

Integrating 21st Century Skills in Schools Using a Class Blogging Project

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Abstract: *This is a description of how a classroom teacher started using Web 2.0 tools to integrate 21st century skills. The students participated in a blogging project where they posted their writing and commented on other students' writing. They also had the ability to post podcasts. The teacher moderated the blogging activities, and provided revision and editing suggestions to students. After participating in several blogs, the students completed a survey to evaluate their attitudes about blogging in the classroom. Findings indicated that all of the students liked blogging on the class blog site, and most of them preferred using the site to publish their writing.*

Introduction

The demands of 21st century skills compel teachers to learn new technologies and discover ways to integrate them into their classrooms. Students are competing in a global economy, and their ability to think critically and apply knowledge at higher levels requires teachers to evaluate what and how they teach (Paine, 2006). Students and teachers are using technology to communicate, assemble and analyze information based on the demands of a changing workforce. We are no longer in an educational system that solely trains students to operate technology. Students must be able to critically think and develop the skills for lifelong learning. Teachers are focusing more on developing students' personal dependability, perseverance, reflection, flexibility and self-discipline using 21st century strategies (Paine). Students are gathering and evaluating data, identifying viewpoints, making broad connections, considering alternatives, and making informed decisions (Paine). Teachers are creating opportunities for students to interact with each other in authentic learning experiences providing connections that are critical to developing students' engagement, motivation, and attitudes about learning (Paine). Classrooms are beginning to reflect the media environment that students immerse themselves in on a daily basis.

Essential Questions

Questions considered in this paper include:

1. How can a blogging project be used to teach 21st century skills, such as creativity, communication skills, and technology literacy?
2. Will reading, responding, and moderating the blogs and podcasts consume the teacher's time?
3. How will students respond to blogging as part of their language arts class?

These questions are answered by examining literature, implementing a blogging project in the classroom, and gathering data from students.

Learning Theory

Vygotsky's educational theory suggests that "meaning making" develops through the social process of language use over time, and knowledge construction is discursive, relational and conversational in nature (1978, as cited in Ferdig & Trammell, 2004). Furthermore, as students appropriate and transform knowledge, they must have opportunities to publish their knowledge in authentic environments. Publishing student work allows the student to revisit and revise it after analyzing and reflecting on it, and offers feedback opportunities (Krajcik et. al., 1994; Olson, 1994, as cited in Ferdig & Trammell, 2004). Blogs are a valuable teaching and learning tool that provide students a space to reflect and publish their thoughts and understandings (Ferdig & Trammell, 2004). The ability to comment on other students' blogs provides opportunities for feedback and potential scaffolding of new ideas (Ferdig & Trammell).

A Web 2.0 tool that supports Vygotsky's theory is blogging. Blogging engages students in active learning, increases student and teacher relationships, increases higher-order thinking skills, and improves flexibility in teaching and learning (Ferdig & Roehler, 2003). Classroom blogging sites provide students with opportunities to share their viewpoints, and a supportive environment for reading and writing (Huffaker, 2005). They promote verbal and visual literacy through dialogue and storytelling and allow opportunities for collaborative learning (Huffaker). Students develop their writing voices, and authentically publish their writing. Blogging plays a significant role in enhancing critical thinking skills in students. In addition, students who usually do not participate in the classroom tend to self-disclose more in blogs (Harper, 2005). Schools are using blogs for creative purposes such as creative writing practice, outreach, soapboxes, dialogue catalysts, and online note passing (Foust, 2007). Abram (2006) suggests that students use blogs to keep a journal, track project plans among groups, communicate with parents, and build a photo blog of a class trip or class activities.

Web 2.0 Tools

Blogging

Blogging is becoming a popular avenue for students to publish and read writing. A study completed in 2005 (Lenhart & Madden), showed that 19% of online teenagers ages 12-17 had created their own online journal, or blog, and 38% said they read blogs. Lenhart and Madden also found that teens who blog are more likely to engage in content creating, sharing, and remixing activities as opposed to teens who do not blog. In addition, teens who go online more frequently are twice as likely to blog.

Podcasting

Another Web 2.0 tool that teachers and students can use in blogging sites is podcasting. Podcasting is an audio broadcast that can be heard using music software such as Windows built-in Media Player, Winamp, iPods, Creative Zen, or iRiver (Starak, 2005). This Web 2.0 technology, termed from the blending of the words broadcasting and Apple's iPod technology, uses an audio file, such as an MP3, to record the user's voice (Starak). Students can use podcasts to record themselves reading stories or poems and post them in their blogs. They can also use them as a study tool to record notes and important information. Teachers can post podcasts into a blog of recorded lessons, notes, and important information. Langhorst (2007) uses the term "StudyCast" as a means of providing students with class lectures as a recording. He creates a podcast by reading the class notes for upcoming tests and uploads the MP3 into his class website. Students can also obtain a free CD version of the "StudyCast" through iTunes, which they can play through a regular CD player.

In the Classroom

As a public school educator, I feel the strain of teaching 21st century skills each day. It is extremely difficult to allocate time to research and explore new Web 2.0 tools because of the demands of teaching. Even with understanding how important it is to provide students with the needed 21st century skills, it can be overwhelming as each month produces new available technologies to discover. There are concerns about the students' safety in using Web 2.0 tools, and whether instructional time will be lost while students learn how to use the technology. Acknowledging these fears allows me to evaluate educational tools from a concerned educator's perspective, and not as one who solely wants to try new and interesting gadgets.

ClassBlogmeister

Professional interests in providing students with the knowledge and access to 21st century technology led me to create a class blog project using David Warlick's ClassBlogmeister.com. ClassBlogmeister is a free blog site designed for teachers to participate with their students. There are no advertisements and all blogs and comments must be approved before the other students can read them. Each student has his own username and password that he uses to post a blog, and students do not need an email account to register. The teacher can allow other schools to read and comment on blogs, or keep the site private. BlogMeister can also identify the computer a student used to create a blog.

In addition to blogging, ClassBlogmeister also provides an area for students to post podcasts and collaborate with students around the world. Because most schools have increased their bandwidth and hardware, podcasting allows teachers and students to have audio distribution and syndication ability to share perspectives, research, and stories with an audience beyond their classrooms (Driscoll, 2007). The students can create news broadcasts, record their writing or class discussions, and share feedback about books (Driscoll). Students with learning disabilities and English as a Second Language (ESL) students have opportunities to review lectures at their pace to improve comprehension (Driscoll). In addition, teachers can post podcasts of lectures for absent students. Teachers use the collaborator feature to locate other blogging classes, so students may share stories and interact with others from around the world.

Getting Started

Setting up an account was much easier than getting school and parent support for the blogging project. My principal was concerned that the parents understood and agreed to the project to avoid problems or lawsuits, and wanted to have parental permission before the students were registered. A permission slip and letter were sent to parents explaining what blogging was, how it would be used, and guaranteeing their child would be safe from Internet harm. This called for many hours of conducting mock blogs with multiple users to ensure that the site was safe for students. In the letter, parents were provided with an area to write what they wanted their child's username to be. Several parents did not want their child's first name posted and listed a pseudonym. Even after sending the letter home explaining in detail about the blogging project, numerous personal contacts to parents were still required in order to convince many of them to allow their child to participate. Students who did not have parental permission were given the writing prompt and a hard copy of other students' blogs, so they could still respond.

Teacher Observations

After a few weeks of blogging, it became clear that some students were receiving many comments while others had none. The students were only posting comments to their friends,

which was isolating the students who were not as social or popular. Therefore, students were assigned “Blogging Buddies” for whom they were required to make comments about their blogs. The groups were heterogeneously assigned based on their class grade, and consisted of three to five students in each group. The students were excited about having buddies to communicate with, and were not told how they were assigned. Also, most of the groups had equal distributions of males and females. After the groups were in place, students posted comments to their friends, as well as people in their group. Assigning “Blogging Buddies” ensured that all students received comments on their writing.

The amount of time spent reading, responding, and moderating the blogs and podcasts was about the same as if I had the students turn in their writing in paper form. The comments and postings were read each time the students were in the computer lab. Students were typically in the lab about once a week, and this provided enough time to update their blogs and comment on their blogging buddies’ blogs. The students received feedback much quicker than when they submitted their writing on paper.

Student Feedback

The students completed a survey that asked about their attitudes related to the blogging project. The students attend a rural school in southern West Virginia with a population of 74 students participating. Sixty-seven students completed the blogging survey on Zoomerang.com. Students were asked ten questions relating to the blogging activity and had two opportunities for open-ended responses. Most of the students, 88%, have Internet access at home, however, 74% had never created a blog. All of the students stated that they liked the blogging project, and submitted to what extent using a five point scale – not at all, a little, somewhat, like it, love it. Figure 1 represents to what extent students enjoyed using the class blog site, with the majority (88%) indicating either like it or love it.

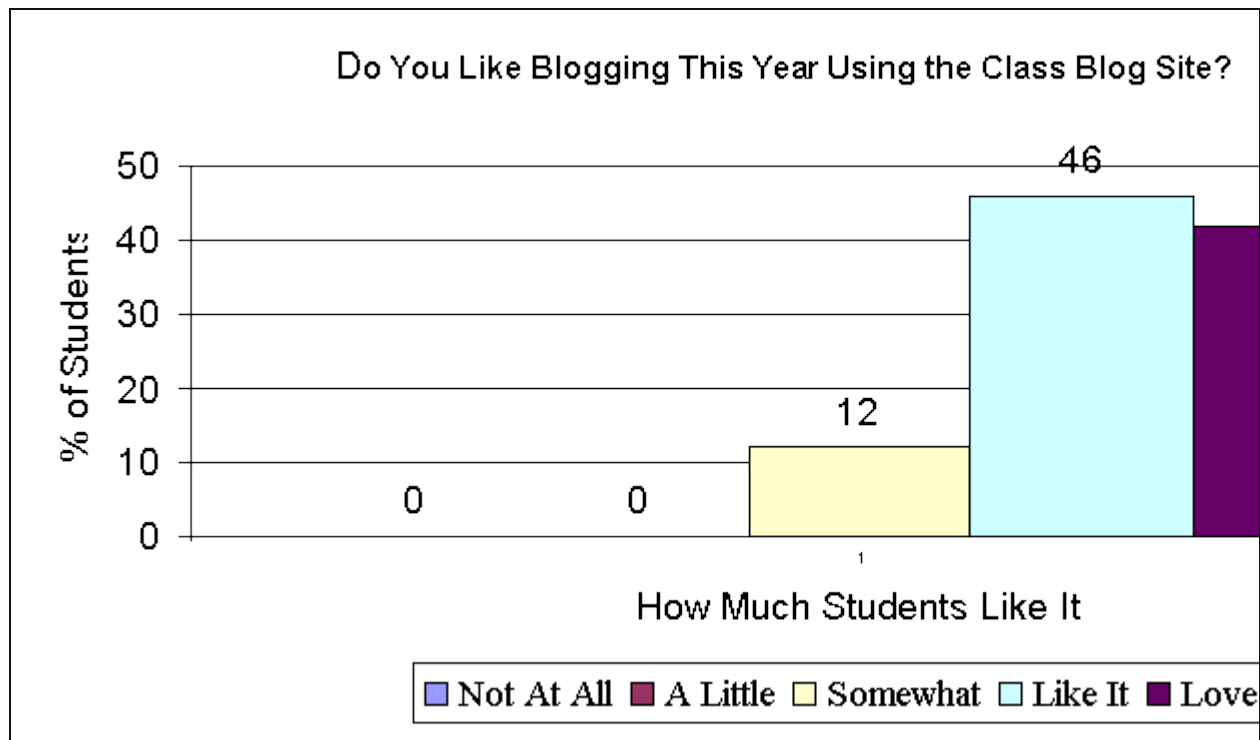


Figure 1 How Much Students Liked Using the Class Blog Site

Next, students identified areas of the blogging project they liked with the ability to choose more than one answer (see Table 1). The most popular reasons were being able to comment on and read other students' writing. The least popular answers were comments about their writing from their teacher and using spell check to edit. Before the survey, several students had made comments that they did not like revising and editing their papers once they had posted them. Also, many of the students were new to using Microsoft Word and spell check, which may be the reason for the low percentage.

Table 1 What students like about Blogging

<u>Survey Options</u>	<u>Percentage of Responses</u>
Being able to comment on other students' writing	95%
Being able to read other students' writing	91%
Typing instead of writing a final draft	86%
Comments about my writing by my peers	80%
Being able to publish my writing so others may read	80%
Getting to use the computer in school	74%
Using spell check to edit	47%
Comments about my writing by my teacher	42%

To find out if students enjoyed other aspects of the blogging site that were not available choices, an open-ended item was provided. Thirteen students typed an open-ended response as listed in Table 2. In general, written responses revealed that the social aspects of blogging (sharing, publishing, and replying) were meaningful to students.

Table 2 What do you like about blogging?

<u>Open Ended Responses</u>	<u>Number of Responses</u>
Being able to share the books we are reading; Being able to share what we've read.	2
Having my story read 45+ times; I get to see how many people read my blogs	2
Being able to put whatever I wrote on my blog	1
Having fun on the computer!	1
I enjoy being able to blog when I want	2
Getting other people's interests and point of view	1

The students were not only posting and reading blogs at school; they were also doing this at home. Forty-one percent (41%) said they had logged on, or tried to log in, to the class blog site at home. Sixty-one percent (61%) discussed what they were blogging outside of class with their peers, and 42% discussed what they were blogging with their parents.

In the survey, students were asked three questions about their blogging interests. Seventy-one percent (71%) expressed an interest in learning how to post a podcast. Almost all the students, 95%, stated that they would rather post their writings in a blog than read them in class. The last question of the blogging survey was, "What do you think about our class Blog?" The students used words such as fun, cool, neat, like, awesome, and love when describing their thoughts about the blogging project.

Conclusions

Using this blogging project to teach and use 21st century skills has been a rewarding experience for the teacher and the students. Students seem motivated and interested and enjoy the opportunity to use some Web 2.0 tools in the classroom and at home. They are reading, writing, and sharing in a teacher guided environment. The project did not cause more work for the teacher, and actually improved response time for teacher feedback. This project has allowed me to effectively teach 21st century skills using technology.

Teachers should attempt to use a blogging site with their students to enhance the curriculum and promote 21st century skills. Schools should encourage teachers to use Web 2.0 tools in classrooms by allotting more professional development hours to research and develop 21st century lesson plans. Teachers must allow changes to take place in their classrooms to meet the needs of a technologically advanced society.

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