had to go to.  
 This young man had a new identity,  
 This young man was now known as Jan De Witt.

Later he was found,  
 Sent to a Polish death camp,  
 Without any say at all.  
 Young Abraham and his sister together,  
 Young Abraham and his sister dead.

