

Edublogging: Instruction for the Digital Age Learner

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Abstract: The heart of education beats with a teacher's perception of instructional effectiveness with students. Research suggests that differentiated instruction, using multiple modes of presentation, will positively increase a student's opportunity for learning. Communicating efficiently, using various communication methods, will enhance a teacher's instructional effectiveness and a student's ability to understand. Blogging appears to offer multiple opportunities for teacher and student use. Writing in a blog by both student and teacher may strengthen their relationship while also providing a unique means of communicating instruction more effectively. Through electronic surveys and virtual interviews of blogging K-12 teachers, as well as document analysis of their blogs, this study examines blogging in classrooms within the United States to determine how blogging is used for communication and instruction. This study also considers the teacher's perception of how blogging has changed their instructional practice. This examination of blogging educators, or edubloggers, charts new territory and informs the educational community on the potential of blogging to support classroom communication and promote increased learning for the Digital Age student.

Introduction

This study was designed to discover the ways teachers are using blogs as a part of their instruction in classrooms across the United States. Very little was known of this practice when this study began two years ago, and very little research has been performed since that time. However, the Internet presence of educators blogging either for themselves or with their students has grown tremendously. Many have taken advantage of RSS feeds and tagging to form networks to connect with one another. They have even given themselves a name— edubloggers.

Data was collected to find how teachers were using blogs as an instructional practice and if the practice is a worthwhile use of classroom time. Blogging seemed to offer the potential to increase collaboration between the teacher and the student and among the class as a whole, thus increasing understanding of the subject being taught. The issue was viewed as two different domains: (a) as a means of communication with students, parents, and the community at large, and (b) as a form of instructional practice not unlike the many different ways educators choose to teach any subject. These two domains formed the foundation for the study.

This is a study of opinions, of feelings, and of actual practices. It is a study that relies almost entirely on the perceptions of the practicing classroom teachers. Improving education requires creating a bridge across the action-knowledge gap, the gap between current understandings of best practice and actual practice. This study will add value to student learning opportunities and will show the relevance of technology to conventional classroom instruction.

The Study

Phenomenological concepts were used to conduct this study using a qualitative, holistic multiple case study design. The data were not pooled, thus making it a multiple case study with literal replication since similar results were found in the cases. Common conclusions from the cases expanded the external generalizability of the findings.

This study also draws on ethnographic concepts, or in this case, virtual ethnography. Ethnography focuses on the ability to find agreement from a number of information sources that a certain phenomenon has occurred. The ethnographic tools of repeat observations of selected teachers' blogs and virtual interviews of teachers managing those blogs were used. Also by examining the work generated by teachers and students, this study was able to observe a slice of the work of their classroom community.

Because blogging as an instructional practice is relatively new to education and there is not a known registry of edubloggers, random sampling was not used as a way of surveying and choosing participants. Participants were recruited through an email blast. Three well-known experts in the field of educational technology

agreed to use their lists of educators to send out this message in order to publicize my research. David Warlick, Alan November, and Will Richardson all agreed to publicize the initial electronic survey used to find participants. Teachers were self-selected for involvement in the study by responding to the initial survey distributed to edubloggers by three nationally recognized leaders in the field. Criteria were then developed to select among the first survey's 168 respondents in order to send a second survey to a smaller sample of high-end users. It was anticipated that teachers were likely to be using blogging in a more purposefully pedagogical way and thus would be more likely to provide insights into how blogs are being used to support communication and instruction. Again criteria were established to then select a third purposeful sample for even more in-depth interviewing. Finally, the blog sites of the 12 interviewees were examined. The data presented in the study draws from all of these data sources.

Because there was very little research performed on the practice of blogging and even less on educators who use blogging, the study was based on the perceptions of the teachers using blogging as an instructional practice. Therefore the overarching question this study explored was simple: In what ways do teachers use blogs in the classroom? The first two sub-questions for this study then disaggregated the main question into the two domains: (a) how do teachers use blogs to communicate general information to students, and (b) how do teachers use blogs to deliver specific instruction. The last sub-question then combined the two domains to discover how teachers perceive the use of blogs as an instructional practice has influenced communication and instruction in their classrooms.

The Findings

There were four communication patterns teachers perceived as a result of blogging: (a) increased peer interaction among students, (b) increased teacher interaction with the students, (c) students exhibiting more positive emotions about learning, and (d) an increased sharing of ideas among students and with the teacher.

Almost all teachers said they encourage student to student interaction in their blogging lessons because they believe it promotes learning. The teachers believe that encouraging student to student interaction will create increased understanding of the subject matter, that it will help students to make sense of what they are learning, and that it will assist the students in developing their own understanding of the subject matter. Teachers feel that by encouraging this student to student interaction, their students will gain a deeper understanding of the subject matter being taught. The teachers' goals for students also recognize that by encouraging peer interaction through blogging they will increase peer collaboration and expanded sharing of ideas with peers.

Blogging seems to promote a culture of collaboration because of the very nature of asynchronous or synchronous communication. As a social networking tool, blogging helps connect friends, business partners, or other individuals together. These students have grown up in the Digital Age with aptitudes and attitudes different from their predecessors. These students turn first to the Internet for information and are comfortable interacting online with their peers; they work collaboratively and thrive on interactivity; and they have an expectation of immediacy from their instructors (Betts & Glogoff, 2004). This study suggests that blogging offers interaction at whatever level of inclusion is most comfortable and can be used as such at most grade levels.

Advocates of collaborative learning assert that the active exchange of ideas within small groups not only increases interest among the participants but also promotes critical thinking, higher levels of thought, and longer periods of information retention (Totten *et al.*, 1991). This instructional technique is also considered a key part of improving the teaching and learning of second language learners and culturally diverse students (Doherty *et al.*, 2003; Thernstrom & Thernstrom, 2003).

Since student to student interaction may lead to stronger classroom relationships and possibly increased learning, enhancing a student's relationship with the teacher may do the same. However, increasing the relationship they had with the student was not one of the goals most teachers stated as a part of their reason for blogging. Less than half of the respondents in Survey 2 listed the category of encouraging a stronger relationship with the teacher as a classroom communication goal. Similarly, less than half felt that blogging would be a way to enhance interaction with the teacher. It may be that teachers feel they already have a positive relationship with their students, and therefore, they did not articulate increasing teacher to student interaction as a goal of blogging. Nevertheless, several teachers gave examples of insights they gained about their students through blogging.

Building a relationship with teachers through better communication techniques has also been researched as a tool for assisting low socio-economic groups (Jesse *et al.*, 2004; Snyder & Angus, 2000). Researchers have found that teachers who build relationships with students positively increase the students' motivation for school and the likelihood of academic success is greater (Duttweiler & Madden, 2001; Thernstrom & Thernstrom, 2003). University of Arizona Professor Glogoff (2005) has found success with this by giving positive feedback to students

on their comments in blog entries. He believes that many online students miss the traditional classroom contact and that blogging offers useful opportunities for learner-centered feedback and dialogue.

Although this may not have been one of their main goals for blogging, the teachers provided examples of enhanced relationships with their students in all forms of the data collected. Most of their collaborative blogging activities showed genuine communication with their students. Many stated the simple act of reading and commenting on a student's blog posting contributed to increased understanding of each other. Edubloggers seem to be positively affecting the feelings their students have toward learning by allowing the students the time to write and participate with others, even with students from different parts of the world in some cases.

Motivation to learn is an important part of the student's contribution to their own achievement. Bloom (1976) refers to it as an affective characteristic (p. 48) and Marzano (2000a) calls it student interest (p. 72), but later renames it to the more popular term of student motivation (Marzano, 2003, p. 124). Regardless of how it is termed, student motivation plays a critical part in student achievement and blogging appears to be a highly motivating instructional technique that can be performed at school or at home. Blogging by a student appears to further their learning and seems to cause the student to feel pleased about their academic environment.

Blogging by its very nature gives students a vehicle for sharing their ideas with one another, a contemporary way to gain additional knowledge or understanding that resonates with students being raised in the digital age. Hoping for a better climate for learning (DuFour & Eaker, 1998) and wishing to employ the well-known instructional technique of cooperative learning, the edubloggers seem to be able to strongly promote a naturally occurring culture of collaboration through students reading and commenting on assignments. While increasing the relationship they had with their students was not one of the stated goals, most teachers indicated an increase in student to teacher collaboration. These findings suggest that computers can serve as a critical communication tool within the classroom. The immediate use was for posting assignments, but as the teachers and their students became more comfortable with blogging, the computer became a means of building networks between teachers and students, among students within the class, and with students across the globe.

The data from responding edubloggers describe student learners who have been a part of a blogging classroom as engaged in four types of learning: (a) students increasing their understanding of topics, making sense of what they learn, and developing their own understanding of the subject matter, (b) students cultivating deeper thought processes; creating meaning and new ideas from the subject, (c) students exploring the subject beyond the immediate requirements, and (d) students connecting with previous experiences learned in or out of the classroom.

Results from the first survey showed communicating with their students and using the blog as a writing tool were the top reasons teachers use a blog. Of those posting monthly, over 75% said they did not use the blog to post writing assignments. However, teachers posting daily said they used the blog to post writing assignments close to 60% of the time. The results from Survey 2 parallel responses from the first survey in that communicating with students and practicing writing were two primary reasons for starting a classroom blog.

Edubloggers responded that students were empowered by the writing process to collaborate with other students in this writing process at school or at home. This collaboration seems to become a connection with the world. Respondents reported that students are excited at the prospect of communicating with other students inside or outside the classroom. This dual learning process appears to be very appealing to the beleaguered teacher as a way to create additional time for learning in the classroom. Teachers seem to believe blogging changes students from a rigid learning perspective into open-minded writers, highly motivated to not only perform the writing assignment, but also to collaborate with their peers.

The blogs have given me a fitting medium to pursue those goals, and they have changed the activities to allow me to put students' writing back into the eyes of other students (reading each other's blogs, seeing what other students are doing— I couldn't do that with typed assignments or with notebooks).

(Teacher 9, Interview 1-Q3)

This newfound excitement about the writing process may have also stimulated the student's enthusiasm for school. The interviewees expressed strongly how the blogs motivated the students to learn, revealing how they were using the motivational power of blogging to motivate students to complete assignments, write more, think deeper thoughts, or post comments. The teachers also gave examples of how blogs promote deeper thought in assignments and in their postings. I observed an interesting trend with these examples: The teachers talked of raising the levels of cognition in students in the same sentences where they gave examples of raising the student's level of self-esteem. I did not track this phenomenon, but this link seems supported by the work of others. Pennebaker (1990) suggests some blogs may be mentally therapeutic, adding to techniques educators use to promote higher level thinking and increased motivation towards learning by students.

The limited student data from two of the blogs, confirmed the motivational power of blogging. This is an important finding, since most of the interviewed teachers served upper elementary and secondary students where

motivation can become a critical factor in student learning (Bloom, 1976; Marzano, 2003). As Good and Dweck (2006) assert, “motivational processes are central to far more aspects of school success than many have realized” (p. 39). It could be that blogging allows students to redefine their abilities as they see their work posted next to other students’ work. It also enables them to observe other students commenting on their work and then have an opportunity to reshape and refine their own work. The data in this study also suggest that feedback on assignments from the teacher as well as fellow students may be more immediate, which contributes to student motivation.

The teachers were asked to assess the practice of blogging on specific types of student learning and methods of instruction. Teacher 1 wrote in Question 3 of a week-long assignment that asked deep probing questions of students to relate certain parts of the book they were reading as a class. She admitted the students were “getting more” out of the blog discussions than the previous year without the blogging tool.

Teacher 10 was pleased that her special needs students were able to take the time to create posts that were more thoughtful. Blogging and the patience of the computer allowed these students to develop skills in a way that was previously unknown. She stated that, “eventually, all my kids get to the same level of comfort and as a result their writing improves and the quality of thought that goes into their writing is expanded.”

Both of these examples show proper instruction and assessment, although not in the traditional sense. Perhaps the respondents thought of assessment with traditional implementation and did not believe they were accomplishing this. Conceivably it is a question that is too difficult for edubloggers to answer this soon in their struggles to create blogging classrooms.

I think that the higher order skills kids are honing are very hard to measure. Informally, I am confident that there is improvement in students’ ability to construct their own knowledge. I am basing that on my 4 years’ experience as a teacher, so I may not be correct. Formally, I think the best way to assess would be to create or find a rubric that would help me assess student learning by blog. Know of any that are out there?

(Teacher 5 Interview 1-Q8)

The data clearly show teachers using blogging as a motivational technique to encourage students to perform writing tasks, which they feel leads to greater depth of thought. As the students perform these writing tasks with deeper thought, teachers perceive that the students begin to make sense of what they are learning and make connections with previous experiences. They are also likely to explore the subject beyond the immediate requirements and are likely to have positive emotions about learning. This phenomenon provides an example of the theory of learning described by professors at the University of Technology Sydney (2007) who built upon the research of Scouller (1996) and Biggs (1999). Scouller’s research (1996) shows that students appear more likely to employ deep strategies when writing essays and to perceive the essay as assessing higher levels of intellectual abilities, allowing students to develop higher order skills. Her research could be interpreted as encouraging the practice of blogging since blogging is a skill similar to essay writing with levels of writing that can vary with the teacher’s purpose of assessment. Biggs (1999) approves of essays because “the act of writing externalizes thought, making it a learning process” (p. 8). He says that by students reflecting on what they see, they have the ability to revise their writing in many ways, creating something quite new and more thoughtful. Essays performed at home where a student has enough time for deep thought and editing promote learning; if motivated because of peer review, the student can consult more sources and, with that deeper knowledge base, might be able to integrate ideas more effectively.

The results show that most teachers continue to be enthusiastic about the practice of blogging even after two years of use. This enthusiasm can be seen through the change in a teacher’s communication technique with students. The enthusiasm also seems to carry over to the use of blogging to increase students’ time and opportunity for writing. Because of the changes to instruction and the increased motivation of the students, a teacher will generally increase the time spent on practices that are perceived as beneficial. In this study several benefits were identified that seemed to be motivating teachers to invest time in blogging: (a) higher levels of student motivation, (b) increased levels of writing, (c) increased insights into their students through the personal exchanges of comments on readings and writings, (d) greater interaction and collaboration among students in the classroom, (e) increased computer competence, especially for older students, and (f) a teacher’s own professional development. A few teachers stated that achievement scores and proficiency levels had increased since they began using blogs. Almost all teachers in this study indicated blogging did take increased time, especially in the beginning when they were developing their skills, but all seemed to feel the time was well spent in terms of a time to benefit ratio.

A significant finding from this study was obtained from the first survey of 168 respondents. The more experience a teacher had using a blog as an instructional practice in the classroom, the more frequently they posted to the blog. The less experience a teacher had using a blog as an instructional practice in the classroom, the less frequently they posted to the blog. Over 60% of the first year bloggers posted to their blog on a weekly basis.

Conversely, 60% of edubloggers with two years of experience with the practice posted new information to their blog daily. None of those experienced edubloggers indicated they were posting only monthly.

Increased posting may indicate that the teacher perceives the blog is an effective instructional tool for student achievement. Hattie (1992) says to improve education one must simply provide feedback in a way the child can understand the steps they must take to improve. As well as feedback on the task, Hattie believes that students can get feedback on the processes they have used to complete the task, and on their ability to self-regulate their own learning, creating the capacity to increase achievement. He believes the most fundamental component of teaching is imparting information to students, assessing and evaluating the students understanding of this information, and then matching the next teaching act to the present understandings of the student. Since blogging with students can be performed synchronous or asynchronous, it is difficult to receive immediate assessment data from students' increased viewing of blogs. But one act of blogging could cause increased interest, this interest could lead to more blogging, more blogging could lead to greater understanding, and greater understanding could lead to increased student achievement.

Another indication that blogging may be perceived as increasing student achievement could be coming from school leaders. The blogging teachers in Survey 2 found their main supporter to be the principal. This school leader was viewed not only as encouraging the teacher to continue blogging, but also they encouraged teachers thinking of blogging to attempt the endeavor. This vote of confidence could be an indication that the principal views the practice of blogging as a potential method for increasing student achievement or improving communication. But educational leaders must be wary of any practices that may take away from learning. Marzano, McNulty, and Waters (2005) think that "the school leader's ability to select the right work is a critical aspect of effective leadership" (p. 97). Principal perceptions and ways of providing support for blogging is certainly a topic to be pursued in future studies.

Asking blogging teachers about how they are using the blog differently today compared to when they first began to use a blog for instruction elicited significant, animated answers. Teachers felt strongly that students were receiving better learning opportunities through additional collaborative learning sessions. These sessions came about because of increased use of the computer as the students participated in the classroom blog with the teacher and with each other. According to the Survey 2 respondents, 89% of them felt their instructional style changed as a result of blogging; this finding was also confirmed in the interviews. As teachers became more reliant on the online uses of the blog, their lessons changed to fit the blogging process, and they perceived that their instruction had gone to a deeper, more complex level. Findings from this study suggest, similar to Jesse *et al.* (2004), that blogging may allow student understanding to reach new levels, encouraging student relationships for increased school success.

As seen in the data from Survey 1, teachers who have used blogging in the classroom for more than a year post to their blog more frequently. This increases the time the teacher and their students spend on the computer. This increase in daily postings raises their expectations for daily student review of the blog, thus increasing the students' time on computers. Research shows that school-age children are already on the computer for long lengths of time (Lenhart *et al.*, 2005). These students are active in their use of broadband Internet with social networking sites and instant messaging. It is possible that if teachers raise their expectations and place daily assignments on the Internet, students will increase their time on computing devices to an even greater extent. This increased time will potentially create a need to fund more computers, improve the networking infrastructure, change school schedules in labs and libraries, modify classroom procedures, and provide training on these new instructional techniques and delivery methods.

Blogging is a type of diary, making it a potential vehicle for instruction as well as an instrument for personal enrichment (Allport, 1942). People write in diaries for many reasons including self-expression, and the desire for personal perspective (Allport, 1942). Pennebaker (1990) believes the act of writing in a diary is mentally therapeutic or preventive maintenance for the soul. The value of writing or blogging about thoughts and feelings lies in organizing ones complicated mental and emotional life. Blogging as a reflective practice may be an inexpensive and simple way to help maintain an educator's personal and professional health. Several of the teachers shared that blogging seemed to have this influence on their work, as captured in these quotes.

The first year I did blogging with students we had a class blog for posting essays and commenting, the second year I did memoirs on personal blogs and poetry on personal blogs, and this year my students are blogging about any safe and authentic topic at least once a week. I also maintain a lesson plan blog, a reflective teaching blog, and a podcast blog.

(Teacher 22, Survey 2-Q7)

I maintain a reflective teacher blog that is constantly responding to what the students bring up in class. I show them how my blog becomes an extension of my thinking about literature (including new literacy) and

life. I also show them how to write in their blogs (on the smart board) and let them explore tutorials that have been created by other teachers.

(Teacher 12 Interview 1-Q10)

Professional development research (Marzano, 2003; Schon, 1996) suggests that reflective practice that involves thoughtfully considering one's own experiences in applying knowledge to practice can be highly beneficial to people. Stigler and Hiebert (1999) promote a professional development model for a teacher that includes teacher collaboration, continuous feedback, and finally capturing and archiving this collective knowledge gained from the collaborative effort. Marzano (2003) also believes that "collegiality and professionalism involve interactions between teachers that are collaborative and congenial" (p. 67). Therefore, blogging as a form of archived reflective practice could benefit teachers by strengthening their collective instruction, professional shared demeanor, and perhaps even assisting with their personal life. The findings from this study suggest this is indeed happening for some of the teachers and deserves further study.

Though bothered by their increased time on the computer, especially when first starting to practice instructional blogging, teachers found the time spent worthwhile both for their professional disposition and for the increased opportunity students have for learning. Teachers with more than one year of edublogging experience showed their strong interest in this practice by posting more frequently, increasing student time with computers, and increasing the use of blogging as an instructional practice regardless of the amount of time spent using blogging. The majority of the teachers expressed the belief that their school principal supported this practice because it was benefiting the students.

Conclusions

Several important conclusions can be drawn from this study. First, this study highlights the important role of writing in education. Vygotsky (1978) proposed new ways to understand language and thought that have challenged several traditional views of education. His work shows that speaking and writing skills are fundamental to humans and partially dictate how we perceive the world. Vygotsky was resolute that the way children are taught to read and write should be changed. He said that writing was as basic as speaking because it was a natural advancement and children should be given the chance to learn to read and write at an early age. But the method of learning should not be based on the obligatory rote teaching styles; rather, reading and writing skills should be seen as pleasing forms of communication by the children. The research from this study appears to show that students view blogging as enjoyable and they are highly motivated to write as a form of response to the teacher and to fellow students both near and far, even at an early age. They also seem willing to continue their writing activity over longer periods of time not only in the classroom, but also outside of school hours.

Second, blogging represents a new way for teachers to interact with their students. When teachers change their instructional strategies to include practices that encourage the learner to be an active participant, greater potential exists to improve student learning (Dede & Kremer, 1999; Duffy & Jonassen, 1992; Vygotsky, 1978). Marzano (2003) believes that learning requires multiple exposure to and complex interactions with knowledge (p. 112). Piaget (1971) said that students require multiple exposures to knowledge in order for the assimilation, and ultimately the accommodating change of retained knowledge to occur. Blogging seems to offer students many chances to explore the subject in greater detail and make multiple changes to their work. Teachers in this study seemed to sense this and began changing their instructional practices to more actively engage students in their learning, to write or talk about facts and theories from the presented curriculum. These teachers even seem to be involving the student in writing about pertinent educational material within the context of their own personal experiences, which has been recommended by a number of scholars (Allport, 1955; Berman, 1996; Cole, 2004; Pennebaker, 1990). Findings from this study suggest that blogging could be an effective form of communication and instruction for the teacher and a highly motivating digital tool for the student.

Third, blogging as an instructional practice appears to fulfill the desires of a teacher to be an active participant and co-learner with students, which has also been identified as a key component of effective pedagogy by researchers at the University of California, Santa Cruz (Doherty *et al.*, 2003). The *Five Standards for Effective Pedagogy* promotes positive learning outcomes for students by facilitating the construction of knowledge by teachers and students and promoting conceptual elaboration. The standards include collaboration, language use, connected learning, cognitive complexity, and student teacher dialogue. These standards are seen as critical for improving the teaching and learning of culturally and linguistic diverse students, but are useful for all students.

The five standards for effective pedagogy are the result of many years work by the Center for Research in Education, Diversity & Excellence (CREDE) and its predecessor, the National Center for Research on Cultural

Diversity and Second Language Learning. These standards appear to match closely with the data collected in this study regarding blogging as an effective instructional practice.

As a form of writing, all data collected seems to point to blogging as an effective communication method, as highly motivating to the learner, as easy to use (for the instructor and students who have access to computers with broadband Internet), as a tool that inspires the learner to use deeper thought for greater understanding, and as a technique that encourages the learner to be an active participant in the educational process. Another conclusion from this study is that this same blogging activity can be beneficial in a personal and professional manner to the teachers, allowing them to write and think in a more reflective style. This could encourage an increase in professionalism, personal satisfaction, and student relationships.

On one level, blogs may appear to be little more than personal diaries posted on the Internet for everyone to see. Yet, when used as a communication and instructional tool, they seem to provide a round-table for teachers to share ideas with other educators across the globe or simply talk about themselves and others in a local setting. Blogs become communication bridges with not only the child in the classroom, but also the Millennials who are entering the workplace as teachers. But it is possible that blogging is also an indicator of the teaching profession in transition— and without attempting to use or consider a tool such as blogging— the profession could have difficulty relating to the Digital Age student or teacher.

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