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# Painting the Voice: Weblogs and Writing Instruction in the High School Classroom

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Painting the Voice: Weblogs and Writing Instruction  
in the High School Classroom

by

Marilyn V. Olander

A dissertation submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
in  
Computing Technology in Education

Graduate School of Computer and Information Sciences  
Nova Southeastern University

2007

We hereby certify that this dissertation, submitted by Marilyn V. Olander, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the dissertation requirements for the degree of Doctor of Philosophy.

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Graduate School of Computer and Information Sciences  
Nova Southeastern University

2007

An Abstract of a Dissertation Submitted to Nova Southeastern University  
in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

## Painting the Voice: Weblogs and Writing Instruction in the High School Classroom

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Writing is a complex cognitive skill, a technology for capturing speech whose forms and conventions began in the dawn of civilization and were in place and stable by the Middle Ages. Writing and reading are the foundation of literacy, fundamental to success in school and in the adult world. No comprehensive theory of composition guides the teaching of writing, although historically two approaches have been favored: writing as a skill acquired through the memorization and recognition of principles of grammar and usage, and more recently, writing as a process of recursive strategies of planning, drafting, revising, editing, and publishing. The National Council of Teachers of English supports the methodology of the writing process; the literature reports that teachers perceive it as an effective tool. However, national testing programs including the National Assessment of Educational Progress and the Scholastic Aptitude Test reveal that students' achievement in writing has not changed appreciably from the mid-level baselines established more than two decades ago.

Reading and writing capabilities are closely associated with motivation. Many students function perfectly well, while others struggle. Students commonly regard writing as a chore, a closed loop between student and teacher to demonstrate what one knows, with the primary value being the correction of errors and a grade.

Computer aided learning has become routine in schools. Within the past six years, teachers have begun exploring weblogs, a recent multimedia technology that draws on students' interest in computer related communication. Blogs enable frequent writing that is either spontaneous or planned and accessible by readers whether in a password-protected environment or open to the Internet. The study used a Web survey, telephone interviews with teachers, and observation of students' blog posts to explore the potential of blogs as a tool for teaching writing in the high school classroom. Educational blogging is as yet a new resource; a canon of best practices has yet to emerge. However, the study found that blogs hold particular promise for most young writers as an authentic, interactive domain for practicing to learn and learning to practice effective writing and its accompanying skills, reading and thinking.

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For my mother, in memory.

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*L'écriture est la peinture de la voix;  
plus elle est ressemblante, meilleure elle est.*

Voltaire, "Orthography,"  
*Philosophical Dictionary*

Writing is the painting of the voice; the closer the resemblance, the better it is.

## **Chapter 1**

### **Introduction**

Writing is an enormously complex cognitive activity, a human technology for preserving speech. Voltaire observed that “writing is the painting of the voice; the closer the resemblance, the better it is” (Stephens, 1998, p. 17). In less abstract and more realistic terms, depending on the capabilities and purposes of writers, writing ranges from the inarticulate and banal to the serviceable to high art. Writing depends as well on the abilities of readers to decode words and to recognize the conventions of grammar and punctuation, but also to understand the nuances of word choice, rhetorical devices, tone, sequence, and sentence structure that enrich meaning in the same way that prosody—pronunciation, tone, pitch, tempo, rhythm, and emphasis—shades meaning in speech (Yagoda, 2004). In addition, the concordance between writer and reader assumes that writers will organize and structure the content of the writing with a logical strategy or combination of strategies suitable to their purpose, whether narration, description, or exposition, and that readers will recognize and follow the thought patterns that constitute structure. It is testimony to the complexity of writing that it is taught as part of the school curriculum from kindergarten through twelfth grade and beyond, the only school subject for which this is so.

## **Statement of the Problem**

The traditional concept of literacy, referring to one's ability to read and write at least at basic levels, has shifted in recent years to the broader perspective of information literacy, or the ability to understand when information is needed in diverse contexts, and know how to locate, evaluate, and apply it appropriately (Eisenberg, Lowe, & Spitzer, 2004). Even in this more comprehensive perspective of literacy, reading and writing and the accompanying requisite, thinking, are fundamental to all the rest. However, a recurring theme in contemporary literature, confirmed by national standardized tests over successive years, is that many students struggle with both reading and writing and often perform below grade level. Underachievement is of particular concern for adolescents who demonstrate the self-fulfilling prophecy of low expectations for themselves after years of poor grades in language arts classes (Azemove, 2002; Baines, Baines, Stanley, & Kunkel, 1999; Jackson, 2002; Kajder & Bull, 2003), but who are moving through high school and toward the adult world. Reading, writing, and thinking are deeply intertwined abilities: poor readers are generally poor writers, and are reluctant to engage in either activity in school. They are even less likely to pursue either out of school, other than minimally. Better readers tend to be more capable writers, and are likely to engage in work and leisure pursuits that call upon both. However, The National Commission on Writing in America's Schools and Colleges (2003) asserts that writing is not a privileged skill for a small percentage of elite students but is rather an essential need for everyone that enables participation in school and in contemporary society.

In the past 35 years, the teaching of composition from elementary through high school levels has shifted from a focus on writing as skill sets of grammar and formulaic

structure, the latter typified in the ubiquitous five-paragraph theme, to writing as a process of planning or prewriting, drafting, revising, editing, and publishing (Hillocks, 2002; NCTE, 2004; Thomas, 2000; & Totten, 2003). The prevailing perspective among teachers is that the process has brought great improvement to the teaching of composition (Baines et al., 1999; Totten). However, national assessments of students' writing yield data that are not aligned with that perspective. The National Assessment of Educational Progress (NAEP) tracked long term trends in students' writing skills over 12 years, from 1984 through 1996, comparing performance in fluency and writing conventions for students in Grades 4, 8, and 11. Five trend assessments were conducted using the same test booklets with nationally representative samples of students, yielding comparative scores. Between 1984 and 1996, students in Grades 4 and 8 made modest gains in writing fluency, although there was no change for students in Grade 11. With regard to writing conventions for the same period, students in Grades 8 and 11 improved slightly though students in Grade 4 did not. The summary observation is that the emphasis on the writing process did yield a slight though not statistically significant overall increase in students' achievement in writing. The improvement was in the use of the conventions of writing but not in fluency (Ballator, Farnum, & Kaplan, 1999).

In addition to long-term studies, the NAEP conducts annual assessments in a variety of subjects, rotating among them in four-year cycles. The 2002 NAEP Assessment in Writing indicates that while the writing achievement of students in Grades 4 and 8 improved by four and three points, respectively, from the Basic Level baseline of 150 established in the prior assessment in 1998, the writing achievement of 12<sup>th</sup> graders has remained stagnant, even declining by two points in that period (Plisko, 2003). The

decline is not statistically significant. The report of the 2005 Scholastic Aptitude Test (SAT) for college-bound students, which this year for the first time included a writing test, shows mean verbal scores unchanged for the two preceding years at 508, and nearly unchanged for the past 10: in 1995 the mean verbal score was 504 (Arenson, 2005). The highest score possible for this section of the SAT is 800. While it is widely assumed that students learn to write by writing, and that the methods teachers use to teach writing are essential factors in learning (Azemove, 2002; Hillocks, 2002; Kajder & Bull, 2003), those assumptions may not be entirely accurate. There is clearly some distance between what teachers perceive as effective and what apparently is the case.

How best to teach writing, and even what teaching writing means, is a complicated, multi-layered problem that does not yield to easy solutions. The introduction of computers in education and the evolving technologies of computer-assisted communication through the World Wide Web (WWW) and through the increasingly varied capabilities of cell phones, including text messaging as well as podcasting, have added new dimensions to the problem, as well as unprecedented new opportunities for instructional methodology.

## **Goal**

A change from the static nature of Web pages, which allow for reading with responses limited to such minimal elements as clicking on radio buttons or typing information in text boxes, occurred in the middle to late 1990s with the first Weblogs, or blogs. The capabilities of blogs for reader interaction expanded rapidly, and the technology is proving to be applicable for a wide variety of enterprises, including



education. The goal of this study was to investigate how blogs can be used to improve motivation and achievement in writing for high school students.

### **Relevance and Significance**

The PEW Report on adolescents' use of the Internet states that even several years ago, 73% of children ages 12 through 17 used the Internet, and of that 17 million students, 13 million used Instant Messaging (Lenhart, Rainie, & Lewis, 2001). Some teachers as well as employers are concerned that the compressed semiotics of IM and of cell phone text messages may have an adverse effect on the writing capabilities of students who use those technologies (Brown-Owens, Eason, & Lader, 2003; O'Connor, 2005). Anecdotal evidence from teachers indicates that students who do not instinctively adjust their language from overly casual and compressed Netspeak (Crystal, 2001) to more formal modes of expression suitable for the classroom or the workplace can rather readily be taught to draw distinctions among occasions and audiences and modify their language as appropriate (O'Connor).

In the past several years, blogs have emerged as an easily accessible new tool for interactive communication through the Internet. Unlike e-mail, which is one-to-one communication although a message may be distributed to any number of recipients, and IM, which is a rapid-exchange and typically highly compressed form of conversation as text (Brown-Owens et al., 2003), blogs allow for spontaneous as well as planned, reflective writing at whatever length the writer chooses (Ganley, 2004). Used as personal electronic journals by individuals who wrote their own code when blogging started in 1994 (Blood, 2000; Harmanci, 2005), weblogs have found a variety of new applications

as social software because they enable one to many communication between writer and readers as well as continuing, threaded discourse between writer and readers, and among readers themselves. Blogs are also persistent: the software automatically archives content at preset intervals. Permalinks assign a unique URL to each post, making archived posts retrievable by anyone, not just the blog owner. Blogs thus make possible the unprecedented opportunity for real-world written expression that invites reading, thinking, and interactive exchanges with others. Particularly for inexperienced writers, that confirmation of meaningfulness may be highly motivating. Bull, Bull, and Kajder (2003) noted that blogs hold great potential as an intrinsically attractive new instructional medium. However, because blogs are still so new and diffusion of innovations is often a very slow process (Rogers, 2003), their use in schools is just beginning to be explored. There is no body of research as yet on how blogs are being used in education and what effect they have in various applications. There is anecdotal evidence from teachers who are early adopters that blogs are useful for administrative and class management purposes, for example the publishing of assignment instructions, handouts, class calendars, and announcements that both students and parents may access (Richardson, 2006a; Warlick, 2005). In addition, a growing number of teachers in elementary and middle schools as well as high school teachers in various subject fields including language arts, mathematics, foreign languages, and science, are either experimenting with or are integrating blogs into their teaching practice, and are sharing their experience on education blogs and listservs. Presentations on blogging are beginning to be included in educational and technology conferences (Richardson, 2006a; Warlick). The exploration of the current use of blogs was to discover how the unique capabilities of blogs can be

engaged to help teach course content, to give students real world learning experiences beyond the traditional approaches of the teacher and text centered classroom, and to integrate the constructivist learning that occurs when students actively collaborate with each other and with the world beyond the walls of the school (Richardson, 2006a). This array of individual and group skills, all directly related to reading and writing, is essential for success in school, for the world of work, and for participation as citizens in an increasingly complex and interconnected adult world (The National Commission on Writing, 2003; Lowry, Curtis, & Lowry, 2004).

### **Barriers and Issues**

The relative newness of blogs in education for teaching and learning (Bull et al., 2003) was anticipated to be a barrier in some degree to the success of this study. However, early adopters of edu-blogs, as they are dubbed, are beginning to provide anecdotal information through both individual weblogs such as Will Richardson's Weblogg-Ed (<http://www.weblogg-ed.com>) and collective Websites like Kairosnews (<http://kairosnews.org/>) where teachers who are using blogs in educational environments share information. The National Writing Project (NWP) (2005) has identified five lead sites and six individual-school seed sites for projects that explore using technology to teach writing, including but not limited to weblogs. All the site projects are in process; no analytic data are as yet available.

Validated research instruments that address instructional issues associated with blogging have yet to be published, given the recency of the technology. Accordingly, a

research instrument specifically designed for the study was developed and was reviewed, critiqued, and tested by a panel of experts assembled for that purpose.

Another anticipated barrier was locating a sufficient number of English teachers at the high school level who were using blogs to support the development of a valid body of data through voluntary responses to the Web survey and through a select number of telephone interviews. The early adopters of blogs for educational purposes include high school teachers as well as elementary school teachers and post-secondary instructors and institutions. Some of the teachers at all levels who have created blogs use them solely for administrative purposes, such as disseminating handouts, explaining assignment guidelines and due dates, and making class announcements. In other instances, teachers establish a class blog and may also set up and link individual student blogs. Another configuration may be a teacher's blog and password-protected individual blogs for students that restrict access by outsiders. Clearly, early adopters are experimenting with how blogs may be employed for teaching and learning. A realistic and necessary factor that affects the use of blogs in schools is concern about issues of privacy and security if students publish their work to the Internet (Bull et al., 2003; Kajder, Bull, & Van Noy, 2004), although measures such as restricting access with passwords, gaining written permissions from parents, giving parents access to the class blog, and setting clear, non-negotiable standards for ethical participation address many of those concerns (Bull et al.).

The problem of finding teachers for the Web survey was addressed by posting announcements of the survey on a variety of listservs, teachers' blogs, and Websites whose subscribers and participants are teachers who use computer technology in their

classrooms, who promote technology in their schools or districts, or who train preservice or experienced teachers to introduce technology into their teaching practice.

Several strategies were used to locate six teachers for telephone interviews. A teacher who posted a brief discussion on the NWP Netheads listserv of his satisfaction with the blog he organized for his 10<sup>th</sup> grade English class was contacted by e-mail, and agreed to participate. A second interview derived from a personal contact through a colleague who was a mutual acquaintance. A third was arranged through an e-mail query with a teacher who was listed on The Landmark Project's Class Blogmeister Website (<http://classblogmeister.com>) as a subscriber to that educational blog service. During the interview, he identified himself as a state tech liaison for the NWP. The final three interviews were also with NWP tech liaisons in their respective states, with one contact by cold call and subsequent referrals to NWP colleagues in other locations.

The final potential barrier of finding a high school English class that was using a blog and gaining access to it for a limited time as an invisible, non-participating observer was overcome during the first telephone interview. That teacher discussed the YouthVoices Elgg (<http://youthvoices.net>), of which he was a cofounder, explaining that YouthVoices is a social networking Website on which students in high school classes post their blogs. YouthVoices is openly accessible to any reader who accesses the Website.

### **Research Questions**

The research questions addressed in pursuit of the goal were:

- 1 How are weblogs used in high school classes to teach writing?

- 2 How are weblogs different from impromptu writing tools such as e-mail, IM, and text messaging?
- 3 How do weblogs increase motivation to write?
- 4 In what ways do weblogs increase writing abilities and achievement?

Both quantitative and qualitative data were gathered for this study. The former utilized a self-report survey placed on the Internet. The latter had two sources: semi-structured telephone interviews with teachers who were using blogs in their high school classes, and a nine-week observation of four students participating in a class blog. Method triangulation allowed corroboration of findings among the three data sources, confirming the validity of the study and reducing possible bias (Gay & Airasian, 2003). The study expected to find that teachers and students both tend to have a positive attitude about blogging, and that engaging in blogging tends to support a higher quality of student writing as gauged by common general standards of achievement in composition.

### **Limitations and Delimitations of the Study**

#### *Limitations*

There were several limitations for this study. First, the teachers who responded to the survey had varying levels of expertise as computer users, and varying degrees of experience in guiding students in the interactive environment of blogs. Second, the number of teachers who responded to the survey may not have been representative of the actual number of teachers who are using blogs with their classes (Krathwohl, 2004). Third, the students engaged in class blogging may not have been broadly representative

of high school students, because school districts are not uniformly equipped with technological resources, including hardware and software, Internet access, and technically adept faculty or staff personnel. In addition, students do not have uniform access to computers outside the school environment. Fourth, the study was carried out during a limited period of time, and the changes that may have been perceptible through teachers' reports and class observation may have been a function of the ongoing instructional process, and not blogging per se.

### *Delimitations*

The multiple data sources of a Web survey, semi-structured interviews with teachers who were using class blogs, and observation of selected students who were participating in an English class blog allowed for corroboration of information that helped to offset the limitations of the study. Respondents to the survey self-selected. There was no way of determining whether that sample was representative of all high school teachers who were using blogs for writing instruction, although it could be assumed that teachers who were using blogs with their students had an interest in computer technology as an educational resource, and had at least minimal skill with blogging technology. Krathwohl (2004) indicated that the size of the population does not matter if the sample can be assumed to be generally consistent within itself. Further, the study intended to investigate how teachers are currently using blogs. Computer technology continues to change as enhancements are developed and as new applications are found for available software. For example vlogs, or video blogs, are drawing attention as a variation on text-focused blogs, and wikis are gaining interest as writing space

specifically amenable to group writing projects in which participants may make additions, emendations, and other editorial changes as the project progresses. Either of these resources may be combined with blogging to provide different learning experiences than blogging alone.

### **Definitions and Acronyms**

**Archive:** (n) A file in a blog that contains old posts. Posts are automatically saved to the archive at intervals set by the blogger, for example weekly, or monthly. Posts in the archive may be accessed with a mouse click (Glenn, 2004).

**Blog:** (n) Shortened form of “weblog”; an online personal journal with timestamped entries listed in reverse chronological order, with the most recent first. Entries may include text, hypermedia links, and multimedia objects, and may enable interaction with readers. (v) To post new entries to a blog, or to comment on entries already in the blog (Glenn, 2004). See *Weblog*.

**Blogger:** (n) A person who either establishes a blog, or who posts comments on a blog to entries posted by other people. Also, the name for one of the technologies used to create blogs (i.e., “Blogger”) (Glenn, 2004).

**Blogroll:** (n) A hyperlinked list of blogs selected by the blog owner (Glenn, 2004).

**Chat Room:** A synchronous online forum in which participants exchange brief messages in a manner similar to conversation, although all messages are written and typically employ the compressed linguistic inventions referred to as Netspeak. Messages can be seen by everyone logged into the chat room, are sent in real time, and overlap non-



sequentially. The participant must keep track of multiple voices and lines of thought, though each poster is identified by a screen name (TechEncyclopedia, 2005).

**Computer supported cooperative work (CSCW):** (n) The term for technologically-supported collaboration including asynchronous (same place, different time), synchronous distributed (same place, same time), or asynchronous distributed (different place, different time) (Shneiderman, as cited in Chandler, 2001).

**Content management systems:** Common term for blogging software and services, e.g., LiveJournal, Moveable Type, TypePad, RadioUserland, WordPress. The software enables personal publishing on the Web. Such publishing is also called *microcontent*, *thin media*, or *nanopublishing* (Zuiker, 2004).

**CSCW:** Computer supported cooperative work.

**Edu-blog:** (n) A blog devoted to issues of interest in education, including the use of blogs for teaching and learning in various subjects (Farmer, 2007).

**E-mail:** (n) Electronic mail. (v) To compose and send messages electronically.

**Forums/Discussion boards:** Similar to newsgroups although kept on a single server rather than being distributed among numerous servers; forums are maintained by the originator of the forum (Tyson, 2005).

**Groupware:** (n) Various software applications that enable collaborative exchanges, for example blogs, e-mail, listservs, and commercial products such as Web CT and Blackboard (“Glossary of Networking Terms,” 2002). Syn. *social software*.

**HTML:** HyperText Markup Language, created by Tim Berners-Lee in 1991, is the coding scheme used to tag elements of Web documents like layout, fonts, and graphics so

that browser software can display them correctly on the screen (“Glossary of Networking Terms”).

**Hyperlink:** Syn. *hypertext*.

**Hypermedia:** The modern extension of hypertext, the hyperlinked, text-based Web documents of the early Internet; includes text, video, graphics, audio, and hyperlinks (“Glossary of Networking Terms”). Syn. *multimedia*.

**Hypertext:** (n) A word, phrase, name, blog title, or URL with HTML tags. The reader clicks on the hyperlink and is switched to a Web page related to the content or form of the original source. Hypertext is the foundation of the Web: Web pages are linked to each other in a network. Links may be text or icons. Ted Nelson conceived of hypertext in the 1960s as a way of making the computer behave in a way that simulates how people think and acquire information. (TechEncyclopedia, 2005). Syn. *hyperlink*.

**Instant Messaging (IM):** Halfway between chat rooms and e-mail, brief synchronous messages exchanged with others on one’s list of contacts; a form of written speech characterized by brevity, often monosyllabic words, and extensive use of compressed semiotics (Crystal, 2001).

**Link:** See *Hyperlink*.

**Listserv:** Software created in 1986 in France by engineering student Eric Thomas that redistributes e-mail to names on a mailing list to which users subscribe. Listservs are not interactive, although subscribers may send e-mail messages in response to other members’ posts (TechEncyclopedia, 2005).

**MOO:** MultiUser Dimension Object-Oriented Technology. See *MUD*.

**MUD:** MultiUser Dungeon, MultiUser Dimension. Interactive online game environment in which players assume identities, or avatars. See *MOO* (TechEncyclopedia, 2005).

**Multimedia:** Refers to combinations of text, graphics, audio, video, or animation that may be included on a Website. See *hypermedia*.

**NAEP:** National Assessment of Educational Progress, often referred to as The Nation's Report Card. Under the auspices of the U.S. Department of Education, NAEP assesses what students in Grades 4, 8, and 12 know and are able to do. Two, three, or four subject areas are targeted for assessment each year. Scores are by group only, designated as Basic, Proficient, and Advanced (U.S. Department of Education, 2003).

**NCTE:** National Council of Teachers of English, Urbana, Illinois.

**Newsgroup:** A collection of messages about a particular subject; a bulletin board. Users subscribe to newsgroups through Usenet (USErNETwork), an online public access network that began in 1979 as a bulletin board between two universities in North Carolina. Access to newsgroups is with a Web browser or a newsreader; newsgroups are participatory, allow threading and hypertext (TechEncyclopedia, 2005).

**Netspeak:** A type of language whose vocabulary, grammar, and graphology are particular to the Internet (Crystal, 2001).

**NWP:** The National Writing Project, a non-profit professional development organization for teachers of writing in Grades K-16, founded as the Bay Area Writing Project in 1974 by James Gray at the University of California (UC) at Berkeley. NWP currently has 189 sites in throughout the 50 states as well as in Washington, D.C., Puerto Rico, and the Virgin Islands (The National Writing Project & Nagin, 2003).

**OLE:** Online learning environment.

**Permalink:** (n) The link in a blog's archive to the permanent location of any post via a unique URL (Blood, 2004).

**Podcast:** (n) A word coined in 2004 from broadcast and Apple Computer's iPod referring to audio and video files syndicated on the Internet to subscribers. Also (v), to create such an audio or video file (Podcasting, 2006).

**Post:** (n) An entry to a blog, a newsgroup, or a listserv. (v) To send an entry to a blog, newsgroup, or listserv. Posts may contain text, hyperlinks, or multimedia objects ("Glossary," 2003).

**RSS:** (n) Rich Site Summary or Real Simple Syndication. A pull technology that enables a blogger to subscribe to new content posted to other, selected weblogs. RSS checks selected Websites at regular intervals and aggregates all new content in a folder, enabling the monitoring of any number of blogs without logging on to each one individually (Richardson, 2004).

**Social Software:** See *groupware*.

**Threading:** The automatic grouping of messages in a conversation on a single subject, arranged in descending order of the time they are received ("Glossary").

**Timestamp:** (n) The time and date record of when each post appears in a blog or a newsgroup (Glenn).

**URL:** (n) Uniform Resource Locator (or Universal Resource Locator). The address for a resource or document on the Internet ("Glossary of Networking Terms").

**Vlog:** (n) A coinage of blog and video, referring to a video file distributed in the same manner as a blog, usually accompanied by text or information that provides a context for the video. Also (v), to create such a file and publish it to the Web (Vlog, 2006).

**Web 2.0:** (n) An as-yet neither clearly defined nor standards-based term that generally refers to a shift in the nature of the Web from passive to interactive, distributed, and networked. Regarded by critics as faddish, the term was coined by Tim O'Reilly in 2004 (O'Reilly, 2005).

**Weblog:** (n) A Web page with timestamped entries or posts usually listed in reverse chronological order. In simplest form, an online diary on which the owner writes or logs entries that others may read and respond to via a threaded comments feature. Content may include text, hyperlinks, and multimedia objects. The term was coined by Jorn Barger in 1998. (Blood, 2004). See *blog*.

**Wiki:** (n) A hypertext Website that allows users to add content as well as edit existing content. A hypertext Website such as Wikipedia. Also refers to the software used to create such a Website, developed in the 1990s by Ward Cunningham. The term is from wiki-wiki, Hawai'ian for "quick / rapid" (Wiki, 2005).

**WWW:** World Wide Web, commonly referred to as the Web.

## Summary

Writing is an extraordinarily important technology for civilization itself (Diamond, 1997), and an extraordinarily complex cognitive activity. It captures speech, creating a contract between writer and reader that is the foundation of literacy. The still-unmet challenge is how to teach students to write in order to accurately express their thinking and so function effectively in school as well as participate in the information-rich world of adulthood. Research in the early 1970s helped focus attention on writing as a process of planning, drafting, and editing, a shift away from the entrenched pedagogy

of grammar drills and skills. The belief among teachers and in the policy statements of professional organizations is that approaching writing instruction as a process will yield positive outcomes in student accomplishment. However, national testing programs indicate that no significant improvements have occurred in students' writing abilities over time: scores in the past two decades have remained stagnant or have even declined slightly from baseline levels. The literature expresses continuing concern that many students dislike and struggle with writing, and that those who do are also likely to be poor readers.

The emergence of a variety of computer-based technologies in the past decade has been embraced by adolescents, and may have promise for improving students' attitudes toward schooling as well as their educational achievement. In particular, students' ready acceptance of Internet chat rooms, IM, and cell-phone text messaging, all of which are writing intensive, signals that Weblogs, or blogs, may be an effective tool for writing instruction. The goal of the study was to investigate how blogs can be used to improve motivation and achievement in writing for high school students. Data were gathered from a survey, from telephone interviews with high school teachers who were using blogs for writing instruction, and from direct observation of students engaged in a class blog. While the study was limited to a self-selected sample of teachers willing to participate, as well as a small number of students in a technologically up to date school, and while computer technology and applications continue to change, it was possible to gain insight into the efficacy of blogs as they are currently used in for writing instruction at the high school level.

## **Chapter 2**

### **Review of the Literature**

#### **Introduction**

While the development of the technology and conventions of writing and its fundamental relationship with reading are known, less is known of how to teach writing, although it is a fixture in school curricula from kindergarten through Grade 12 and beyond. Composition has no comprehensive base in theory. As well, teachers have little preservice training in teaching composition, and tend to teach as they were taught. Instructional practice over the years has focused first on decontextualized drill and practice with grammar and mechanics, and more recently on the process of composing itself, formulated as successive stages of planning, drafting, and editing. Even while teachers and professional organizations including NCTE and the National Writing Project (NWP) support teaching writing as process, there is no clear agreement about either what constitutes good writing, or how best to teach it. Often students who are poor writers are also poor readers; a common perspective among students is that writing is a chore, a closed loop between themselves and teachers, of value primarily as a means to a grade. While many self-directed students function well in the school environment, those who are less confident and feel less engaged may either perform below their actual abilities, or not rise to higher levels of accomplishment.

The advent of computers in schools in the 1980s, and students' ready engagement with computer-related technology outside of school, signaled new possibilities for education. The recent development of interactive technologies that rely on various forms and kinds of writing, including not only text messaging and IM but also blogs and wikis, opens unprecedented opportunities for instructional design as well as for students' involvement in and responsibility for their own learning. Blogging specifically invites interaction and networking for cooperative and collaborative learning. The real-world experience of blogging, which enables spontaneous and conversational writing as well as the longer, reflective writing expressive of both higher level thinking processes and careful craftsmanship, may be an effective new instructional tool that provides students with a context for learning to write in authentic voices, for authentic readers.

### **The Nature of Literacy**

Reading and writing are the fundamental literacies of learning, deeply interconnected in sharing the same knowledge and forms of knowledge. The visible signs the writer uses to form words and sentences must be recognized and understood by the reader. Reading and writing share but do not duplicate cognitive processes; they share the same contexts and some of the same constraints (Fitzgerald & Shanahan, 2000; Gelb, 1963). Reading is a less complex task than writing because the options for the reader are limited to what the writer provides, while the writer has uncounted options in combining elements including word choice, sentence construction, punctuation, word order, and rhetorical devices (Fitzgerald & Shanahan) in the conveyance of ideas and information. This cognitive interleaving of reading and writing is evident in the play of very young



children who draw pictures and simulate writing to accompany them, and then pretend to read the stories they have invented even before they have learned to form letters or decode written words.

### **The Nature of Writing**

Writing as a technology of communication that transforms speech to visible form arose in a number of different cultures, at different times in history. Rather than being invented, as it is commonly said, writing that captures not only the sound but the natural word order of language evolved over time and with contributions from several cultures in the area around the eastern Mediterranean. It originated in the need to communicate thoughts and feelings in a more lasting way than only vocal utterance (Gelb, 1963; Hobart & Schiffman, 1998). Proto-cuneiform, the forerunner of writing, emerged about 3100 B.C.E. in the Sumerian culture, in Mesopotamia, in the Fertile Crescent between the Tigris and Euphrates Rivers. It is assumed that the Sumerians recognized a need for record keeping that grew with the early structures of civilization, including trade. Just as writing in all cultures where it develops begins in art (Gelb), in simple representations of objects, proto-cuneiform was a system of making pictographic marks representing words on damp clay tablets with a small wedge-shaped stylus (cuneiform is Latin for wedge-shaped). The most important development in the history of writing occurred about one hundred years later when the Sumerians, perhaps wanting to provide for more definitive representations of proper names, discovered the principle of phonetic transfer (Gelb). To represent sounds, they began using signs either singly or in combination, according to the rebus principle. Thus the sign for water could also be used for the sound “in,” because the

two words were pronounced similarly in the spoken language (Gelb; Hobart & Schiffman). An example in English might be to put a picture of a bee adjacent to one of a leaf. Spoken in tandem, the two words express the abstract concept “belief” (Hobart & Schiffman).

The realization that all the sounds of a language could be represented through phonetization soon led to the creation of syllabic conventions whereby a syllable would always have the same meaning no matter what word sign it was associated with. With that achievement, proto-cuneiform pictographic writing evolved into cuneiform, a more flexible and extensive system based on syllabic signs that eventually represented words in patterns of rudimentary syntax (Hobart & Schiffman, 1998).

While the origins of Egyptian writing are less clear, it is assumed that the earliest Egyptian hieratic inscriptions, which began appearing in 3000 B.C.E., were prompted by the evolution of Sumerian writing (Gelb, 1963). Early systems of writing began to appear in other cultures as well. Phonetization had brought the sounds of vowels into writing, but over hundreds of years the written languages that came into being either did not show vowel signs at all, as Egyptian, or accounted for vowels in irregular fashion. The Phoenicians created an alphabet of consonants for their language by adapting signs from the Egyptian hieratic syllabary, reducing and simplifying the forms into letters, and giving them Semitic names. The first two letters, aleph and beth, combined as *alepbeth* and then *alphabet* (Gelb). The Phoenician writing was in consonants, with inconsistent use of superscript vowels. Eventually, through trade, the sea-faring Phoenicians brought knowledge of their alphabet to the Greeks, who moved writing toward its final stage of evolution. Through the same natural process of reduction and simplification followed

elsewhere, by approximately 900 B.C.E. the Greeks had adapted the Phoenician alphabet for their own use, dropping some letters, creating several new ones, and changing some of the remaining letters into the vowels a, e, i, o, and u. The Greeks' great achievement was in applying vowels consistently and systematically, placing them next to rather than raised above consonants, which made it possible to combine consonants and vowels into words spelled in fully phonographic writing. The words were arranged in the normal word order of the Greek language, and now writing could be read and revoiced as the language was spoken (Gelb; Hobart & Schiffman, 1998). Prior to this accomplishment, all the writing systems of Egypt and the Semitic cultures in the area of the eastern Mediterranean consisted of logograms or syllabaries that needed to be interpreted by the reader to reconstitute the message. The Greek system of combining consonants and vowels is the model for every culture that developed alphabetic writing. The forms and sequence of letters in the Roman, or Latin, alphabet evolved from that of the Greeks. The Latin alphabet, which is used for English and numerous other Western languages, continues essentially unchanged to this day (Gelb).

Innovations typically diffuse slowly, even when it can be shown that they improve existing circumstances or processes (Rogers, 2003). The earliest known Greek inscription is on a Dipylon Vase from Athens, dating to the Archaic Period, the early eighth century B.C.E. Whether the inscription was used as part of the decoration on the vase or for the message it conveyed is not known (Gelb, 1963). However, by the fifth century B.C.E., scribes and writing were common in Greek culture. Even so, Socrates had no use for writing, considering it inferior to speech, an inert form of language that could freely influence a reader without having to, or being able to, respond to the

challenge of argument (Hobart & Schiffman, 1998; Yagoda, 2004). His pupil Plato recorded Socrates' teachings in writing, as well as his own, although in dialogue form, with the sense that writing was a holding place for speech rather than an end in itself. By the time of Aristotle, Plato's student, writing was well established in Greek culture. Aristotle saw written language as the means to logical, systematic understanding, or wisdom (Hobart & Schiffman). In "On Rhetoric," Aristotle said "Style to be good must be clear . . . . Clearness is secured by using the words (nouns and verbs alike) that are current and ordinary . . . . A writer must disguise his art and give the impression of speaking naturally and not artificially" (as quoted in Yagoda, 2004, p. 5). These enduring, basic principles of writing are as fresh as this semester's English curriculum in any school district.

Other familiar conventions of writing and reading evolved at irregular intervals in history. The earliest Greek inscriptions were in the *bustrophedon* (as the ox turns) style in which lines of writing read from either left or right, with alternating lines in the opposite direction, the letters themselves written backwards on the alternate lines (Bolter, 2001). Over time, the convention of writing in lines from left to right became standard use in classical Greek, and has been retained in Western languages. In early Greek manuscripts, a horizontal line called a *paragraphos* separated sections of text, which came to be called paragraphs. The earliest punctuation was not for clarity in writing, but to signal speakers where to pause in their reading. After the invention of the moveable type printing press by Johannes Gutenberg in 1440, punctuation began to be used instead to guide the reading of written sentences (Robbins, 2005).

Dionysius Thrax, a Greek grammarian living in Rome in the first century B.C.E., devised the distinctions of parts of speech as an aid to teaching Greek to Roman school boys. The familiar terms still used today migrated from Greek through Latin to Middle English (Yagoda, 2006) and then to Modern English. English grammar is a direct legacy of Latin grammar. Not until the Middle Ages and the Carolingian Renaissance in the eighth century C.E. did the conventions of neatness and legibility come to writing at the direction of Charlemagne, who was dissatisfied with the often inaccurate and unreadable copying of ancient manuscripts being done in monasteries (Knox, 2004). The Carolingian Miniscule hand, whose clear, rounded forms suggested the rounded shapes of Romanesque architecture, introduced lower case letters and reserved the conventional capital letters of Latin to mark the first words of sentences. In addition, to improve legibility, spaces were left between words (Gelb, 1963; Knox).

In the Classical world and well into medieval times, literacy was a skill reserved to few, and written texts were meant to be read aloud. Rhetoric was the art of speaking, primarily the art of persuasion, and writing was secondary, only alive when it was voiced. Although the scribes in medieval monasteries read to themselves as they copied ancient manuscripts (Bolter, 2001), silent reading by choice was uncommon even in the early Middle Ages. In the fourth century, Augustine remarked that visitors arriving to see Ambrose, the bishop of Milan, often found him engrossed in reading, “his heart searching for meaning” though his “voice was silent and his tongue still” (quoted in Yagoda, 2004, p. 7).

Bolter (2001) proposed that another revolution in the nature of writing, and therefore also of reading, is underway: the development of hypertext, enabled by the

computer, and with it both a return to earlier conventions of communication and an unprecedented shift of control from writer to reader. Until now, the three dominant media for writing, the papyrus roll of Greece and Roman times, the handwritten codex or handwritten book of the Middle Ages, and the printed book of the past five and a half centuries, all maintained the role of the writer as leading the way for the reader. The capabilities of the computer for the visual and auditory complexity of graphics, sound, animation, and video as well as the flexibility of hypertext linking, change the dynamic of the writer-reader relationship (Bolter), and in ways actually spiral it back to elements of early communication that enhanced both the range of options for the story teller and the richness of the experience for the listener by networking information. In the oral tradition that preceded reading and writing, for example in eighth century Homeric Greece, the poet told the epic stories of the Trojan War in different ways from one recitation to the next. The invitation to the Muse of epic poetry in the opening lines, to sing the great stories through the poet, was standard, and the recitations followed a chronology of heroic characters and events familiar to listeners as cultural tradition. The storyteller was free to build the story line in the process of telling, because listeners followed a path of expectation built on experience with such heroic tales (Bolter). Referring to the work of Milman Parry and Herbert Lord, Hobart and Schiffman (1998) theorized that storytellers in the oral tradition employed repetitive description (e.g., the wine-dark sea, gray-eyed Athena, swift-footed Achilles) and stock themes (e.g., assemblies, journeys) that both aided listeners' comprehension of detailed stories and supported a stable memory of the stories over time. In Bolter's view, these devices provided a well-developed network of information and ideas that the storyteller could draw upon and the listeners recognize.

Even medieval codices, and later, printed books employed an early form of networking in the glosses successive readers wrote in the margins of texts (Bolter, 2001; Hobart & Schiffman, 1998), and then in the indexes, cross references, and footnotes that became staples of books and scholarly papers. The illuminated manuscripts produced in monasteries married beautifully rendered, colorful graphics with words in a distinctive form, the art not just decorative but an essential part of the communication with readers (Bolter). Both the networking of information and information sources, and the connection of images and text are fundamental characteristics of electronic writing. The reader of manuscripts and books has always had the option of reading only part of what was written, or of reading in some other sequence than beginning to end, and thus having some control over the writing. However, the traditional relationship of writer and reader is shifting in the electronic environment (Ferris, 2002). The new and unprecedented capability of the reader to follow skeins of hypertext links or not, and to return to the original reading or not, or at what point, changes the dynamic of writing. Readers may also alter a writer's work by copying and pasting fragments into new contexts, and thanks to the recent interactive capabilities of blogs and wikis, even edit a writer's text, thus changing the original writing itself, and also placing it in a new context of associations not of the writer's choosing. In the electronic environment, the traditional relationship of writer and reader is fundamentally different: control of the written communication is shifted to the reader (Ferris, 2002). Now networking and readers' choices may enrich the original work, extend it through linking it to other writing and other contexts, or destabilize it by editing or otherwise changing it in some degree.

One additional element factors into the nature of writing, and that is whether and to what extent the instruments that writers use influence their writing, and how. In addition to having a close relationship with reading, an essential quality of writing is that it is a record of thinking with regard to both content and language. Writing is a process of exploration and discovery, an aid to thinking through difficult issues and problems. It is also dependent on thinking for syntax, wording, and content development (Hillocks, 2002). Atkins (2000) asserted that computers hinder good writing because they function too quickly, and that rather than writing, one only types on a computer. The medium seems to invite speed at the expense of depth and reflection (Barlow, Birkerts, Kelly, & Slouka, 1995). Some writers aver that challenging writing problems such as analysis or complex explanations that need to be worked out in the thinking, exploration, and discovery that occur in the act of writing seem aided by the slower process of writing words on paper, especially with the slowest instrument: an old-fashioned fountain pen (Krathwohl, 2004). Whether only mature, experienced writers are sensitive to such distinctions is a matter for future research. However, it is of at least passing interest that the majority of contemporary students are users of computers and electronic devices for a variety of writing purposes both personal and school related, but often handwrite their work in class and especially in testing situations, such as state tests (Hillocks, 2002) and the new written portion of the SAT. Whether students who are accustomed to working at a faster pace on the computer feel hampered by the slower production of writing by hand—with getting through the task more necessary or likely to be more valued than slower, reasoned thinking—is not known.



## **The Interrelationship of Reading and Writing**

Young children who enter school and then move through the grades are traditionally taught reading and writing as separate skills, based on the long-established assumption that children must achieve a degree of mastery of reading before they can begin to learn to write (Fitzgerald & Shanahan, 2000). When writing is introduced either along with reading or later, it is traditionally treated as a separate capability. Further, writing itself is often taught as a collection of separate elements. Matters of grammar and sentence construction are staples of drill and practice exercises with a workbook or computer software. The comprehensive grammar book common in language arts classrooms explains the need for a beginning, a middle, and an end in a piece of writing, and explains the functions of thesis sentences and the requirements for paragraph construction (Wilson, Kierzek, & Gibson, 1982). The matter of content may typically be addressed in class by the teacher, through instruction in idea generation with pre-writing techniques such as mind mapping (Jago, 2002), or in discussion of a writing prompt. Either individually or collaboratively, students then assemble the pieces—ideas and information, language choices, syntax, structure, as well as reminders from teacher or rhetoric text to be mindful of audience—as writing. In the traditional classroom, for papers (that is, for other than incidental writing), the audience is the teacher, the purpose is to demonstrate knowledge of the topic, and the consequence of writing is a grade or some form of credit (Patthey-Chavez, Matsumura, & Valdes, 2004).

While elementary students may learn the basic processes of reading and then may improve their skill as they grow older through practice and continuing instructional support for comprehension as reading materials become more complex and move from

word recognition to the formulation and synthesis of ideas (deLeón, 2002), the development of writing skill is not so linear. Fitzgerald and Shanahan (2000) observed that research has sought to explain the link between reading and writing through studies of students' syntax, vocabulary, and spelling. However, the typically low correlations and narrow perspective of these studies may not have given sufficient attention to the fundamental relationship of reading and writing, which have a common base in using and understanding language, but different cognitive starting points as well as different developmental paths (Fitzgerald & Shanahan). For the reader, content and language are already in place: reading is principally recognition. For the writer, there is a blank page: writing is all production. The challenges of writing are to generate content, to structure text, and to use the conventions of writing, all at the same time (Collins, 1998).

Cognitively, reading and writing are not the reverse of each other. They are on separate tracks, although they are more similar than they are different (Fitzgerald & Shanahan).

In the transaction between writer and reader, the reader has no way of knowing the imagination, knowledge, and intentions of the writer in advance of reading, and also may not grasp the writer's meaning (Gibson, 1979) if the content is poorly laid out or executed, or if linguistic elements are faulty. Punctuation that causes misreading, unclear referents for pronouns, an inconsistent point of view, confusing word order, and ambiguous wording all contribute to misreading. The writer who fails may know his own thinking, but lacks the imagination to anticipate the reader's response. In brief, the writer must not only write but view his work from the perspective of the reader and then ensure the reader will not be misled or misunderstand what is being said (Gibson).

Gibson (1979) concluded that not only disadvantaged students write poorly; privileged students do also. And although the reader may divine what a writer means to say, it is not the reader's responsibility to ferret out meaning from poorly constructed or poorly managed sentences. A student who writes badly may not be expressing poor thinking, as commonly suggested, but may rather be unable to express his thinking in clear, readable writing, may actually not know how to transform speech into writing, or may not know that the written language has expressive qualities and degrees of complexity that readers must recognize for the communication to be completed (Fisher & Frey, 2003).

Although Fitzgerald and Stranahan (2000) found research in broad developmental stages of reading, they found nothing similar with regard to writing, or to the developmental relationships between reading and writing. Research in reading shows that students who struggle with reading are likely also to struggle with writing, and typically have uneven and out of balance developmental issues with both. Conversely, students who become more proficient readers tend to show increased achievement in writing (Fitzgerald & Shanahan). However, there is little comprehensive research that would support an incremental, age-level theory and model of the relationship of reading and writing across proficiency levels. Reading requires students to decode and then reflect upon the written language. The decoding skills of first- and second-graders are not adequate to the more difficult subject matter and more sophisticated language patterns of reading materials for the higher grades. Furthermore, books and reading materials for literature, science, mathematics, and technology classes in the higher grades employ a variety of structures and visual representations that students must learn to read along with

text. The writing assignments in the higher grades often call upon students to use these more sophisticated structures, and to incorporate visual representations appropriate to the subject under discussion (deLeón, 2002; Jackson, 2002). How students learn to read more diverse materials has had research attention, but how students learn to write at higher levels of achievement has not, nor have the thinking skills that are the foundation of both reading and writing. (Applebee, 1999; Fitzgerald & Shanahan).

### **Teaching Writing**

While research in composition has continued over the past 35 years and the emergence of technology is providing new and unprecedented opportunities for teaching and learning, writing continues to be the stepchild of education for full literacy (Hawisher & Moran, 1993; The National Commission on Writing, 2003). Reviewing his long career as a teacher of English and long-time researcher in the field, Applebee (1999) wondered that even after all the time and effort expended in developing understanding of the nature of teaching and learning, there has been little change for the better in general student achievement. While some consensus has emerged through the years about what constitutes effective teaching and learning, results in the form of increased achievement are still wished for rather than realized in various subject areas, including English. It is one thing to know how classrooms or educational environments function, but another to discover how to make those whole environments function more effectively. For Applebee, the key to improving that function is in broadly integrating the curriculum, rather than in viewing subjects as separate entities with only occasional interconnections, such as the writing across the curriculum standard that gained favor in the 1980s.

English emerged as a distinct school subject at the end of the 19th century, when it was taught as memorization and recitation of details of literary history, philology, grammar, and syntax (Applebee, 1999). That approach continued nearly into the last quarter of the 20<sup>th</sup> century, although research has long since demonstrated that little of such study is useful for understanding how writing is accomplished (Baines et al., 1999; Collins, 1998; Freedman, Flower, Hull, & Hayes, 1995). In 1971, Janet Emig published *The Composing Process of Twelfth Graders*, a seminal case study in which students described their thinking as they were in the act of composing. Emig's study reported results contradictory to both common instructional practice and widely used textbooks of the time (Perl, 1994). It helped change the focus of attention in composition from product to process, and from teachers to learners, where it has remained. However, it also set up an early dichotomy that continues even now, that teaching and learning in English focus on either skills or content, rather than both (Applebee; Baines et al.; Fish, 2005; Sams, 2003). Research in composition through the 1970s by Graves, Perl, and others led to an awareness that there was not a single, linear process for all writers but that even students whose finished work was mediocre engaged in their own consistently recurring behaviors, or processes (Collins; Perl). During the 1980s researchers designed controlled studies that sought to discover the thinking and rhetorical problem-solving that writers engaged in while they were composing. In what Hairston called a paradigm shift (as cited in Perl), researchers confirmed that composing is recursive rather than linear, and that the process is as important for understanding how writers compose as the product produced. Attention also turned to the content of textbooks on composition and the many contributing factors involved in writing, including knowledge of topic, writing context,

and strategies for both writing and revision. Surprising insights occurred with the discovery that even in the classrooms of outstanding teachers there were disconnects between what the teachers intended and what students perceived, and also that writing does not automatically inform learning (Applebee).

In 1975, Britton's research on high school students' writing revealed that its primary purpose was transactional—an instrument for demonstration of what students had learned, rather than a developing skill of literacy. Writing across the curriculum came into fashion as a way to give writing broader focus, though little actual teaching of writing occurred elsewhere than in the English classroom. With insignificant variation, research through the next decade focused on writing theory as cognitive-linguistic activity carried out in isolation, rather than as socially-oriented classroom practice, with the notable exception of Bereiter and Scardamalia's 1987 work (Haneda & Wells, 2000).

The introduction of computers into the school environment slowly in the 1980s and then more actively in the 1990s brought an entirely new factor into the instructional equation. Embraced by teachers in some subject areas and resisted in others, notably English, except as glorified typewriters (Hawisher & Moran, 1993), and even then resisted by teachers who mistrusted the authenticity of student work that was produced by a word processor and printer rather than in the student's hand, computers have persisted and grown in previously unimagined ways as instruments for teaching and learning.

The more recent research of the 1990s to the current day, pushed in part by the emerging popularity of interactive electronic writing expressive of writers communicating something of interest to willing readers, acknowledges that writing is in fact a social activity: the whole point of writing is to preserve information that can be

accessed later through reading. Writing is an act of discovery for writers, and makes meaning for readers. Thus it is a fundamentally constructivist learning activity (Haneda & Wells, 2000). But there is a disconnect between the world of current technology in which adolescents are increasingly comfortable, and the world of school. The typical classroom of today is still teacher-centered and recitation based, just as it was in the nineteenth century (Anson, 1999). Writing is still perceived by students and used by teachers as a practice carried out as proof of learning. That is, it is perceived as monologic and transactional rather than dialogic and conversational (Haneda & Wells). Even though the instructional expectation is that students will learn from one assignment and apply that learning to the next, writing assignments are generally isolated events. As illustrated in Figure 1, the model of exchange is typically a transaction between the individual student and the teacher. The model may include feedback from the teacher or from peer review as aids to revision, although the latter is occasional rather than standard practice in the majority of classrooms, or the revision may be expected as part of the five-stage process of producing the paper in the first place.

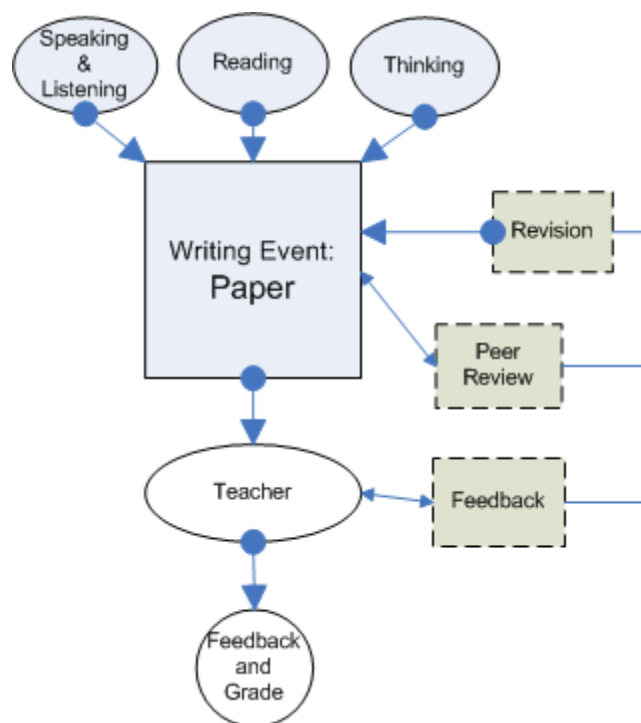


Figure 1: Model of a typical, traditional writing assignment in a Grade 9-12 classroom.  
Source: Investigator.

In a broad-based study of the relationship between state assessment systems and classroom practice in teaching composition, Hillocks (2002) found differences between what state standards declare, what teachers assume about teaching writing, and what is actually being assessed in state testing programs. The study focused on Illinois, Oregon, Kentucky, New York, and Texas as states representative of both the range of differences in the content of writing assessment systems and the diversity of assessment impact, from high stakes (students could not graduate without passing; schools and districts face consequences) to low (no consequences to students; schools merely watch-listed as low-performing). What was most striking was the disconnect in all states save one between what state standards declared, what teachers assumed about teaching writing, and what was actually being assessed. The study concluded that state testing programs drive



instruction, not state standards. However, state standards are not aligned with testing programs.

Although writing is essentially a constructivist activity, the Hillocks (2002) study found that three out of four English and language arts teachers still use the traditional lecture-recitation model that emphasizes form over content in writing, that focuses almost exclusively on expository composition, and that is the least effective pedagogical mode. Of the five states, only Kentucky, whose state legislature in 1994 mandated a full-scale reform and redesign of public education, has made progress in integrating instructional methodology founded on more recent research with state standards and assessment. Rather than either the traditional recitation mode or a workshop environment which leaves students free to express personal perspectives with only minimal teacher intervention, the model of collaborative questioning and discussion prior to writing is now a general practice in high school English classrooms in Kentucky, with portfolios the common vehicle for evaluation and feedback. This approach assumes that learning is a social activity, and that effective writing grows from testing perspectives and understanding in a framework of collaborative give and take (Hillocks). While the study makes no mention of the use of computer supported cooperative work (CSCW), the opportunities afforded by interactive computer applications are clearly aligned with the values for teaching and learning writing highlighted by the study.

Elbow (2000) took a writerly approach to the teaching of composition that addressed the challenges for teachers of writing that NWP (The National Writing Project & Nagin, 2003) and others identified, and at the same time supported the relationship of writer and reader. Elbow noted that most student writing is characterized by two

constants: first, schools at all levels emphasize reading and use writing to translate reading, that is, to interpret, explain, compare and contrast elements rather than teaching writing for itself. Second, the context for nearly all school writing is evaluation and grading, although that should be the last and least frequent circumstance for which students write (Elbow). Instead, teaching and learning should have a broader and more varied approach. Students should write frequently for themselves, and for friendly, supportive readers. Students should also write for teachers who read but offer either no response or a brief and supportive one. The progression should culminate with writing done for evaluation. In this construct, students write frequently and for varied audiences and purposes. They progress from safe writing to riskier on a foundation of practice and self-confidence, without a grade forever looming but with feedback from self-assessment, from peers, and from the teacher. Such an approach recognizes that fluency arises from practice, and gives students ownership of the writing process and what it produces through choice, but without the burden of constant correction. Teachers are not overwhelmed by having to correct and evaluate great numbers of papers because only a portion of students' work products is put up for critical assessment (Elbow).

Patthey-Chavez et al. (2004) noted that research by Hillocks and by Bereiter and Scardamalia indicated that effective, focused, sustained feedback supported by instruction as to the meaning of the feedback can help students improve the quality of their writing. Grading papers, that is reading students' writing and evaluating it, is the most time-consuming of all activities for English teachers. However, the term itself suggests why the kind of feedback teachers provide when they read and write comments on papers often does not accomplish what it is intended to do. In brief studies of effective

and ineffective feedback involving both public and private school students, Bardine, Bardine, and Deegan (2000) found that students consider the evaluation process an opportunity for teachers to tell them what they are doing wrong, though Baines et al. (1999) insisted that correcting students' errors and shortcomings is a necessary part of the hard work of teaching writing. Further, for students the grade itself seems to be the objective, although teachers see the grading process as part of teaching students how to write.

In a two-year study of the written feedback produced by nearly a dozen teachers in five diverse urban schools, Patthey-Chavez et al. (2004) concluded that even if teachers thought they were providing feedback for content, 58% of the time they typically provided only surface level feedback, meaning notations of grammar, sentence structure, and mechanics errors. A mix of content and surface level errors was marked 34% of the time. These findings are consistent with Hillocks' (2004) study, which revealed that even in Kentucky, the state with the most effective methodologies for teaching composition, teachers still devoted the major part of feedback to surface errors even though they thought they were primarily addressing content.

While students who received written feedback did increase the length of their writing in revision, which was generally interpreted as increased fluency, there was little change in the quality of the content. Students do respond to corrective feedback, although they revise only what they are asked to change. If there is no quality feedback, there is no improvement. If most of the feedback asks for correction of punctuation, spelling, and grammar, that is what students respond to. Nor did the content improve particularly in the 34% of papers that did receive content feedback. While students incorporated the

feedback into subsequent drafts, the focus of the content feedback was on requests for clarifying information, not on essential issues of substance, organization, and structure that would have made fundamental improvements. Further, students often do not understand what teachers' written comments mean, instead concentrating on the grade as the important element of the assessment. They also have little investment in past work that has already been given a grade (VanDeWeghe, 2005). Thus students ignore or gloss over comments, with little transfer of understanding to the revision stage of writing. Clearly, students need to be explicitly taught what various kinds of written comments mean, e.g., *explain*, or *develop idea*, if they are to know what is being asked for as well as how to do it. If they think they have already explained or developed an idea, and the comment asks for more, students need to be shown how to revise what they have written to explicate it more thoroughly (Bardine, Bardine, & Deegan, 2000).

The feedback teachers provide is largely summative, even if it is given in the drafting stage prior to revision. While professional writers have various outlets for improving their skills as their work progresses, for example writers' workshops, such outlets are rare for students (Kennedy, 2003). Many students have had the experience in traditional classrooms of sitting with other students in small groups and exchanging papers, for the purpose of reading and offering each other suggestions for improving their work. However, such experiences are not particularly helpful. Teachers may attempt to provide direction for students by asking them to follow a checklist or a rubric as they read each others' papers, or as a gesture of support to identify one strength or element they especially liked, and another element they thought needed improvement. But adolescents do not have the skill or insight into the nature of writing to make such judgments, and

typically resort to superficialities such as finding a few spelling errors or identifying what they think is a problem of grammar in order to satisfy the teacher's requirement to comment on something in the writing. While adults have the maturity and experience to make reading and critiquing each others' writing productive, for students the experience is likely to be more form than substance, and contrived rather than natural or genuine.

### **Factors Influencing Teaching Practice**

Until the inception of NWP in 1974, writing was generally taught as the product of skill sets based on grammar, spelling, and language use, because that is how teachers themselves had been taught. The Bay Area Writing Project, a partnership between San Francisco area teachers and the University of California (UC) at Berkeley, established the model of teachers teaching teachers through demonstration and exchange of best practices in following the emerging research on process writing. Since then, more than two and a half million teachers at all grade levels have participated in NWP summer institutes, and have returned to their home districts to share what they have learned, helping to provide a broader understanding and practice founded on the principles embodied by the NWP (Lieberman & Wood, 2002), and supported in policy declarations by the NCTE (2004). The fundamental belief is that all students can learn to write, and that composing should be taught as a process of planning, drafting, revising, editing, and publishing with the teacher's guidance and intervention as well as peer feedback (Hillocks, 2002; NCTE; The National Writing Project & Nagin, 2003; Totten, 2003).

The process model has become deeply embedded in English curricula across the country as the foundation for teaching composition. During the 1980s, the educational

reform movement in the U.S. focused on establishing state standards to guide curriculum development and instructional practice to enhance students' learning, with a particular emphasis on improving literacy, principally referring to writing (Patthey-Chavez, et al., 2004). The process approach was logical, readily able to be monitored by teachers because it was a series of steps, and generally accepted as reflective of how students actually write (Baines et al., 1999). But how the process is taught, and how it is used, varies widely among school districts and teachers. Some teachers focus on the linearity of the steps, although research shows that writing is highly recursive, even disorderly in starting and stopping, writing and rewriting non-sequential sections, moving forward and then backtracking in all phases of the process (Collins, 1998; The National Writing Project & Nagin, 2003). Others appear to focus more on the process as an end in itself, than on the products it produces. In the comprehensive statement of writing standards for the Seattle Public Schools (2006), the five-step writing process is the foundation in all 12 grades, repeated every year beginning with kindergarten, where the standards also specify that students will learn to differentiate between upper and lower case letters, match letters and sounds, and write from left to right.

In spite of Emig's work and research since then in not only composing processes but other fields such as linguistics and educational psychology, it is not yet clearly understood how writing is generated, meaning what mental activities occur during the composing process. It is known that writing and reading are closely related though not parallel cognitive processes, although one is not consciously aware of reading in the way that one is aware of writing. Further, writing is so enormously complex that it cannot be, or has not yet been, explained in a comprehensive theory (Bereiter & Scardamalia, 1987;

Elbow, 2000). There are teachers who remain convinced that students can't write decent sentences unless they understand how sentences are constructed, and who remain committed to the teaching of grammar and mechanics as the foundation for teaching writing (Fish, 2005; Sams, 2003). Still others believe students learn best when they are constrained least, and advocate that students write often, on subjects of their own choosing, without the constant monitoring of marking errors and assigning grades (Azemove, 2002; Elbow). Hillocks (2002) pointed out that research has shown repeatedly that practicing with decontextualized skill exercises has little to no positive effect on students' composing capabilities. Process-based writing instruction is more helpful for all writers, especially if the teacher is able to provide consistent support, the ideal endorsed by the NCTE (2004). However, students who struggle with composition may not be well served by the multi-step writing process, which addresses the production of a composition rather than the basic issues of content generation, structure, and language. They are more likely to respond with an approach as individualized as possible that combines both skill and process learning with whatever strategies for writing they themselves are able to summon (Collins, 1998). And so the challenge of teaching writing is increased by yet another factor: the inability of theorists and teachers of writing to agree not only on what constitutes good writing, but what the logical, standard instructional paradigm should be and how it should be modified for students with different learning styles.

What is clear is that in spite of the broad infusion of the writing process into language arts curricula in schools across the country, in spite of reports in the literature of teachers' perceptions of the beneficial effects of that infusion, in spite of teachers' having

some latitude of approach, and in spite of the specific guidance of state standards for teaching and learning, student achievement in writing has not changed appreciably in more than 20 years. The NAEP 1996 analysis of long-term trends in writing achievement of students in Grades 4, 8, and 11 in fluency and writing conventions found that from 1984 to 1996 students in Grade 11 improved slightly in their use of writing conventions, but registered no change in fluency (Ballator et al., 1999). Most students can produce at least adequate prose, but they are not able consistently to produce concise, coherent, readable writing that engages the reader's attention. Even by Grade 12, most students' writing is banal, lacks sophistication, is too often marked by errors in the writing conventions of grammar, spelling, and punctuation (The National Commission on Writing, 2003), and lacks logical, substantive content.

The National Assessment in Writing evaluates students in Grades 4, 8, and 12 at three levels of achievement, Basic, Proficient, and Advanced. Basic denotes partial mastery of knowledge and skills needed for competent work at grade level. Proficient denotes consistent, capable performance at grade level, and Advanced denotes superior performance. A comparison of the results of the 1998 and 2002 writing assessments for students in Grade 12 indicates a 4% increase in the number of students who scored below the Basic level, and a corresponding decline in the total percentage of students who scored at Basic or above. That is, in 1998 the total population of students who took the assessment scored 22% below Basic and 78% at or above. In 2002, the numbers changed to 26% below Basic and 74% at or above. The total percentage of students who scored at or above Proficient increased by two from 1998 to 2002. Within that population, in 1998



21% were at Proficient, and 1% at Advanced. In 2002, the same population range scored 22% at Proficient, and 2% at Advanced. Table 1 summarizes these statistics.

| <b>National Writing Achievement of 12<sup>th</sup> Grade Students, 1998 and 2002</b> |                        |                     |                          |                        |                                    |   |
|--|------------------------|---------------------|--------------------------|------------------------|------------------------------------|---|
|  | <i>Below<br/>Basic</i> | <i>At<br/>Basic</i> | <i>At<br/>Proficient</i> | <i>At<br/>Advanced</i> | <i>Total At or<br/>Above Basic</i> | <i>Total At or<br/>Above Proficient</i> |
| <b>1998</b>  | 22*                    | 57*                 | 21                       | 1*                     | 78*                                | 22                                      |
| <b>2002</b>  | 26                     | 51                  | 22                       | 2                      | 74                                 | 24                                      |

Table 1: Asterisks indicate a significant difference. The numbers may be slightly affected by rounding. The totals in the two right-most columns are cumulative. Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Writing Assessments. <http://nces.ed.gov/nationsreportcard/writing/results2002/natachieve.asp>

Even while research on composition has clarified and continues to support the principles of teaching writing as a process framed in social and cultural awareness, there remains a gap between what research in teaching composition reveals and both common classroom practice as well as preservice education. Historically, language arts and English teachers have had little or no training in teaching composition. Elementary and middle school preservice teachers have had training in teaching reading but almost no training in teaching writing; secondary school teachers have had training in literature in their own degree programs but little in how to teach writing (Hillocks, 2002; The National Commission on Writing, 2003; The National Writing Project & Nagin, 2003). In spite of the growing awareness in both schools and the world of work of the essential importance of skill in writing, in 2003 only Missouri, Delaware, and Idaho required

college preparation for preservice teachers in the teaching of writing for state certification. While many states have adopted a writing test for prospective teachers, there is great variance among them in form, rigor, and consequences (The National Writing Project & Nagin). Further, a demonstration of one's own writing skill does not automatically imply a capability for teaching writing.

For inexperienced teachers, or teachers overwhelmed by mountains of papers awaiting correction, the outward forms of writing may be mistaken for evidence that students are learning to write. Checking for the prescribed parts of a five-paragraph theme, or for the number of spelling or grammar errors, or for the outlines and rough drafts proscribed by the writing process, is faster and more efficient than reading for content and logic and then spending the time necessary to write explanations to individual students about what is missing from the content, or how the language or organization might be improved in a piece of writing. Such tangibles may satisfy the need to record grades, but they may also overshadow the more important issue of *what* students write, effectively implying to students that what they write is of less value than whether they have followed a progression of steps. For too many students, the instructional contract becomes a chore, and for teachers, a burdensome task of correction (Baines et al., 1999). That is, students recognize that form or process is emphasized over content, and may be satisfied with fulfilling what they think the teacher wants rather than learning to construct logical, detailed, content-rich written work that will instruct, inform, and perhaps even entertain readers (Baines et al.; Hillocks, 2002). There is a realistic issue at the center of this dilemma: if a teacher with a hundred or more students spends even five minutes reading each student's paper and evaluating it, though ten minutes or

even more is likely for papers longer than a few paragraphs, that teacher spends more than eight hours on a single set of papers. Evaluating what outlines or mind maps reveal about the thinking of individual students prior to a writing experience, or doing close comparison of revisions and prior drafts of students' work is exhausting and time consuming, and so grades may be given as much for an assignment's being completed as for quality or content (Baines et al.).

### **The Discipline Literacy of Writing**

A primary element in learning any skill or subject matter is developing literacy in the discipline, or learning the traditions, techniques, and content of a subject that will enable one to participate in the ongoing conversation of knowledgeable participants (Applebee, 1999), for example learning what it is that writers do when they write, or musicians do when they transform printed music into sound (Jackson, 2002). Although no single, fully realized theory has yet been formulated to explain the complexities of writing, Bereiter and Scardamalia (1987) proposed that insight into the mental activities that occur during the composing process (not to be confused with the five-part writing process) may be gained by seeing abilities as of two types: natural, or acquired through natural life activities including school; and problematic, or acquired through sustained effort. In this construct, the natural ability to write evident in children and in some adults is knowledge telling, rather like a one-sided conversation. In knowledge telling, the cues provided by a listener are lacking. The writer must generate language from the topic and discourse schema provided, e.g., narration, and by the text that develops as the writer proceeds to write. Bereiter and Scardamalia asserted that knowledge telling is the most

common model for writing in school. The teacher devises prompts and evaluates the responses within the parameters set by the prompts. For example, high school students might be assigned to write an essay analyzing the symbolism of the scarlet letter in Hawthorne's novel. The prompt establishes the genre, an essay; the point of view, analysis; and the topic, the symbolism of the badge Hester Prynne is made to wear. Rather than their having to summon imagination and thinking to solve a problem, planning for a typical assignment such as this actually only requires students to list what they know and then transform that list into sentences and paragraphs as the first draft of text. Revision consists primarily of proofreading (Bereiter & Scardamalia). For many students, knowledge telling may take the form of empty assertions and generalizations presented in the overly formal diction they think makes them seem learned, an affectation Macrorie called "Engfish" (as cited in Bereiter and Scardamalia, p. 13). The only real difficulty students may encounter in knowledge telling is likely to be that without the cues of a responsive listener, they are left to think of things to say. Knowledge tellers often know more about a topic than they are able to put in writing, but they lack the executive to access what they know, or to process it by setting goals and assembling it in anything other than a written recitation (Bereiter & Scardamalia; Collins, 1998).

Knowledge transforming, Bereiter and Scardamalia's (1987) second model, describes a process more associated with mature writers. Here, the writer deals with writing problems and solutions, planning both before and during the composing process while working back and forth between the domains of content knowledge and discourse knowledge in order to test, retest, and match language and idea. For the transformer, knowledge is not just reported, it is altered and synthesized into something new in the

process of being rendered in writing. The writing may begin as telling, but then changes with reflection and the recursive processes of altering and modifying ideas and language in order to convey thinking as accurately as the writer is capable of doing. Planning is continuous, and revision is rewriting rather than simply correction of surface errors. But neither knowledge telling nor knowledge transforming guarantees a particular quality of writing, for there is some of each in the other (Bereiter & Scardamalia).

Another element is inextricably woven through the composing process, one perhaps least able to be either explained or taught: style. Content does not exist separate from the words and sentence patterns in which it is expressed (Yagoda, 2004). A piece of writing may be substantive, logical, and insightful, but the writer's voice is leaden. Another piece may be thin and superficial, but charming. Scoring rubrics such as that for the 2002 National Assessment in Writing speak to style as an issue at all three levels of achievement. For Basic, the standard is to "reveal developing personal style or voice." For Proficient, to "reveal personal style or voice" as well as "use language appropriate to the task and intended audience." At the Advanced level, the standards are to "use rich, compelling language," "show evidence of a personal style or voice," and "display a variety of strategies such as anecdotes, repetition, and literary devices to support and develop ideas" (U.S. Department of Education, 2003). This matter of style refers to the capabilities of the writer, and it also implies an awareness of the expectations of readers. However, it is difficult to coach students in just how to develop that personal voice, or just how to select and apply rhetorical and literary devices to create effects in writing, for such matters take time and effort that are already claimed by sheer numbers of papers to read and respond to in more common ways, e.g., attention to surface errors, thesis

statements, and paragraph construction. Further, it is difficult for many young writers to imagine *audience* as a variety of readers, when the experience of successive years of school is that the audience is just one reader, the teacher, even if there are occasional small group exchanges in which students read each other's work (Baines et al., 1999).

### **The Role of Motivation in Achievement**

The literature on reading and writing is rife with concern for struggling students, many of whom have difficulty with engaging in school generally, but especially those for whom reading is tedium and writing anathema. Students who eventually withdraw from school generally become disinterested and alienated over time rather than abruptly dropping out, although even students who stay the full four years may succumb to boredom and feelings of being disconnected from school characterized by postures of disinterest or even of learned helplessness that the traditional school environment does not adequately address (Azemove, 2002; Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003; Stiggins, 2005). Research suggests that student engagement may be affected by (a) phenomenological factors including opportunities for meaningful inquiry into realistic problems, a sense of control over learning activities, and a positive attitude about school; (b) instructional factors that favor student-centered rather than teacher-centered learning; and (c) demographic factors that suggest that girls are more likely to be engaged than boys, and that middle school students are more engaged than high school students. Students who have been successful in the past are more likely to continue to be successful. However, demographic factors are less consequential than are instructional factors (Shernoff et al.).

Rather than viewing motivation as a stable, consistent component in human behavior, Dörnyei (2000) proposed an approach founded on recognizing a temporal element in motivation that helps account for how motivation is generated in the first place, and how it changes over time. The keys to understanding motivation are in seeing how it affects the choice of behavior, the persistence with which the behavior is pursued, and the effort expended on it. Motivation is a complex, self-regulated interrelationship of energy, persistence, and focus in all aspects of activation and intention (Ryan & Deci, 2000) that may break down at any stage. It is not a single construct. Motivation may be intrinsic, or within the self; it may be extrinsic; or it may be extrinsic but influenced by degrees of choice, an intrinsic factor. The teacher's dilemma is that on a given day, or at any given time, an individual may be self-motivated and engaged in one situation, but passive in another. Within a single classroom, some students may exhibit degrees of the former, and others degrees of the latter.

Ryan and Deci (2000) identified three components of psychological need essential to motivation: competence, autonomy or self-direction, and relatedness. Ideally, one's sense of competence or self-efficacy must come from within, that is be self-directed. Positive performance feedback of various kinds is conducive to feelings of competence and can be supportive of autonomy. However, Ryan and Deci contended that meta-analysis of research on reward effects demonstrates that tangible extrinsic rewards for task performance may actually undermine intrinsic motivation because they are perceived as external control of behavior. Threats, deadlines, and directives have a similar effect because they represent external causality. Rather, intrinsic motivation is enhanced by

choice and the opportunity for self-direction. The third element is relatedness, or the security that arises from feeling an identity with or connection to the social environment.

Intrinsic motivation is triggered by activities that are appealing in some way. When natural appeal is missing from an activity—as appears to be the case when students grudgingly approach reading or writing tasks—responses may range from amotivation or outright unwillingness, to passive compliance, to active engagement. The student who is unmotivated or unwilling may not feel competent to do the activity, or may expect a poor outcome. Students who have no intrinsic interest in a particular class activity may do nothing and be unmoved by a failing grade; may go through the motions and not be concerned with a low grade; or may put forth good effort in spite of disinterest and accept a good grade as the external control it is, a reward for performing well by choice. In the latter context, choice is equivalent to autonomy. The intrinsically motivated student engages in the activity expecting to enjoy it and feel satisfied with the experience (Dörnyei, 2000; Ryan & Deci, 2000; Shernoff et al., 2003).

Relatedness, or the sense of belonging, is a key factor in behaviors associated with extrinsic motivation, an issue of particular interest to teachers. While there are children who love school and thrive in the environment, many have lost or have had diminished the initial enthusiasms of the early grades. Measures that increase students' feelings of competence, that encourage their interest in self-direction, and especially that encourage feelings of being connected to or part of the social environment are important. Feeling connected helps foster a sense of competence, and feelings of competence encourage a sense of self-direction, or choice (Langer, 2001; Ryan & Deci, 2000; Walker, 2003).



The traditional model of education has been characterized by isolation, of teachers from each other as well as among students. In schools, faculties of individual teachers and classes of individual students have been the norm, even to the extent of some teachers considering cooperative or collaborative effort to be an undefined form of cheating. With new thinking and experimentation with new forms of teaching and learning, that perspective is fading. In its place is an evolving recognition that working cooperatively or collaboratively in pairs or groups confirms learning as a social act. A synergy may emerge from shared work enriching learning beyond what could have been obtained from individual effort (Zimmet, 2000). The sound of one hand clapping is silence, after all.

Self-efficacy can be cultivated in students in the English classroom in various ways. The teacher may (a) organize assignments and tasks so students have choices, giving them the opportunity to select something they are already familiar with, or set up collaborative activities in which students adopt roles they choose in the dynamics of the group; (b) teach the learning strategies that will help students be successful through explicit instruction as well as through modeling behaviors, for example making mistakes and then demonstrating how to recover; (c) create self-assessment tools such as task maps or checklists; (d) change the assessment context from a focus on grades to a focus on learning, for example through the use of work portfolios. All four of these approaches encourage students to think of themselves as readers and writers, a perspective that helps build self-efficacy and thus motivation (Collins, 1998; Dörnyei, 2000; Haneda & Wells, 2000; Walker, 2003; Zimmet, 2000).

## **The Role of Authenticity in Motivation**

Research studies of American educational institutions and practices over the years have suggested that students who are bored with school feel few sparks of interest and lack intrinsic motivation because schools rely on conformity and sameness (Yair, 2000). They do little to engage or challenge students with their reliance on teacher-centered instruction and lower-level thinking skills, minimal allowance for student choice, basic competency standards, and lack of connection with the real world, all issues that may adversely affect motivation (Dörnyei, 2000; Ryan & Deci, 2000). This description is particularly applicable to high school students; elementary and middle school students fare more positively in these regards (Azemove, 2002; Yair).

Students who turn out mediocre writing may be moving through the stages of composition assignments teachers set for them, but for various reasons view such assignments as tasks to be endured rather than opportunities for exploration and self-discovery (Azemove, 2002; The National Commission on Writing, 2003). All students, but especially those with lower levels of intrinsic motivation, need to feel some intellectual or emotional connection with the subjects they are asked to write about.

In order to become effective writers who transform their knowledge in the composing process rather than only repeat it (Bereiter & Scardamalia, 1987), students must learn not only the conventions of the written language, but that different writing occasions require different strategies (O'Connor, 2005; Wiley, 2000); and that self-editing is primarily rewriting rather than just proofreading. Few students have natural access to these skills. They must be taught what it is that writers do when they rewrite and revise their work. Textbooks and teachers both repeatedly instruct students to be

mindful of the audience for their work, to consider whom they are writing for. Most students must be taught to write from the reader's perspective as well as their own, and to compose clearly worded and structured sentences that are punctuated and capitalized to guide the reader's understanding (Gibson, 1979). Students must also learn how to develop content beyond generalities and expressions of unfounded opinion, must learn that assertions are not proof, and must learn that there are meaningful relationships among thinking, language, and context (Harste, 2003; Hillocks, 2002). To develop these capabilities, students must care about their writing, and must see a meaningful purpose for it. That is, students must discern authentic reasons for writing (Baines et al., 1999; Swartzendruber-Putnam, 2000), write frequently and for a variety of purposes and audiences, and develop the skills with logic, language, organization, and structure they need to express themselves effectively.

Learning is typically viewed as that which occurs in the context of school itself (Schultz, 2002). However, a longitudinal ethnographic study of urban students' writing practice reveals that students are doing outside of school what teachers are at pains to teach in school, but neither students nor teachers make the connection between the two (Schultz). Students are writing in a variety of genres outside of school, often in highly original and articulate fashion although frequently heedless of the conventions of writing. Only when teachers figure out how to tap the out of school experience do they discover the almost dual nature of student experience and capability. For many adolescents, school-based learning is less valued than the out of school world of friends, popular culture, and personal circumstances (Schultz). School is just part of the learning they experience. Given that writing of various kinds and for various purposes is a common

practice for adolescents outside of school, it can be a means to bridging the gap between the two worlds and to gaining a better understanding of students as learners and meaning makers (Schultz).

The notion that authenticity is an important, even necessary, element of learning can be traced back to William Ware of the Massachusetts Institute of Technology, who in 1866 noted the value of students' working on practical projects based on actual problems in their fields of study (as cited in Shaffer & Resnick, 1999). In their meta-analysis of the educational literature of the 20 years preceding their research, Shaffer and Resnick discerned four broad, interrelated characteristics of authenticity: (a) use of instructional materials and activities that engage or simulate the world outside the classroom; (b) assessment aligned with instructional goals, for example portfolios of performance rather than decontextualized testing; (c) topics of instruction aligned with students' interests; and (d) instruction aligned with discipline literacy.

Rather than continue to view these descriptions of authentic learning as distinct from each other, Shaffer and Resnick (1999) proposed a new perspective of *thick authenticity* enfolding all four, a model particularly enabled by CSCW: instructional design that incorporates personally meaningful, real-world activities, that is grounded in a systematic way in thinking and problem solving, and that provides for evaluation clearly related to the subjects and methods of study. Herrington, Reeves, Oliver, and Woo (2004) drew even more specific criteria: authentic learning activities ensure that students (a) have the opportunity to confront ill-defined problems that require thinking and analysis rather than following a teacher's direction set; (b) consider various perspectives, using a variety of resources; (c) collaborate; (d) engage in metacognition or reflective thought;

(e) have opportunities for transfer of learning to other domains; (f) experience integrated assessment, which may come from self-evaluation, peer response, or the teacher; and (g) achieve complete and valuable outcomes that are ends in themselves. These criteria may be met, for example, in realistic contexts in which teams of students role play to carry out a project or solve a problem (Herrington & Oliver, 2000).

An awareness that students may fare better with writing tasks that seem authentic is demonstrated in writing prompts intended to place students in a context, or to draw on their own preferences or opinions. Two such are the sample prompts for Grade 12 students in the 2002 NAEP Writing Assessment. One sets up the scenario that a time capsule to be opened in 200 years is to contain objects that will demonstrate what was important or interesting for high school seniors of our time, or for current society in general. Suggestions are offered: a book, an item of clothing, a work of art, a game, or a gadget. The student is to choose an object from the list or not, and write an explanation of what it reveals about contemporary experience. Another prompt focuses on the recent requirement of the music industry for rating labels on their products, and asks the student to write a letter telling [sic] whether a law should be passed making it illegal for teenagers to purchase recordings with negative ratings (U.S. Department of Education, 2002). Note that the second prompt specifically directs students to the knowledge telling model described by Bereiter and Scardamalia (1987).

For the teaching of writing, authenticity refers to having students write for real rather than contrived reasons and for real rather than contrived audiences. Authentic writing opportunities give students choices and decision-making responsibility for topics and strategies (Swartzendruber-Putnam, 2000). One perspective is that to achieve these

aims, students' writing experience must allow for the simultaneously multi-layered, even chaotic nature of writing and must focus on the creation of content rather than the surface features of language and spelling errors (Azemove, 2002; Thomas, 2000), although this approach to teaching writing challenges the burden that teachers carry of preparing students for annual testing programs (Hillocks, 2002; Wiley, 2000). The grammar-first perspective posits that the focus on content is ineffective unless students are firmly grounded in the structures and conventions of the language (Fish, 2005). However, students themselves demonstrate that they are aware of the need for careful word choice and correct language use as they spontaneously edit and revise their own e-mail messages, particularly if the information in the messages is sensitive (O'Connor, 2005; Helderman, 2003). As well, continuing work in composition has established that students need to have frequent rather than occasional opportunities to write (Elbow, 2000). Clearly, teaching composition is not necessarily limited to one technique, method, or approach.

A consistent theme in the literature about teaching writing is that all students can learn to write (Elbow, 2000; The National Commission on Writing, 2003; NCTE, 2004; The National Writing Project & Nagin, 2003). The key issues are not only what students are taught, but how. Elbow proposed three principles for learners that may guide teachers: (a) although most people dislike and avoid writing, anyone can learn to write things that others will find interesting to read; (b) while good writing takes both work and skill, anyone can learn techniques that make writing less a chore; and (c) teachers can cultivate an understanding of these perspectives in students and in the process empower them. The question of why writing is so difficult to teach must be addressed not only in

the classroom, but in the school district, and in the broader context of preparing students to participate in the adult world (The National Writing Project & Nagin). The challenge is first to recognize the spontaneous, non-linear nature of writing, and its intertwined relationship to reading. Second is to accept the principle that students learn to write by writing (Elbow; Hillocks, 2002; The National Commission on Writing; NCTE, 2004). The class time typically spent on writing instruction and practice is considered to be entirely inadequate, generally no more than three hours per week, which is only about 15% of the time students spend watching television (The National Commission on Writing). Third is that both instructional strategies and assessment methods must be varied and flexible though at the same time fair and consistent (Azemove, 2002; The National Writing Project & Nagin).

The emergence in education of interactive computer technology, beginning with e-mail and listservs in the late 1980s and weblogs and wikis within the past six years, offers the prospect of new tools and opportunities for the teaching of writing (Coogan, 1995; Hawisher & Moran, 1993). NCTE (2004) endorsed the use of technology to teach and support writing, recognizing that students write when they feel competent in the subject, when they have readers, and when they receive feedback. Even though newer technologies are promising for their flexibility and opportunity for interaction of writers and readers, integrating them into instructional practice in middle and high school classes has been slow (Kennedy, 2003). Teachers who are early adopters of computer technology in English language arts, science, foreign language, mathematics, and social studies report distinct improvement in students' learning in such areas as research and organizational skills, transfer of learning to real-world situations, and active interest in

content arising from such tasks as carrying out a multimedia project (Cradler, McNabb, Freeman, & Burchett, 2002). The early means of CSCW, e-mail and listservs, were found to have some limited usefulness between teachers and students and among students themselves for the dissemination and exchange of information (Coogan; Hawisher & Moran; Krause, 1995). Both continue to serve those purposes. However neither provides the flexibility and interactivity of blogs and wikis, each of which has particular capabilities as vehicles for writing. Blogs support both spontaneous and planned, sustained writing in the service of authentic purposes. As well, blog posts draw the natural feedback of readers who may support, challenge, or ask questions of the writer. Wikis enable editing or otherwise altering of a poster's original text by any reader who chooses to make changes.

### **New Technology, New Instructional Tools**

Carroll (2000) suggested, with Papert, that today's schools have not changed significantly from the industrial era model of the 19<sup>th</sup> century, and are out of step with contemporary understanding of cognition and learning. Until the technology burst of the last 25 years, the changes were gradual. But now computers and computer-related technology are pulling along both students and new approaches to learning, and schools are following rather than leading. Even educators who do advocate increased use of the computers that are becoming available now even in less economically favored school districts are likely to see implementation primarily as the transfer of traditional practices, rather than as a transforming technology to be used to prepare students to be 21<sup>st</sup> century learners in an increasingly knowledge-based economy. The goal for change should be to



build not communities of individual learners, but networked learning communities in which the young learn from their elders in intergenerational, collaborative relationships rather than in the traditional transmissive, teacher-centered, fixed curriculum mode (Carroll). In the workplace they are growing into, students must be able to apply the new basics, the skills of being able to use technology to communicate orally as well as in writing. In addition, students must have the ability to work collaboratively, solve problems that do not have built-in answers, understand how systems work, and be able to collect and manage data (Carroll). The key to all is effective integration of technology into the school environment that enables collaborative activities as well as formative feedback, supported by forward-looking school leadership that not only sees the value of technology but actively supports it (Cradler et al., 2002).

Tim Berners-Lee's original concept of the Web was just that, a collaborative, networked learning community in which anyone could learn about anything from anyone (Crystal, 2001). The early capabilities of the Web were static and interactivity limited. Users could access Web locations but as readers only, and users could send e-mail to one recipient or to many, individually. Listservs could receive e-mail messages and funnel them back out to all on the membership mailing list. These communication technologies have not changed appreciably. However, the interactive model Berners-Lee envisioned in 1990 has grown exponentially with the advent of threading-capable forums like newsgroups; with IM and synchronous chat rooms; with podcasts; and with weblogs and wikis and even newer applications like video blogs, or vlogs.

Although the effects of computer technology on traditional standards of quality in writing may not yet be clear (Ferris, 2002), in addition to using word processing software

the great majority of teenagers between 12 and 17 use cell phones for text messaging and actively use the Internet for personal communication through e-mail, IM, chat rooms, composing their own Web pages, and blogging (Lenhart et al., 2001). Debates are ongoing among language professionals, parents, and teenagers about whether the novel linguistic conventions of e-mail, IM, and text messaging, a quasi-language dubbed Netspeak, are degrading the conventional language (Baron, 2005; Crystal, 2001; O'Connor, 2005). Truncated expressions, a mix of alphanumeric symbols and words, and disregard of the standard practices of capitalization, punctuation, and elements of grammar characterize this form of expression. Crystal explored Netspeak as a hybridization of writing and speech that includes characteristics of both but is actually something else entirely. Speech is time-bound and transient; writing is neither. There is no lag time between speech and hearing; there is between writer and reader. Speech allows for linguistic shortcuts and agrammatical expression; writing must be controlled. Speech is accompanied by nuances of tone, pronunciation, and non-verbal cues; writing consists of words and symbols that record meaning that must be accessed by reading. Acronyms, exaggerated conventions such as using all capital letters to represent shouting, angle-bracketed comments such as <grin>, and emoticons created by combinations of letters and punctuation marks are visualizations of speech expressed in written form that acknowledge the immediacy of the speech-like, synchronous environment of IM as well as the restricted space of cell phone screens. Unlike traditional writing, the pace of communication and the sense of the nearly simultaneous connection of writing and reading, constrained by the slowness of keyboarding or thumb typing on a cell phone or personal digital assistant (PDA) such as BlackBerry, may be other factors contributing to

the sense that writing must be compressed in order to keep pace (Baron; Brown-Owens et al., 2003).

The sense that computer-assisted writing is an approximation of speech is reflected in the common visualizations of capital letters, emoticons, and other devices used in Netspeak to moderate or connote the tone or intention of the written message. These devices replace the tone and pitch of the voice and the kinesics of posture and facial expressions that accompany speech. Crystal (2001) observed that in the context of traditional writing, writers have always been at a distance from readers, have always had to rely on their readers' ability to comprehend the writing, but have only occasionally relied on visualizations such as italics, deliberate use of capitals or lower case letters, or punctuation to aid reading.

The concern is that the easy familiarity and syntactic originality of Netspeak may flow into written communication in school, in the workplace, and in circumstances where standard language is the norm. The concern is not confined to the use of English; the linguistic inventiveness of computer mediated communication is apparent around the world (Baron, 2005; Brown-Owens et al., 2003). Another perspective views both the quantity of personal writing that adolescents do and the quality as helpful in their learning to write, and notes that most students are readily able to switch from the informal license common in electronic communication to the more formal conventions of serious writing . Those who do not discern the difference can and should be taught (Grinter & Palen, 2002; Helderman, 2003).

A distinct benefit of engaging in IM or text messaging is that in addition to writing messages with nearly the frequency ordinarily reserved for picking up the

telephone, teenagers either know instinctively or discover that writing is a purposeful act of communication with a reader, and that words have power, insights they often fail to grasp in the classroom. They demonstrate this awareness by rereading and editing their messages to prevent misunderstanding or hurt feelings, both high values for socially conscious teenagers (Helderman, 2003; O'Connor, 2005). The extent to which these understandings transfer to the classroom is not clear, since students do not always have that same sense of writing for someone to read, given that the reader is primarily the teacher rather than a friend, a peer, or a social connection they value (Helderman).

John Dewey spoke of learners being motivated to act for purposes of inherent value to them (Shaffer & Resnick, 1999). For the classroom, some students may not have the intrinsic motivation to edit and revise their work to meet the extrinsic standards of quality or accuracy set for them (Helderman, 2003). Students may reveal a duality of attitude in a ready acceptance of e-mail, IM, and text messaging, but a detached approach to writing in the classroom when they are asked, for example, to write a myth with no other context than that they have been studying mythology, or to write a five-paragraph theme in which they compare and contrast an element in two works of literature to demonstrate for the teacher that they can organize and write a comparative essay. The ready voices of authentic, personal communication that are vivid in the personal communication that adolescents engage in are often muted in such decontextualized classroom writing tasks (Kajder & Bull, 2003).

The emergence in the late 1980s of technological tools for interactive communication was less accepted by writing teachers than by educators in other disciplines, such as social studies or the sciences. Even in the early 1990s, Hawisher and

Moran (1993) were concerned that e-mail was an established medium that college English departments were going to have to accommodate, even though connecting with students through e-mail was counter to the traditional, close association between professors of writing and their students. Further, it was apparent that listservs were an effective means of communication that would also have to be acknowledged and allowed for, though both media would need a new rhetoric. Moreover, teachers would need to beware of permitting themselves to be moved off-center of their customary role by technology that had the potential for allowing students to self-direct. In that context, Hawisher and Moran suggested that compromise might see students benefiting from engaging in collaborative projects using e-mail or listservs, in the role of tele-apprentices to faculty for the new technology. However, such caution was already outdated. Students had by that time discovered the collaboration and social interaction of e-mail and emerging forms of computer moderated communication, and Netscape, the user-friendly browser that would transform the Internet, was about to debut.

Prior to the development of weblogs and wikis, the four major types of collaboration that could occur were (a) face-to-face; (b) asynchronous, or same place, different time; (c) synchronous distributed, or different place, same time; and (d) asynchronous distributed, or different place, different time. Chandler's (2001) study of online collaborative work found, unsurprisingly, that face-to-face meetings are the most desirable for collaboration, although there are obvious physical limitations. The other three, which include e-mail, listservs, and chat rooms, have advantages and disadvantages, the latter including being impersonal, transient, limited in distribution, and awkward for the development of discussion. Of the three, the asynchronous distributed

communication of a listserv was the most efficacious, although the lag time of posting responses or the possibility of one or more dominating voices could be drawbacks (Chandler). Listservs do allow hypertext links, archiving, and posts of whatever length the writer chooses. They do not provide for threading or multimedia such as graphics, audio, or video files, nor do they allow access to archived posts other than with the standard search function.

Students make their own distinctions. Text messaging and IM appeal to adolescents because the technologies are quiet, unobtrusive, and private, unlike telephone conversations. Both provide the instant gratification of social contact, a way to communicate with friends and stay connected with the group, providing both autonomy and personal space (Grinter & Palen, 2002). In addition to socializing, adolescents use IM for group planning and collaboration on school work. They regard e-mail as a resource for more formal, less spontaneous one-to-one communication, although an e-mail may be distributed to multiple recipients. Generally, when students reach college age, they have other mechanisms for social interaction and tend instead to use IM and text messaging for less personal purposes such as planning and coordinating activities, similar to the way IM may be used in the workplace (Grinter & Palen).

Other, more recent forms of social software are weblogs, wikis, newsgroups, MOOs and MUDs, and hybrid networking sites. These all have advantages for their own purposes and, from the instructional perspective, differing value as agents for written communication. Brief, synchronous exchanges with others on one's subscription list are easily accomplished with IM. Chat rooms are online spaces for synchronous, real-time, text-based conversations that simulate speech in the brevity of messages, typically five or

six words. The very brief lag time between writing and reading occasions messages being posted out of sequence, since all who wish to post can do so at any time rather than waiting and speaking in turn. Netspeak is common in exchanges in text messaging, IM, and chat rooms as part of keeping up with the pace of the dialogue (Crystal, 2001). Some classes and groups of students have found asynchronous listservs useful for the exchange of information, although compared with the newer, interactive technology of blogs, they are somewhat limited and awkward. Wikis are particularly suited to collaborative writing, because content can be posted as well as edited by any reader. Wikis also permit hypertext and search functions, although they do not have the archiving, threading, date and timestamp, Permalink, or trackback features of blogs. Newsgroups are asynchronous discussions typically focused on a single topic, and may be organized and used as OLEs for administrative and instructional purposes. Newsgroups allow for threading, multimedia, and hypertext, and searching is possible with the find feature. Asynchronous forums or discussion boards are similar to newsgroups. MOOs and MUDs are social software employed primarily in image-based game environments. Recently developed hybrid networking Websites such as MySpace.com and Facebook.com combine reading and writing, images, and audio capabilities as well as e-mail and blogs in the service of self-expression, entertainment, and socializing. The asynchronous blog is the only current form of multimedia social software that has the potential to serve a full range of technical and instructional purposes. Blogs allow for writing of any length and permit threaded interaction between reader and writer as well as among readers. They enable networking and multimedia; archive automatically, which records how discussions evolve; and attach a Permalink to every post, making them persistent and searchable.

## The Transformative Potential of Weblogs

In expressing a distrust of the ability of writing to fully and accurately convey the writer's meaning since the writing is fixed and cannot be engaged in challenge as speech can, Socrates identified the full complexity of writing that helps explain why it is so difficult to teach and to learn (Hobart & Schiffman, 1998). Effective writing, no matter how simple or complex the subject matter, depends on the writer's skill in choosing and arranging words in sentences and sentences in paragraphs, as well as controlling the metacommunication of context and tone, word choice, mechanics, and rhetorical devices. Effective writing also depends on the reader's skill in decoding the language in addition to recognizing and understanding the elements of rhetoric and style inherent in a piece of writing. Words and sentences written on a page can be read aloud, and the reader and listener both understand. However, writing, reading, speaking, and listening are all different cognitive processes. The writer must have the skill to manage both content and language, the reader must have the skill to recognize and revoice it, and the listener must have the skill to understand what he hears. Grammar allows for a wide range of possibilities for structuring sentences, but even a simple, three-word sentence such as *He said no* can have at least seven different meanings, depending on whether the end punctuation is a period, a question mark, or an exclamation point, as well as whether the emphasis is on the first word, the second, the third, or none of them—a monotone. The context of a given sentence guides the correct reading, if the writer has been properly mindful of the reader. If students can learn to marry language to the myriad possibilities for generating, organizing, and controlling content, then learning to write is possible, though levels of accomplishment are neither guaranteed nor predictable.



Prior to the shift to teaching writing as process, the traditional, entrenched approach to composition instruction was to teach grammar as if it were the linguistic equivalent of multiplication tables, and assume that students' being able to recite the rules would lead to their being able to use the meanings embedded in those rules to write. That emphasis on writing principally as a rhetorical product of grammar, mechanics, and usage waned when research focused on the processes of thinking, planning, and drafting and revision that students engaged in, in the act of writing. Following that, a concern emerged for attention to the social and cultural contexts of writing and the possible value of authentic prompts that would provide students with a sense of natural rather than contrived reasons for writing. The traditional environment of the teacher-centered, teacher-directed classroom remained constant through these shifts of focus.

Hull and Schultz (2001) saw the need to connect contemporary students' out of school and in school experiences in order to engage the multiple literacies students often have in the former world but not the latter. Collins (1998) advocated recognizing not just one strategy for writing but multiple strategies, to enable students to express what they know, rather than relying so strongly on the too-prescriptive writing process. Bereiter and Scardamalia (1987) described poor or less accomplished writers as knowledge tellers who engage in limited, one-sided conversations that lack the cues of a responsive listener who would enable them to provide the missing information that forms fuller and more clearly expressed thinking. Small group peer review, natural-seeming writing prompts, and opportunities for collaborative processes provide some balance for the customary assignments that direct students to tell what they know or demonstrate their knowledge about a topic in a directed writing mode such as comparison and contrast, or argument.

Such assignments have a true and valid place in any curriculum. However, they often stand for the dual purposes of testing knowledge as well as teaching writing, though the former may be better served than the latter.

Weblogs are a recent groupware technology that may provide the bridge between school and the real world that some contemporary students appreciate, and that many need. Blogs are Websites that enable asynchronous, text-based, interactive communication; multimedia enrichment; and the CSCW of one to many as well as many-to-many communication (Bull et al., 2003). The first personal diary published to the Internet and intended as a public vehicle for the originator's thoughts and list of favored Web pages was *Justin's Links from the Underground*, produced in 1994 by Justin Hall, a Swarthmore College student (Harmanci, 2005). The prototype blog was developed in 1996 by Dave Winer as part of the 24 Hours of Democracy project. That format, similar to Hall's, was a personal Website that included commentary as well as Websites that Winer found interesting. Since those early blogs, other types have emerged. Among them are the personal journal, which typically conveys the blogger's interests in text and graphics, and the notebook, which includes both internal and external material and is characterized by longer, more focused and reflective essays referred to as diaries (Herring, Scheidt, Bonus, & Wright, 2004).

The early bloggers had to know HTML coding in order to set up their Websites. By 1999, when there were fewer than 25 blogs to be found on the Internet (Blood, 2000), free, user-friendly blogging software became available and blogging quickly grew into an Internet phenomenon: Technorati.com currently tracks 54.2 million blogs. Blogger, created by Meg Hourihan and Evan Williams and offered on the Internet at no cost as

“push-button publishing for the people” (Blood, 2004, p. 54), provided a simple interface that allowed the blog owners to simply type in whatever they wished, click on *publish*, and have their commentaries transported to the Internet. The ease with which blogs could be created fundamentally changed the culture of the blog from a focus on individuals’ perspectives and lists of linked Websites to an open format of brief written commentaries, similar to a personal journal, on whatever subjects the writer happened to choose at the moment. The early community of bloggers envisioned the medium as a forum for the exchange of informed commentary and selected links that would develop a presence as an influential alternative to the established media. But Blogger and other, similar software as well as the evolution of additional tools such as the Permalink, which assigns a distinctive URL to every blog post, changed the nature of blogs altogether (Blood, 2004).

The elements of a blog are the same from one software package to another, although formats vary. Figure 2 shows a typical blog produced with Blogger.

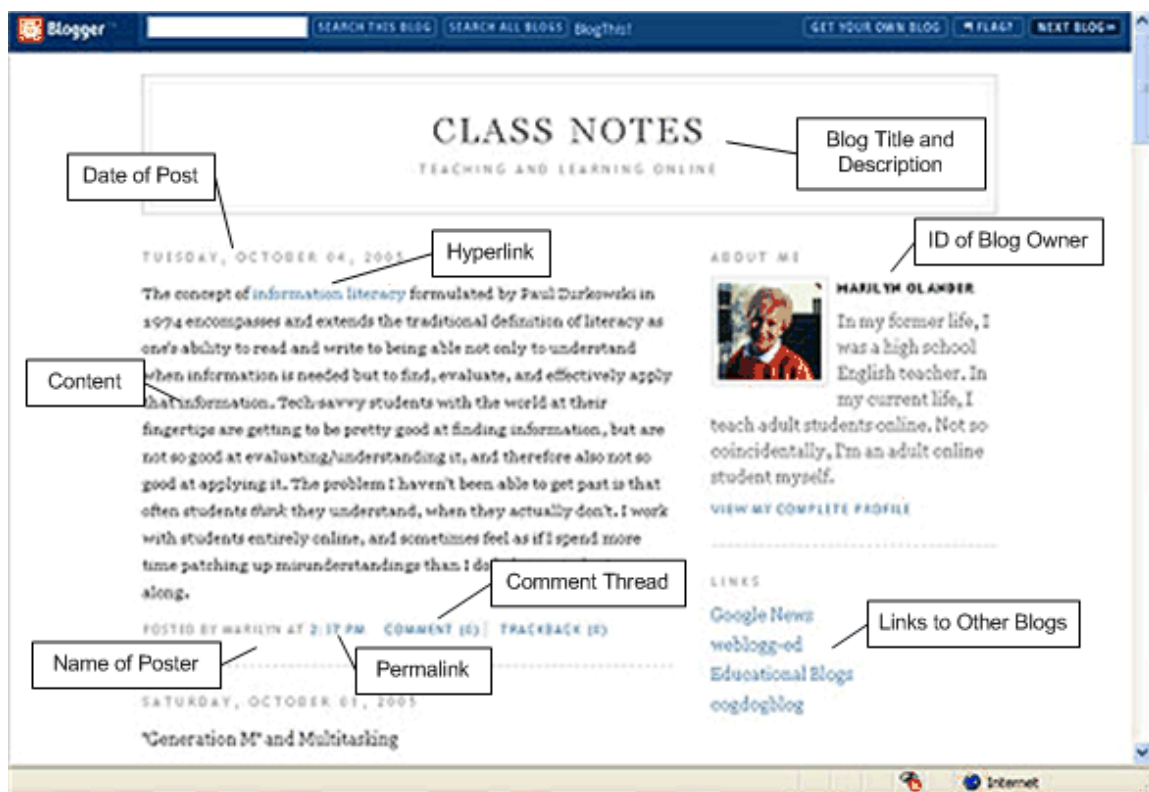


Figure 2: Elements of a typical blog. Screen shot of investigator's blog at <http://www.copperpenny.blogspot.com>

While they continue to be a medium for individual, personal expression, blogs are evolving into instruments of communication in a variety of additional applications, including in education (Blood, 2004). Kajder and Bull (2003) pointed out that while the description doesn't fit all students, those who read poorly and dislike writing are likely to continue that disinterest after they graduate. Participation in learning activities that reflect the real world is not the only answer to such problems, although engagement with real-world activities can motivate students as well as teach authentic skills. Students can associate with those activities the natural willingness and purposefulness they exhibit in their personal communication activities (O'Connor, 2005). Ganley's (2004) experience of

five years of using blogs in writing and literature classes at Middlebury College demonstrates the value of social software for engaging students with their own learning processes, with group processes, and with the real world. The technology of blogging itself and the connections it enables bestow relevance and authenticity on learning that is centered in students rather than in the teacher, who gradually becomes the guide and mentor rather than the single audience and source of all knowledge. Blogs are not limited to inconsequential or low-level thinking and communication. On the contrary, they enable dynamic learning through individual expression as well as through participatory academic discourse that includes the enriching capabilities of multimedia and hyperlinks (Bull et al., 2003). Students do not need to be assigned to work together for collaboration to enrich their learning. Blogs are by nature collaborative because they invite connectivity (Siemens, 2002), as shown in Figure 3. The enriching networks created by blogging are not built on familiarity, as in the oral tradition of antiquity, but the opposite: the unknown and the unexpected that amplify knowledge (Siemens). In order to participate in learning networks, students must learn to express themselves so multiple readers can understand, and must learn how to recover from mistakes that lead to confusion or misinterpretation for a reader or readers (Collins, 1998). Students learn that words have power when they use e-mail and IM; the lesson is repeated in every blog post because readers' comments and questions provide natural, real-world feedback either directly to the writer of a post or by comparison with what other writers may have written on the same subject.

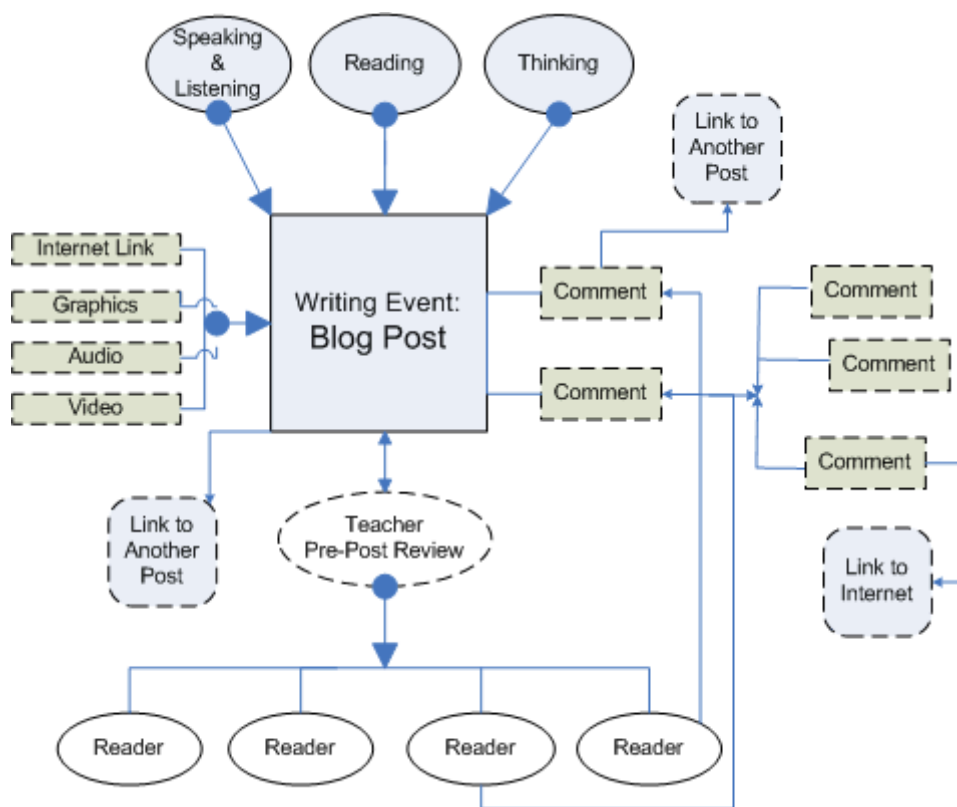


Figure 3: Model of a typical blog post illuminating the recursive communication network potentially generated by a given writing event. Source: Investigator.

Blogging is not a portmanteau for all the writing students may do in a class. It is an agile, versatile, immediate vehicle for the kind of natural interaction that students are already carrying out with IM, chat rooms, e-mail, and cell phone text messaging. It allows for any mode of written expression, from brief, spontaneous comments to essays to poetry to dramatic monologue or dialogue. But blogs do not create an either-or situation for teachers. Blogs and traditional writing assignments can both support effective instruction in composition, and together can enrich the effects of transfer of learning. Students may use blog space to extend classroom discussion, or to find and explain links to relevant graphics or Web pages. Or they may publish reflective writing or a creative piece prompted by a reader's comment, an image, class activities, or their own

experience, interests, or reading. However, the teacher's objectives for a particular assignment and the blog environment do not align in all instances. The traditional format of a writing assignment, or a paper, is the obvious choice when students are learning to write longer, detailed essays based on library research, for example the common 11<sup>th</sup> grade research paper, or the 12<sup>th</sup> grade honors thesis. In any class, a teacher may well designate a variety of writing assignments as off-blog, as well as having students engage in blogging for just the kind of composition experiences Elbow (2000) advocated: frequent writing for a variety of readers and a variety of purposes, neither graded nor critiqued but valuable for providing students with a platform to develop the fluency and the self-confidence that associates itself with intrinsic motivation and enhanced achievement.

Blog software from Blogger, TypePad, WordPress, Class Blogmeister, or any of the numerous sources is generally easy to install and configure. It does not require knowledge of HTML, may be installed on local servers or may be located on the Web depending on the source of the software, is either free or available at moderate rates from commercial providers, and is as uncomplicated to use as e-mail (Bull et al., 2003). Thus with little trouble and little or no cost, blogs can provide students with an easily accessible, computer-enabled public writing space with capabilities quite beyond contrived prompts, ordinary word processing, and in-class reading of each other's papers. Blog space is not just the classroom relocated to the Internet. It is not the traditional writing environment (Kajder & Bull, 2003). Instead, it is a new medium for communication with rich, even transformative potential (Bull et al., 2003; Ganley, 2004) for engaging students in the literacies upon which all others rest: reading and writing as

interwoven skills for individual expression as well as integration in the social structures of learning for productive participation both in school and in the outside world (Crystal, 2001).

### **Summary**

An understanding of the origins and conventions of writing is long since established, but agreement on what constitutes good writing and how best to teach it is not. In the fifth century B.C.E., Socrates identified the fundamental problem that has yet to be solved: even though it captures speech in the normal word order of the language, writing is inert communication, and while it may be fully comprehended by one reader it may be misinterpreted or misunderstood by others, depending on the capabilities of both the writer and the readers.

Reading and writing have traditionally been taught as separate skills, although they are deeply interwoven. There is little extant research on the developmental stages of writing, although there has been much research attention given to reading. English became a separate subject in the school curricula of the 1890s, and from the start writing was taught as a function of decontextualized grammar, syntax, and mechanics drill and practice. Emig's 1971 research into the processes students engage in, in the act of writing shifted the instructional focus from writing as a product to writing as a process of planning, drafting, revising, editing, and publishing, which has become the standard approach. Additional research reveals that there is no single process for all writers: writing is untidy and recursive rather than orderly and linear. For some students the writing process may mean summoning at least part of what they know about a subject,



listing that information as a form of planning, and then essentially copying the list configured as paragraphs. For others, planning is ongoing and flexible, changing as the writer changes, adjusts, and transforms knowledge in the act of writing. For all students, writing in the school environment is primarily transactional, a means of demonstrating learning for the teacher's appraisal. Although the writing process as a foundation for teaching composition is widely accepted as effective, national tests such as the NAEP Writing Assessment and the Scholastic Aptitude Test (SAT) suggest otherwise: average scores in either have not improved from the baseline levels of more than 20 years ago.

While many students thrive in school, those who feel a disconnect of relevancy between school and the outside world are likely to struggle with reading and writing. Early on too many reach a state in which learning stalls because both students and teachers enter into a cycle of low expectations and poor performance, although these basic skills of literacy are essential for satisfactory functioning in school as well as in the adult world.

Computer technology may be beginning to change the dynamic of the teacher-centered classroom, a pedagogical model not significantly different from that of 19<sup>th</sup> century classrooms. Resisted in the English classroom and generally undervalued and underutilized in the school environment at large, computer technology, augmented by the newer technologies of chat rooms, IM, e-mail, listservs, and cell phone text messaging, is enthusiastically embraced by students. While some adults are concerned that the abbreviated communication forms of Netspeak may have a deleterious effect on the conventions of the written language, it seems clear that students grow out of that usage, or can be taught that different writing voices are appropriate for different circumstances.

More to the point, social software has come into use in the last several years that begins to enable the read-write Web that Tim Berners-Lee envisioned. Blogs are one kind of social software finding productive applications in a number of fields, including in education. Particularly in the English classroom, teachers who are early adopters are exploring how to make use of the transformative potential of blogs for real writing, real readers, and the real learning networks of collaboration and connectivity.

Although computer-aided instruction has been creeping into instructional design, it is still largely unexplored other than to support traditional approaches to learning. There is little published research on the effects of computers on teaching and learning, particularly in the English classroom. The study focused one aspect of that subject: the potential of blogs for engaging students in new and effective practices in the fundamental literacies of reading and writing.

### **Contribution to the Field of Writing Instruction**

Even with the investment of more than 25 years in computers and in emerging, associated technologies, schools have been slow to develop sound, effective policies for the exploration, support, and training of teachers in these new technologies. For both administrators and teachers, too often computers remain as word processors, and the Internet as not much more than a vast library. Some early adopters of computer technology are exploring the instructional potential of the newer interactive software of blogs and wikis, both well beyond the comparatively limited capabilities of e-mail and listservs as collaborative learning spaces, and well beyond the capabilities of text messaging and IM for exploration and development of students' writing skills.

Because blogs are new in the educational environment, there is little available research into their efficacy for teaching and learning. Anecdotal reports in the press and in listservs and blogs devoted to education and technology suggest the positive potential of blogs as well as of other interactive media for sparking students' interests as well as influencing their abilities in reading and writing. The study focused on those issues. It provided some insight into how high school teachers are currently using blogs as a tool for writing development and whether and how blogging affects students' writing skills. The outcomes will inform high school English and journalism teachers, for whom teaching students to express themselves in writing with clarity, logic, and attention to the conventions of syntax is a continuing challenge. Preservice English teachers and teacher educators should find the report instructive in the context of learning how to teach composition, as well as for reaching technologically savvy students in contemporary school environments in which electronic resources for instruction are increasingly common. Instructional designers will find it useful as computer-enabled instructional methodologies continue to evolve. School administrators responsible for curriculum development, and those responsible for individual school and district standards of student achievement, will also find the report valuable. These stakeholder groups will become aware of the findings through a series of forthcoming journal articles.

## **Chapter 3**

### **Methodology**

#### **Restatement of the Problem**

The traditional concept of literacy, referring to one's ability to read and write at least at basic levels, has shifted in recent years to the broader perspective of information literacy, or the ability to understand when information is needed in diverse contexts, and to locate, evaluate, and apply it appropriately (Eisenberg et al., 2004). A recurring theme in contemporary literature, confirmed by national standardized tests, is that many students struggle with both reading and writing and often perform below grade level. However, the National Commission on Writing in America's Schools and Colleges (2003) asserted that writing is not a privileged skill for a small percentage of elite students but is rather an essential capability for everyone that enables participation in school, in the workplace, and in the national experience of citizenship in a democracy.

In the years following Janet Emig's classic 1971 study of students' thinking processes while they are writing, the teaching of composition from elementary school through high school has shifted from a focus on writing as skill sets of grammar and formulaic structure to writing as successive stages of planning, drafting, revising, editing, and publishing (Hillocks, 2002; NCTE, 2004; Thomas, 2000; Totten, 2003). The prevailing perspective among teachers is that the process has brought great improvement

to the teaching of composition (Baines et al., 1999; Totten). However, the 1996 NAEP report of long-term trends in writing achievement from 1984 to 1996 for students in Grades 4, 8, and 11, specifically fluency and writing conventions, indicated a slight but not statistically significant overall increase for students in Grade 11 (Ballator, et al., 1999). The 2002 NAEP Writing Assessment, a measure taken at four-year intervals, found that while the writing achievement of fourth and eighth graders improved by four and three points, respectively, from the Basic Level baseline of 150 established in 1998, the writing achievement of 12<sup>th</sup> graders was virtually unchanged (Plisko, 2003). The report of the 2005 SAT exam for college-bound students, which this year for the first time included a writing test, showed mean verbal scores unchanged for the two preceding years at 508, and nearly unchanged for the past 10: in 1995 the mean verbal score was 504 (Arenson, 2005). The highest score possible is 800. The three different reports indicate that no meaningful change has occurred in the past two decades and more in the middling capabilities of student writers. There is clearly some distance between what teachers perceive as effective and what apparently is the case. How best to teach writing, and even what teaching writing means, is a complex, multi-layered problem that does not yield to easy solutions. The introduction of computers in education and the evolving technologies of computer-assisted communication through the Web and through the increasingly varied capabilities of cell-phones including text messaging as well as podcasting and the exchange of photographs and video have added new dimensions to the problem, as well as unprecedented opportunities.

In recent years, blogs have emerged as a new tool for interactive communication through the Internet. Unlike e-mail, which is one-to-one communication although a

message may be distributed to any number of recipients, and IM, which is a rapid-exchange and typically highly compressed form of snippets of conversation as text (Brown-Owens et al., 2003), blogs allow for spontaneous as well as planned, reflective writing at whatever length the writer chooses (Ganley, 2004). Blogs began in 1994 as individual journals that were hand-coded and published to the Internet as vehicles to express personal interests (Blood, 2000; Harmanci, 2005). Since then, blogs have found a variety of applications as social software because they make possible opportunities for real-world written expression that invites reading, engagement, and interactive exchanges with others. However, because blogs are so recent, and their use in schools is just beginning to be explored, there is little research as yet on how blogs are being used in education and what their effect is, in various applications. A growing number of teachers in different subject areas are exploring blogs to discover how the unique capabilities of blogs can be engaged to help teach course content, to give students real-world learning experiences beyond the traditional approaches of the teacher and text centered classroom, and to integrate the constructivist learning that emerges when students actively collaborate with each other (Richardson, 2006a). This array of individual and group skills, all directly related to reading and writing, is essential for success both in school and later, in the world of work (Lowry et al., 2004; The National Commission on Writing, 2003).

**Goal**

The goal was to investigate how weblogs can be used to improve motivation and achievement in writing for high school students. The research questions were:

- 1 How are weblogs used in high school classes to teach writing?
- 2 How are weblogs different from impromptu writing tools such as e-mail, IM, and text messaging?
- 3 How do weblogs increase motivation to write?
- 4 In what ways do weblogs increase writing abilities and achievement?

**Research Method**

Research may be broadly defined as systematic, disciplined, logical inquiry into the nature of problems (Gay & Airasian, 2003), with the findings processed and evaluated through increasingly wider filters of expertise from the original researchers to other experts in the field, to reviewers of research, to generalists, to non-scholars, and finally to acceptance as knowledge (Krathwohl, 2004). Research has traditionally been either quantitative or qualitative. The former is characterized by the collection and analysis of numerical data to test one or more hypotheses. The process of quantitative research is founded on the perspective that world is by nature relatively stable, coherent, measurable, and understandable. Further, the understanding derived from the deductive processes of quantitative research is generalizable beyond the immediate environment of the research (Gay & Airasian).

Qualitative research is primarily inductive: generalizations are developed from a limited number of related observations. Explanations emerge from data as the researcher

organizes and interprets the meaning of patterns—or lack of them—in the perceptions of individuals, the progress of case studies, the accumulated information of records and documents, the evolution of a process. Rather than searching out measurable cause and effect relationships between and among variables, as in quantitative research, the qualitative researcher examines and describes behavior and evidence of behavior in settings in which it typically occurs (Fraenkel & Wallen, 2000; Gay & Airasian, 2003; Krathwohl, 2004). However, research studies do not necessarily fit neatly into one characterization or the other. Quantitative research may include narrative; qualitative may include the collection of numerical data. Krathwohl pointed out that survey research, the principal method for data collection in this study, is neither quantitative nor qualitative, but is at a point between the two. What is more salient is whether the research methods employed in a particular study are well and properly used (Krathwohl). Qualitative research may not yield generalizable conclusions. Nonetheless, the fully detailed explanations of the insights and understandings yielded by qualitative research may be transferred to other, analogous environments (Krathwohl).

Quantitative or qualitative research methodologies in educational issues and concerns may be less instructive individually than in combination, which allows for human and contextual factors that may contribute to a study's findings (Fraenkel & Wallen, 2000; Gay & Airasian, 2003; Krathwohl, 2004). Balance is maintained through adherence to systematic and disciplined inquiry. Such inquiry, supported by explicit detail describing the methods and procedures used to conduct the study, provides the opportunity for others to review and verify the research results (Gay & Airasian). The process includes the delineation of a topic worthy of extended inquiry, shaped as specific



research questions; design and implementation of methods for collecting relevant data; and analysis and interpretation of the data for conclusions relevant to the questions upon which the study is founded (Gay & Airasian).

The study was exploratory and descriptive. The research problem was stated as questions rather than as a hypothesis (Fraenkel & Wallen, 2000). In order to investigate teachers' perceptions of the efficacy of using blogs for writing instruction, the study incorporated three strategies, using both quantitative and qualitative methodologies. Gathering data from multiple sources allowed for triangulation (Krathwohl, 2004), which served two important purposes. The qualitative data gathered through the class observation and the open-ended questions of the telephone interviews informed the quantitative data collected through the survey by illuminating it and providing context for it. Approaching the problem at the center of the study from several independent perspectives that enabled corroboration of data strengthened the credibility of conclusions the study was able to draw (Krathwohl). That is, one method checked the validity of the data yielded by another, and reduced the possibility of method bias (Krathwohl).

### **Instrument Development**

#### *Web Survey*

A self-report electronic survey was used to measure how teachers are currently using blogs. There were 16 questions in the survey. The first five focused on the teacher's management of the blog and called for yes or no answers. Questions 6 through 9 were multiple choice and focused on the effect of blogging on students' writing skills. Questions 10 and 11 asked for participants' opinions regarding the advantages and

disadvantages of using blogs for writing instruction. Questions 12 through 16 asked for minimal demographic information. Participants were offered a copy of the survey results, to be sent at the conclusion.

Each of the first nine questions consisted of a group of choices specific to a topic and either yes/no options, or a four-point Likert scale of potential responses: great degree, moderate degree, limited degree, and little/none. In keeping with the informed consent requirements for online surveys, every choice in each question set also included a *no response* (NR) option. Subjects selected the option or choice that best reflected their feelings about the item. Scores were computed by counting the responses to each choice. Two additional questions invited written commentary about the perception of the value of blogs for writing instruction. The final five questions gathered demographic information, including how many years the person had been teaching, how many years using blogs in the classroom, and in what class blogs were being used. A copy of the survey is in Appendix A.

All four of the research questions were addressed. The first five survey questions were directed to the issue in the first research question. Questions 6 through 8 were directed to the third and fourth research questions. Question 9 was directed to the second research question. Questions 10 and 11 were open, so subjects could comment as they chose. The comments applied variously to the research questions.

#### *Telephone Interview Schedule*

The telephone interview schedule was developed after the survey was in settled form, and mirrors it in both content and organization. It was reviewed by the same panel of experts, and underwent the same revisions and improvements. The six question sets

first elicited yes or no responses, and then drew open-ended explanations to support the response (Cox, 1996). Interviewees were invited to answer in as much detail as they chose. A copy of the telephone interview schedule is in Appendix B.

For the interview schedule, Question Sets 1 through 3 addressed the first research question. Question Sets 4 and 5 addressed the third and fourth. Question Set 6 addressed the second research question.

#### *Class Observation Rating Schedule*

A rating schedule was used to provide for consistent review of the multiple writing samples collected from each of the four students selected for the nine-week observation of a class blog. Elements were grouped in three categories: language, organization and structure, and content. The format of the schedule was a checklist, with specific elements in each of the three general categories given a Likert-type valuation ranging from 3 to 0. The author was the only rater, and made the valuations on the basis of more than 30 years' experience in teaching writing and in reading and evaluating students' writing. As expected, the schedule revealed the trends in the characteristics of the writing each subject produced over the observation period. A copy of the observation rating schedule is in Appendix C.

The rating schedule addressed the first, third, and fourth research questions by implication rather than declaration. The students' writing products reflected the composition principles discussed by Elbow (2000), Bereiter and Scardamalia (1987), and Haneda and Wells (2000); the principles of motivation discussed by Shernoff et al.

(2003) and by Ryan and Deci (2000); and the effects on achievement in writing through blogging discussed by Richardson (2003), Ganley (2004), and Bull et al. (2003).

## **Validity and Reliability**

### *Validity*

The survey possessed high face validity. The questions appeared to address the issues represented in the research questions as well as relevant matters of concern in the literature on teaching practice and composition theory. The procedures used to develop the instrument provided confidence in its validity. First, care was taken to ensure that the questions aligned with the research questions. Second, attention was given to addressing the issues of concern enumerated in the literature regarding teacher preparation and experience with blogs (Renard, 2005; Richardson, 2006a); how blogs are set up and administered in a class (Ganley, 2004; Richardson, 2006b), how assessment and feedback occur (Carragher, 2003; Downes, 2004; Kajder & Bull, 2003; Martindale & Wiley, 2004); how students use the writing space (Bull et al., 2003; Carragher; Downes; Kajder & Bull; Kennedy, 2003); the effect of blogs on students' motivation to write (Bull et al.; Ferdig & Trammell, 2004; Ganley; Martindale & Wiley; Richardson, 2006a); and the perceived effect on students' writing ability (Downes; Ganley; Kennedy; Richardson, 2003; Richardson, 2006a).

The survey was submitted to a panel of experts consisting of three English teachers, one a college professor, all with long experience in teaching writing at the high school and first year university levels. Each reviewer independently rated each item in each question set for relevance to the research questions, using a four-point Likert scale:

totally relevant, reasonably relevant, barely relevant, and totally not relevant. The numerical values ranged from 3 for totally relevant to 0 for totally not relevant. The mean score for each item ranged from a high of 3.0 to a low of 1.3. The two items that were rated lowest were dropped and replaced. Suggestions for clarifying wording were also followed. The revised question sets were submitted to the panel again, and rated. The mean scores for the revised items ranged from a high of 3.0 to one item in one question set at 2.0. Additional adjustments were made to wording, as suggested.

The telephone interview schedule was constructed after the review and revision of the survey, and was reviewed by the same panel of experts, with corresponding changes made. The schedule mirrored the survey, although the question sets were worded to begin with questions that elicit either yes or no answers, followed by an open-ended request to explain what the answer represented.

The rating schedule for the class observation was a checklist of the basic elements of any piece of writing—language, organization and structure, and content. The characteristics in each category were standard fare in any textbook that includes discussion of grammar, mechanics, and principles of composition.

### *Reliability*

Krathwohl (2004) defined reliability as the consistency with which a research instrument measures whatever it is designed to measure. While reliability is closely related to validity, validity is of first importance. If there is adequate evidence of validity, that evidence also speaks to the consistency, the reliability, of the measure (Krathwohl). The three methods of data collection provided for corroboration of insights gained from

each method individually. Furthermore, it was expected that other researchers who might replicate this study would obtain similar results.

## **Procedures**

### *Participants: Selection and Eligibility*

*Web Survey.* Based upon available data, it was estimated that about 100 responses would be received. The blog of the leading advocate of educational blogging has more than 2000 regular readers (as tracked by Technorati.com), and is a primary network of information on the subject. Based on that number, it was estimated that there are fewer than 5000 teachers world-wide who are using blogs in language arts and English classes. An undefined portion of that number are elementary and middle school teachers. The target number of subjects was arbitrary. It reflected both the uncertainty of the size of the actual relevant population as well as a reasonable number of respondents who might provide useful insight into the research questions.

Subjects self-selected over the six weeks the survey was available on the Internet. The target population was practicing high school teachers with from one to 30 or more years of experience. Ethnicities could not be precisely predicted, although logic suggests a mix. It was assumed that all subjects would be either native users of English, or would read English well enough to participate in the text-only survey.

*Telephone Interviews.* It was expected that six subjects would participate in the telephone interviews. Six high school teachers who were actively using blogs for writing instruction was an arbitrary but reasonable number for interviews in the context of a small-scale, short-term study. The target population was practicing high school teachers

with from one to 30 or more years of experience. Neither ethnicity nor gender was relevant in the selection of subjects. All subjects were either native users of English, or spoke English well enough to participate in a telephone interview. Subjects were selected on the basis of their current use of blogs for writing instruction, and on their willingness to be interviewed for the study. The Informed Consent form is in Appendix D.

*Class Observation.* The writing products of four students were tracked in a non-participatory class observation. The target population was high school students, typical age range 14-18 years old. Ethnicities and gender were expected to be mixed, although neither was relevant in the selection of subjects. All subjects were either native users of English, or wrote English well enough to participate in a high school language arts class that was taught entirely in English. The class was selected on the basis of the class blog being openly available on the Internet, and on blogging being used as an ongoing and consistent instructional tool, built into the curriculum of the class.

The time planned for the class observation, nine weeks, represented 25% of the school year. The number of students whose writing was tracked represented 23.5% of the class of 17 students. These percentages were also arbitrary, but they appeared to be reasonable in the context of the study.

### *Data Collection*

The time frame for collection of data from the three sources was approximately eight weeks, from mid-February through early April 2007. Data collection commenced after approval was given for both the Formal Dissertation Proposal and the IRB application (see Appendix E). The survey and database were programmed and placed on

the Internet. Announcements of the availability of the survey and links for it were placed on the Internet in a variety of locations regularly accessed by teachers interested in or actively using educational technology. E-mail contacts with prospective telephone interview subjects were made, followed by either postal or e-mail letters providing a detailed explanation of the study as well as Informed Consent forms. An openly accessible high school English class that was engaged in blogging was located, and student subjects were selected. Informed consent was not considered to be necessary for the observation, given that students were directed by the teacher's instructions to enable Internet access when they registered on the Website. Because the class blog was openly available on the Internet and thus in the public domain, the school, teacher, and students had a reasonable expectation that anyone who accessed the Website could read any posts published to it.

The three data-gathering initiatives were independent of each other. They overlapped in time of occurrence. The nine weeks of class observation included collection of students' work from the beginning of the school year, gathered from the archive of the class blog, as well as posts made in late March and early April.

*Web Survey.* The survey instrument was titled "Teaching with 21<sup>st</sup> Century Technology: Weblogs and Writing Instruction in the High School Classroom." Announcements and links were placed on 19 Websites that are commonly accessed by technology-oriented teachers, including listservs, educators' blogs, and online forums. The survey was available for eight weeks from mid-February to early April 2007. The results of each completed survey were sent to a database set up to collect the information when the participant clicked on the *Submit* button.



*Telephone Interviews.* E-mail requests for telephone interviews were sent to high school English teachers who were identified through various strategies as using blogs in their classes. The date and time for each interview was arranged through the exchange of e-mail. Handwritten notes were taken during the interviews.

*Class Observation.* An openly accessible blog was located on the Internet, on the YouthVoices Elgg (<http://www.YouthVoices.net>), an extensive, blog-based social network of a large number of high schools whose students were participating as members of their English classes. The 10<sup>th</sup> grade class selected for observation was not ability leveled; students were required to meet weekly participation standard for original posts as well as comments on the posts of any other contributors to the Elgg to whom they chose to respond. Four students who posted consistently from the first week of school in September through the last week of the observation in April were selected as subjects. Every student in the class had a chance of being selected for observation, depending on how regularly they posted their writing during the period of the observation. The observation itself was invisible: neither teacher nor students were aware that it was occurring.

### *Forms of Data Collected*

*Surveys and Interviews.* Questionnaires in various forms and interviews are two major types of surveys, in which samples of target populations are queried for information that may be generalized to the broader environment in a process that is both more efficient and potentially more informative than would be investigation of the entire population (Krathwohl, 2004). The objective is to discover the commonalities and

variations in responses, as well as indicators such as demographic elements that might be relevant to the variables (Krathwohl). The essential issues are to ensure that the survey has a clear purpose, to develop an appropriate sampling plan that will draw a consistent and coherent representation of the target population, and to develop a valid and reliable survey instrument that will yield reliable data aligned with the research questions (Cox, 1996; Krathwohl).

Web-based surveys of all kinds and for all manner of purposes are changing the nature of survey methodology because of the ease with which such surveys can be set up, as well as the speed and economy of Web inquiries compared with the production, mailing costs, and turn-around time of pencil-and-paper surveys (Gunn, 2002). Web-based surveys also allow for easier processing of data, because responses can be collected to spreadsheets, databases, or data analysis software. Electronic surveys also enable multimedia elements and effects such as drop-down boxes, pop-up instructions for particular questions, and customization of survey options for specific groups of respondents (Gunn), features which are not available in traditional, printed postal mail surveys.

An accepted standard in survey methodology is that most survey responses are made within 24 to 48 hours of exposure (Smith, 1997), although the response rate may be even more rapid for the Web environment, because visiting one Website and then moving on to another is very different from having a printed questionnaire sitting in the inbox on one's desk. Special concerns must be observed in the preparation of a Web survey. Questionnaires do not look the same on different browsers and different monitors, responders have varying levels of skill in computer use, and the security of both

respondents and data is a serious issue. Surveys must be easy to understand, and have a user-friendly interface. Scrolling down is preferable to one question at a time. The first question must be interesting, must apply to all respondents, and must be clearly related to the purpose of the survey. Plainly designed, user friendly instruments generate better response rates than those that are distracting in the overuse of color and font effects, tables and graphics (Gunn, 2002).

Sources of error in surveys of all kinds include problems with sampling, coverage, non-response, and validity (Cox, 1996; Gunn, 2002; Krathwohl, 2004). Those who respond to surveys tend to be of two types, optimizers and satisfiers (Gunn). The former are meticulous in following directions and answering questions. The latter respond in a more superficial manner, and some even fail to complete the survey. Non-responsiveness is a major mortality factor in survey research, both for various kinds of incomplete responses or for not responding at all, even though the subject matter of the survey applies to one's interests or activities (Gunn; Krathwohl). Mortality is an issue not limited to quantitative research, although it may not be as remarked in qualitative. People who might have made a difference in the outcomes of the research had they participated account for a limitation in survey research, that the respondents may not be representative of the population as a whole (Fraenkel & Wallen, 2000; Krathwohl). The best hedge against the issue of nonrespondents is to appeal to a representative sample in the first place, and try to motivate an interest in participating (Krathwohl).

Any questionnaire, even those sent to a carefully screened and vetted population, may in fact be completed and returned to a researcher by individuals not qualified to respond. Web surveys may be more open to such dilution than pencil and paper

instruments, although research that speaks definitively to the issue is yet to be done. The survey proposed for this study was openly accessible on the Internet. The instrument included both Likert-scale scoring and optional written explanations. Data were collected in a dedicated database. Prospective subjects were directed to it through links placed on listservs, blogs, and forums of interest to teachers who use computer-related technology in their teaching practice. The likelihood of unqualified respondents either happening upon the survey and electing to complete it, or following a link from another Website, could not be discounted. However, it was assumed that the incidence of such occurrences would be very low.

The interview is a survey methodology with different issues. First, interviews may range from unstructured, which are primarily exploratory and shaped as the conversation progresses, to totally structured, in which the questions are ordered and subjects are given a choice of alternative responses for each. Between the two are gradations of partially structured, semi-structured, and structured (Fraenkel & Wallen, 2000; Krathwohl, 2004). More structure is appropriate when the author has a hypothesis to test; less when the author is exploring an emergent problem. A key skill in interviews is the ability of the questioner to ask questions, but then listen to the answers and know when to intervene or probe for further information without directing or otherwise influencing answers. Another is the ability of the questioner to build rapport with the interviewee by adapting to the response manner of the interviewee, modulating the flow of questions, using questions that require more than yes and no answers, and making appropriate, nondirective responses that encourage full explanations (Krathwohl).

Semi-structured telephone interviews were conducted in which the questions and order of presentation were predetermined. Contacts for prospective interview candidates were made by e-mail. The candidates were located through referrals from professional colleagues, cold calls to teachers who identified themselves on Websites as users of blogs, and suggestions for teachers who might be willing to be interviewed by individuals who were known to support blogging in education through their participation in city and state NWP sites.

*Observation.* The ways of observing subjects in context range from covert, in which the observer enters the context in a role equivalent to the subjects, with the observation hidden from the subjects, to non-participant. In the latter circumstance, the observation is least intrusive, separate from both the subjects and the context (Fraenkel & Wallen, 2000; Krathwohl, 2004). In this study, the posts to the class blog by four students were tracked over an observation period of nine weeks. The blog was openly accessible on the Internet, thus students had a reasonable expectation of outside readers. However, the presence of the observer was invisible. No contributions were made, nor was any discussion held with the teacher about any of the students or their work. A rating schedule was used with Likert-type scoring of characteristics of the writing in each post as High, Middle, or Low rated as 3, 2, and 1. The Not Applicable (NA) choice were rated 0. The characteristics were grouped as language, organization and structure, and content. The rating schedule provided a mechanism for consistent evaluation of the characteristics of each piece of writing in order to discern any trends. The specific items in the schedule were standard fare in grammar and composition textbooks.

The formulation of a problem, whether it is to be investigated by quantitative research, qualitative, or a combination, is shaped by perceptions. Probably no study is entirely free of bias, although quantitative research is objective and thus less liable. However, research begins with some framework of knowledge and interest. Krathwohl (2004) quoted Fetterman that a researcher “enters the field with an open mind, not an empty head” (p. 239). It is essential to recognize and guard against the drift of expectations both in organizing and carrying out the study design, and in interpreting the findings. Instrument decay, referring to changes in the way an instrument is used during a study, may occur if the standards for observation change over time, for example becoming more lenient toward the end of an observation period than they were at the beginning (Krathwohl). Multiple readings of the students’ writing products as well as clear definition of the standards for each element of the class observation helped eliminate inconsistency in rating.

### **Formats for Presenting Results**

The final report includes a narrative that discusses the import of the research findings as well as supporting tables, charts, and graphs as necessary to ensure clear understanding. The last chapter conveys the conclusions, implications, and recommendations for instructional practice as well as for further study. A summary section of the final report reviews the study in its entirety.

## **Resources**

Professional experience and expertise coupled with external resources were brought into play in the study. The investigator taught writing to high school students for 23 years, including four years as chairperson of the English Department of a very large, well-respected public high school in the Midwest. All students in the district were required to fulfill a four-year English requirement; all classes focused on the development of reading, thinking, and writing skills for a primarily college-bound student population. Following those years, she has taught college-level writing skills to beginning adult students in a community college as well as in the distance education environment.

The Nova Southeastern University Library and the University of Arizona Library were the principal sources for literature pertinent to the study. Books and computer software of particular value to the study were purchased as lasting professional resources. A Website developer coded and published the survey and accompanying database to the Internet.

All expenses associated with this study were privately underwritten. All communications regarding the various aspects of the study were carried out in face to face meetings, through e-mail, with the telephone, and via postal mail. E-mail and postal mail were used to secure permissions and informed consent documents.

## **Summary**

The problem of how best to teach students the essential skills of literacy, reading and writing, is both complex and as old as the skills themselves. From the time that English became a separate topic in education in the late 19<sup>th</sup> century until about 1970,

writing was taught primarily as rhetoric, a focus on the forms of language including grammar, usage, punctuation, and spelling. Janet Emig's classic ethnographic research exploring the thinking patterns students engaged in as they were in the act of writing led to a new focus on the process of writing rather than the product. Support continues for the teaching of writing as a process of planning, drafting, revising, editing, and publishing. The introduction of computer-assisted learning in the 1980s has taken new directions with the emergence of interactive communication technologies including e-mail and listservs but also IM, chat rooms, discussion forums, text messaging on cell phones, wikis, and blogging. It is the potential of the last of these as an instructional tool for teaching writing in the high school that was the subject of this study.

The study was exploratory and descriptive. The research problem was stated as questions rather than as a hypothesis. Data were gathered from three sources to enable triangulation and corroboration of data for validity. A survey in questionnaire form was published on the Internet, with announcements and links to it on selected Websites that technology-oriented teachers frequent. The instrument collected quantitative and anecdotal data. Semi-structured telephone interviews were carried out with six high school English teachers who were using blogs with their classes. A class blog was observed over a period of nine weeks, and the regular posts of four students were tracked.

Professional experience and expertise as well as external resources provided a substantive context for the study. Formulation of the data collection instruments was aligned with concerns in the literature on composition theory and teaching practice. The survey was tested and retested by a panel of experts, helping to ensure the validity of the survey and by extension, the reliability. The telephone interview schedule mirrored the



survey; the rating schedule for the class observation was a reflection of standard grammar and composition textbooks. The results of the study are discussed in detail in the last chapter, the data presented in both narrative and graphic forms most appropriate for clear presentation. A summary section of the final report reviews the study in its entirety.

## Chapter 4

### Results

#### Introduction

The technological revolution of the last half of the 20<sup>th</sup> century introduced new resources with potential for teaching and learning the basic skills of literacy: interactive reading and writing via computers. This descriptive study explored the efficacy of Internet weblogs for writing instruction in high school. Chapter 4 reports on the findings of the three parts of the research, a Web survey, telephone interviews with six teachers who are using blogs with their students, and observation of the writing products of four students over nine weeks of the 2006-2007 school year. An account of the methodology used and the specific findings is provided for each part. A summary of the chapter draws the findings together.

#### The Web Survey

##### *Methodology*

The survey, “Teaching in the 21<sup>st</sup> Century,” was placed on the Internet at <http://www.sitelineaz.com/21stCenturyTeachingSurvey.html> for a period of eight weeks (see Appendix A). In order to garner the largest possible number of participants, announcements of the survey’s availability were placed on a combination of blogs,

forums, and listservs whose readers and members either use or support educational technology. These included:

- 1 Josie Fraser's blog SocialTech at <http://fraser.typepad.com/socialtech/>
- 2 Karl Fisch's blog The FischBowl at <http://thefischbowl.blogspot.com/>
- 3 KairosNews blog at <http://www.kairosnews.org/>
- 4 Edublog forum at <http://edublogs.org/forums/>
- 5 Texas Computer Education Association (TCEA) general forum at <http://www.tcea.org/>
- 6 Virginia Society for Technology in Education forum at <http://www.vste.org>
- 7 National Writing Project Netheads Discussion forum at [http://www.writingproject.org/cs/nwpp/forum/cs\\_disc/117](http://www.writingproject.org/cs/nwpp/forum/cs_disc/117)
- 8 EdTech Discussion List at <http://www.h-net.org/~edweb/list.html>

Announcements were posted twice on the NWP Netheads listserv and on the EdTech listserv, with an interval of three weeks between the first and second postings. The first announcement described the survey and the value of the research in investigating the potential contribution of blogging for instruction in writing, and provided the Website URL. The second announcement was a shorter, more direct, personalized appeal for help in gathering data. Both announcements are in Appendix F. The second version was also used to announce the survey and request the help of subscribers to the listservs of nine state associations of educators who incorporate

technology in their teaching practice, or who serve as technology coordinators or librarians in their schools:

- 1 Connecticut Educators Computer Association (CECA) at <http://www.ceca-ct.org>
- 2 Maryland Instructional Computer Coordinators Association at <http://www.miccaonline.org>
- 3 Association of Computer Technology Educators of Maine (ACTEM) at <http://www.actem.org/Pages/index>
- 4 New Hampshire Society for Technology in Education (NHSTE) at <http://www.nhste.org/>
- 5 Pennsylvania Association for Educational Communications and Technology (PAECT) at <http://www.paect.org/>. The announcement was also placed on the Keystone: Technology Integrators listserv by a member who asked for permission to do so.
- 6 Rhode Island Society of Technology Educators (RISTA) at <http://www.ri.net/riste/>
- 7 South Dakota Technology Education Association (SDTEA) at <http://www.k12.sd.us/Listserv>
- 8 Wisconsin Educational Media and Technology Association (WEMTA) at <http://www.wemaonline.org>

Forty-five qualified participants completed the survey and submitted their responses to the database set up to record the data. Educational blogging is a recently

available technology, and is still in the early adopter stage. While it is being used by teachers from early elementary grades through the college level, and across the spectrum of subjects, it is not known how many high school teachers use it for writing instruction. Further, the respondents to any survey are volunteers who self-select, and who therefore do not constitute a random sample of a population. Thus it is not possible to know whether the respondents are a fair representation of the whole population (Krathwohl, 2004). However, a frame of reference can be provided for the target population. The Landmark Project (<http://landmark-project.com/>) and EduBlogs (<http://edublogs.org>) are two sources of free, Web-resident, blogs for education. Class Blogmeister blogs provided by The Landmark Project are listed on the Website by grade, school, and teacher. Cleaned of wrongly categorized and non-instructional blogs, the Grades 9-12 list shows that in the school years from 2005, when Class Blogmeister was made available, through the 2007 school year, 151 teachers from 114 schools established blogs in a wide variety of subjects. Of those, 82 were teachers of classes identified as English, creative writing, journalism, writers' workshops, global communication, and humanities—classes in which writing instruction is a primary feature of the curriculum. For the 2006-2007 school year specifically, 53 teachers in 45 schools are similarly identified. The attrition may be accounted for by teachers who leave a school, who take a different teaching assignment, or who elect to discontinue blogging. Perhaps indicative of the emphasis of some years' duration on writing across the curriculum, a review of all class blogs in the complete high school list revealed that some teachers in other subject areas than English also teach writing skills: they set clear writing standards for students' blog posts, and require students to edit and revise their work prior to posting it.

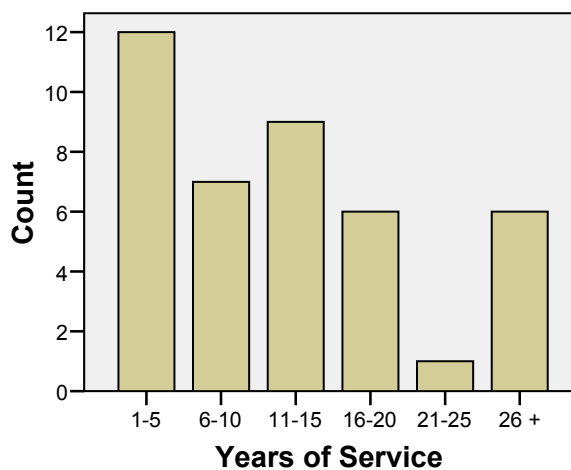
While the findings of this survey cannot be taken as definitive of the current state of blog use for writing instruction at the high school level, they can reasonably be presumed to provide insight into how teachers are currently incorporating blogs into their teaching practice, whether they are using other interactive, impromptu communication technologies for instruction, and whether they perceive that blogging affects students' attitudes toward writing as well as their writing skills.

The survey was available on the Internet for eight weeks from late February to early April 2007. When individual respondents finished the survey and clicked the Submit button, their answers were sent to a MySQL database set up to collect survey data. The survey included two open-ended questions for respondents who elected to provide anecdotal information. Brief demographic information was also collected. All text information was numerically coded to enable analysis.

Descriptive statistics were analyzed and frequencies of all variables computed. Demographic variables such as years of teaching and of using blogs were tested for possible correlations with individual variables. Where it was relevant, Pearson's  $r$  and Chi-Square tests were run to make comparisons. The data are discussed in the narrative and selectively presented in tables and charts. Appendix G contains complete data tables for all questions in the survey.

Seventy-five individuals accessed the survey Website. Of these, 11 did not engage in the survey. Twelve began the survey but did not complete it; seven who completed it were not high school teachers. Those 19 data sets were removed. The 45 qualified respondents who completed the survey represented 18 states and two foreign countries, Italy and Chile. Forty-one reported their total years of service, none of them first year

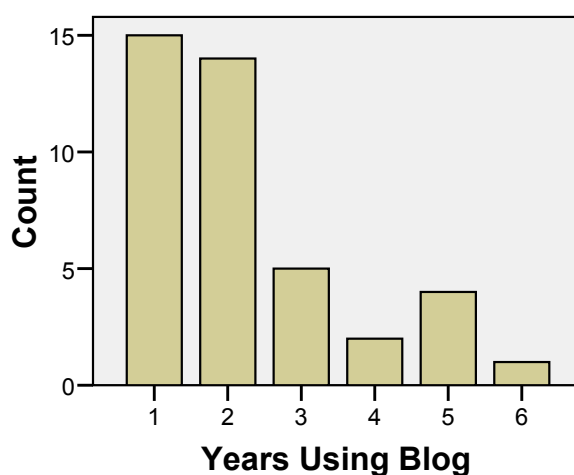
teachers. The range was from 2 years to 39, with a mean of 13.4 years ( $Md = 5$ ). Four respondents, 9.8%, did not indicate their years of service. Figure 4 shows the distribution ( $N = 41$ ):



**Figure 4.** Years of service of participants in Web survey.

Thirty-five participants reported using blogs in 50 different courses in which writing instruction is a principal feature of the curriculum. Twenty-three specifically identified 11<sup>th</sup> and 12<sup>th</sup> grade English classes, including Advanced Placement (AP) courses. Eight teachers identified their classes as 9<sup>th</sup> or 10<sup>th</sup> grade. Teachers also identified journalism, creative writing, and speech classes, all of which are likely to include students of mixed grade levels. Six non-English classes in which blogs were used for subject matter discussion as well as writing instruction included 9<sup>th</sup> grade social studies, 11<sup>th</sup> and 12<sup>th</sup> grade physics, 12<sup>th</sup> grade religion and American history, and AP biology. These demographics suggest that instructional blogs are used most often by upper-grade teachers, and with older students.

Twenty-nine teachers, nearly 71%, reported using blogs just one or two years. Eleven have used blogs with their classes between three and five years. One respondent has used blogs with classes for six years, beginning barely two years after blogging software became available. The Pearson product-moment correlation provided evidence of a positive correlation too small to be significant between years of service and years of using blogs:  $r = .18$ ,  $p = .25$ . Figure 5 shows the distribution (N = 41):



**Figure 5.** The chart shows how many survey participants have used blogs with their classes, and for how many years.

### *Findings*

*Teacher Preparation.* Data from Question 1 of the survey reveal that most teachers who use blogs are either knowledgeable about computers and discover blogging on their own, or are introduced to it by someone who is already acquainted with the technology. While 31% of respondents reported having had some training in a conference or workshop setting, 64.4% of respondents started on their own initiative, and 60% read the blogs of other educators for ideas and suggestions ranging from best instructional



practices to technical issues to effective ways of dealing with administrative, parental, or community concerns. Many schools or school districts have technical support resources, and 29% of survey respondents indicated turning to tech support for help. In sum, the majority of teachers who are using blogs are knowledgeable about computers, understand blogging through experience, take the opportunity to explore the instructional possibilities of a new technology, and turn to each other for information and support.

*Blog Setup and Management.* The functional integration of blogging into the instructional environment is neither simple nor automatic. Questions 2, 3, and part of 4 investigated the mechanics involved in setting up a blog and preparing students to use it. Table 2 (N = 45) summarizes the findings.

Instructional blogs may be configured in different ways. Some teachers set up teacher-only blogs for administrative and informational purposes. For classes that include student participation, the most common arrangement is a single or main class blog that may include teacher's posts as well as posts by students. This configuration was used by 64.4% of survey participants. The other common configuration, reported by 31.1% of respondents, is a main class blog as well as individual student blogs linked to the main blog. Other patterns exist as well, for example the aggregated blogs of an Elgg, a recently designed variation on individual blogging discussed in the section on class observation.

Issues of privacy and student safety in the online environment are addressed in the policies of individual school districts. Any class blogging activity by teacher and students, or by students only, may be password protected or restricted to prevent either inbound or outbound Internet access, or both. Fifty-one percent of survey respondents

reported protected access, while 42.2% indicated their districts have a less restrictive policy and allow open access. Districts may require written parental permission for student participation. In addition, 51.1% of survey respondents indicated that students were given written guidelines for safe, ethical participation.

Table 2. Blog Setup and Management

|                                     | <b>Yes</b> |          | <b>No</b> |          | <b>No Response</b> |          |
|-------------------------------------|------------|----------|-----------|----------|--------------------|----------|
|                                     | <b>N</b>   | <b>%</b> | <b>N</b>  | <b>%</b> | <b>N</b>           | <b>%</b> |
| Main class blog                     | 29         | 64.4     | 11        | 24.4     | 5                  | 11.1     |
| Class blog and linked student blogs | 14         | 31.1     | 26        | 57.8     | 5                  | 11.1     |
| Password protected                  | 23         | 51.1     | 18        | 40.0     | 4                  | 8.9      |
| Open to the Internet                | 19         | 42.2     | 19        | 42.2     | 7                  | 15.6     |
| Code of ethics for participation    | 23         | 51.1     | 15        | 33.3     | 7                  | 15.6     |

Teachers indicated that although more than 40% of students were familiar with the process of blogging, the majority had to be taught. While more than a third of teachers used some class time for blogging, particularly in the first week or two of establishing blogging, most of the blogging that students accomplish is as homework, and students must find computer access outside of class in the school lab or at home.

Additional issues related to the management of blogging include teacher participation as gatekeeper and instructor, as well as methods of assessment and feedback. Questions 4 and 5 addressed these elements. Teachers appeared to use blogging in accordance with dual perspectives: some freedom, some control. More than 70% of

teachers indicated they provided writing prompts for students which included topics directly related to class reading or discussion, or which were guidelines for experimentation with other modes and genres than expository prose, for example journal writing, poetry, prose forms of creative writing, or personal narrative. Seventy-three percent also indicated that students initiated writing topics. The majority of teachers did not review student work prior to its being published on the blog, although one third of teachers did. In most classes, writing for blog posts was part but not all of the writing that students did in a given course: 73.3% indicated that students had off-blog writing assignments as well which followed the traditional paradigms of writing instruction.

As shown in Table 3 (N = 45), assessment and feedback in educational blogging can come from multiple sources, including the teacher, readers of blog posts, and the self-evaluation of writers who read and respond, either silently or in writing, to the comments posted by their readers. Forty percent of teachers saw the primary purpose of blogging as giving students space to practice writing apart from the constant of critical evaluation by the teacher. The majority of teachers, 57.8%, gave students credit just for meeting a requirement for number and quality of blog posts and comments in a given time period. Among survey respondents, 31.1% occasionally graded blog posts, and 37.8% regularly did so. There may be some overlap: the survey did not distinguish between teachers who give credit only and those who give credit for meeting a posting requirement but also may grade blog posts.

Table 3. Feedback and Assessment

|   | <b>Yes</b> |          | <b>No</b> |          | <b>No Response</b> |          |
|---|------------|----------|-----------|----------|--------------------|----------|
|   | <b>N</b>   | <b>%</b> | <b>N</b>  | <b>%</b> | <b>N</b>           | <b>%</b> |
| Teacher reviews all work prior to publishing. | 15         | 33.3     | 24        | 53.3     | 6                  | 13.3     |
| Some assignments are done off-blog.           | 33         | 73.3     | 4         | 8.9      | 8                  | 17.8     |
| Class blog is writing space for students.     | 18         | 40.0     | 22        | 48.9     | 5                  | 11.1     |
| Students get credit just for posting.         | 26         | 57.8     | 13        | 28.9     | 6                  | 13.3     |
| Posts are graded occasionally.                | 14         | 31.1     | 23        | 51.1     | 8                  | 17.8     |
| Posts are graded regularly.                   | 17         | 37.8     | 22        | 48.9     | 6                  | 13.3     |

*Impromptu Writing Tools.* E-mail, wikis, listservs, IM, and chat rooms are all computer-enabled, interactive modes of written communication. However, they do not duplicate either each other or blogs. The technologies function in different ways, and fulfill different purposes, although each is a writing space.

Question 9 asked teachers if they had used these interactive technologies for writing instruction with their students. Only e-mail drew more positive than negative responses. The survey question did not explore the specific manner in which the listed interactive technologies were employed, although the teachers who reported using it may have communicated with students about their writing, or about writing assignments, or may have had students compose e-mail messages to practice letter or memorandum writing. Such practice is remarked in the literature describing the instructional uses of e-mail. Listservs are distributed e-mail, and provide for threading. Twenty-nine percent of

teachers reported they have used listservs with their classes, although 71% of teachers indicated they have made limited to no use of listservs. Teachers are beginning to test the instructional possibilities of wikis, which enable editing of any post by any reader, making wikis a natural technology for students working collaboratively in teams or groups. IM and chatrooms are gathering places where participants exchange brief written messages that are understood by both writer and reader to be virtual speech.

None of the impromptu writing technologies queried enable the sustained, interactive writing experience that blogs do, although the study did not explore the specific benefits and drawbacks of each for writing instruction. Students commonly use e-mail, IM, and text messaging on their own, and some have personal blogs. The use of these technologies is more social at the high school level than educational. Table 4 (N = 45) shows the distribution for use of these impromptu writing tools. Note that the instructions were to mark No Response if the respondent had not used a technology in the list:

Table 4. Use of Impromptu Writing Tools

|           | <b>Great Degree</b> |          | <b>Moderate Degree</b> |          | <b>Limited Degree</b> |          | <b>Little/None</b> |          | <b>No Response</b> |          |
|-----------|---------------------|----------|------------------------|----------|-----------------------|----------|--------------------|----------|--------------------|----------|
|           | <b>N</b>            | <b>%</b> | <b>N</b>               | <b>%</b> | <b>N</b>              | <b>%</b> | <b>N</b>           | <b>%</b> | <b>N</b>           | <b>%</b> |
| E-mail    | 18                  | 40.0     | 8                      | 17.8     | 15                    | 33.3     | 2                  | 4.4      | 2                  | 4.4      |
| Listserv  | 8                   | 17.8     | 5                      | 11.1     | 6                     | 13.3     | 15                 | 33.3     | 11                 | 24.4     |
| Wiki      | 7                   | 15.6     | 7                      | 15.6     | 11                    | 24.4     | 11                 | 24.4     | 9                  | 20.0     |
| Chat Room | 6                   | 13.3     | 2                      | 4.4      | 11                    | 24.4     | 15                 | 33.3     | 11                 | 24.4     |
| IM        | 6                   | 13.3     | 4                      | 8.9      | 6                     | 13.3     | 17                 | 37.8     | 12                 | 26.7     |

*Effect on Students' Motivation to Write.* Motivation is closely connected with opportunity. What prompts one to engage with opportunity, and how is that engagement expressed? In Question 7, the survey focused on three indicators of motivation noted in the literature: inherent interest in an activity, a sense of relatedness to the environment, and a sense of competence for the task. As the summary in Table 5 (N = 45) shows, when respondents were asked the degree to which they perceived elements as motivating to typical students, nearly 78% indicated that the novelty of publishing their work via the computer was greatly or moderately motivating, although more than 55% also reported that students routinely needed to be reminded to meet the class requirement for posting, an apparent contradiction that underscores the vagaries of motivation. Students commonly ask their readers to provide feedback, and freely respond to other students' posts without being prompted to do so. These data allude both to the networking capabilities of blogs, and to students' sense of belonging in the blog environment.

A question that probed students' investment in blogging is the degree to which students exhibit a sense of ownership of the blog, that is, a sense of personal identification with the blog. More than three-fourths of respondents indicated that their students show such ownership from moderate to great degrees. The positive responses to two earlier questions provide insight into the connection students feel with blogging: in Question 3, 40% of teachers said that they regard the class blog primarily as writing space for students, although 48.9% responded in the negative. In Question 4, more than 73% reported that students were free to initiate topics on the blog rather than being limited to prompts provided by the teacher. The elements of relatedness and freedom of

choice probed in these questions figure prominently in discussions of the nature of intrinsic motivation.

Table 5. Indicators of Motivation

|                  | <b>Great Degree</b> |          | <b>Moderate Degree</b> |          | <b>Limited Degree</b> |          | <b>Little/None</b> |          | <b>No Response</b> |          |
|------------------|---------------------|----------|------------------------|----------|-----------------------|----------|--------------------|----------|--------------------|----------|
|                  | <b>N</b>            | <b>%</b> | <b>N</b>               | <b>%</b> | <b>N</b>              | <b>%</b> | <b>N</b>           | <b>%</b> | <b>N</b>           | <b>%</b> |
| Novelty          | 18                  | 40       | 17                     | 37.8     | 6                     | 13.3     | 2                  | 4.4      | 2                  | 4.4      |
| Reminder to Post | 8                   | 17.8     | 17                     | 37.8     | 10                    | 22.2     | 6                  | 13.3     | 4                  | 8.9      |
| Request Feedback | 9                   | 20       | 19                     | 42.2     | 10                    | 22.2     | 3                  | 6.7      | 4                  | 8.9      |
| Give Feedback    | 6                   | 13.3     | 19                     | 42.2     | 13                    | 28.9     | 3                  | 6.7      | 4                  | 8.9      |
| Ownership        | 14                  | 31.1     | 21                     | 46.7     | 7                     | 15.6     | 1                  | 2.2      | 2                  | 4.4      |

*Effect on Students' Writing Skills.* Questions 6 and 8 of the survey addressed teachers' perceptions of the effect blogging may have on students' writing skills. The data elicited by other questions in the survey confirm that blogging differs from traditional writing assignments in the main regard that there is less direct instruction. Students have considerable freedom to choose their topics and modes of writing, in addition to responding to prompts provided by the teachers. Teachers use a lighter hand in evaluating student work, and both students and teachers tend to regard blogging as rehearsal rather than performance space for writing.

Question 6 explored how teachers perceived their students' use of blogs, though the specific elements queried do not actually exist in isolation from each other. Table 6

(N = 45) summarizes the responses. Whether students used blogging to continue a discussion topic outside of class or to pursue other reasons for writing, all the elements specified in the question drew positive responses. Fifty-five percent of respondents reported that from moderate to great degrees students used the space for description of personal experience, and 75% that students felt free to express their opinions. Further, 75.6% of teachers perceived that rather than remaining at the reportorial level of writing, or just telling what they know about a topic, students revealed reflective thinking in their blog posts. Sixty percent of teachers indicated that their students synthesized their thinking with that of other students, an additional marker of the higher level thinking that can be prompted by blogging, which closely interlaces reading and writing. Multimedia elements such as graphics, links to Websites, video, or podcasting are lesser though still common features of students' blog posts. Forty percent of teachers reported their students included such enriching elements with their writing. Whether class blogs have access to the Internet, as well as whether teachers either encourage or require such elements are factors that may affect their inclusion.



Table 6: How Students Use Blogs

|                     | <b>Great Degree</b> |          | <b>Moderate Degree</b> |          | <b>Limited Degree</b> |          | <b>Little/None</b> |          | <b>No Response</b> |          |
|---------------------|---------------------|----------|------------------------|----------|-----------------------|----------|--------------------|----------|--------------------|----------|
|                     | <b>N</b>            | <b>%</b> | <b>N</b>               | <b>%</b> | <b>N</b>              | <b>%</b> | <b>N</b>           | <b>%</b> | <b>N</b>           | <b>%</b> |
| Personal Experience | 5                   | 11.1     | 20                     | 44.4     | 11                    | 24.4     | 5                  | 11.1     | 4                  | 8.9      |
| Express Opinions    | 19                  | 42.2     | 15                     | 33.3     | 8                     | 17.8     | 1                  | 2.2      | 2                  | 4.4      |
| Reflection          | 16                  | 35.6     | 18                     | 40.0     | 6                     | 13.3     | 3                  | 6.7      | 2                  | 4.4      |
| Synthesis           | 14                  | 31.1     | 13                     | 28.9     | 10                    | 22.2     | 6                  | 13.3     | 2                  | 4.4      |
| Discussion          | 16                  | 35.6     | 13                     | 28.9     | 7                     | 15.6     | 6                  | 13.3     | 3                  | 6.7      |
| Multimedia          | 9                   | 20.0     | 9                      | 20.0     | 10                    | 22.2     | 13                 | 28.9     | 4                  | 8.9      |

Question 8, which focused on elements specific to the quality of writing, also drew high positives. Table 7 (N = 45) summarizes these data. The general standards for effective writing include both content and the architecture of expression. Content should be more complex than banal generalities and statements of the obvious. Expression should be characterized by deliberate structure, sufficient and relevant detail, and a degree of linguistic fluency appropriate to the subject, as well as adherence to standards of grammar and usage.

The data indicate that teachers perceived the characteristics of effective writing in students' blog posts from moderate to great degrees. More than 70% of teachers reported recognizing evidence of care in their students' writing, alluding to the willingness of students to edit and correct their work. Sixty-seven percent of teachers saw student posts as structured and organized, nearly 78% as specific in focus, and 60% as detailed. Teachers also perceived a distinct level of fluency in students' writing: nearly 67%

affirmed this element. These data imply that blogging has a positive effect on students' achievement in writing in this environment, whether they are going through stages of planning, drafting, and revision spontaneously, caught up in the moment of what they are saying, or whether they are aware of writing as a sequential process. Teaching writing as a process is the approach favored by NCTE and is practiced by the majority of contemporary English teachers (Hillocks, 2002; NCTE, 2004).

Table 7. Effect of Blogging on Students' Writing Abilities

|                            | <b>Great Degree</b> |          | <b>Moderate Degree</b> |          | <b>Limited Degree</b> |          | <b>Little/None</b> |          | <b>No Response</b> |          |
|----------------------------|---------------------|----------|------------------------|----------|-----------------------|----------|--------------------|----------|--------------------|----------|
|                            | <b>N</b>            | <b>%</b> | <b>N</b>               | <b>%</b> | <b>N</b>              | <b>%</b> | <b>N</b>           | <b>%</b> | <b>N</b>           | <b>%</b> |
| Care with writing          | 6                   | 13.3     | 26                     | 57.8     | 7                     | 15.6     | 4                  | 8.9      | 2                  | 4.4      |
| Specific focus             | 13                  | 28.9     | 22                     | 48.9     | 8                     | 17.8     | 0                  | 0.0      | 2                  | 4.4      |
| Structure and organization | 7                   | 15.6     | 23                     | 51.1     | 12                    | 26.7     | 1                  | 2.2      | 2                  | 4.4      |
| Effective detail           | 10                  | 22.2     | 17                     | 37.8     | 12                    | 26.7     | 3                  | 6.7      | 3                  | 6.7      |
| Fluency                    | 13                  | 28.9     | 17                     | 37.8     | 11                    | 24.4     | 2                  | 4.4      | 2                  | 4.4      |

*Anecdotal Data: Benefits and Drawbacks of Blogs.* The survey included two open-ended questions that invited anecdotal data regarding the use of blogs. The first asked respondents what they considered the principal benefits of using blogs; the second what they considered the principal drawbacks. Forty-one respondents wrote comments.

Thirty-four provided 46 comments for the first question regarding benefits, and 31 teachers provided 32 comments for the second regarding drawbacks. The author analyzed the text data to identify common patterns by discerning clusters of words such as “motivation” and “controlling content” contained in multiple messages and determining how frequently each cluster occurred. Synonymous language was identified and sorted with relevant clusters. Clusters were then placed into seven categories. The categories and number of comments for each are listed in Table 8. Four categories contained both benefits and drawbacks: (a) student attitudes, (b) student benefits, (c) blog environment, and (d) technology role.

Teachers who had used blogs with their students for one year accounted for 39.1% of the 46 positive comments and 43.8% of the 32 negative; those who had used blogs for two years accounted for 30.4% of the positive and 31.3% of the negative; teachers who had used blogs for three or more years accounted for 30.4% of the positive and 25% of the negative. Differences by number of years of instructional blogging and type of comment, positive or negative, were not statistically significant: Pearson Chi-Square ( $N = 78$ ) = 30,  $p = .86$ .

Table 8. Summary of Anecdotal Data, Web Survey

| <b>Categories</b> | <b>Benefits</b>  |    | <b>Drawbacks</b>  |    |
|-------------------|--|----|---|----|
| Student attitudes | Increased motivation to write, ownership of writing space.                             | 8  | Reluctance to participate, have work on public view.  | 5  |
| Student benefits  | Improved learning: participation by all, collaboration, authentic feedback.            | 17 | Distraction from traditional learning.  | 1  |
| Teacher role      | Improved teaching: better communication with students, flexible purposes for blogging. | 10 |   | 0  |
| Blog environment  | Authentic, safe writing space.   | 8  | Difficult to teach blog use; teacher inexperience with blogging.  | 3  |
| Time requirements |  | 0  | Class setup; administrative tasks; need for teacher oversight to control content.   | 8  |
| Technology issues | Students' anytime access, ease of use.   | 3  | Access to Internet, and to computers during class; student access to computers outside of class; need to protect student passwords. | 11 |
| Policy issues     |  | 0  | School restrictions; community resistance.  | 4  |

Text comments by teachers who have used blogs with their students from one to more than three years provide evidence that blogging is a positive resource for teaching writing, enhancing both teaching and learning. Comments that specify the benefits of

using blogs included these (shown as written; the complete list of comments is in Appendix H):

- 1 The act of blogging seems to spark the students' creativity and open them up to being more willing to write.
- 2 Blogs provide an autonomous way for students to communicate and express themselves without the guidelines and structures often in place through traditional writing assignments.
- 3 Blogs motivate all students to participate and become involved not only the more vocal or outspoken students. [They] draw a larger percentage of the class into the overall participation and expression.
4. Audience is expanded for the student and the student receives a variety of feedback.
- 5 Makes teaching and learning more interactive.
- 6 They act and they understand—participative method of learning.

Teachers identified time and technology issues as the principle problems with weblogs. Class time is required to teach the blogging process, to get students logged in and working. Teacher time is required to read blog posts, monitor content, and deal with password problems and school policies related to blogging activity and Internet access. Technical problems include lack of access to the Internet for various reasons; lack of access to the school's computer system; difficulties with hardware or with blogging software; insufficient numbers of computers for students during class; and lack of access

to computers for students outside of class. Comments that specify the drawbacks of using blogs included these:

- 1 The drawbacks of blogging include extra time required to teach, and controlling content.
- 2 Technology is not always dependable or available.
- 3 Unless you are at a computer you can't participate.
- 4 Limited / unequal acceptance by students.
- 5 All the blocks in school regulations.
- 6 The amount of time required by the instructor to read all of the blogs.

### **Telephone Interviews**

#### *Methodology*

Between mid-January and early May, e-mail requests for telephone interviews were sent to 11 teachers who had been identified as using blogs in their teaching practice. Six completed the informed consent protocol and were interviewed between February 22, 2007 and May 14, 2007. The subjects are identified in the narrative as S, W, P, H, O, and R. One is a professional acquaintance of the author; another discussed his use of blogs on the NWP Netheads listserv and agreed to be interviewed; the other four are classroom teachers as well as technology liaisons and leaders in NWP centers in four states. The interviews were carried out via telephone, at times and on dates selected by the participants.

A semi-structured interview schedule was used (see Appendix B). It consisted of six open-ended questions that invited both explanations of procedures and observations,

and three short-answer demographic questions. Interviews were anticipated to require about 15 minutes, although the subjects were invited to take whatever time they wished in providing their answers. The shortest lasted for 30 minutes; the longest nearly an hour. The author occasionally made comments or asked follow-up questions to clarify information. Detailed handwritten notes were taken as the conversations proceeded (see Appendix I).

The order of questions followed the pattern of the Web survey: information about the subject's organization and management of the blog, about student responses, about instructional uses of other interactive technologies, and brief demographic information about the subject. The anecdotal information provided by each subject for each question was organized and coded to enable analysis.

### *Findings*

The six subjects interviewed teach high school English classes in urban, suburban, and small town environments. Their students' opportunities for engagement with current interactive computer technologies ranged from full access both in school and out to limited, school-only access. At one end of the spectrum were 12<sup>th</sup> grade students in AP classes, attending high schools in the stable economic and social environments typical of suburbia. At the other end were 9<sup>th</sup> through 12<sup>th</sup> grade students in the clamorous urban environments described as "disadvantaged." Between the two were students in the same grade range, some in AP and honors-level classes and others not. The six subjects are all experienced English teachers. One has been teaching for 24 years, another for 23, two for 10 years, and one for 5. The mean is 13.8 years. Two of the subjects began blogging with

students four years ago, another three. One subject started blogs in his class two years ago, and the final two started in the 2006-2007 school year.

All of the subjects reported that students with an affinity for writing engage willingly and even enthusiastically in blogging. Students who are reluctant to write, or who have difficulty expressing themselves in writing, may find strategies for writing blog posts and comments that serve them well enough to meet the basic requirements for the class, may engage minimally, or may demonstrate the same kind of reluctance they do with pen and paper. The consensus is that for students who make the effort, blogging supports improvement in various aspects of student writing depending on a variety of factors, but commonly in one general area: the amount of writing students do both in individual posts and in the aggregate. H said that length in individual posts is never a problem; P observed that students “do tons more writing” than they typically do with traditional tools, and R reported that because they blog, during a semester his students typically write from 5 to 10 more substantive pieces than in English classes in his school that do not include blogging. Students who write longer pieces, and who write more frequently, have extended practice in developing fluency. Fluency is one measure of achievement in writing, although it is just one of several and not a finite indicator of achievement in itself.

*Teacher Preparation and Blog Management.* Only one of the six subjects had training with blogs before introducing them to his class. In 2005, R participated in an NWP summer institute that introduced blogging as an instructional resource, and then established blogs in all his classes the following fall. None of the other five subjects had



training in using blogs prior to trying them in their classes. S was introduced to blogs by a former student. With the student's aid he set up a modified blog for the school Website, and then another for his classes. Before starting his class blog, W was a Web designer who learned of blogs because he keeps abreast of changes in computer technology. D was knowledgeable about computers and learned intuitively. P began investigating blogs in 2000 at the suggestion of an NWP colleague, was further motivated after participating in an NWP gathering of technology teachers in 2002, and subsequently started experimenting with class blogging on a small scale. O was also a Web designer with a strong technology background, and became interested in educational blogging after meeting P at an NWP conference. The diffusion of innovations typically occurs over time in just this pattern of either direct or indirect communication of a new technique or process among people, early adopters, who share interests and expertise among themselves (Rogers, 2003).

All six subjects have their own blogs. P uses both personal blogs and vlogs, or video blogs, as space for discussion of educational issues with other teachers. R, S, and W maintain school blogs separate from the class blog as vehicles for combinations of their own writing, announcements and explanation of assignments, and activity calendars. H's blog, fully separate from his teaching, is a well-established public forum for commentary by H as well as several regular contributors on topical political and social issues. O has a blog, although it is not yet fully active. A recurrent theme in the literature about educational blogging, affirmed by R, is that it is helpful for teachers to themselves blog in order to have direct experience not only with the mechanics of blogging but with

the experience of posting to blogs as an act of public communication (Downes, 2004; Richardson, 2006a).

There are a number of similarities as well as some differences in how the six subjects use class blogs. Three of the subjects, S, W, and H, use a separate, static Website to provide specific instructions for students about the technical aspects of blogging, including how to register in the class blog, how to write and publish posts and comments, how to include links and graphics, and how to provide for their own safety and ethical conduct as bloggers. R provides similar instruction in class as part of the introduction to blogging. Rather than using individual class blogs, students of P, S, and O participate in the YouthVoices Elgg, a social networking space based on blogs. Students register, and then follow links to detailed, explicit instructions for posting, commenting, and incorporating graphics and podcasts in their blog posts. All six of the subjects provide students with a variety of writing prompts. W and H focus on subject matter related to issues or literary works being studied in class. R regularly culls NWP Websites as well as print resources for ideas for creative writing prompts, noting that well thought out prompts are essential to successful blogging for students. All six subjects reported that students who are comfortable with computer use easily acclimate to the blogging environment, although some students need additional time and help in order to catch on. O said that in his experience, students who have little to no outside experience with computers may even be resistant or feel overwhelmed by technology that is not part of their culture outside of school.

The six subjects devote class time to blogging in different ways. P's classroom is the school computer lab, enabling students to engage with technology on the four days a

week the class meets. S and O rely on the accessibility of their school's computer cart (teachers must schedule for laptop computers brought to class via cart). H begins the school year in the computer lab but after two weeks expects students to carry out their blogging in the computer lab before or after school or at home. He observed that accessibility has not been an issue. W also begins in the computer lab and within weeks moves to blogging as a homework exercise for which students either use the computer lab or have access to computers outside of school. R primes students for blogging with periodic 20-minute in-class free writing which students then finish as blog posts either in the school's computer lab or with computers they access outside of school.

Both H and R preview student posts prior to their being published and require that writing that is seriously deficient in grammar or language use be edited and corrected before it can be posted. Both push the perspective that students must take ownership of their work by recognizing that blogging is a public voice, and that to represent themselves well students must maintain a standard of quality in their writing. The other four subjects do not preview posts. Instead they provide private follow-up with students whose work exhibits problems. Both S and P encourage students to draft posts longer than a few sentences on Google Docs, where they can collaborate with other students as well as with the teacher, and then post their writing to the blog.

With regard to trying other interactive technologies than blogs for writing instruction, S, H, and R have not done so. W uses e-mail to communicate with individual students about assignments, but has not used it otherwise. Before blogging was available, P tried listservs with students, and has experimented with Flash and Flickr as vehicles for communication, but sees the individual, interactive, and networking capabilities of

blogging to be the most useful for writing practice. O said that some students, particularly those who have little access to computers other than at school, seem “overwhelmed” by the processes of blogging. Since December, the students in his classes all have membership in the YouthVoices Elgg, but several months later, only two students have posted brief introductory information. O does use an interactive poetry-writing Website on which students make poetry by filling in blanks in partially worded lines structured as free verse, which engages them in word play and vocabulary building as they produce a finished piece, an accomplishment that is an important part of the experience. He also plans to try using e-mail, with which students are familiar, as a tool for writing instruction. He will have students write letters to a specified e-mail address, an e-mail account he establishes for the exercise, for such authentic purposes as ordering a product or requesting information.

*Feedback and Assessment.* Only R assesses students’ posts as he does traditional writing assignments. Students are required to write a minimum of five worthwhile blog posts per semester in addition to commenting on the posts of other students. Grades are counted as extra credit. S, W, H, P, and O set a requirement for the number and quality of posts and comments to other students’ posts for periods of time counted in weeks; students earn credit for meeting that requirement. For S, W, P, and H quality is assessed holistically, and refers to writing skill and also to whether the post is substantive and relevant to the interests of the class. None of the four grade blog posts in the traditional manner. Instead, their goal is for students to practice writing, to have the opportunity to develop fluency, and to experiment with the multimedia and networking capabilities of

blogs. S, W, H, P, and O reserve traditional, summative grading and individual writing instruction for off-blog assignments. Of the six subjects, only O participates in blogging with students, providing consistent individual support as well as occasional edits. H commented, and O concurred, that “ability is a legitimate issue,” and that care must be taken not to discourage those with lesser skills. W observed that blogging gives students the opportunity to write without being criticized, which students appreciate. The practices of all six subjects are aligned with Elbow’s (2000) principles that teaching writing includes giving students choices of what to write about, providing frequent opportunities to write, and allowing students to write without the constant prospect of being critiqued and graded by the teacher.

Additional sources of feedback for student writers are the comments posted by readers of their blogs, as well as self-evaluation. The students in H’s class are required to comment on the blog posts of two classmates each week, in addition to contributing a worthy post of their own; students in P’s class write five comments per week in addition to an individual post. R requires students to write a minimum of three responses to classmates’ blogs during a semester using both criterion-based feedback, for which R prepares students through class discussion and demonstration, and the natural feedback of interested readers. W observed that students anticipate comments to their blog posts, and feel slighted if they don’t draw responses. Students in P’s class who blog on the YouthVoices Elgg also periodically write self- assessments, titled “How Am I Doing?” posts, after accessing a summary listing of all their own blogging activity—their own posts as well as all the comments they have written for others—so they can see a

complete portfolio of their work and their interaction with other students during the several preceding weeks.

*Effects of Blogging on Students: Motivation.* Primary indicators of motivation are the energy, persistence, and focus an individual invests in an activity (Dörnyei, 2000; Ryan & Deci, 2000). The most effective motivation is intrinsic, triggered by activities that are appealing in some way, that embody choice and the opportunity for self-direction, and that enhance a sense of relatedness with the social environment. S and P used terms like “stand out,” “blossom,” and “catch fire” to describe the full engagement with blogging and increasing levels of accomplishment of some students who are already skilled writers. S described one student who has aspirations of becoming a writer who struggled with pen and paper, reluctant to create what he called “scars” on the page by erasing or crossing out something he had already written. For this student, the ease of revision in the electronic milieu is qualitatively different. His lengthy and fluent writing for blog posts shows the positive effects of his greater comfort level in a medium in which errors can be made to disappear without leaving traces of eraser marks behind. R and S reported that students generally like blogging, and that the feedback they receive in comments spur many to go beyond the minimums for participation. P said that students who struggle with writing improve in varying degrees. After trying a poetry unit for the first time in the context of blogging, P found that students posted their own poems voluntarily and also responded to classmates’ poems, with poetry. P pointed out that for many adolescents, high school is valued as a social environment, and blogging is a means

of contributing to socializing. Answering writing in kind suggests a level of social comfort.

All six subjects agreed that blogging is not universally embraced. W reported that students were less enthused than he had hoped they would be about blogging, preferring to write with paper and pen, even questioning why they were made to blog when “no other teachers are doing this,” and suggesting that blogging was an unwelcome intrusion by the teacher and school on their ownership of the varieties of electronic communication. S and H observed that blogging drew different reactions from students, noting that some were not comfortable using computers, and that while better students are clearly self-motivated and work at a higher level, some others fulfill the requirements set for them just for the credits, an indication of the low efficacy of extrinsic motivation (Ryan & Deci, 2000). O said his students, who generally have difficulty with school and have little contact with computers outside of school, are more interested in the novelty of “Wednesday computer day” and the opportunity to get on the Internet than they are in writing blog posts. They regard blogging as “corny” or “boring,” and are reluctant to just choose a topic and write without patient coaxing by the teacher, who helps them find a strategy for writing, often by sitting with them individually and having them explain what they are thinking about, just as Collins (1998) described.

S, P, H, and R observed that the interactive nature of blogging, and the reciprocal roles of writer and reader, can arouse in students a sense of participating in a community of writers. Even reluctant participants are intrigued by comments by students in other classes or other schools, by adults, and especially by readers in other geographic locations. Rather than being just someone typing on a computer keyboard, they suddenly

find they have readers outside their immediate environment who are interested enough to ask questions, provoke a debate, share experiences, or express appreciation for something they have written. P pointed out that the Elgg platform is designed to facilitate this kind of broad based networking and collaboration.

While enthusiasm for blogging and engagement with self-selected activities sustains interest at a particular level, it does require time and effort that adolescents may eventually find wearing. H, who uses individual, Internet accessible class blogs, noted that by the middle of the second semester, some students have grown tired of blogging, and even the stronger students fulfill the requirements but no longer go beyond what they are asked to do. Thus he makes blogging an optional, extra-credit activity for the fourth quarter of the school year. Students in P's class show a similar diminution of interest in the later months of the spring semester. As well, there are familiar, periodic fluctuations in levels of students' involvement in school generally related to the rhythms of the school year. Observation of students' blog posts revealed less effort manifested just prior to signal events such winter or spring holidays, or the end of a semester.

*Effects of Blogging on Students: Quality of Writing.* H repeated several times during the interview that writing is a very difficult creative and intellectual process, whatever the purpose or context. To write well, students "must really be motivated"; students who are enthusiastic about blogging do become "pretty fluent, [and] infuse their writing with personality." However, "students who struggle keep on struggling" in writing for the class blog, and there is no single or simple answer to alleviating either that struggle or the difficulty of writing itself. R, S, W, and P generally concur. S explained



that he had not observed enough of his students' work on the blog to draw definitive conclusions, though he noted that students easily switch from the casual linguistic forms of Netspeak they use extensively for text messaging and use standard English for blog posts. W reported that it is hard to tell whether his students' writing had been affected by blogging, since he didn't know what they were doing prior to coming to his class.

However, what he had seen suggested some changes in personal expression, though not particularly in analytic, academic writing. In that personal writing, students appeared to be using more sources, links, and graphics, with the more computer savvy students teaching other students how to incorporate those elements in their posts. W sees blogging as a "gateway to broader uses" than just writing practice. P, who led the way in the design of the YouthVoices Elgg, pushes writing as one part, though a central part, of collaborative, networked communication that includes podcasting, linking and graphics, and video. For P, the motivating factor for blogging with students is a quest to make writing, and more broadly communication, meaningful, to make it an outlet for ideas, issues, and experiences that students feel "passionate" about. Table 9 summarizes the interviews with the six subjects.

Table 9: Summary of Data for Telephone Interviews, Sections A-E

| <b>Section A: Teacher Preparation and Blog Management</b>     |   |
|---|---|
| 1 Personal blog   | Six (one is only minimally active)  |
| 2 Training prior to introducing blogging in teaching practice | <ul style="list-style-type: none"> <li>• One, through NWP summer institute</li> <li>• Five explored on their own after learning about blogging from various sources.</li> </ul> |

|   |  |   |
|---|--|---|
| 3 | Instruction for students in use of blogging software and standards for participation | Six   |
| 4 | Class time for blogging  | <ul style="list-style-type: none"> <li>• One daily (class meets in computer lab).</li> <li>• Two regularly schedule “computer cart” during class time (laptops brought to classroom).</li> <li>• Three use computer lab for orientation, then students find own computer access.</li> </ul> |
| 5 | Review of posts prior to publishing  | Four do not preview; two do.  |
| 6 | Participation requirement  | Six   |
| 7 | Assessment: Credit just for meeting requirement                                      | Three   |
| 8 | Assessment: Grades for posts   | Five: four use holistic grades, one uses traditional summative grades.  |

### **Section B: Student Responses to Blogging**

|   |          |   |
|---|----------|---|
| 1 | Positive | <ul style="list-style-type: none"> <li>• Some students stand out, “blossom,” “catch fire,” “write tons more,” are “very much motivated.”</li> <li>• Students generally like blogging.</li> <li>• Feedback from the outside world is motivating.</li> <li>• Students exhibit a sense of community, ownership of the blogging space, choice: they talk to, help, support each other.</li> </ul> |
|---|----------|---|

|            |   |
|------------|---|
| 2 Negative | <ul style="list-style-type: none"> <li>• Students with little outside access to computers are “overwhelmed” by technology of blogging, think it “corny,” are more interested in the novelty of something different to do than in writing to publish.</li> <li>• Some students dislike blogging, prefer pen and paper.</li> <li>• Some students are reluctant: “no other classes are doing this.”</li> <li>• Some students are reluctant, have little familiarity with computers and lack confidence.</li> <li>• Some students are reluctant, uncomfortable with the exposure of publishing their work.</li> <li>• Some students grow tired of blogging after extended periods of time.</li> </ul> |
|------------|---|

### Section C: Effects on Students’ Writing Skills

|            |  |
|------------|--|
| 1 Positive | <ul style="list-style-type: none"> <li>• Students write more: “Students write 5 to 10 more substantive pieces than in other English classes”; “length is never a problem.”</li> <li>• Enthusiastic students can become “pretty fluent, infuse writing with personality.”</li> <li>• Students experiment with poetry; post poetry written outside of school.</li> <li>• Students shift easily from Netspeak to standard English.</li> </ul> |
| 2 Neutral  | <ul style="list-style-type: none"> <li>• Hasn’t observed enough blog writing to draw conclusions about changes in</li> </ul>   |

|            |  |
|------------|--|
|            | <p>writing skills.</p> <ul style="list-style-type: none"> <li>• Difficult to assess change; didn't know students prior to this school year.</li> <li>• Students must be really motivated for change to occur, just as in traditional writing.</li> <li>• Students can improve if they try, including struggling students.</li> </ul> |
| 3 Negative | <ul style="list-style-type: none"> <li>• "Writing is <i>very hard</i>, regardless."</li> <li>• Struggling students continue to struggle.</li> <li>• Blogs are "too ambiguous" for students with little computer experience and access.</li> </ul>  |

#### **Section D: Use of Other Interactive Computer Technologies**

|   |   |
|---|---|
| Use of e-mail, IM, listservs, wikis, chatrooms for writing instruction. | <ul style="list-style-type: none"> <li>• One tried listservs prior to availability of blogs.</li> <li>• One plans to try e-mail for letter and memo writing practice.</li> <li>• Two are exploring wikis, have not implemented them in classes.</li> <li>• One pairs students on Google Docs for collaborative writing; products are posted on class blog.</li> </ul> |
|---|---|

#### **Section E: Demographic Information**

|                              |  |
|------------------------------|--|
| 1 Classes that use blogging. | Grades 9 through 12: includes AP, honors level, average level, remedial. |
|------------------------------|--|

|   |                          |
|---|--------------------------|
| 2 Teachers' years of service.                                     | 5 through 24; mean 13.8. |
| 3 Years of experience using blogs, including current school year. | 1 to 4 years.            |

### **Class Observation: Case Study**

The ethnographic case study of students' participation in class blogging was carried out on the YouthVoices Elgg at <http://www.youthvoices.net>. The author was directed to YouthVoices by one of the founding teachers. As the survey confirmed, the most common pattern for educational blogs is a single class identity, with participation by the teacher and the students of the class and the potential for comments from outsiders, if the blog is not closed by password-only access. An Elgg is a recently developed variation of blogging. It is an open source social networking platform that enables the full capabilities of blogging by multiple groups of participants, as well as various ways of filtering of blog posts. Posts may be filtered as the individual blogs of all members; classes as well as members with mutual interests may be filtered as "communities"; posts may be filtered for those with comments or without. All members of the Elgg are networked through "friends" lists, unless an individual chooses not to have such a list. As an alternative to filtering for a specific marker such as a special interest, the reader can access the blog of any member, then of anyone listed on that member's friends list, and then can continue networking from list to list. See <http://Elgg.org/index.php> for additional information about the Elgg platform.

The YouthVoices Elgg was organized in mid-2006 by three teachers active in NWP initiatives; students in their classes were the first members. In February 2007, all of

the teachers using YouthVoices were from five NWP locations in the U.S. Currently, the student participation in YouthVoices is international, with approximately 950 registered members. YouthVoices requires membership for posting, and is fully accessible on the Internet. YouthVoices participants are encouraged to provide Internet links, graphics, video, and podcasts with their posts. The goals for this Elgg are to provide students in member high schools with public space to write, and to give them the latitude to express themselves on topics and in modes they choose. Students are encouraged to experiment with multimedia, and to participate in communication networks with like-minded people in their own schools and elsewhere.

### *Methodology*

The two boys and two girls and selected for the observation were 10<sup>th</sup> graders in a small, academically oriented, co-ed 7-12 school in New York City. The student population is approximately 90% Black and Hispanic, 10% White and Asian. There were twenty-one students in the elective, computer-based writing class. The subjects, coded Ari, Bay, Cam, and Del, participated in the YouthVoices Elgg consistently from the beginning of the school year in September through the final week of the observation in early April. Informed consent was not deemed necessary for the observation: the instructions for student participation specify that students are to enable Internet access when they register on the site. Because their work was openly available on the Internet and was thus in the public domain, both students and their teachers had a reasonable expectation that anyone who accessed the Website could read what was posted on it.

The observation was conducted over approximately nine weeks, constituting 25% of the school year. Nine writing samples were collected for each of the subjects, the first four posted to YouthVoices at the beginning of the school year in September and October, and the other five posted consecutively the weeks preceding and immediately following spring break at the end of March.

Each sample for each of the subjects was printed, including all comments. The nine writing samples collected for each subject are referred to in the discussion of findings as the subject's portfolio of samples. A brief, itemized three-part schedule (see Appendix C) was used to focus on specific factors of language use, structure, and content in each sample. Studies by Hillocks (2002) and Patthey-Chavez et al. (2004) found that teachers give far more attention to surface-level feedback than to matters of content, even when they think they are providing feedback on content. In order to avoid overly valuing surface errors, factors such as spelling, grammar, usage, and punctuation were treated as a single element of language use. The elements in each of the three parts were rated on a Likert scale of High, Middle, and Low scored at 3, 2, and 1. High represents noteworthy or distinctive; Middle represents ordinary or average, and Low represents poor or flawed. An element not relevant for a given post is identified as N/A (Not Applicable), and rated 0.

Before being rated, the samples were read multiple times in order to recognize the structure, language use, and writer's voice in each of them. After all the samples were rated, they were all read again to check for consistency and to select paradigmatic passages from the first, fifth, and ninth sample in each portfolio. Scores for the elements rated in the samples were totaled and plotted on graphs, revealing trend lines across the

nine posts in each portfolio. The selected passages and graph are included with the discussion of findings for each of the subjects.

### *Findings*

Analysis of the writing samples in the portfolios of the four subjects reveals that the majority of posts are expressions of interests, or are reflections on experience in school, in social relationships, and with family and friends, as well as on aspirations both met and unmet. The broadly inclusive nature of the Elgg platform as well as the general guidelines for posting formulated by the teachers who designed this Elgg favor personal writing in modes of the students' choosing. Suggestions are to write about such subjects as familiar places and activities, or their perspectives on abstract social issues. Other suggestions are to find an interesting image or picture, or an interesting "snippet" of information to use as a writing prompt. The suggestions are intended to be broad enough to serve as springboards for virtually any interests students may have, although young writers can also easily be overwhelmed by too much unfocused choice and be left with the feeling that they cannot think of anything to write about, an expression of loss of control of the situation and diminution of motivation (Martens, Gulikers, & Bastiaens, 2004). The students in the observation wrote in all three of the primary prose modes, narrative, exposition, and argument, as well as poetry. They were also required to comment regularly on the blog posts of other students, and to include quotes or specific references to the posts on which they were commenting—a way of encouraging substantive comments.

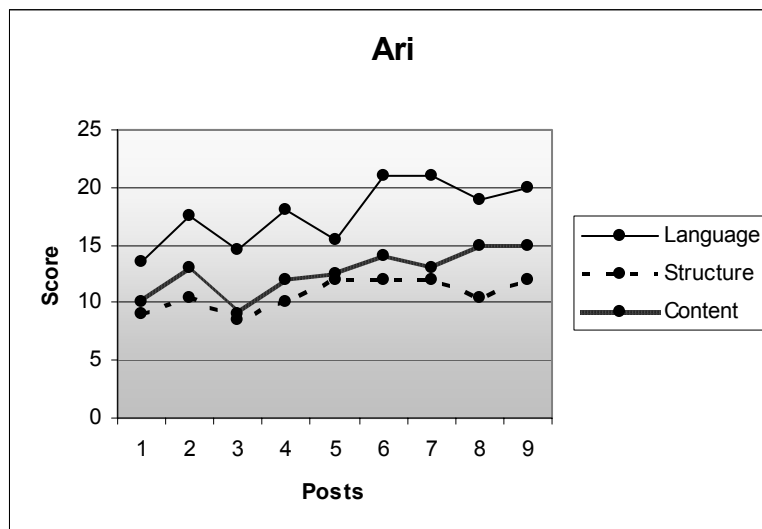


In contrast to the Elgg, the more common format for high school students is a blog in a particular school and class. The teacher provides guidelines that direct students' attention to specific class activities, or to issues or themes in the class curriculum. Students typically are given several choices of topics, modes, and genres for writing. If the blog is open access, classmates but also readers from outside the class may write comments to posts. If the blog is closed, students network among themselves and with others who have password access, for example students in another class that is collaborating with theirs. That narrower focus of both subject matter for writing and blog management is not feasible in the much larger, multi-school context of an Elgg, although students are likely to include some of their own classmates in their "friends" lists, and students from different schools tend to gravitate to and network with students whose posts reflect their interests.

Blogging is an interactive technology, so posts provide for comments by readers unless the feature has been disabled by the owner of the blog. The comments range from a sentence or two to fully developed paragraph or multi-paragraph discussions that may be specifically detailed, thoughtful, and well-organized. This interactivity speaks to two additional values of blogging. The reader has the opportunity to think and then compose a focused comment, and the comment sets networked communication in motion: the first post is extended by a reader who writes a response that may draw its own response from the original poster or from another reader or readers. The exchange continues as long as the participants wish it to (see Figure 3, Model of a Typical Blog Post).

**Subject: Ari.** In her profile, Ari described herself as open minded, inquisitive, persistent in following her goals, and aware that her writing reveals something of herself. The nine posts in this portfolio of samples include the three prose modes and free verse. Two of the posts are subjective narratives, descriptions of personal experience at school and at a party she attended. One of the three expository posts is an objective analysis of an external topic, an interpretation of the story represented in a picture. The other two are subjective analyses of personal issues, the stress caused by school and the difficulties of personal relationships. The argument posts are very different from each other, the earlier one a brief (about 110 words) expression of dismay, more an outburst than a reasoned argument, at the school's imposition of Web security blocking access to selected Websites. The other is a detailed discussion of about 800 words laced with reflective observations about social diversity, which Ari identifies as a principal source of social unrest. All three of the free verse poems in the portfolio of samples are autobiographical, studies of the contradictions between what things seem to be and what they actually are. The first two poems are independent pieces. The third prefaces a lengthy expository essay that elucidates the themes in the poem.

The trend lines for this subject's posts (see Figure 6) show a gradually increasing level of accomplishment. Ari is the only one of the four subjects whose writing appeared to improve in language use, structure, and quality of content over the time of the observation.



**Figure 6:** Trends in language use, structure, and quality of content of Ari's nine blog posts. The first four were in September and October of 2006; the last five in March and April of 2007. On the scale, the top score for language is 21; for structure 12, and for content 15.

The first, fifth, and ninth posts illuminate the changes that emerged in Ari's writing. The first post is a brief, single-paragraph narrative describing her wish that the school day would end because she is not feeling well. The paragraph is nearly free of surface errors; vocabulary is appropriate to the subject; sentence patterns are varied. The piece is loosely constructed, with no real beginning or end. The focus alternates between how she feels and how many hours must pass before she can go home. Altogether, the writing is adequate though unremarkable. A sample:

I should've taken some [aspirin], then I wouldn't be feeling as ill as I do right as this second. I keep thinking how many more hours in school. Regularly counting now I would only need three more hours for school to be over but . . . I need to go after school [remain at school after dismissal] so I probably will be leaving here from five to six in the afternoon. That means five to six more hours in school.

The fifth post is a five-paragraph expository essay of about 375 words in five paragraphs that describes the stress Ari feels in her school environment. The essay as a

whole lacks the cohesiveness of logical, progressive argument, although all the paragraphs are within the context of her personal discomfort with what she perceives as an overly demanding school environment. Surface errors and weaknesses in sentence construction suggest either a lack of or else ineffective proofreading and editing. Individual paragraphs begin with topic sentences and are internally coherent, with one exception, the fourth paragraph that begins “This school drives me crazy,” and turns midway to indirectly addressing the reader, saying that she doesn’t care whether the reader empathizes with her attitude or not. The first paragraph briefly explains that she has been working to improve her grades. At the beginning of the second paragraph, she expresses the real point of her essay, a theme that carries through to the end of the piece: “Right now I’m feeling so stressed out.” The third paragraph is representative of the quality of the writing in this post:

I feel like this school has too many high expectations of its student. We have a quiz, exhibition, or test give every weekend or every other day in four classes. It’s ridiculous. Teachers must know how stressed we get, having all these assignments all at the same time. I think they should be considerate about the time span or even the date in which they assignments in. Not everyone has that much time or that much help to even get an assignment that is due in two days or a week.

The last post in the portfolio of samples for this subject is an artfully constructed combination of poetry and a lengthy expository essay. The poem, which sets up the thesis for the entire post, explores the difficulty of coping with personal relationships that end badly. The first several sentences of the essay recognize the universality of the experience, saying “This happens to all of us.” Then Ari shifts to a personal perspective, saying “I find myself in this predicament at every stage of my life,” which sets the focus for the rest of the discussion. The six paragraphs of the essay are well developed

combinations of the writer's feelings and philosophic observations about the nature of relationships. Surface errors are moderate; sentence patterns are varied, though some, like the last sentence in this paragraph, could be more clearly phrased:

People drift away, that's a part of life. We lose interests in things we used to have in common. What hurts me about this particular situation is that if they were going to slowly walk away, they should have at least made an effort to make it seem that the relationship was okay or understood on both sides, not just on one. I mean for that, I might as well have this person just walk away from the relationship for good.

Every post in the sample portfolio of Ari's work drew from one to four or five comments from readers, several of them one- or two-sentence statements of agreement or appreciation for the sentiments in the post. But others were lengthier and more thoughtful. The fifth post drew these responses from two students at another high school:

I know how you feel being stressed out in school because of all the work we receive. My sister is in college and tells me all the time that working hard in high school will make college life so much easier. My school is a college prep high school and doesn't skimp on homework or work in general. I just hope it pays off and I feel prepared when I reach college.

[Signed] L at \_\_HS

I understand what you are going through too. We get way too much work. It's like we don't have a life outside of school. "I feel like this school has too many high expectations of its student." Schools do have high expectations, because they want to have a good reputation and bring in many new students. Overall, I think that it is meant to benefit us in a way, so that we are prepared for college. Good luck in school.

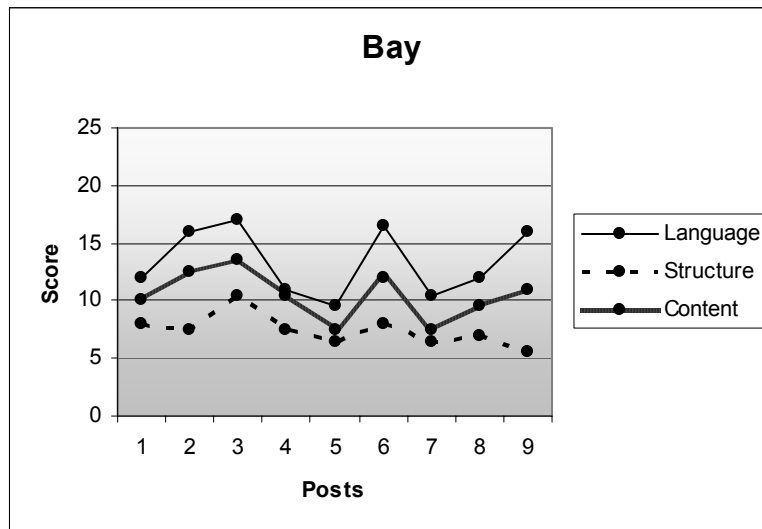
[Signed] R at \_\_HS

These two readers connect with the content of Ari's post, their natural feedback confirming that she has made herself understood. Further, they collaborate with her to extend the primary issue of personal stress by introducing the additional perspectives of the long-term value of working hard in high school and of the possible reasons that a school would maintain high academic standards. The second reader quotes a sentence

from the original post which creates the context for her observations, and also affirms her reading of the post as the prompt for the response.

*Subject: Bay.* Bay described himself as deeply connected to his family and his neighborhood, athletically inclined, and interested in football and computers. The nine posts in his portfolio of samples include narrative, exposition, and argument. Eight of the nine posts are subjective discussions of personal interests; the ninth is a persuasive essay that includes information from library resources in the manner of a term paper. The subjects of the eight personal posts included getting ready for school in the morning; his name; his fear of flying—two on that topic, the second a shortened version of the first; his birth date; possible college choices; a poem related to computers that he read and liked; and his being a fan of a particular baseball team.

The trend lines for the nine posts (see Figure 7) reveal some inconsistency in all three measures of interest, suggesting that the motivation to write at the best level one is capable of waxes or wanes not only with the topic, but from one writing event to the next. In addition to inconsistent focus and organization, a persistent characteristic of Bay's writing is unreliable mechanics, expressed as numerous surface errors as well as occasional problems with sentence construction.



**Figure 7:** Trends in language use, structure, and quality of content of Bay's nine blog posts. The first four were in September and October of 2006; the last five in March and April of 2007. On the scale, the top score for language is 21; for structure 12, and for content 15.

The first, fifth, and ninth posts illustrate the lack of congruity in Bay's writing.

The first, about 375 words in three paragraphs, begins with a detailed chronological narrative of his morning routine on school days. The second paragraph is a single sentence about people's reaction to the volume of his voice. The third paragraph describes the car he rides in to get to school. A picture of a minivan in a parking space is included to illustrate the last paragraph:

The images up below shows the vehicle I was in to get to school. This vehicle full name is 2003 Dodge Grand Caravan. It is actually the same color as the picture above. In fact this picture must of had been taken during winter because the car looks frozen. This is nothing compare to what I went through. The mini-van I was in was so hot in the morning from all the Photosynthesis effect that causes the glass of the vehicle to catch the heat.

The subject's fifth post is six paragraphs of loosely related statements, about 300 words, reflecting on his impending birthday. He is clearly very interested in the subject, although he is not committed to writing about it in a directed way. There is no

introduction, or conclusion; the paragraphs are collections of sentences rather than constructed discussions under topic sentences. The only connection among the paragraphs is that they relate to his birthday or birth date. The total effect is of a rather engaging voice, although the sample does not demonstrate effective writing. The third paragraph:

March 7, is a special day for me because since 7 is my lucky number, I feel that I was born on a lucky day. Since I am a Pisces, I feel that I have power. I not a lot of Pisces feel this way but I noticed that I am a different one. The older I get, the more I notice that I need to complete to accomplish my obstacles. Now that I feel I am going to be 17 years old, I notice that I could get older girl friends up until the age of 19 (which is so cool).

The ninth sample in Bay's portfolio is a detailed, four paragraph explanation of about 350 words relating his interest in professional sports. The essay begins with a brief discussion of a favorite team and drifts to an ending that recites the performance statistics of one of the players. Rather than following an organized line of thought with a clear beginning, middle, and end, the pattern throughout is to follow the ideas that present themselves as he writes, thus the combination of specific detail and lack of cohesiveness.

A sample from the first paragraph:

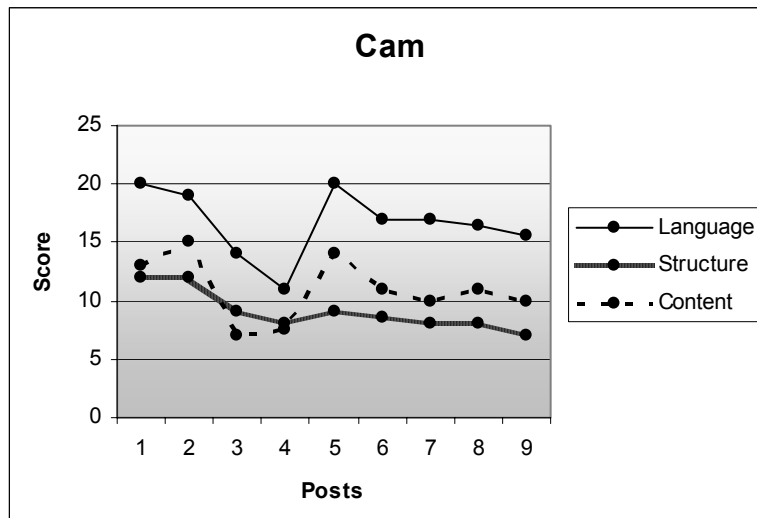
Over the years, I have always loved the Mets. This happens up until the year 2000, when the Mets were playing the Yankees at the Subway Series. Basically half of my family loves the Mets and the rest loves the Yankees. This causes conflicts. Something very interesting about me is that I like the Mets, Nets and the Jets. All rhyme, and this is a way I support my sportsmanship to them.

Seven of the nine posts in this portfolio of samples drew comments from readers. Three readers from another school responded to the first post, Bay's description of his morning routine. The first reader says he can relate to the details of being called to get out of bed, and then says he doesn't understand "the photosynthesis story," saying cautiously, in case there is a point that he has missed, "I don't really understand it but I guess it



makes sense. Science is a wierd study to observe with many complex ideas that are hard to grasp at times.” In the second comment, the reader agrees with the difficulty of getting up every day to face the challenges of school and homework, and then generalizes the lesson as “the daily struggle of the teen trying to make it in life and not be a homeless bum. It is hard but we must keep on fighting to make it.” In a two-sentence comment, the third reader reveals a sense of irony, even using ellipsis to delay the point: “I’m always late for school. When my alarm goes off, I just turn it off. The sad thing is . . . I live very close to school.”

*Subject: Cam.* In her profile, Cam described herself as an avid reader who dislikes school, who assumes a persona of silliness with friends and occasional sullenness with others, and who sees herself as one day becoming a successful writer. The nine posts in this subject’s portfolio include narrative, exposition, and argument. Four of the nine posts are narratives of a variety of negative personal experiences. Four other the posts are exposition. Two are quite similar discussions of television channels whose programming she does not like. The third is a detailed account of the plot line of a film she saw during a class field trip, and the fourth is a description of the boredom she felt because she had nothing interesting to do during spring break. One post demonstrates argument in a lengthy discussion that incorporates library resources in the manner of a term paper. As Figure 8 shows, the trend lines for this subject suggest both Cam’s capabilities as a writer and the effects of persistently low intrinsic motivation.



**Figure 8.** Trends in language use, structure, and quality of content of Cam's nine blog posts. The first four were in September and October of 2006; the last five in March and April of 2007. On the scale, the top score for language is 21; for structure 12, and for content 15.

The first, fifth, and ninth posts illuminate the inconsistency in the subject's engagement with the topics she chose to write about. In the first post, Cam shows a writerly sense of both detail and of rhetorical devices such as exaggeration, simile, and contrast. In a 350-word narrative, she first describes stopping by a city dog park on a hot, sunny Sunday, expecting to enjoy seeing small, "cute" dogs. Instead she is quickly surrounded by menacing, smelly male dogs "the size of trash cans," with "brown, rough fur, furious eyes, and big huge teeth like a shark." In the second of two paragraphs, she describes the owners of the dogs as indifferent to her plight. No surprise to her, the owners are all males, after all "what woman would want a huge scary dog that looked like a demon?" Of the owners, "One was really old who had a cane with him and he was talking to a younger man who was wearing a red vest with blue jeans. Another owner was a chubby guy who was ignoring his dogs and was eating a sandwich." The incident concludes with the dogs moving away from her, allowing her to escape as she vows never

to own a dog herself, or to return to the dog park. This nicely crafted piece, the first she contributed to the blog, is the best of the nine posts in this portfolio of samples.

The fifth post is a lengthy persuasive essay, about 1000 words, that argues against the use of the atomic bomb in World War II. The discussion is generally substantive and competently written, although surface errors are noticeable and a fair portion of it is poorly structured. For example, the first paragraph, fully a third of the essay, is a collection of numerous but unorganized details about the effects of the bombings on the victims, current perspectives on the issue of atomic weapons, the development of the bomb, the decision-making processes the president followed, the museum display of the plane that carried the bomb to Hiroshima, and her opinion on the subject of the bombing. Each of the three short paragraphs that follow discusses a reason in support of that opinion. In the manner of effective argument, the next paragraph explains in some detail the opposing point of view. The essay ends with a lengthy paragraph that summarizes the argument, and then affirms her disapproval of the use of nuclear weapons in any circumstance. A sample of the essay, from the end of the first paragraph, reveals a pleasing attention to detail but also the lack of organization that reduces the effectiveness of the piece:

In August 6, the Little Boy dropped on Hiroshima and on August 9, Fat Man was dropped on Nagasaki. In a museum, they displayed the Enola Gay which is the plane that dropped the bomb on Hiroshima in 1945. Two men were arrested after they poured red paint on the plane. Survivors of the A-bombing were angry that they didn't displayed the number of people killed from the A-bomb. I think it was the wrong decision to drop the atomic bomb because it killed thousands of innocent lives.

As the trend lines in the graph suggest, the other posts in Cam's portfolio of samples are generally mediocre, suggesting that although Cam is an able writer, over the

time of this observation she did not sustain a level of interest, or a level of motivation, that supports the investment of effort required for good writing. The ninth post is illustrative. In two paragraphs that should have been four, Cam recounts her boredom with spring vacation. The discussion is repetitious and only superficially detailed; sentences are loosely constructed and marred by surface errors. This piece displays none of the quite skillful control of language that infuses the first post in this portfolio. A sample from the first paragraph of the ninth post:

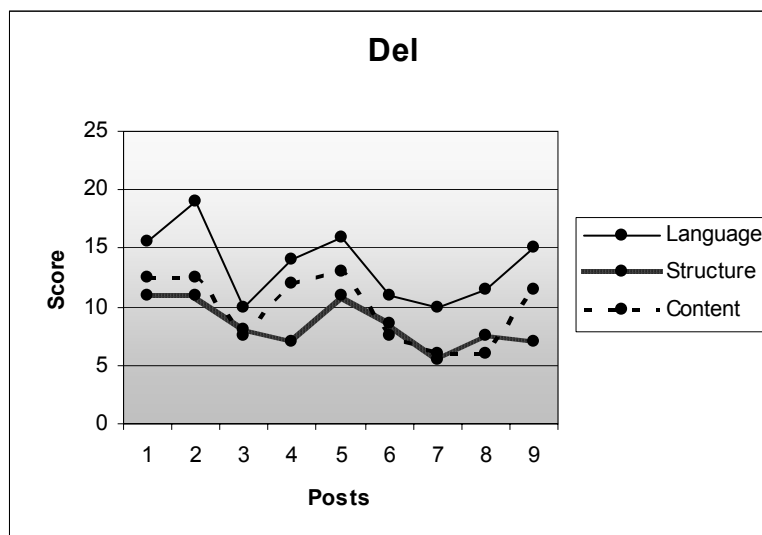
The whole week was boring and I didn't do anything. Almost everyone said that they didn't do anything and it was boring. I can understand that. We don't have another day off for a long time. We have to wait till May 29<sup>th</sup> for a day off. It's memorial day. I didn't do anything on Easter because it's a crappy holiday where there's nothing to do and nothing to get except colored eggs. What can you do with an colored egg? April Fools was boring too.

The ninth post drew two brief paragraph comments, one from a classmate and another from a student at another school. Both empathized with Cam, agreeing that the break from school was disappointing because there was not much to do. However, each reader expressed a bit of insight. The first wrote, "Hey my break was BORING to I mean you cant help that. I HAPPENS SOMETIMES. Just be thankful schools almost over." The second commented, "I liked your story 'Spring Break.' I don't think many people did much over their spring break either. Since high school is so stressful I think most people stayed home and slept, I know I did."

*Subject: Del.* In his profile, Del confidently described himself as popular, a very good athlete in both baseball and football, and a devoted New York Yankees fan. Seven of the nine posts in this portfolio of samples are combinations of narrative and exposition,

descriptions of events during baseball games. The other two posts are very brief examples of free verse.

In Figure 9, the trend lines for Del reveal the variable quality of his writing over the time of the observation, with the last post generally comparable to the first.



**Figure 9:** Trends in language use, structure, and quality of content of Del's nine blog posts. The first four were in September and October of 2006; the last five in March and April of 2007. On the scale, the top score for language is 21; for structure 12, and for content 15.

The first, fifth, and ninth posts in this portfolio of samples reveal a fair to moderate level of competence, with lesser quality posts in between. Del's approach to blogging was to choose a topic he knew well and stay with it. He was able to do so given the broad options for personal choice built into the guidelines for participation. His strategy for writing in five of the seven prose posts was similarly unchanging: a combination of chronological narrative and exposition, in the manner of sportswriters' accounts of athletic contests. One of the poems is a nine-line, 47 word free verse affirmation of the Yankees' standing as the best in professional baseball. The second poem, also free verse, is 42 words in 12 lines. The subject is identified as

“shorties”; the list of keywords accompanying the poem suggests the word is a faddish reference to girls.

Del’s mechanics are consistently unreliable, his writing marred by surface errors and occasional problems with word choice and sentence construction. At the same time, he writes in the natural voice of someone closely acquainted with the game of baseball, using highly specific detail as well as vocabulary appropriate to his subject. This sample from the second paragraph of his first post displays these characteristics. The full post is about 300 words, in two paragraphs:

Yesterday on the 6<sup>th</sup> of September The Yankees was doing a blow out they were winning 8 to 0 with Randy Johnson doing a no hitter till the 6<sup>th</sup> inning and a Kansas city royal hit the ball and Johnny Damon slide to try to catch the ball from getting and extra base hit but with that slide the ball went past him and he ended up getting a triple. With a man on third Johnny Damon got back on task and finished them off. He did not let a run come in.

The fifth post, a single expository paragraph of about 165 words, should have been two paragraphs. The post begins with a detailed list identifying the players in the starting lineup at the beginning of the 2007 baseball season. Halfway through, Del changes the subject to a brief explanation of his idealistic outlook, ending with a confident prediction of the outcome of the baseball season. The sample is the last third of the post:

[The players on this team] just can’t play the game for money they should play the game because they love it. For instinct Derek Jeter the captain is a true player he is my idol and I hope one day I can be like him. I think that having Derek Jeter is great because he is a good player and he knows how to treat his players like if they were family. He does not take advantage of them just because he is the captain he respects them. I predict that Derek Jeter and the Yankees will be the dominate team in the league and will win the world series.

The ninth post of about 400 words is presented in three paragraphs, although it should have been five: the poorly structured first paragraph actually should have been three in itself. While the piece is quite long and detailed, expressed in a natural voice and in vocabulary appropriate to the subject, the sentence structure, spelling, and mechanics are distinctly substandard:

The Yankees season just started and on opening day the man that people doubt so much makes a homerun during the game. People put all the blame on him for the Yankees losses. He is not the team it's lack of pitching. Nobody is the perfect pitcher but that does not give the reason for any body to pitch like they never did before. Carl Pavno pitched opening day. He did alright he could of done much better but it was his first time since August second 2006.

The nine posts in this portfolio drew a total of six comments, three of them no more than “I agree with what you said.” The other three—all to the sixth post, a brief discussion of spring training—were thoughtful paragraph explanations of the readers’ own perspectives as well as questions about Del’s perceptions of various players or team problems. The comments came from readers in two high schools other than the one Del attends. One said, “I’m not sure about your opinion but personally for me its devastating to see Bernie go. He’s been my favorite player since I was old enough to walk.” Another reader asked “how [do] you become a Yankees fan versus a Mets fan. How exactly do you become classified as a Yankees fan?” Then noting that the Mets are “finally putting it together and winning some games,” and that the number of fans is growing, the reader astutely observed, “I think its interesting how even the most die hard fans can switch their favorite team when teams start to improve.” Had he chosen to do so, Del could have continued the conversation with any of these readers by writing replies to their comments and questions.

## Summary of Results

This study was designed to investigate how teachers are using the interactive technology of blogs to support writing instruction at the high school level, and what the effects may be on students' writing skills. The three data sources in the study, a Web survey, semi-structured interviews with teachers, and a class observation of limited duration, provide insight into the four research questions on which the study is based.

### *1 How are weblogs used in high school classes to teach writing?*

Previous instructional innovations in the teaching of writing have been based in instructional design and classroom practice. Blogging is a variation on that paradigm: it is based in technology. The teacher must be able to manage the technology as well as the interactive learning environment of writers and readers; students must learn to engage with both as well. The Web survey and telephone interviews confirm the dual aspects of blogging for instruction: the setup and management of blogging and the ways in which students are engaged with it. The class observation revealed individual differences in the manner of students' participation revelatory of interest or motivation, and perceivable changes or lack of them in their writing skills.

At the present time, the use of blogs in the classroom is the province of early adopters, many of whom have blogs themselves and are computer savvy. There is very little training currently available, so teachers experiment on their own and learn from each other. Students who are comfortable with computers catch on quickly although about half must be taught, which can be very time consuming. Class blogs are commonly shared by teacher and students, with the teacher as both gatekeeper and instructor. That



space may be used to continue discussion of class themes, or to follow writing prompts provided by the teacher or initiated by students themselves. Students usually have a range of choice for the genres and modes in which they respond to prompts. The common practice among teachers is to set a participation requirement for students ranging from weekly to several times a quarter or a semester, including both original posts and comments to other students. Methods of assessment and feedback vary from awarding credit just for meeting the participation requirement, to holistic grading, to selection of posts for traditional summative grading. A canon of best practices has yet to emerge for educational blogging either in general or in particular. However, in both the Web survey and the telephone interviews, teachers perceived that blogging improves communication between themselves and students, and enhances both teaching and learning.

Teachers identify three major areas of difficulty with blogging. The first is the time required for administrative tasks including monitoring students' work prior to its being posted. The second is technical issues related to software, hardware access, and server downtime. The third is impediments established by school district policies related to security and Internet access.

2     *How are weblogs different from impromptu writing tools such as e-mail, IM, and text messaging?*

Through the Web survey and interviews with teachers, it is clear that of the several interactive, computer-enabled impromptu writing tools, blogs are the platform of choice. E-mail is in fairly common use as a means of communication between teachers and students. Teachers and students may exchange information about assignments,

including commentary about writing assignments. E-mail may also be used as a vehicle for specific kinds of writing, such as practice with writing memoranda, or business letters. E-mail functions as one-to-one communication, though a given e-mail message may be addressed to any number of recipients. Wikis, a technology even more recently come to the sphere of education than blogs, specifically enable collaborative writing in that any reader of a post may edit or otherwise change it, with all changes tracked and archived. The potential of wikis is just beginning to be explored. Three of the six teachers interviewed had not used any of the alternative writing tools with students; just one had experimented briefly with listservs but found blogs “the best” for extended writing practice that recognizes learning as a social process. IM and text messaging, both carried out in a pastiche of words, letters, numbers, and symbols referred to as Netspeak, are a crossover of speech and writing, with users understanding one as equivalent to the other.

### *3 How do weblogs increase motivation to write?*

In the Web survey, the text comments for the survey, and the telephone interviews, the most strongly supported value of blogging as a tool for writing instruction was the motivation it stirred in students. While teachers noted that students still needed to be reminded to post to the blog, and that some students were reluctant to participate, the majority perception was that blogging was intrinsically attractive to most students. Evidence was that students felt free to introduce topics of their own choosing, and felt secure enough in the environment to both request feedback from readers and provide it to other students. As evidenced in the exchanges between writers and readers in the class observation, feedback was sometimes superficial and banal, but was just as likely to be

meaningful for the writer. Comments are a valuable part of the writing experience in blogging, confirmation that blogging is an authentic, real world experience: students are participating in a community of readers and writers. While teachers generally require students to comment on the blog posts of others, those students often are motivated to go beyond being the writing equivalent of passersby and compose brief, telling, even keenly relevant observations. Teachers reported that feedback from the outside world is highly motivating to students.

Data from the survey and the interviews indicate that students see blogging as space to express themselves in modes of their own choosing without the restrictive guidelines that often accompany traditional writing assignments. Blogging is perceived as a stimulus to collaboration and interactive writing. The data also reveal that some students are reluctant to participate in blogging because they are not comfortable with computers, are reluctant to have their writing on public display, see blogging as a burden that students in other classes that do not include blogging do not have to endure, or regard blogging as an awkward contrivance.

Motivation to write can be evanescent, and is not equally distributed among students on a particular day or over time. The class observation reveals that rather than tracking on a generally consistent, upward trajectory of improvement, students may write carefully and well one time but in slipshod fashion the next. Contradictions are as evident in blogging as they are in any school activity: an able writer may elect just to get by, or a mediocre writer may be so invested in a topic that detail and insight are both noteworthy, even if the conventions of writing are flawed. Finally, the allure of blogging may fade

over the course of a school year, even for stronger students, as two of the teachers noted in the interviews.

4 *How do weblogs increase writing abilities and achievement?*

One of the teachers interviewed observed that it was difficult to judge whether blogging had an effect on his students' writing abilities, because their work was new to him. However, for both the Web survey and the interviews, teachers have strongly positive perceptions of their students' writing in blog posts. In their estimation, students' writing shows evidence of care, is generally focused and structured, is characterized by effective detail, and is expressed in fluent language. Quantitative and anecdotal data from the survey both suggest that blogging has a positive effect on students' skills because "they act and they understand—[blogging is] a participative method of learning." The consensus of teachers interviewed was that while the matter of ability cannot be overlooked, students who make the effort do improve, especially if they are regular and frequent participants. Another point of agreement was that students write more when they engage in blogging than they do in the traditional mode, in both how much they write in various posts and the total amount of writing they do over a period of time. One of the teachers interviewed observed students "do tons more writing," and another that students "write 5 to 10 more substantive pieces in a semester" than they do in classes that do not provide for blogging. But signs of improvement are not universal, nor is blogging the sure path to success for all students. One of the teachers, an experienced blogger himself who has been using blogs in his English classes for almost four years, observed that while students do improve, and while enthusiastic students "get pretty fluent, and infuse their

writing with personality,” students who struggle in the traditional format continue to struggle. “Writing is *so hard*,” he said. “Students must really be motivated,” and even still there are differences among students for whether change occurs, and if it does, how much and in what ways.

The blog work of the four students in the class observation corroborates these data. Of the four, one followed a fairly consistent path of increasing achievement. Two maintained a stable position throughout, ending the observation period at about the same level as beginning it. The fourth declined somewhat, though seemingly more for lack of interest than for lack of ability.

## Chapter 5

### Conclusions, Implications, Recommendations, and Summary

#### Conclusions

Research of the past 30 years into the nature of writing provides understanding of writing as a decision-making process of communication, of meaning making. Skillful writing is a highly complex act of problem-solving that weaves together memory, imagination, language production, planning and revision in the context of multiple goals as well as the multiple restraints of topic, audience, purpose, and the physical creation of text. Simultaneously, the writer must engage cognitive processes including orders of thinking, rhetorical techniques, and the conventions of writing (Bereiter & Scardamalia, 1987; Bruning & Horn, 2000; Elbow, 2000). When children start school, they are already fluent in speech, having grown up in an environment infused with oral language. Although writing captures speech, it is a new and different cognitive challenge for children. It is a continuing challenge as well for teachers who are charged with developing this skill in students through every aspect of instruction, including preparing students for writing as well as the design of writing tasks and evaluation of the responses students provide (Bruning & Horn).

A clearer understanding of the cognitive elements of writing emerged at the same time that research into the processes students engage in when they write led to a shift in the pedagogy of writing. The focus shifted from teaching writing as a function primarily

of grammar and rhetoric to teaching writing as communication based on orderly stages of planning, drafting, and editing and revising. With this shift, peer conferencing, in which small groups of students read and comment on each others' papers as an aid to revision, became a common classroom practice, although the efficacy of peer review may be low because adolescents are generally not prepared to offer other than superficial observations about the nature of writing. As well, the typical task of having to read the papers of others in the group and produce meaningful comments in the class time allotted for the activity is difficult. However well intended, the practice commonly leads to uncritical, trite responses such as "Good job!" or "I liked the way you \_\_\_\_."

Beginning with e-mail in the 1980s, the development of a variety of interactive computer technologies introduced new, potentially valuable tools for teaching and learning for composition as well as for subjects across the curriculum. The focus of this study is the efficacy of Internet weblogs, or blogs, for writing instruction.

Previous innovations in the teaching of writing have been based in instructional design and teaching practices in the classroom that were primarily communications between the teacher and individual students. Writing most often served the dual purpose of demonstrating content knowledge as well as writing skills, the two critiqued and evaluated as a single entity. Blogging is a departure from that paradigm: it is based in technology and enables interaction between writer and readers. It does not supplant how writing is taught. Rather, in an unprecedented way, it opens the practice of literacy itself. When students engage in blogging, writing becomes the opportunity for computer-enabled discourse with readers who engage the writer by reading, in turn becoming writers themselves if they elect to comment on what they have read. The original writer is

then the reader, and may continue the exchange or not. Thus rather than trading papers around in class, or rather than the traditional closed loop of the student writing only for the teacher, writing becomes a natural social act, and the writer becomes part of a communication network. The original writer's domain knowledge and ability to use the written language are tested in the reading; the reader may not respond, or may respond by supporting, extending, or challenging it.

The broad conclusion that may be drawn from the data gathered from a survey, interviews with teachers who are using blogs with their classes, and an extended observation of the blog posts of four 10<sup>th</sup> grade students, is that blogs appear to have strong potential for teaching and learning composition skills, depending on two primary factors: how blogs are used in classes, and the nature of the feedback associated with blogging.

### *Teacher and Student Participation*

Teachers who use blogs with students must have a clear understanding of what they want blogging to accomplish. They must also be able to manage the technology as well as the output it generates. Students must learn the mechanical process of blogging, and must also learn to participate in an environment far more public than a small peer group, whether in a closed, password-protected setting or in the open milieu of the Internet. A Pew Internet and American Life study found that more than half of online teenagers create content for the Internet, and nearly 20% have created their own blogs (Lenhart & Madden, 2005). Teachers affirm that stronger students and students who are knowledgeable about computers thrive in the blog environment. However, there are also



students who are reluctant to engage. Given the choice of participating or not, some students elect not to, the principal reasons being a reticence for what feels like public exposure—they are their writing voices—or lack of experience or access and therefore lack of comfort with computers. Blogging can be difficult and time-consuming to teach to novices. Students who have no association with computers other than occasionally at school may feel no inclination to learn blogging at all.

A theme in the emerging commentary about educational blogging is that teachers should be bloggers themselves (Richardson, 2006a), a perspective akin to the view that teachers of writing should write (Bruning & Horn, 2000; Freedman et al., 1995; The National Commission on Writing, 2003; The National Writing Project & Nagin, 2003). Although it is not altogether accurate, there is a point of view that teachers who do not blog, do not fully understand it and may underutilize the technology, perhaps seeing it as a form of word processing rather than realizing the instructional potential for connected writing and knowledge construction. The same perspective asserts that students who use forms of electronic communication do understand, because they already use IM and text messaging, or are already participants in social networking sites like Facebook and MySpace (Jones, 2007). All of the teachers who were interviewed had their own blogs, though at varying levels of activity. More than half the teachers who responded to the survey had blogs, though 38% did not. While having one's own blog is not a requirement for successfully using blogs in their classes, teachers at the least must be committed to the benefits students may realize.

Teachers may discover blogging themselves, or may learn of it from a colleague or at a conference. But becoming comfortable with innovative processes requires

persistence and patience. It seems especially so for blogging, because in addition to curricular changes blogging includes hardware, software, an uncertain amount of class time, and a new demand on teacher time, though how much depends on how the teacher sets up class blogging and then manages the writing that students generate. A look at the list of educational blogs established between 2005 and 2007 at Class Blogmeister, provided by The Landmark Project Website, suggests the level of difficulty: many teachers set up blogs, but many also abandon them a few months into the school year if not sooner.

Currently, educational blogging is exploratory, the province of a relatively small number of early adopters who are experimenting with ways to integrate this new technology into their teaching practice, even as interactive communication technologies continue to evolve. There are no clear standards or accepted best practices as yet, although teachers who are using blogs are sharing information through blogging with other educators who are engaged with the technology, and through conferences and professional growth venues like NWP summer institutes.

Teachers who use blogs with their classes report that they are often the only one in the school to do so, or are one of just a few. District inservice training for implementation of interactive communication technologies is rare if it happens at all. Although a school district may support the integration of technology in education, district policies and varying degrees of administrative control range from reasonable latitude for engagement with the Internet, to strict limitations. Such controls include requirements for written parental approval, and may include password protection set on blogs to prevent outside access, content filters, and denial of permission to access the Internet at all. On

the survey, four of the 32 comments about the drawbacks of blogging pointed to administrative controls as a source of continuing frustration.

Because blogging is an evolving application of technology that involves such a range of factors—teachers, students, hardware, software, training, time, instructional design, the electronic environment, school policy—there is no clear description of standard practice. Rather, there are generalities: the majority of teachers who are using blogs are knowledgeable about computers, understand blogging through experience, take the opportunity to explore the instructional possibilities of a new technology, and turn to each other for information and support. Although some do not, most students respond well to blogging, particularly those who have experience with computers as well as with social networking online. However, teachers reported they find blogging difficult or time-consuming to teach if students are not already at least minimally familiar with computers and with interactive electronic communication. In addition, the availability of computers during school time, either in the lab or on a mobile cart that must be scheduled for class availability, is a limiting factor for both regularity of use and the amount of time students may actually spend writing during a class period. Outside of class, the digital divide is still existent: lack of access to computers other than in school is an impediment that is not easily resolved, or not resolved at all, for some students.

### *Blog Setup and Management*

Class blogs are organized and used in a variety of ways. Teachers may set them up as a means of communication with students and parents to provide announcements, explanations for assignments, class calendars, and supplemental materials for their

students, although there is no student participation in the blog. The teacher-only class blog may be the teacher's choice, or it may be a function of school district policy.

Teachers who use class blogs with student participation typically set up either a single blog that includes administrative information, instructional material, and teacher's comments as well as student posts, or a class blog and individual student blogs linked to the class blog. Access to the blog may be open to any reader, or may be password restricted. The majority of teachers provide a code of ethics or set of standards for participation for students that includes reminders for such basic principles as guarding personal information, being respectful of the work of other students, and being mindful of what they say and how they say it in what is a public space, even if the blog has restricted access.

Matters of feedback and assessment ranged from simple and occasional to regular and traditional. Although the majority do not, some teachers review all student writing before it is published to the blog, either to monitor content for appropriateness or to have students edit and correct surface errors in their work before it is published. The teachers who follow this practice note that it requires extra time, although they see it as necessary. Two of the teachers interviewed said they wanted students to take ownership of the blog, and to recognize that with ownership comes a responsibility to uphold a standard of quality pushed not by the teacher's critical reading, but by their own, as writers.

The place of blogging in a given teacher's curriculum may be as space for student journals, with participation optional, or it may be a requirement for all students. Writing in the blog may be a for-credit homework exercise with little additional notice, or it may be held in high regard in terms of the value students and teachers place on it. The

majority of teachers provided prompts for students, but students were also frequently free to choose their own topics. The importance of students' being able to make choices about their writing, referring to both subject matter and mode, is a recurring theme in the literature of composition instruction (Azemove, 2002; Bereiter & Scardamalia, 1987; Bruning & Horn, 2000; Elbow, 2000; Walker, 2003), with positive indications for both motivation and achievement.

Within the framework set for them, students may write personal narratives, extensions of class discussions, or longer pieces of argument or analysis that may include information from library resources. Most of the writing is in prose form, although poetry, primarily free verse, is common. As well, the comments that students write to each others' posts are typically in prose mode, though one of the teachers interviewed noted that occasionally students respond to poetry with poetry of their own. Regarding feedback and grades, teachers in the survey and also in the interviews reported they may acknowledge students' work with credit just for having met a posting requirement. Alternatively, they may grade posts holistically or in traditional summative form. Teachers in the interviews indicated using both. For teachers who preview their students' posts, a degree of feedback occurs before the fact. These data suggest that teachers view blogging less as the opportunity for critique and evaluation of students' writing than as the opportunity for students to practice the decision-making processes of writers, with some freedom from having to write for a grade. In the survey, more than 70% of teachers have students write some assignments off-blog, and reserve the traditional grading practices of more direct, controlled writing instruction and guidance for those writing events. That practice was corroborated by four of the teachers who were interviewed.

*Instructional Uses of Impromptu Communication Technologies*

Blogs, e-mail, wikis, listservs, chat rooms, IM and text messaging differ from each other in specific ways, and each serves a particular purpose of communication. However, they share one fundamental characteristic: all are instruments for collaborative writing, without the need for physical proximity of the participants. While face-to-face meetings are regarded as the most desirable for collaboration (Chandler, 2001), it may be that younger writers find more benefit in the asynchronous environment because it allows participants to choose when and how to get involved. Rather than having to perform within a specified time frame, students can read and respond at their own pace (Hayes, 2006). In the self-prompted feedback of commenting on blog posts, students may naturally and usefully carry out what the teacher's rubric asks them to do in classroom peer conferences: point out something they like in what they read, or suggest a way to improve content. In comments, readers may identify a pleasing element of a post by saying so directly, or may imply appreciation by connecting to it with relevant information or anecdotal experience of their own. Or a reader may highlight a weakness or problem by commenting in a way that reveals confusion about the writer's intent. In self-generated and thus authentic fashion, writers and readers have opportunities to learn the values of word choice, sentence construction, organization, provision of information sufficient to clarity—the sources, in writing, of effective communication. Readers' comments to the blog posts of all four of the subjects in the class observation illustrate the natural feedback generated by an intellectual or emotional connection between writer and reader, or else by the writer's failure to communicate with a willing reader.

All the interactive technologies provide the opportunity for exchanges between writers and readers. Writing about working with students on their writing through e-mail tutoring rather than by direct conferences in the university's writing center, Coogan (1995) realized that working at a distance from students and in an electronic medium resulted in not just discussion about the student's writing but a fundamental change in the instructional dynamic. During the process of ongoing e-mail exchanges with a student, the writing tutorial changed in nature from a static discussion between teacher and student about a paper to a collaborative, networked communication between writers about writing. The technical exercise of expert instructing learner in matters of process or execution became a cooperative venture of writers in conversation, and of writing as a social activity interleaving reading and writing.

Coogan (1995) identified two concerns that remain valid with regard to current technologies. First, not every student benefits equally from the exchanges that occur in interactive writing technologies. Students who have a greater self-efficacy or who have a stronger aptitude for writing are likely to realize more gains in writing skill in the electronic environment than those who have a lesser interest or who see themselves as less effective writers. Second, the writing conventions of e-mail, and of the interactive technologies that have become available in the past dozen years, are not equivalent to those of academic writing, or of the expected writing practice of much of the professional world or the world of work. Concerns have been expressed that the spontaneously emergent expressions dubbed "Netspeak" common to IM and text messaging, and to a lesser extent e-mail, spill over into classrooms and workplaces where standard English is the norm, although there is general agreement that students and others who use the

semiotics of Netspeak rather easily can be taught to match language conventions with purpose, audience, and circumstance (Crystal, 2001).

The listserv, an e-mail subscription technology, modifies the one-to-one limitation of e-mail by broadcasting e-mail messages to all subscribers to the list. While it does provide for grouping exchanges by topic and archiving of posts, and teachers have found and do find it a valuable instructional resource, the listserv has been used more as an effective platform for the exchange of information among people who share a particular interest than as an enriched, networked reading and writing space. Teachers have also used bulletin boards, a technology somewhat similar to both listservs and blogs, as instructional space. One such resource is the free, volunteer-run NiceNet, presented as an Internet Classroom Assistant (ICA). It enables Web-based conferencing, document sharing for such activities as peer review, and resource sharing in a safe, closed environment (<http://www.nicenet.org>) (Hayes, 2006).

Wikis differ from the other technologies in that any reader of a post may edit, add to, delete, or otherwise alter the post: it is a fully collaborative technology. All changes are tracked, and a given post may be reverted to an earlier version. As well, the identities of those who make the changes are recorded. Wikipedia is the best known example of this technology. PBWiki (<http://www.pbwiki.com>) is a widely known source of wiki software. An increasing number of teachers in a range of subject areas are exploring its capabilities for collaborative writing projects, including combining a wiki project with blogging. That is, students might work together on a project using a wiki, and publish the finished product on the class blog.



Younger students use IM, chat rooms, and text messaging, all fast-paced and ephemeral, as social environments, substitutes for telephoning. By the time students are in college, the social purposes of electronic media are typically subordinate to practical issues such as coordinating class work, planning, or teaching and tutoring (Baron, 2005; Grinter & Palen, 2002). Users of IM, text messaging, and chat rooms understand the exchanges not as writing but as speech, though in written form.

### *The Effect of Blogging on Motivation to Write*

A frequently voiced concern in the literature about composition theory and practice is that many adolescents regard writing for school as a chore, rather than a process of problem-solving and discovery, and hold little expectation for themselves as writers, which often becomes a self-fulfilling prophecy (Azemove, 2002; Kajder et al., 2004; Yair, 2000). The issue of developing students' motivation to write is central to helping them learn to succeed. It is also complicated and not well understood (Bruning & Horn, 2000).

Ryan and Deci (2000) saw motivation as the self-regulation of energy, persistence, and focus in all aspects of activation and intention. Not a single construct, motivation may be intrinsic, arising from the individual's needs for competence, autonomy, and relatedness. Or it may be extrinsic, but influenced by degrees of choice or autonomy. Activities that have a natural appeal fare best. Those that do not may be met with indifference, in spite of threats or deadlines, or may be accepted at some level as a matter of one's electing to do so (Dörnyei, 2000; Ryan & Deci, 2000; Shernoff et al., 2003). Low motivation is expressive of one's lack of valuation for an activity, a sense

that one is not competent to do it, or one's expectation that the outcome will not be valued (Ryan & Deci, 2000).

Interest, which incorporates both cognition and affect, is a cumulative, progressive psychological state that is always motivating. Hidi and Renninger (2006) described a four-phase model of interest development. Triggered situational interest refers to a person's attention being caught by a novel, somewhat familiar, or otherwise attractive element in the environment. That interest may or may not lead to the second phase, maintained situational interest, which is supported by some level of meaningfulness and personal involvement. The third and fourth phases represent increasing degrees of positive feeling, knowledge, and valuation of the activity. Each of the phases may be short or long-lived; one may transition into the next. However, interest may atrophy at any stage if either support or opportunities to pursue the interest are lacking. Feelings of competence, autonomy, and relatedness are integral to the progression of interest development: engaging with content of interest enhances and so is fundamentally related to all four.

Lipstein and Renninger (2007) observed that students say their motivation for writing is often influenced by both their teachers and their classroom experience. The nature of that interest prompts them to set goals for their writing, use effective writing strategies, and ask for feedback that will help them improve. In the framework of Hidi and Renninger's (2006) four phases of interest, students in the first phase typically think writing is difficult, and that they are not very good at it. They want feedback that gives them specific, manageable instructions that lead to improvements they can see, such as correcting spelling or rewriting run-on sentences. Students in phase two are most

concerned with figuring out what the teacher wants, and trying to deliver it. They want feedback that supports that concern. Phase three students think they are already writers and appreciate only the feedback that confirms that perspective. These students are in transition from knowledge tellers to knowledge transformers (Bereiter & Scardamalia, 1987) wherein they are not just repeating what they know, but learning to shape it into new forms. Phase four students think of writing as a craft. They may spend a great deal of time working with writing, but do not consider it a burden. They accept feedback that pushes them to higher accomplishment. Students who struggle with writing, and who anticipate small returns for their effort, are in the first two phases of this taxonomy. Students whose self-efficacy is higher and who may write with some ease as well as skill are in the third and fourth phases. The challenge for the teacher is to meet students at their levels, and to provide the activities and support they need to raise their interest level to the next, more productive phase (Lipstein & Renninger).

Applied specifically to teaching composition, the complex issue of motivation has two aspects: teachers are challenged with not only teaching students how to write but also teaching them how to *want* to write (Bruning & Horn, 2000), not only for the often utilitarian purposes they may encounter in school or in the workplace, but for the satisfaction and enjoyment of self-discovery, problem-solving, and participation in literacy communities. Increasing the amount of class time spent on instruction and on writing activities may be part of the answer (The National Commission on Writing, 2003). A more salient perspective, one directly relevant to blogging, is to recognize and create motivation-enhancing conditions for learning. Bruning and Horn proposed four clusters of conditions: (a) creating a classroom environment that supports positive

attitudes about writing through students having frequent and varied opportunities to write that predispose success; (b) having students take ownership of their writing by affirming the conditions for writing as an authentic process of communication; (c) providing a supportive context for writing by teaching students through instruction and feedback to set challenging but reasonable goals and to develop writing strategies to meet them; and (d) establishing a positive emotional environment in which students may develop positive attitudes about writing because they feel safe and feel some degree of control.

Students thrive in authentic environments, with authentic tasks that either simulate or engage the real world, and thus differ from the often programmed processes of the classroom (Bradshaw, Bishop, Gens, Miller, & Rogers, 2002; Carroll, 2000; Chen, 2005; Herrington et al., 2004; Schultz, 2002; Shaffer & Resnick, 1999). However, as yet there is little research into what constitutes authentic experiences in writing, and whether, for example, writing personal essays or keeping journals affects either motivation or skill development (Bruning & Horn, 2000). What does seem clear is that the teacher's role in fostering positive attitudes about writing is key to all (Bruning & Horn; Elbow, 2000; Ferris, 1997; Fisher & Frey, 2003). Further, feedback, either from the teacher or from other readers, provides the missing voice in the writing conversation. Feedback may scaffold writers and validate their writing by engaging with it in a positive way: not just agreeing with what the writer has written but providing an additional, or a different, point of view. Feedback may also demonstrate a discrepancy for writers between what they have written and what they intended to write, for example a weakness in logic or relevancy, or an element of ambiguity that misleads the reader (Bardine et al., 2000; Coogan, 1995; Elbow; Patthey-Chavez et al., 2004; Perry, 2004).

Elbow (2000) argued that rather than focusing solely on the traditional approaches to teaching writing—attention to grammar, genres, modes, rhetoric—teachers might consider the more writerly approach of focusing on audience and response. That is, who will read what is written, and for what reason. Elbow contended that learning to write is most effectively supported when students have a wide range of experiences with different combinations of audience and purpose, ranging from friendly, accepting readers to readers who question to readers who critique and evaluate. The latter is the most common experience of student writers, rather than being the last and least (Bardine et al., 2000; Haneda & Wells, 2000). Elbow argued that a more productive approach is to have students write from their own experience and perceptions, then read, and then write again, learning in the process that not just any interpretation or opinion is acceptable, and that reading and writing are progressions of social negotiation for meaning. Class blogging used as space to practice writing, extended opportunities to choose the manner of expression, and the possibility of networked exchanges with readers, all support that approach.

The findings of the survey attest to the value of computers for writing in the school environment. Teachers perceive that most students respond strongly to the situational attractions of writing with computers and publishing their work. Students who blog may ask for feedback, and freely offer it to others. As the comments to the subjects' blog posts in the class observation reveal, the feedback students provide is typically constructive, even when it is briefly given. While teachers who set participation requirements for students include remarking on the work of other students as part of the requirement, there are clear elements of natural spontaneity and connection of readers

and writers in the comments. Students decide to which posts they want to respond, motivated by their own levels of interest in what they read. One of the less-noticed strengths of blogging is the combination of reading, thinking, and writing engendered by the capability for interaction. It is not just that information exchange is occurring, but that participants are engaging in the fundamental cognitive and affective processes of literacy.

Beyond the interest generated by participating in interactive electronic communication, with which the majority of adolescents are already familiar, blogging has the potential for engaging students at a more sustained level of interest. The survey, responses to the open-ended questions at the end of the survey, and observations by the teachers who were interviewed all suggest that students regard blogging as qualitatively different from traditional classroom writing experiences. At times students may simply go through the motions of posting and commenting because they have been assigned to do so, with no particular investment in what they are doing. However, many students see themselves as writers in the familiar environment of electronic communication, experimenting with modes and forms, following paths of discussion or not, collaborating with readers, exchanging ideas and information among themselves but without the teacher hovering to critique and grade every utterance.

The largest number of positive remarks in the survey referred to the motivating qualities of blogging, specifically the sense of freedom from the usual restrictions that students feel. Even students who are less confident, and students who struggle with writing, are perceived as benefiting from blogging. Stronger students are likely to be at the higher levels of interest characterized as self-motivated: in the interviews, teachers referred to such students as “standing out,” and “catching fire” with blogging.

At various times, because motivation and desire to write are not constants, students must be reminded to write their blog posts or comments. In the same way, not every post by every student is of the same writing standard, as suggested by the variations in the work of the students in the class observation. The novelty of blogging may be a positive attraction for many students, but it seems also to be a burden for others who encounter it in just one class and wonder why they are tasked with blogging when other classes in the same school are not. As well, in schools in which the community culture neither provides general access to computers nor sees value in their educational potential, teachers may encounter a lack of interest even unto resistance to blogging as not relevant to students' concerns. These perspectives emerged in both the written comments for the survey and the telephone interviews.

### *The Effect of Weblogs on Writing Abilities and Achievement*

Two repeated concerns in the literature about composition theory and practice, supported over time by national test scores and research as well as anecdotal reporting, are that many adolescents view writing for school as an unwelcome task, and that while most can write to an adequate or serviceable standard, few reach higher levels of accomplishment (Arenson, 2005; Ballator, Farnum, & Kaplan, 1999; Bereiter & Scardamalia, 1987; Bruning & Horn, 2000; Collins, 1998; Elbow, 2000; Fitzgerald & Shanahan, 2000; Hillocks, 2002; The National Commission on Writing, 2003). The 2002 National Assessment of Educational Progress (NAEP) in Writing, the most recent assessment, reported the results for 18,500 students at Grade 12 in 700 schools. The assessment shows that while three out of four of those students can write satisfactorily,

just one in four is able to write complete and well developed responses for writing problems.

The achievement standards for the three levels of the 2002 Writing Assessment have in common an expectation that the writing responds to the task set in form, content, and language; that higher thinking processes are evident; that the writer's voice is distinct; that organization is effective and supporting detail salient; that transitional elements provide necessary connections between sentences and from one phase of the writing to the next; that attention is paid to grammar and mechanics (U.S. Department of Education, 2003). Differentiations among the levels are specifically related to the degree of maturity and sophistication evidenced for those specifics. For example, for Basic, the form, content, and language are expected to be appropriate; for Proficient, effective; for Advanced, effective and elaborated.

The NAEP standards for writing achievement are similar to standards in school districts across the country. The challenge for every teacher of writing is how to help students learn the skills that will move them up by degrees to the next higher level of achievement specified in those standards. NCTE (2004) and NWP (The National Writing Project & Nagin, 2003) are both committed to the principle that every student can learn to write, given a supportive classroom environment; consistent, repeated valuation of writing as of personal, social, and cultural worth; frequent opportunities to write, for a variety of readers and a variety of purposes; and helpful feedback. To address the issue of teaching students to *want* to write, the challenge for teachers is to create a classroom environment that values the skills of literacy, but also to connect with the networked world beyond the classroom, of which most students are already citizens (Prensky, 1998).



That means opportunities to write for academic purposes, but also opportunities to experiment with forms and purposes of writing, to write for the entertainment of doing so, and to engage in a different and more authentic way with other writers and other readers (Elbow, 2000). Teacher-centered classes may not prompt students to learn for themselves. Students who feel they have some control of their learning and who have confidence in their abilities are likely to respond to activities that are both academically intense and that position them as learners (Shernoff et al., 2003).

Writing for blogs appears to have good potential as a learning exercise that meets many or most of those requirements. In the Web survey, regarding the content of students' posts, teachers indicated that students are more inclined than not to discuss personal experience, and feel free to express their opinions. Both are familiar practices of the e-mail, IM and text messaging the majority of adolescents engage in outside of school (Lenhart & Madden, 2005). Even more to the point of the potential for learning to write, in the context of Ambrose Bierce's (1909) dictum that good writing is "clear thinking made visible" (p. 5), in their blog posts students frequently demonstrate the higher thinking processes of reflection, evaluation, and synthesis whether the content is subjective or objective. Fewer students rather than more incorporate multimedia elements with their writing, though whether that is a function of a school or classroom policy, for example a limitation on access to the Internet, or whether it is a matter of the writer's choice, is not clear.

Quality of writing refers to correct and well-used language, to focused and specific discussion expressive of logical, creative thinking, to fluency of the writer's voice, and to control of rhetorical conventions. Respondents to the Web survey perceived

that rather than reading as the spontaneous, unpolished messages likely in e-mail or IM, students' blog posts evidence awareness of writing for readers in a more formal environment. While some teachers reviewed students' posts prior to publishing and asked for correction and revision if the work was really in need of remediation, teachers perceived that the writing that is published is relatively free of surface errors, suggesting students' awareness of the need for proofreading and editing. Teachers also considered that blog posts in the main are topic-centered and organized, and incorporate at least adequate detail, if not better, in service of the writer's goals.

The anecdotal data gathered in the telephone interviews corroborated the results reported in the survey, and underscored again that there is no approach to teaching composition that works equally well for all students. One teacher reiterated that writing is a very difficult creative and intellectual process whatever one's aptitude might be, whatever the purpose and context. In any circumstance, students must be motivated in order to write well. Students who are enthusiastic about blogging may become quite fluent, and may write in distinctive, expressive voices. Several of those interviewed observed that students who are reluctant writers or who are shy about putting themselves forward in class may improve, particularly in the genre of personal writing, if they make the effort to engage in blogging. One teacher commented that for blog posts, "length is never an issue," which suggests that when they write blog posts, students may have the sense not of trying to think of something else to say, characteristic of the one-sided conversation Bereiter and Scardamalia (1987) described as knowledge telling, but of moving into the more accomplished realm of knowledge transforming wherein writing

passes from reporting to reflection, synthesis, evaluation, and to shaped and cultivated language.

The work of the four subjects in the class observation reveals the range of accomplishment limned in the survey and the telephone interviews. The students had considerable freedom of choice in terms of content, genre, and modes for writing. Three of the four wrote in all three of the prose modes, narrative, exposition, and argument. Two of the four wrote poetry as well as prose. Only one of the four subjects seemed to make consistent improvement in both the content and the quality of her writing over the time of the observation. Her first rather brief post was a one-paragraph description of personal experience at school, and her last a lengthy, introspective piece in poetry and prose about a failed relationship. The second subject's posts were characterized by uneven quality of content as well as execution, with unreliable mechanics and little visible control of organization or sequencing of information. The third subject's posts began at a higher level of accomplishment than they ended. The first, and the best of the nine samples, evidenced a good feel for detail and a writerly sense of language and the value of rhetorical devices. The last was a series of commonplace generalizations that began with a statement of the point, which was then repeated a number of times in a series of loosely constructed sentences marred by surface errors. The fourth subject found a topic and a workable writing strategy, and stayed with both from start to finish. Only two of the nine posts in his portfolio of samples deviated from the pattern in very brief, inconsequential free verse. That subject's posts were of similar quality at the end of the observation to those at the beginning.

The portfolios of samples gathered for each of the students are testimony to the effects of motivation and levels of interest in writing each student felt during the time of the observation, which spanned three quarters of the school year. Although the achievements in writing differed among the four, they had in common one valued quality: the natural voice of the writer was clear in every post, even in the last sample by the third student. Her subject was her boredom during spring break: the flat tone, repetitive language, and unsubstantiated generalities all perfectly matched the topic, whether intentionally or not.

### **Implications**

Some observers question whether blogs used in educational settings are really blogs because students often write to prompts rather than writing from their own interests, generally don't contribute unless they are required to do so, and stop blogging as soon as the term ends (Downes, 2004; Richardson, 2003). Students seem inclined to write trivia unless they are either taught or pushed to a more challenging level of reflection and engagement, although that is not surprising given that they are children and do not have the broader view and deeper life experience of adults. Further, the realities of a school setting necessitate restrictions of time, access, and independent choice that range from moderate to severe. However, the real issue for school blogs is not what they cannot do or be, but what they can provide for students: a public, interactive, reading and writing space that can make all students participants rather than bystanders, and that promotes the evolution of communities of learners as both readers and writers (Downes, 2004; Richardson, 2006b). It is the matter of what blogs can provide for students, and what

effects this text-based, interactive communication platform may have on their motivation to write and their writing skills themselves, that this study investigated.

The conclusion that emerged from this research was that blogging can be a highly effective tool for teaching and learning. Further, blogs are a particularly apt tool for instruction, given that contemporary students live in a media-rich environment in which most are already familiar with and engaged in text-based electronic communication in the form of e-mail, IM, cell phone text messaging, chat rooms, and even their own personal blogs (Chen, 2005).

Twenty years ago, the *English Journal* published a number of articles that discussed the novel challenges presented to teachers by the arrival of computers in schools. Both interest and concern were expressed about the potential effects of word processing and, more distantly, e-mail, on common composition activities like journal writing and peer editing, as well as on the production of papers themselves. English teachers in particular were resistant to what they perceived as a technology-created distance between themselves and their students (Hawisher & Moran, 1993). They also had to work through their reservations about whether electronically produced documents differed materially from what students produced by hand, or whether special instruction in writing was needed for students in the uncertain world of e-mail, where even early on traditional writing standards seemed to be ignored (Hawisher & Moran; Wright, 1988). Now, years later, concerns for writing standards continue to find expression in print, although the ubiquity of computer use and word processing has long since obviated those early worries. However, a review of the tables of contents for issues of the *English Journal* in the past four years reveals virtually no discussion of the newer, interactive

technologies of blogs, wikis, and collaborative composing spaces like Google Docs for teaching composition or producing pieces of writing, even though NCTE (2004) affirms the value of technology for instruction. Given the variety and capabilities of the newer technologies, that silence attests to the slowness with which innovations are explored by early adopters, and then either pass into common use or remain outside the mainstream.

### *Instructional Opportunities Inherent in Blogging*

The advent of new approaches to teaching, or of new technology, has always meant adjustments and changes in classroom practice, or changes in methodology. Early adopters of word processing and e-mail in 1980s were required to make some changes in instructional strategies as well as learn to use the new resources themselves in order to keep up with students. Blogging, which became easily available seven years ago, is qualitatively different, requiring a higher level of teacher and student investment in the technology, as well as more distinctive changes in classroom practice.

This study showed that the early adopters of blogging have been teachers who are comfortable with computers and who are interested in exploring the instructional applications of new technologies. Many of those teachers have blogs themselves, and so have experience with the somewhat daring process of putting one's writing on the Internet for any reader who wishes to read it and respond. Some teachers use blogs with their students without having blogs themselves, and do so successfully, although personal experience with the technology seems to be an advantage.

Writing events in traditional classrooms, including papers, reports, and journals, are typically used to convey students' understanding of their reading, although the

literature affirms that students respond well when they have the opportunity to make choices about their learning (Elbow, 2000; Haneda & Wells, 2000). Blogs may be used for traditional assignments. However, the majority of teachers in the study used off-blog assignments for the traditional purposes, and nearly half viewed blogs as space for students to practice writing, with the latitude to choose their own topics or to select from prompts the teacher provides, and then to choose the mode and voice of the response itself. Elbow for years advocated giving students opportunities to write freely, and to write for friends who approve and support them as well as for the non-critical eye of the teacher who refrains from marking or otherwise evaluating the writing. The combination of choice and positive support helps young writers build self-efficacy as well as learn to control the processes of writing, and helps students develop a sense of participation in a community of writers who are also readers, a point particularly emphasized by four of the teachers who were interviewed.

Inconsistent access to computers is a practical matter that may either diminish the interest in blogging for both teachers and students, or in fact substantially hinder it. In spite of more than 20 years of investment by school districts in computer technology, the digital divide still exists. As comments on both the survey and interviews revealed, some schools have only limited availability either in a computer lab—which one teacher reported was too small, in his school, to accommodate the whole class—or to a mobile cart of laptops which must be scheduled for class time. In both circumstances, students must share equipment. In schools in communities where computers are scarce, having limited access in school may not be sufficient to support students' interest in blogging, even if the teacher encourages it.

Administrative support is an essential for teachers in any circumstance, but particularly for those who introduce blogging into their classrooms. Resources, including time, must be directed to sustained training and implementation. Blogs may seem interesting to a teacher at a conference or by example of a colleague, but teachers in isolation or without adequate support frequently set up blogs and then abandon them if the additional time and effort they require seem too much, even though blogging holds promise for their students. In addition, administrative policies at the school or district level may add layers of restrictions, however much they are deemed necessary for students' safety and security.

One more factor must be added to the combination of teachers' preparation and instructional plans, students' access to computers, and administrative support: blogging must be valued. If students are to engage in it in a meaningful way, blogging needs to be a regular, continuing class activity rather than an occasional sidebar or an option rewarded with homework credits but otherwise no particular notice. Whether students participate in blogging during class time, or whether they find their own access to computers, blogging seems to be just extra work rather than an opportunity to explore and discover if it is not valued and integrated into the instructional fabric of a class.

### *Motivation and Achievement in Writing*

In the traditional classroom practice, students occasionally have the opportunity to read each other's writing, usually in peer review sessions. The teacher is the primary reader and also the principal evaluator, which leads to students perceiving the evaluation process an opportunity for teachers to tell them what they have done wrong. Bardine et



al. (2000) reported that research suggests this perception is accurate: more than 80% of the comments teachers write on students' papers are negatives, e.g., indications of surface errors, poor sentence construction, and lack of adequate information or detail. Further, students often do not understand what the teacher's comments mean, do not learn anything of value from observations such as "good job," or "confusing," and concentrate on the grade as the important element of the assessment. Patthey-Chavez et al. (2004) had similar results in a study of the nature and effect of feedback teachers provide students during the writing process: only surface-level feedback 58% of the time, and a mix of content and surface level 34% of the time, with the focus of content feedback on requests for clarifying information rather on fundamental issues relating to structure, organization, balance of language and topic, and other matters related to the quality of content as well as language use.

Ryan and Deci's (2000) research distinguished between intrinsic and extrinsic motivation, demonstrating the importance for students of three main elements in the learning environment: perceptions of control and of competence, as well as a sense of belonging in the social milieu. External rewards such as grades or even praise were less efficacious for motivating behavior. The teacher's challenge is not only to help students learn how to write, but to tap the intrinsic motivation that helps them want to write, want to engage in a discourse community (Bruning & Horn, 2000).

Using a computer for class writing projects can generate an initial level of interest for most students, but maintaining and helping to deepen that interest requires more. The role of the teacher is essential in helping students develop interest for writing, referring to students' attitudes about writing as well as what they produce. Lipstein and Renninger

(2007) posited that students' motivation for writing may be increased if teachers recognize and respond to the needs they exhibit for their level of interest. That is, students whose interest level is low and who see writing as a burden respond best to concrete directions for changes that will give them the sense of improving their work. Students who have a high self-efficacy for writing respond well to challenges to reach for higher levels of achievement. All students thrive on support. Teachers may address students' needs in the individualized comments they write papers. As well, traditional peer conferences and whole-class instruction provide some opportunities for feedback for students whose degrees of interest for writing vary (Lipstein & Renninger). However, these are no longer the only resources for teaching and learning.

Blogs are a tool with clear potential for instruction in composition. The study suggested that they are effective in fostering positive attitudes in students about writing, as well as in raising students' achievement levels. That claim must be tempered with the reality that it does not apply in every instance, and for every student. Blogs may afford an unprecedented combination of opportunities that are associated with positive feelings about writing: participation in a networked, electronic community of writers and readers that grows as long as its members continue adding to it; self-direction for topics, purposes, and writing modes; and flexible space to practice writing without the burden of grades but with the natural feedback of willing readers who are interested enough to respond to the writing.

## Recommendations

The findings of the study highlight several possible areas of interest for further investigation. Research in composition in the past three decades has led to better understanding of what transpires during the act of writing itself. But there are a number of issues relevant to this study that merit attention:

- 1      Transfer of learning: Data from the survey, the telephone interviews, and the class observation suggested that blogging helps develop fluency in students' writing, along with an awareness of the values of word choice, organization, supporting detail, rhetorical devices, and attention to matters of linguistic correctness. It was not within the scope of this study to investigate whether and to what degree these qualities transfer to off-blog writing, the primary venue for academic writing.
- 2      The nature and effect of interactive feedback: The three data sources confirmed students' active participation in the novel feature of blogs: the opportunity for readers to directly address the writer of a given post with questions, observations, or comments. The networking capability of blogs also enables readers to engage with each other, as well as with the environment beyond that particular blog. Questions raised include the nature of readers' feedback, and effects of that feedback on writers.
- 3      The role of self-image in developing writing skills: By the time they are in high school, students have been through years of having teachers evaluate their writing for school. For better or worse, many students have well-established estimates of their ability to write. A question raised by the study that invites further research is

what effect engaging in the give and take of blogging has on student attitudes about their abilities as writers and the possibility of change and improvement.

- 4 The role of the teacher as observer or participant: The nature and effect of teachers' engagement with their students' posts as well as their students' interaction with others' blog posts might be explored.
- 5 Valuation of blogging: Two themes related to students' attitudes about blogging emerged in the study. First, students wanted feedback from readers, and freely provided comments to other students' posts. Second, students regarded blogging as a burden if they felt ignored, or if the blogging seemed to be an add-on that was little valued or of little consequence in class. The valuation for off-blog writing is almost universally expressed in grades given by the teacher. A question for research might be to explore how blogging might be valued to enhance the possibility of transfer of learning to more formal writing events.
- 6 Literacy immersion in the classroom: How can blogging be integrated into teaching practice to help support a literacy-rich classroom environment? That is, what standards and resources, teacher training and instructional practices are useful, or necessary, to enable the potential of blogging to be realized?

## **Summary**

Blogs began in 1994 with *Justin's Links From the Underground*, the hand-coded journal of Justin Hall, a college sophomore who published his thoughts and a list or log of favorite Websites to the Internet as an expression of his interests, accessible to anyone who chose to read it (Harmanci, 2005). A small number of computer users followed that

lead and that format, their journals dubbed “weblogs” by Jorn Barger in 1997 (Blood, 2004). Two years later, in 1999, user friendly blog software was made available by several companies including Blogger (<http://www.blogger.com>), which distributed it at no cost. With blog software, anyone who wanted to establish a blog, for any purpose, could do so. Additions and improvements followed, the most significant of which was the comment feature which enabled interactive communication between the blog owner and readers, and among readers. The potential for application of the technology in a variety of environments, including education, quickly became apparent. Early adopters across a range of academic subjects including English and journalism began exploring ways in which blogs might be integrated into instruction, and ways in which teaching and learning might be enhanced as a result.

The study was guided by four questions that explored how the early adopters who were using blogs with their students were integrating them into their teaching practice for writing instruction, the capabilities of blogs that are not afforded by other interactive electronic communication technologies, and the possible benefits to be obtained by students who engage in blogging. The questions were:

- 1 How are weblogs used in high school classes to teach writing?
- 2 How are weblogs different from impromptu writing tools such as e-mail, IM, and text messaging?
- 3 How do weblogs increase motivation to write?
- 4 In what ways do weblogs increase writing abilities and achievement?

The research design for this exploratory, descriptive study included three data sources, and used both quantitative and qualitative methodologies: a Web survey, semi-structured telephone interviews with six high school English teachers who were using blogs with their students, and a class observation of the blog posts of four 10<sup>th</sup> grade students over a total of nine weeks of 2006-2007 the school year. The qualitative data gathered in the class observation and the open-ended questions of the telephone interviews informed the data collected through the survey by illuminating it and providing context for it (Krathwohl, 2004).

Because blogs in the classroom are a recent phenomenon, there are as yet no research instruments available that focus on the manner and efficacy of blogs as a tool for writing instruction. Accordingly, a survey specifically for this study was created and tested by a panel of experts, and then was placed on the Internet for a period of eight weeks. Notices of the survey were placed on a total of 17 listservs, blogs, and forums whose readers and members either use or support educational technology. Forty-five high school teachers completed the survey; their responses were sent to a database set up to collect the survey data. The respondents represented 18 states and 2 foreign countries. None were first-year teachers; their years of service ranged from 2 years to 39, with a mean of 13.4 years and a mode of 5. Twenty-three of the teachers identified the classes in which they used blogs as 11<sup>th</sup> and 12<sup>th</sup> grade. Eight teachers identified their classes as 9<sup>th</sup> or 10<sup>th</sup> grade. The courses ranged from AP English through regular English to journalism, creative writing, and speech. Perhaps reflective of the emphasis of the past two decades on teaching writing across the curriculum, six non-English classes in which blogs were used for subject matter as well as for writing instruction included social studies, physics

at two different grade levels, religion, American history, and AP biology. Twenty-nine teachers reported using blogs for just one or two years; eleven between three and five years, and one for six years. Four teachers did not identify the classes with which they used blogs. Pearson's  $r$  showed a positive correlation between years of service and years of using blogs, although too small to be significant.

Semi-structured telephone interviews were conducted with six high school English teachers between the last week of February and the second week of May in the school year just finished. The teachers were located in Utah, Kansas, Illinois, Connecticut, New Jersey, and New York, and taught in urban, suburban, and small town environments. One of the six was a professional acquaintance of the investigator; the other five were members of the NWP, four of them instructors in NWP summer workshops for teachers interested in using technology in their classrooms. The interviews, which ranged from 30 minutes to just under an hour, were carried out at times and on dates selected by the participants. Detailed, handwritten notes were taken as the conversations proceeded (see a summary of the notes, Appendix I). The order of questions for the interviews followed the pattern of the survey.

The class observation was carried out over nine weeks of the 2006-2007 school year: the first four weeks in September and five weeks in March and early April. The blog environment was the YouthVoices Elgg, a social networking site at <http://www.youthvoices.net> where classes of high school students from a number of schools share their personal blogs. The two boys and two girls selected for the observation were 10<sup>th</sup> grade students at a small, co-ed, academically oriented 7-12 grade school in New York City, where the student population is approximately 90% Black and

Hispanic, 10% White and Asian. A portfolio of nine writing samples was collected for each subject. The samples were read for language use, structure, and content. These elements were rated on a three-point Likert scale, with the results plotted on a graph for each portfolio that revealed trend lines across the nine posts.

The principal result of the survey, corroborated by the interviews and the class observation, was to demonstrate that blogs are an instructional tool with unusual potential both for encouraging a positive attitude toward composition and for helping students improve the quality of their writing, although blogging is not a successful and productive activity for every teacher, and every student. Most though not all teachers who use blogging in the classroom have their own blogs; the majority of students must be taught the process of blogging, which may not be either easy or automatic. Various barriers to educational blogging include lack of training and support for teachers; limitations set by school district policies; lack of access to hardware during class time and, for some students, outside of class; technical problems; and the need to closely observe security measures to protect students' interests.

There is no best way to organize class blogging. In some instances teachers in the study provided writing prompts designed to extend discussion of class activities; in others, students were free to initiate their own, often personal, topics though within guidelines provided by the teacher. In either case, the blog was generally regarded as space for students to practice writing, with students given considerable latitude. In addition to blogging, students typically were tasked with off-blog writing events that followed the traditional paradigm of a focused prompt provided by the teacher, with individual instruction provided in teachers' comments, and summative grades.



Feedback occurs in several ways in blogging. Teachers reported they take a light hand, generally giving students credit for meeting a participation requirement but not otherwise evaluating individual posts. A primary value of blogging is the interactive capability that enables readers to comment to writers, and writers to respond. Data from all three sources indicated the value of these exchanges for scaffolding writers, for pushing them to write more clearly or more fully, and for drawing readers into the writers' role.

Blogging is a writing tool with a persistence and flexibility not shared by other impromptu writing technologies. It enables the development of communities of writers and readers that extend laterally through links to other blogs and Websites, and vertically through as many layers of exchange as the writer and readers of a blog post choose. In addition to links, any blog post may be enriched as the author wishes with any combination of graphics, podcasts, or video.

As novel as blogging may be, it does not automatically motivate students to become eager, enthusiastic writers. The study revealed that some students decline to participate even if the rest of the class is involved. However because blogging involves using computers for school writing tasks, most students are at least attracted at the situational level of interest, although those who are confident about their writing may be motivated to engage with blogging at higher, more self-directed and sustained levels. As the literature predicts, the study showed that students do respond well to opportunities to choose what they want to write about, and how. With some prompting combined with a natural willingness to communicate, students do comment on each other's posts. Some of the commentary is banal and perfunctory: they write a few sentences because they are

required to do so. But often the remarks engage with the content of the writing, or with the manner of the writing, both of which require the reader to read and think, and then provide the author of a post with instructive feedback.

Evidence obtained in the study suggested that some students who lack confidence in their ability to write, or who view writing for school as vexatious, see blogging as just another form of a task with which they feel little enthusiasm. However, even stronger students may tire of blogging as the school year wanes in the late spring; one of the teachers interviewed makes participation in blogging optional for the last quarter of the school year.

Areas for further research suggested by the outcomes of this study are in two general categories, those related to students and those to teachers. A question regarding students is whether and how the writing capabilities evoked by blogging transfer to the writing events and purposes conventional in academia and in the larger world of participation in adult society. A second question is for the nature and effect of interactive feedback on students' writing skills. A third question is whether and how blogging affects students' perceptions of themselves as writers. Prospective areas for future research related to teachers and interactive communication technologies are first, the nature and dynamics of the teacher's role in instructional blogging. Second, what the valuation of blogging is as a tool for increasing literacy, including both the processes and the products. Does blogging have the potential of an electronic writers' workshop, and how is that potential operationalized? And third, what training, standards, and methodologies are needed to support teachers who integrate interactive electronic technologies into their practice.

Teaching high school students to communicate effectively in writing is a broad and complex problem that has never yielded a simple, clear solution. Capturing the voice in writing is an ancient craft, but it is also an art and so is deeply expressive of both logic, most basically in the grammar of a given language that children learn first in speech, and of creative thinking, the province of imagination, memory, and nuance. From the beginning, in every culture that has writing, the challenge for teachers has been how best to teach students the elusive skill of writing for readers who can and will understand. Over time, a variety of perspectives, techniques, methods, and proven practices have accumulated as instructional resources. This study showed that blogging has the potential to be among the best of those resources.

## **Appendix**

## Appendix A

### Web Survey



#### Teaching in the 21st Century: Weblogs and Writing in the High School Classroom

##### Contact Information

Principal Investigator:  
Marilyn Olander  
(olander@scis.nova.edu)

Dissertation Committee  
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Nova Southeastern  
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Avenue Ft. Lauderdale, FL,  
USA, 33314 (954)  
262-2000(phone)

Institutional Review Nova  
Southeastern University  
Office of Grants and  
Contracts (954) 262-5369

##### Informed Consent Form

Funding Source: None  
IRB approval # cannady11150605

###### Description of the Study

This survey is part of a doctoral research project investigating the use of weblogs as a tool for writing instruction in the high school, specifically how teachers are using them, and whether participating in blogs affects students' attitudes toward writing as well as their writing skills. Procedures: This is an online survey. After reading this explanation of informed consent, you can proceed. Clicking on the "Accept" button below will be understood to represent your consent to participate. If you click on the "Accept" button, you will be taken to a Web page for the survey, which will take about 10 minutes to complete. Your responses to the survey questions will be stored in a database, but they will be anonymous. That is, your responses will not be linked to your name or identity in any way.

###### Risks / Benefits to the Participant:

Completion of the survey carries minimal to no foreseeable risks. A copy of the results will be provided to you at the end of the study, if you wish to receive it.

###### Alternatives:

You have the alternative not to participate in this study. Click on the "Cancel" button below if you choose not to proceed.

###### Costs and Payments to the Participant:

There are no costs associated with completing the survey. You will not be paid for completing it.

###### Confidentiality:

No personally identifiable record, data, or document will be generated by your participating in this study. Your answers will be sent anonymously to the study database.

###### Right to Withdraw:

Your participation in the survey is fully voluntary. You have the right to end your participation at any time by exiting the survey; any answers you have given will be canceled at the time of exit, and will not be sent to the database. You also have the right to skip any questions you choose not to answer.

###### Other Participant Information

The principal investigator, Marilyn Olander, will answer any questions you may have about the study. You may write her at olander@scis.nova.edu or call NSU at (954) 262-2000. Her advisor is Dr. Trudy Abramson at (954) 262-2000. If you have any questions about your rights as a research participant you may contact the Nova Southeastern University IRB Office at (954) 262-5369.

###### Voluntary Consent by Participant

I have read the preceding consent form, or it has been read to me, and I fully understand the contents of this document and voluntarily consent to participate. All of my questions concerning the research have been answered. I hereby agree to participate in this research study. If I have any questions in the future about this study they will be answered by Marilyn Olander. I may print a copy of this form. This consent ends at the conclusion of this study.


**Accept and Continue**  
CANCEL

SurveyOne - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.sitelineaz.com/olander1.php

Customize Links Free Hotmail RealPlayer Windows Marketplace Windows Media Windows Furl It TinyURL!



**NOVA SOUTHEASTERN UNIVERSITY**  
Graduate School of Computer and Information Sciences

Directions: The questions below relate to how weblogs are being used as a tool to teach writing in the high school classroom. Please indicate your experience by clicking the radio button that most accurately reflects your teaching practice. You may change an answer by clicking a different choice in the same line. If you choose not to answer a question, please click NR (No Response). You may exit the survey at any time simply by clicking the "X" in the upper right corner of your monitor. Your answers will not be recorded until you click the "Submit Survey" button following the last question.

**1. How did you prepare to use blogs in your teaching practice?**

a. I have a personal blog. Yes  No  NR

b. I participated in school, district, or conference training. Yes  No  NR

c. I read other educators' blogs for ideas and information. Yes  No  NR

d. I was assisted by the school technology coordinator. Yes  No  NR

e. I didn't have training. I started on my own initiative. Yes  No  NR

**2. How are students prepared to use blogs in your class?**

a. Most students are familiar with blogging software. Yes  No  NR

b. Most students must be taught to use blogging software. Yes  No  NR

c. Students agree to a code of ethics prior to participation. Yes  No  NR

**3. How are blogs set up in your teaching practice?**

a. A main class blog for both teacher's and students' posts. Yes  No  NR

b. A main class blog plus linked student blogs. Yes  No  NR

c. A main class blog primarily as students' writing space. Yes  No  NR

d. Access to students' blogging is password protected. Yes  No  NR

e. All class blogging is open to the Internet. Yes  No  NR

**4. How do you use blogs in your teaching practice?**

a. I regularly schedule class time for blogging. Yes  No  NR

b. I review all student posts prior to publishing. Yes  No  NR

c. I regularly provide writing prompts for students. Yes  No  NR

d. Students may initiate discussion topics in the class blog. Yes  No  NR

e. Students write some assignments off-blog. Yes  No  NR

**5. How do you assess students' writing in blog posts?**

a. Credit is given just for meeting a posting requirement. Yes  No  NR

b. I occasionally grade students' posts. Yes  No  NR

c. I regularly grade students' posts. Yes  No  NR

d. I track but do not grade students' blog posts. Yes  No  NR

e. I occasionally post reminders of writing standards. Yes  No  NR

f. I reserve grading for off-blog writing assignments. Yes  No  NR

[CONTINUE](#)

word2kmaster... ScratchInstalle...

Done

**6. To what degree do typical students use blogs as writing space?**

- a. Record experience, as a journal. Great  Moderate  Limited  Little/None  NR
- b. Express personal opinions. Great  Moderate  Limited  Little/None  NR
- c. Express reflective thinking. Great  Moderate  Limited  Little/None  NR
- d. Synthesize thinking with that of others. Great  Moderate  Limited  Little/None  NR
- e. Have continuing discussion with others. Great  Moderate  Limited  Little/None  NR
- f. Enrich writing with links or multimedia. Great  Moderate  Limited  Little/None  NR

**7. To what degree do blogs affect typical students' motivation to write?**

- a. The novelty of publishing is motivating. Great  Moderate  Limited  Little/None  NR
- b. Students must be reminded to post. Great  Moderate  Limited  Little/None  NR
- c. Students request feedback from readers. Great  Moderate  Limited  Little/None  NR
- d. Students provide feedback without being prompted. Great  Moderate  Limited  Little/None  NR
- e. Students show ownership of writing space. Great  Moderate  Limited  Little/None  NR

**8. To what degree do blogs affect typical students' writing ability?**

- a. Writing shows evidence of care (few surface errors). Great  Moderate  Limited  Little/None  NR
- b. Writing is focused and specific. Great  Moderate  Limited  Little/None  NR
- c. Writing is structured and organized. Great  Moderate  Limited  Little/None  NR
- d. Students write detailed explanations. Great  Moderate  Limited  Little/None  NR
- e. Students use language with fluency. Great  Moderate  Limited  Little/None  NR

**9. In your teaching practice to what degree have these interactive technologies been for writing instruction? If you have not used a technology, please mark NR (No Response).**

- a. Email Great  Moderate  Limited  Little/None  NR
- b. Wiki Great  Moderate  Limited  Little/None  NR
- c. Listserv Great  Moderate  Limited  Little/None  NR
- d. Chat room Great  Moderate  Limited  Little/None  NR
- e. Instant messaging Great  Moderate  Limited  Little/None  NR

CONTINUE

10. What do you consider the principal benefits of using blogs as a tool for students' writing/writing instruction?

11. What do you consider the principal drawbacks of using blogs as a tool for students' writing/writing instruction?

12. Including this school year, how many years have you been employed as a teacher? (Include both full and part-time, public and private schools).

Years:

13. Including this year, how many years have you used blogs as a tool for students' writing/writing instruction?

Years:

14. In what class(es) do you use blogs (e.g., 9th grade English)?

Classes:

15. In what state are you located or what country if you are outside the U.S.?

State (or Country):

16. If you would like a copy of the results of this survey, please provide your email address.

Email Address:

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Done



## Appendix B

### Telephone Interview Schedule

#### Teaching with 21<sup>st</sup> Century Technology: Weblogs and Writing Telephone Interview Question Sets

Interview with: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Phone: \_\_\_\_\_

**Hello. I am grateful to you for agreeing to participate in this research project investigating how teachers are using blogs in high school classrooms for writing instruction.**

**This interview will take approximately 15 minutes. f at any time you wish to end your participation, all you need to do is say so. If you do not wish to have the information you have provided included in the study, I will destroy it when this conversation is terminated, along with my notes.**

**Let's begin.**

#### **Question Set 1**

A. Did you have training for using blogs prior to introducing them into your teaching practice?

**Yes**

**No**

Would you describe your  
describe  
training for me?

How did you prepare? Would you  
it for me?

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B. Was your training / preparation adequate?

**Yes**

**No**

If yes, go to Question Set 2.

If no, what else could have been done?

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### **Question Set 2**

How do you use blogs in your teaching practice, e.g., regular class time, review all student posts, participation requirement? Would you explain for me?

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### **Question Set 3**

How do you provide feedback and assessment to students about their blog posts? Would you explain it for me?

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### **Question Set 4**

In your view, does using blogs affect students' motivation to write?

**Yes**

**No**

Would you explain how, for me?

Go on to Question Set 5

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**If yes:**

What evidence do students generate that shows a difference in motivation over traditional practice?

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**Question Set 5**

In your view, does using blogs affect the quality of the typical students' writing?

**Yes**

**No**

Would you explain how the quality of writing is affected?

Go on to Question Set 6.

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**Question Set 6**

In your teaching practice, have you used other interactive technologies as tools for writing instruction, e.g., e-mail, listserves, chat rooms, wikis, instant messaging?

**Yes**

**No**

Would you explain what you have used, and whether it has been effective?

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7 In what class do you use blogs for writing instruction? \_\_\_\_\_

8 Including this year, how many years have you been teaching writing? \_\_\_\_\_

9 Including this year, how many years have you been using blogs for writing instruction? \_\_\_\_\_

If you would like a copy of the abstract for this study, at its conclusion, I would be glad to mail it to you. \_\_\_ Yes \_\_\_ No

E-mail or postal address: \_\_\_\_\_

**Thank you very much. Your participation in this study is very important, and greatly appreciated.**

## Appendix C

### Class Observation Rating Schedule

**Student:**            A      B      C      D                            **Date:** \_\_\_\_\_

**Type of Post:**    Personal \_\_\_\_    Class Topic \_\_\_\_

|   | High (3) | Middle (2) | Low (1) | N/A |
|---|----------|------------|---------|-----|
| <b>I Language</b>                                   |          |            |         |     |
| Fluency - language                                  |          |            |         |     |
| Fluency - length                                    |          |            |         |     |
| Sentence patterns varied                            |          |            |         |     |
| Voice natural                                       |          |            |         |     |
| Language appropriate to subject                     |          |            |         |     |
| Language distinctive (vivid, fresh)                 |          |            |         |     |
| Correctness (sp, gr, p, mechanics)                  |          |            |         |     |
|   |          |            |         |     |
| <b>II Structure</b>                                 |          |            |         |     |
| Clear beginning, middle, end                        |          |            |         |     |
| Logical order of information                        |          |            |         |     |
| Paras. unified / no extraneous info                 |          |            |         |     |
| Paras. coherent / internally organized              |          |            |         |     |
|   |          |            |         |     |
| <b>III Content</b>                                  |          |            |         |     |
| Balance of detail, generalities                     |          |            |         |     |
| Integration of specific info                        |          |            |         |     |
| Higher level thinking (eval, judgment)              |          |            |         |     |
| Creativity (wit, insight)                           |          |            |         |     |
| Awareness of readers (ref by name; ref other posts) |          |            |         |     |
|   |          |            |         |     |

**Notes:**

## Appendix D

### Adult/General Informed Consent, Telephone Interview



Page 1

Funding Source: N/A

NSU IRB Approval Date: November 15, 2006

Marilyn V. Olander  
 5305 N. Via La Doncella  
 Tucson, AZ 85750-7075  
 (520) 615-9151  
[olander@scis.nova.edu](mailto:olander@scis.nova.edu)

Adviser : Gertrude (Trudy) Abramson, Ed.D.  
 Graduate School of Computer and Information Science  
 Nova Southeastern University  
 3301 College Avenue, DeSantis Building  
 (954) 262-2000  
[abramson@nova.edu](mailto:abramson@nova.edu)

Institutional Review Board, Office of Grants and Contracts, Nova Southeastern University: (954) 262-5369

#### *Description of the Study*

In this study, I am investigating the use of Internet Weblog technology in the high school classroom. The specific focus is on how teachers are currently using blogs as a tool for writing instruction, and whether participating in blogs affects students' motivation to write as well as their writing skills. Data collection will be through an online survey, observation of a class blog, and telephone interviews with teachers who are using blogs. If you agree to participate, the interview would be approximately 20 minutes. If a callback were necessary for clarification of information, it would be only by your permission.

#### *Risks/Benefits to the Participant*

Any risks associated with this study are thought to be minimal. You are free to end your participation at any time, with no penalty. If you have any questions at any time about the study or about your participation in it, I will answer them. If you wish to have an abstract of the study at its conclusion, I will mail it to you at the address you provide. If you have any concerns about the risks or the benefits of participating in this study, you can write to me or call me, or the Nova Southeastern University IRB Office. The address and both numbers are above.

#### *Costs and Payments to the Participant*

There are no costs to you or payments made for participating in this study.

#### *Confidentiality and Privacy*

All information obtained in this study is strictly confidential unless disclosure is required by law. You will be assigned a code number, which will be used instead of your name on the

\_\_\_\_\_ *Initials*      \_\_\_\_\_ *Date*



assessments and in the report narrative in this study. I, Marilyn V. Olander, will be the only person to have access to the codes associated with participants' names. In this study, I am not evaluating you or your teaching practice. Rather, I am studying how high school teachers are currently using blogs as a tool for writing instruction, and what effect blogging may be having on students' perception of writing and writing skills. I will use the information gathered for statistical and summary purposes only. Your anonymity and confidentiality will be protected at all times.

*Use of Protected Health Information (PHI)*

This study does not require the disclosure of any Protected Health Information.

*Participant's Right to Withdraw from the Study*

You are completely free to stop participating in the study at any time, without any penalty. In that instance, any notes or audio recording made during the interview will be destroyed at the conclusion of the telephone contact, unless prohibited by state or federal law.

*Other Considerations*

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you by Marilyn V. Olander.

I will assist you and answer any questions you may have at any time. If you are willing to participate, please sign the following statement and return it in the envelope provided:

**I have read the preceding consent form, or it has been read to me, and I fully understand the contents of this document and voluntarily consent to participate. All of my questions concerning the research have been answered. I hereby agree to participate in this research study. If I have any questions in the future about this study, they will be answered by Marilyn V. Olander. A copy of this form has been given to me. This consent ends at the conclusion of this study.**

Participant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Witness's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix E

### Institutional Review Board Approval



NOVA SOUTHEASTERN UNIVERSITY  
Office of Grants and Contracts  
Institutional Review Board

#### MEMORANDUM

**To:** Marilyn Olander  
**From:** James Cannady, Ph.D.  
Institutional Review Board

A handwritten signature in blue ink, appearing to read 'J. Cannady', is written over a horizontal line. Below the line, the word 'Signature' is printed.

**Date:** November 15, 2006

**Re:** *Painting the Voice: Weblogs and Writing Instruction in the High School Classroom*

**IRB Approval Number:** cannady11150605

I have reviewed the above-referenced research protocol at the center level. Based on the information provided, I have determined that this study is exempt from further IRB review. You may proceed with your study as described to the IRB. As principal investigator, you must adhere to the following requirements:

- 1) **CONSENT:** If recruitment procedures include consent forms these must be obtained in such a manner that they are clearly understood by the subjects and the process affords subjects the opportunity to ask questions, obtain detailed answers from those directly involved in the research, and have sufficient time to consider their participation after they have been provided this information. The subjects must be given a copy of the signed consent document, and a copy must be placed in a secure file separate from de-identified participant information. Record of informed consent must be retained for a minimum of three years from the conclusion of the study.
- 2) **ADVERSE REACTIONS:** The principal investigator is required to notify the IRB chair and me (954-262-5369 and 954-262-2085 respectively) of any adverse reactions or unanticipated events that may develop as a result of this study. Reactions or events may include, but are not limited to, injury, depression as a result of participation in the study, life-threatening situation, death, or loss of confidentiality/anonymity of subject. Approval may be withdrawn if the problem is serious.
- 3) **AMENDMENTS:** Any changes in the study (e.g., procedures, number or types of subjects, consent forms, investigators, etc.) must be approved by the IRB prior to implementation. Please be advised that changes in a study may require further review depending on the nature of the change. Please contact me with any questions regarding amendments or changes to your study.

The NSU IRB is in compliance with the requirements for the protection of human subjects prescribed in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46) revised June 18, 1991.

**Cc:** Protocol File  
Office of Grants and Contracts (if study is funded)

## Appendix F

### Announcements of Web Survey

#### First Announcement

Teaching in the 21<sup>st</sup> Century

Do you use blogs in your high school teaching practice? Would you do a favor?

New and evolving interactive technologies such as blogs, wikis, and podcasts hold unprecedented potential as instruments for teaching and learning in the 21st century. I am conducting an online survey as part of a doctoral research project at Nova Southeastern University that looks into the use of one of those technologies, blogs, as a tool for writing instruction in the high school classroom. The purpose of this research is to investigate how teachers set up and manage blogs, and whether participating in blogs affects students' motivation to write as well as their writing skills. I would be grateful if you would share your experience with instructional blogging by completing the survey. Your participation, which will be completely anonymous and confidential, will be valuable for developing insight into the efficacy of blogs for helping students grow into clear and effective young writers.

The survey takes only about 10 minutes. Your participation will be completely anonymous and confidential. If you would like a summary of the results at the conclusion of this research, I will be glad to provide it.

The survey is here: <<http://www.sitelineaz.com/21stCenturyTeachingSurvey.html>>

Thank you.

#### Second Announcement

Dear Colleague,

I am working on a doctoral research project that is trying to find out just how high school teachers are using blogs – how blogs are set up and managed, how students respond to blogging, and whether there are observable effects on students' writing skills.

Would you do a favor? Would you take a few minutes to complete an online survey that is part of this effort? Here's the link:

<<http://www.sitelineaz.com/21stCenturyTeachingSurvey.html>>



I am a former high school English teacher and English department chair from suburban Chicago, and I know well that there is little time in anyone's day for extras. But your contributing to the data the survey collects would be so helpful in ensuring the validity of the conclusions that may be drawn from it.

From one teacher to another, thank you for lending a hand.

## Appendix G

### Data Tables for Web Survey (N = 45)

#### Teaching in the 21<sup>st</sup> Century: Weblogs and Writing in the High School Classroom

| <b>1 How did you prepare to use blogs in your teaching practice?</b> |     |    |             |
|--|-----|----|-------------|
|  | Yes | No | No Response |
| a I have a personal blog.  | 25  | 17 | 3           |
| b I participated in school, district, or conference training.        | 14  | 25 | 6           |
| c I read other educators' blogs for ideas and information.           | 27  | 13 | 5           |
| d I was assisted by the school technology coordinator.               | 13  | 26 | 6           |
| e I didn't have training. I started on my own initiative.            | 29  | 11 | 5           |

| <b>2 How are students prepared to use blogs in your teaching practice?</b> |     |    |             |
|--|-----|----|-------------|
|  | Yes | No | No Response |
| a Most students are familiar with blogging software.                       | 19  | 23 | 3           |
| b Most students must be taught to use blogging software.                   | 26  | 15 | 4           |
| c Students agree to a code of ethics prior to participation.               | 23  | 15 | 7           |

| <b>3 How are blogs set up in your teaching practice?</b>    |     |    |             |
|---|-----|----|-------------|
|   | Yes | No | No Response |
| a A main class blog for both teacher's and students' posts. | 29  | 11 | 5           |
| b A main class blog plus linked student blogs.              | 14  | 26 | 5           |
| c A main class blog primarily as students' writing space.   | 18  | 22 | 5           |
| d Access to students' blogging is password protected.       | 23  | 18 | 4           |
| e All class blogging is open to the Internet.               | 19  | 19 | 7           |

| <b>4 How do you use blogs in your teaching practice?</b>     |     |    |             |
|--|-----|----|-------------|
|  | Yes | No | No Response |
| a I regularly schedule class time for blogging.              | 16  | 24 | 5           |
| b I review all student posts prior to publishing.            | 15  | 24 | 6           |
| c I regularly provide writing prompts for students.          | 32  | 9  | 4           |
| d Students may initiate discussion topics in the class blog. | 33  | 6  | 6           |
| e Students write some assignments off-blog.                  | 33  | 4  | 8           |

| <b>5 How do you assess students' writing in blog posts?</b> |     |    |             |
|---|-----|----|-------------|
|   | Yes | No | No Response |
| a Credit is given just for meeting a posting requirement.   | 26  | 13 | 6           |

|   |    |    |   |
|---|----|----|---|
| b I occasionally grade students' posts.               | 14 | 23 | 8 |
| c I regularly grade students' posts.                  | 17 | 22 | 6 |
| d I track but do not grade students' blog posts.      | 14 | 23 | 8 |
| e I occasionally post reminders of writing standards. | 18 | 18 | 9 |
| f I reserve grading for off-blog writing assignments. | 18 | 20 | 7 |

| <b>6 To what degree do typical students use blogs as writing space?</b> |       |          |         |                 |                |
|---|-------|----------|---------|-----------------|----------------|
|   | Great | Moderate | Limited | Little/<br>None | No<br>Response |
| a Record experience, as a journal.                                      | 5     | 20       | 11      | 5               | 4              |
| b Express personal opinions.  | 19    | 15       | 8       | 1               | 2              |
| c Express reflective thinking.  | 16    | 18       | 6       | 3               | 2              |
| d Synthesize thinking with that of others.                              | 14    | 13       | 10      | 6               | 2              |
| e Have continuing discussions with others.                              | 16    | 13       | 7       | 6               | 3              |
| f Enrich writing with links or multimedia.                              | 9     | 9        | 10      | 13              | 4              |

| <b>7 To what degree do blogs affect typical students' motivation to write?</b> |       |          |         |                 |                |
|--|-------|----------|---------|-----------------|----------------|
|  | Great | Moderate | Limited | Little/<br>None | No<br>Response |
| a The novelty of publishing is motivating.                                     | 18    | 17       | 6       | 2               | 2              |
| b Students must be reminded to post.   | 8     | 17       | 10      | 6               | 4              |
| c Students request feedback from readers.                                      | 9     | 19       | 10      | 3               | 4              |

|   |    |    |    |   |   |
|---|----|----|----|---|---|
| d Students provide feedback without being prompted. | 6  | 19 | 13 | 3 | 4 |
| e Students show ownership of writing space.         | 14 | 21 | 7  | 1 | 2 |

| <b>8 To what degree do blogs affect typical students' writing ability?</b> |       |          |         |                 |                |
|--|-------|----------|---------|-----------------|----------------|
|  | Great | Moderate | Limited | Little/<br>None | No<br>Response |
| a Writing shows evidence of care (few surface errors).                     | 6     | 26       | 7       | 4               | 5              |
| b Writing is focused and specific.   | 13    | 22       | 8       | 0               | 2              |
| c Writing is structured and organized.                                     | 7     | 23       | 12      | 1               | 2              |
| d Students write detailed explanations.                                    | 10    | 17       | 12      | 3               | 3              |
| e Students use language with fluency.                                      | 13    | 17       | 11      | 2               | 2              |

| <b>9 In your teaching practice to what degree have these interactive technologies been used for writing instruction? If you have not used a technology, please mark NR (No Response).</b> |       |          |         |                 |                |
|---|-------|----------|---------|-----------------|----------------|
|   | Great | Moderate | Limited | Little/<br>None | No<br>Response |
| a E-mail  | 18    | 8        | 15      | 2               | 2              |
| b Wiki  | 7     | 7        | 11      | 11              | 9              |
| c Listserv  | 8     | 5        | 6       | 15              | 11             |
| d Chat Room   | 6     | 2        | 11      | 15              | 11             |
| e Instant Messaging   | 6     | 4        | 6       | 17              | 12             |

**10 What do you consider the principal benefits of using blogs as a tool for students' writing / writing instruction?**

**11 What do you consider the principal drawbacks of using blogs as a tool for students' writing / writing instruction?**

Note: The anecdotal data for Questions 10 and 11 is reported in Appendix H.

## Appendix H

### Web Survey: Anecdotal Data, Questions 10 and 11 (N = 45)

|    | <b>Question 10: What do you consider the principal benefits of using blogs as a tool for students' writing/writing instruction?</b>  | <b>Question 11: What do you consider the principal drawbacks of using blogs as a tool for students' writing/writing instruction?</b> |
|----|--|--|
| 1  | The act of blogging seems to spark the students' creativity and open them up to being more willing to write.   | It's hard to teach blogging.   |
| 2  | Makes teaching and learning more interactive.  | Time to delete information—time consuming at end of class.   |
| 3  | Blogs provide an autonomous way for students to communicate and express themselves without the guidelines and structures often in place through traditional writing assignments. | The drawbacks of blogging include extra time required to teach and controlling content.  |
| 4  |  |  |
| 5  | Audience is expanded for the student and the student receives a variety of feedback.   | Sometimes access to Internet is down.  |
| 6  | Blogs provide an autonomous communication venue.   | Technology is not always dependable or available.  |
| 7  |  |  |
| 8  | Our class blog is used for journaling.   | We have had numerous technical difficulties.   |
| 9  | Encourages all students to participate through writing.  | Students will post inappropriate content.  |
| 10 | Getting and receiving feedback from more sources including other students.   | All of the blocks in school regulations.   |
| 11 | Journaling, processing.  | Keeping the posts "appropriate."   |

|    |   |  |
|----|---|--|
| 12 | Safe, private, and good motivation for students to express [themselves].  | Logging into the computer requires time and there _____.   |
| 13 | Easier to manage students' comments and discussions.  | I don't use it to teach, but to allow discussion.  |
| 14 | Motivation and authenticity.  | Limited / unequal acceptance by students.  |
| 15 | Interactive writing.  | Password protection.   |
| 16 | Blogs motivate all students to participate and become involved not only the more vocal or outspoken students. Draws a larger percentage of the class into the overall participation and expression. | Keeping students' ID secure.   |
| 17 | A motivational tool.  | Since August 06, access to Internet has been restricted.   |
| 18 |   |  |
| 19 | Development of freestyle writing.   | Not all students.  |
| 20 | Students have the option to express [themselves] in a variety of ways not just through traditional assignments.   | Blogging may keep the students preoccupied and not focused on traditional work.                            |
| 21 | Ownership. Anytime access.  | Some management, pas____.  |
| 22 | Currently, I do not use blogs regularly in the classroom.   | I don't have much experience with blogging.  |
| 23 | Authentic audience.   | Accessibility.   |
| 24 | It is easier to follow thought patterns and student development of ideas.   | There are none that I can think of.  |
| 25 | I primarily use blogs as an optional journaling tool.   | I live in a community that might not be comfortable with students using the Internet in class in this way. |
| 26 |   |  |
| 27 | Authentic experience.   | Lack of Internet accessibility.  |



|    |  |   |
|----|--|---|
| 28 | It works well for presenting ideas and discussion about what we read in class.   | I occasionally have technical difficulties.                             |
| 29 |  |   |
| 30 | Increases students' participation.   |   |
| 31 | Being away and facilitating discussions.   | Student access to computers.  |
| 32 | Ease of use and novelty.   | Public view may inhibit some students.                                  |
| 33 |  |   |
| 34 | Instruction through participative communication.   | Unless you are at a computer you can't participate.                     |
| 35 | I have used a blog at times for optional voluntary communication.  | Since it is voluntary, not all students participate.                    |
| 36 | They become used to using the computer and communicating online.   | Often our site _____.   |
| 37 | I use blogs in Creative writing to provide a wider audience and more feedback for each student. It also stimulates collaborative or interactive writing. | Students view the reader's comments.                                    |
| 38 | They act and they understand—participative method of learning.   | They learn something.   |
| 39 | I don't use my blog.   | na  |
| 40 |  |   |
| 41 | Communication with teacher is improved and some of the students communicate more often.  | They don't understand the technology.                                   |
| 42 | Students have their _____.   | The amount of time required by the instructor to read all of the blogs. |

|    |  |                                  |
|----|--|----------------------------------|
| 43 | Publication and authenticity.  | Technology blocks at the school. |
| 44 |  |                                  |
| 45 | Blog is a new type of communication that students are familiar and usually comfortable with. |                                  |

## Appendix I

### Notes: Semi-Structured Telephone Interviews

| Question   | Teacher S   | Teacher W   | Teacher P  | Teacher H   | Teacher O  | Teacher R   |
|--|---|---|--|---|--|---|
| <p><b>1 Did you have training for using blogs prior to introducing them into your teaching practice?</b></p> | <p>No. Introduced by former student. Attended state blog workshop several years ago.</p> <p>Tech director for district; state tech liaison for NWP; has own blog.</p> | <p>No. Former Web designer. Learned intuitively and by experimenting. Has blog.</p> | <p>No. Started as small experiment in 2002 at suggestion of NWP tech liaison colleague who was already using class blogs. Also participated in NWP teachers' invitational on blogging.</p> <p>Currently NWP tech liaison for city; joined with others to start Elgg. Has blog.</p> | <p>No. Computer savvy; self-taught. Has active public blog for topical social and political commentary, entirely apart from teaching.</p> | <p>No. Tech back-ground and Web-site creator. NWP tech liaison in state.</p> <p>Interested in blogging after discussion with another NWP tech. Has blog.</p> | <p>Yes. Introduced to blogs at NWP summer institute in home state and began experimenting.</p> <p>Now NWP tech liaison for state. Has blog.</p> |

| Question   | Teacher S   | Teacher W   | Teacher P  | Teacher H   | Teacher O  | Teacher R  |
|--|---|---|--|---|--|--|
| <b>2 How do you use blogs in your teaching practice?</b> | <p><b>1</b> Teacher's blog.</p> <p><b>2</b> Req: 1 biweekly post.</p> <p><b>3</b> Some class time.</p> <p><b>4</b> No preview prior to posting to blog.</p> <p><b>5</b> Code of ethics for students.</p> <p><b>6</b> Students use Google Docs to write, then post.</p> <p><b>7</b> Students paired for Google Docs, teacher has access to comment and help.</p> | <p><b>1</b> _____</p> <p><b>2</b> Req: 5 posts per week plus comments.</p> <p><b>3</b> Class too large for lab; all posting is homework.</p> <p><b>4</b> No preview.</p> <p><b>5</b> Code: Behave yourself.</p> <p><b>6</b> Wants to integrate blogging with reading.</p> <p><b>7</b> _____</p> | <p><b>1</b> Detailed setup and posting directions.</p> <p><b>2</b> Req: 1 post and 5 comments weekly.</p> <p><b>3</b> Class meets in lab daily.</p> <p><b>4</b> No preview; private comments if there are problems.</p> <p><b>5</b> Code of ethics for students.</p> <p><b>6</b> Blog is platform for writing, plus enriching; struggles to get beyond "I chose this because ____."</p> <p><b>7</b> Students use Google Docs to draft, MS Word to spell and grammar check.</p> | <p><b>1</b> Setup instructions on Website.</p> <p><b>2</b> Req: 1 post and 2 comments weekly.</p> <p><b>3</b> Two weeks in lab, then students on own; they cope. Last quarter optional.</p> <p><b>4</b> Previews all; returns some for correction prior to posting.</p> <p><b>5</b> Code of ethics in instructions.</p> <p><b>6</b> _____</p> <p><b>7</b> Reserves instructional comments for off-blog writing assignments.</p> | <p><b>1</b> Detailed setup and posting directions.</p> <p><b>2</b> Req: 2 posts weekly.</p> <p><b>3</b> Wednesday is technology day; student have almost no computer access elsewhere.</p> <p><b>4</b> No preview.</p> <p><b>5</b> Code of ethics in instructions.</p> <p><b>6</b> Disadvantaged community; students "overwhelm-ed" by blogging, engage minimally.</p> <p><b>7</b> Teacher gives extensive, continuing individual writing support.</p> | <p><b>1</b> _____</p> <p><b>2</b> Req: 5 substantive posts and 3 comments a semester.</p> <p><b>3</b> Regular 20-minute in-class handwrite, finish outside of class and post to blog.</p> <p><b>4</b> Previews all.</p> <p><b>5</b> _____</p> <p><b>6</b> Gives prompts; culls NWP Websites for ideas and Cameron's <i>The Right to Write</i>.</p> <p><b>7</b> Encourages experimentation with genres, modes, esp. creative writing.</p> |

| Question  | Teacher S   | Teacher W  | Teacher P  | Teacher H  | Teacher O  | Teacher R  |
|---|---|--|--|--|--|--|
| <b>3 How do you provide feedback and assessment to students about their blog posts?</b> | <p><b>1</b> Credit, no grade.</p> <p><b>2</b> Reserves traditional grades for off-blog assignments.</p> <p><b>3</b> Students partner on Google Docs, teacher collaborates; thus feedback from both partner and teacher.</p> <p><b>4</b> Students blog mainly for idea generation.</p> | <p><b>1</b> Credit, no grade.</p> <p><b>2</b> Reserves traditional grades for off-blog assignments.</p> <p><b>3</b> Posts general and individual comments on teacher's blog; students disappointed if readers do not leave comments.</p> <p><b>4</b> Blogging is opportunity to write without being criticized; students appreciate.</p> | <p><b>1</b> Holistic grades based on set standards. Must also meet posting requirement for given time period.</p> <p><b>2</b> _____</p> <p><b>3</b> Every third week students review all their own posts and comments, write 'How am I doing?'" self-assessment.</p> <p><b>4</b> _____</p> | <p><b>1</b> Graded, must meet minimum posting requirement plus standard for quality of writing. Post must be relevant and substantive.</p> <p><b>2</b> Traditional grades off-blog; sees legitimate quality issues; loathe to discourage students.</p> <p><b>3</b> Wants students to self-review; no credit for "really poor" work.</p> <p><b>4</b> Wants students to take responsibility for blog posts as "public face."</p> | <p><b>1</b> Participation grade.</p> <p><b>2</b> Reserves traditional grades. Participates in blog as feedback.</p> <p><b>3</b> Feedback all supportive; occasionally edits student work.</p> <p><b>4</b> Students reluctant to participate without being individually coaxed.</p> | <p><b>1</b> Traditional grades, counted as extra credit.</p> <p><b>2</b> Grades as for any writing assignment, credit not automatic.</p> <p><b>3</b> Some criteria-based feedback; reader feedback (guided by rubric) aids in freer, more authentic feedback.</p> <p><b>4</b> Students write 5 to 10 more substantive pieces than in non-blog classes.</p> |

| Question   | Teacher S   | Teacher W   | Teacher P  | Teacher H  | Teacher O   | Teacher R  |
|--|---|---|--|--|---|--|
| <b>4. Does using blogs affect students' motivation to write?</b> | <b>1</b> Yes; some stand out, "catch fire."                           | <b>1</b> _____  | <b>1</b> Yes; writing is never easy; "kids write tons more."   | <b>1</b> Mixed; better students work at a higher level, beyond requirements; others just want points; less able students continue to struggle. | <b>1</b> Very mixed; rare opportunity for most to access Internet Seen as "corny" or "boring," more affected by novelty of Wednesday as "computer day." | <b>1</b> Students "very much" motivated, reader feedback encourages going beyond minimum requirements.                         |
|  | <b>2</b> Students generally like blogging.                            | <b>2</b> Not as much as hoped.  | <b>2</b> Already good students blossom; those less able improve in varying degrees.                                  | <b>2</b> Not sure if posting is motivating, but responses from outside world are.  | <b>2</b> Blogging does help if students do it; won't write without individual help. Teacher must say e.g., "Explain _____ to me."                       | <b>2</b> Class will try collaborating with Art Dept students who will illustrate blog posts, create anthology for publication. |
|  | <b>3</b> Some reluctant, not computer literate; prefer pen and paper. | <b>3</b> Some openly dislike blogging; feel burdened, "No other teachers doing this." | <b>3</b> Students liked first-time experience with poetry; posted own; responded to others' poems with their own.    | <b>3</b> Even the better students tire of blogging by third quarter; posts made optional for extra credit in last quarter.                     | <b>3</b> Very minimal, reluctant participation.   | <b>3</b> Strong sense of ownership, self-direction, choice.  |
|  | <b>4</b> Students aware of community of writers; talk to each other.  | <b>4</b> _____  | <b>4</b> Teachers must recognize HS students' interest in socializing; blogging "tries to make it more interesting." | <b>4</b> _____   | <b>4</b> _____  | <b>4</b> Students fully aware of engaging with community of writers.   |

| Question   | Teacher S  | Teacher W  | Teacher P  | Teacher H   | Teacher O   | Teacher R  |
|--|--|--|--|---|---|--|
| <b>5 Does using blogs affect the quality of the typical student's writing?</b> | <b>1</b> Hasn't observed long enough to make judgment. | <b>1</b> Hard to tell; did not know students prior to this class.  | <b>1</b> Students sense blogging as a social activity.   | <b>1</b> Writing is <i>so hard</i> ; students must really be motivated for change to occur.   | <b>1</b> Only started blogs in December; not enough time to judge.  | <b>1</b> Does make a difference; students already publishing electronically with IM, text messages; motivated by need to do best work for public "face." |
|  | <b>2</b> _____   | <b>2</b> Sees some change in personal writing but not in analytical.   | <b>2</b> Pushes collaboration, multimedia. Dilemma: how to make blogging meaningful, tap students' "passions"? | <b>2</b> Better students "get pretty fluent, infuse writing with personality." "Length is <i>never</i> an issue." Struggling students continue to struggle. | <b>2</b> Students might gain more from practicing writing for clarity with e-mail. Blogs "too ambiguous"; students' writing generally slangy, poor. | <b>2</b> Students like electronic writing better than pen and paper.   |
|  | <b>3</b> _____   | <b>3</b> Students use more sources, links, graphics. Better students teach others how to use these elements. | <b>3</b> _____   | <b>3</b> _____  | <b>3</b> _____  | <b>3</b> _____   |
|  | <b>4</b> _____   | <b>4</b> Sees blogging as gateway to broader uses.   | <b>4</b> _____   | <b>4</b> _____  | <b>4</b> _____  | <b>4</b> Teacher must take advantage of students' interests; much depends on teacher.  |

| Question   | Teacher S   | Teacher W   | Teacher P   | Teacher H                                  | Teacher O  | Teacher R   |
|--|---|---|---|--|--|---|
| <b>6 Have you used other technologies for writing instruction?</b>           | 1 No.<br><br>2 _____  | 1 E-mail for communication with students but not for instruction.<br><br>2 Testing wikis. | 1 Tried listservs; has tried Flickr and Flash, plus other ways of communicating. Writing is the hardest to do.<br><br>2 _____ | 1 No.<br><br>2 _____                       | 1 Uses online poetry site where students add words, fill in forms for interactive participation.<br><br>2 Plans to try e-mail, e.g., students practice writing to order a product. | 1 No.<br><br>2 Tried wikis and podcasting in NWP summer teachers' institute as workshop leader. |
| <b>7 In what class(es) do you use blogs for instruction?</b>                 | 9 <sup>th</sup> grade English, 12 <sup>th</sup> grade English, AP English | 10 <sup>th</sup> grade Honors English   | 9 <sup>th</sup> through 12 <sup>th</sup> grade English  | 11 <sup>th</sup> grade English, AP English | 9 <sup>th</sup> grade English, 11 <sup>th</sup> grade English  | 11 <sup>th</sup> grade English, 12 <sup>th</sup> grade English, AP English                      |
| <b>8 Including this year, how many years have you been teaching writing?</b> | 23 years  | 5 years   | 24 years  | 11 years                                   | 10 years   | 10 years  |



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