The California History/Social Science Project is using an action research model to investigate the use of online discourse in professional development and K-12 History/Social Science classrooms. There are three goals—to investigate ways of enhancing students' historical thinking and understanding; to use technology to manifest methodologies and authentic activities which could not be manifested otherwise; to use action research by teachers for promoting long-term teacher change in the classroom. The results from the first year were promising. Teacher change occurred in ways that teachers think about their classroom and in the implementation of methodologies supported by technology. Student change occurred in motivation and in participation in discourse activities. Teachers believe this led to more student engagement in historical thinking and understanding at a higher level. Given these positive indicators, this project will continue to quantify these results in more detail during the next 2 years. (Contains 11 references.) (Author)
Online Discourse: Expansive Possibilities in the History Classroom

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Abstract: The California History/Social Science Project is using an action research model to investigate the use of online discourse in professional development and K-12 History/Social Science classrooms. There are three goals — to investigate ways of enhancing student historical thinking and understanding; to use technology to manifest methodologies and authentic activities which could not be manifested otherwise; to use action research by teachers for promoting long-term teacher change in the classroom. The results from the first year were promising. Teacher change occurred in ways that teachers think about their classroom and in the implementation of methodologies supported by technology. Student change occurred in motivation and in participation in discourse activities. Teachers believe this led to more student engagement in historical thinking and understanding at a higher level. Given these positive indicators, this project will continue to quantify these results in more detail during the next two years.

Key words: professional development; history; K-12; discourse; action research; technology; higher order thinking

Introduction and Background

The California History-Social Science Project (CH-SSP) is one of nine legislatively mandated professional development programs administered from the University of California, Office of the President. The Executive Offices are based at UCLA, and oversee thirteen local sites across California. CH-SSP’s commitment to the improvement of the K-16 teaching and learning of
history-social science is done in part by working with teachers to: enhance instructional strategies in history-social science; promote K-16 professional collaboration; promote teacher and student accessibility to the discipline; strengthen content knowledge for all students (as outlined in the California Content Standards); and support the use of technology as an integral part of the instructional process.

In 1999, the Executive Office of CH-SSP made a commitment to explore methods of providing professional development to teachers with the use of technology in the classroom to better promote student historical thinking and understanding. In 1999 and 2000, teachers were asked to write and implement lesson plans using technology to manifest methodologies and activities that could not otherwise be manifested without the technology. Formative evaluation of this project in 2000 indicated that although the teachers were using technology for student historical thinking and understanding, the thinking and understanding were not at the level we had anticipated. Additionally, teachers failed to reevaluate their teaching methodologies and classroom activities given the possibilities of technology. They continued doing what they had always previously. Consequently, we decided to shift the emphasis of the program from one that created lesson plans to one that teaches an action research paradigm.

The project's core goals are as follows: to promote student historical thinking and to understand and explore methodologies and activities that could not be manifested without the use of technology. While these goals remained the same, the process to achieve these goals changed considerably. The teachers became researchers in their classroom, engaging in questioning, development and design, analysis, metacognition and evaluation. In the first year, the results for
teacher change, and student historical thinking and understanding have been more substantive than with the previous lesson plan oriented model. An impact on student historical thinking and understanding was found primarily by those teachers who used on-line discourse tools. Students, particularly low performing and ESL students, engaged in significantly higher levels of discourse than in the traditional classroom; and they were either learning to engage in or engaging in discipline based activities (‘doing history’). The teachers reported that the interaction of discourse and activities led to higher levels of historical thinking and understanding. This result was only true when the teachers provided scaffolding in the form of discipline based discourse supports.

Objectives and Purposes

The primary purpose of this project is to investigate instructional methods that support students’ development of historical thinking and understanding, and to investigate using technology to support these instructional methods in ways that could not be done without technology. The action research paradigm addressed a third purpose - for teachers to examine their practices by acting as researchers. These goals were summarized as: ‘History as a Way of Thinking’; ‘Technology as a Thinking Tool’; and ‘Teachers as Scholars in Their Classroom’

The instructional methodology investigated by most teachers is discourse. The key question most of them asked was – how can I support my students in discussing the issues relating to history at a higher level? The problem that most teachers identified was that they wanted all of their students to have a voice in the classroom. The technology they identified as being able to support implementation included: online discourse tools such as threaded and non-threaded
discussion boards, bulletin boards, email, chat rooms and discussion based databases. The rationale for using these tools was that discourse will support students’ historical thinking and understanding; and that technology tools provide greater access and a wider variety of discourse opportunities.

The purpose of the teachers’ work as researchers was to investigate, in their own classrooms, the use of these tools. Their research work was driven by the following questions:

- Do these tools provide greater opportunities for students to engage in discourse?
- Are students more motivated to engage in discourse with these tools?
- Do the students engage in more discourse with the technology tools than they would without them?
- Does this result in more and higher level historical thinking and understanding?
- Does the type of discourse that technology provides facilitate deeper historical thinking and understanding than other forms of discourse?
- Does the use of technology based discourse affect (positively or negatively) other, non-technology based discourse activities?
- Does the technology interfere in any way with the discourse process?
- What does the teacher have to provide in the form of scaffolding tools to facilitate optimal discourse?

**Perspective(s) or theoretical framework**

Fundamental to how we approach the professional development is our approach to history. As part of practicing history, historians engage in discourse about the discipline and in discipline
based activities. This interaction between discourse and discipline-based activity is central. We reflect this discipline-based approach, as opposed to subject-based (Stearns, 1993), in the K-12 classroom and in the professional development. Discourse in the History/Social Science classroom supports students in externalizing thinking and in creating cultural supports for thinking (Bain, 1998). Discourse interacting with discipline-based activities provides a basis for students to ‘do history’ and engage in higher levels of thinking and historical understanding. We see the iterative process of engaging in historical activity and engaging in discourse about that activity as a creative process in which a shared understanding is created (Bohm, 1996). It is reflective and collaborative in nature. For this to be successful, teachers must provide social assistance (scaffolding) to the learners to support the necessary competencies through which the historical thinking and understanding can emerge and be internalized (Vygotsky, 1978). There are many kinds of scaffolding that can be used. Technology based tools, and concomitant teacher supplied supports, are one kind of assistance (Salomon, 1988). These tools are what we focus upon.

For the teachers, their discipline-based activity is the action research process. Action research provides for inquiry through reflection. It provides a medium which engages classroom teaching. It brings the unconscious to a conscious level (Schon, 1993; Hopkins & Antes, 1990). It is reflective and iterative in nature. Reflection encourages the challenging of ones existing theories and preconceived views of teaching (Kettle & Sellars, 1996). Action research involves social assistance and the use of tools. Social assistance for the teachers is provided by the teacher-facilitators, teachers who have participated in this process before). Technology based tools, in the form of an electronic learning environment, are provided.
As elements of these processes professional developers, teachers and students engage in reflection, collaboration and inquiry. Collectively the teachers engaged in authentic instruction, reciprocal teaching, making thinking and reasoning visible, active construction of knowledge, analysis of multiple perspectives and a number of other characteristics of learning environments described by Grabinger (2000) as Rich Environments for Active Learning (REAL).

Methods/Data Sources
We see our professional development model as a system of people, practices, and technologies. The human activities are served by the technology (Nardi & O'Day, 1998). Its parts consist of facilitators, teachers and students; the practices of discourse and action research; in the disciplines of history and education; and the utilizing the supporting technologies.

Logistically, the teachers engage in the following process. First, they participate in online pre-institute discourse activities. They then spend three days at UCLA engaged in discourse about history and social science, teaching history and social science, technology and becoming scholars in their classroom. They should leave UCLA having a research question in mind. When they return to the classroom, they design, develop and implement their action research plan. When they have in-class results, they analyze them and write a paper reflecting these results. This paper is then disseminated in a variety of ways to the professional community. In total, this constitutes a five to six month commitment.

The action research process for the teachers consists of six overlapping stages (adapted from
Sagor, 2000):

- First, teachers question their assumptions about the disciplines. Through online discourse before the institute and in person discourse during the institute, the hidden assumptions that they have are brought to the surface.
- Second, they pose a problem (research question). They discuss these questions with the other teachers and provide other teachers with feedback regarding their questions.
- Third, as each teacher focuses on one problem, one aspect of their teaching, the plan for the solution emerges (research plan). This plan is worked out collaboratively with other participants and facilitators.
- Fourth, they implement the action research plan in their classroom.
- Fifth, both qualitative and quantitative data will be gathered by all teachers, analyzed and shared with peers to assure the highest level of reliability and validity possible.
- Sixth, the process and the results of the action research are documented, peer reviewed and disseminated.

The first three stages of this process prove the most difficult for the teachers and require a high level of facilitation. Because of this, and based on the research from the 2001 group, a proposed discourse/action interaction process has been developed as a scaffolding tool for the teachers. Some teachers also require a significant amount of help with technical concerns. However, once they have a plan of action, implementing and following through has been less difficult.
Results - Teachers

We are looking for indications of teacher change, specifically as a result of their participation in the action research process.

Of those teachers that completed the research (20 of 28) in 2001, all but two indicated that their action research process had changed the way they thought about how they teach some aspect of their curriculum. In particular, the teachers focused on three aspects of their teaching:

- The use of scaffolding.
- The use of questioning of students and by students.
- Their classrooms becoming less teacher centered and more student centered.

All of these issues were in reference to the use of online discourse. For most teachers, participating in this project was in part motivated by a desire to create a more student centered classroom. The need to develop additional scaffolding tools and to improve questioning skills, grew from the focus on the use of online discourse in a student centered classroom. For example:

"The initial use of a discussion board did produced disappointing results. However, the implementation of discussion boards using support tools that help students to guide their thinking increased both the level and quality of student involvement."

Another teacher wrote:

"If discourse supports are effective in increasing student understanding of content, teachers not using discourse supports in their strategies, need to alter what they
are doing with students. If online use of discourse supports can extend those effective strategies even further, teachers need to rethink their use of the Internet.”

An unexpected result in regards to teacher change was reflected in a number of the teachers discussing their sharing of the approaches they were using with other teachers. For example:

“...I showed another teacher who does not have a gifted cluster in her class the lesson and showed her how to do the computer component of the lesson. She then taught her class the same lesson and had several students from my class work with her as student aides in the computer lab. She also found that all of her students were much more interested in the geography unit than any time that she had taught the unit in the last 10 years. She felt that they came away with a much better understanding of geography in general and the geography of their local region in particular.”

Other perceived changes for teachers were an increased opportunity to diagnose and correct misconceptions earlier in the instructional process, and additional opportunities for following a student’s progress over the long term.

In the 2002 program, we will examine more closely the teachers’ levels of metacognition in relationship to their classroom and their instruction. We have enough evidence to believe that using the action research paradigm increased teacher metacognition and that that increase resulted in both a reconsideration of their teaching and the implementation of different methodologies. We will attempt to quantify that belief with this year’s teachers.

Results – Students

We are looking for indicators that will help us answer the questions posed above.

Do these tools provide greater opportunities for students to engage in discourse?
In all classrooms, this represented an additional opportunity to engage in discourse.

Traditional forms of discourse were still used. All of the teachers created opportunities for the technology to be available to all students. No student was denied an opportunity to participate because of access to technology issues.

Are students more motivated to engage in discourse with these tools?

Before this professional development, teachers reported that approximately 15% (for a few, as high as 20%) of their students participated in classroom discourse. During the action research period, all teachers participating reported that nearly 100% of their students participated in the online discourse activities. Teachers believe that the primary reason for this was that motivation to participate in technology-based discourse activities was much higher than to participate in non-technology discourse activities. For the future, this needs to be measured in a more quantitative manner for verification.

The following were responses from one teacher’s class regarding their feelings on using the discussion board.

"It's cool!"
"I like how we got to see each others thoughts."
"Neat how you can write and within a minute see it posted all over the room."
"I liked it but it could be embarrassing."
"I like it because I can do it anytime."
"Kinda cool. We can hear (see) what others have to say."
"It’s another way to see what others opinions are if they don’t say them in class."
"Boring"

Do the students engage in more discourse with the technology tools than they would without them?

As most teachers used the tools in addition to traditional forms of discourse, in all classrooms that used the online discourse tools, the students did engage in more discourse. In many
classrooms, this was the only form of discourse some students engaged in.

Does this result in more and higher level historical thinking and understanding?

The most exciting finding for us were in the areas of low-performing students and ESL students. Both showed the greatest gains in both participation and understanding. The teachers perceived that their interest in participating, their ability to express ideas and their writing skills all improved more than expectations. In addition, teacher found that a significant percentage of students used historical thinking and understanding including citing historical fact, comparing differing primary sources, questioning others' interpretations, and citing each other. This is another area where we feel a closer look is warranted.

Does the type of discourse that technology provides facilitate deeper historical thinking and understanding than other forms of discourse?

There was no strong evidence to indicate this. We suspect that student gains are due to greater involvement in discourse. The technology facilitates this in a way that could not be manifested without the technology.

Does the use of technology based discourse affect (positively or negatively) other, non-technology based discourse activities?

Teachers reported that students were participating in other forms of discourse (whole group, small group) at a greater rate than before the use of online discourse. The students referred to the online discourse discussions during other forms of discourse.

Does the technology interfere in any way with the discourse process?

Not that any teacher was able to ascertain. The only students who did not enjoy participating in the online discourse were those students who had previously participated heavily in traditional discourse. This however, did not prevent them from participating in the online
discourse.

What does the teacher have to provide in the form of scaffolding tools to facilitate optimal discourse?

As mentioned, for many teachers adapting and refining their questioning skills for this medium has become important. Additional forms of scaffolding for different levels of students and different ages also became important. This is one area that all the teachers felt they needed to consider and develop more.

In addition, many teachers had results from their research that weren’t addressed in the other research studies. These included:

- Students did not adhere to ‘clique’ boundaries when using technology-based discourse tools.
- Students were using the tools to expand discussions beyond the classroom.

Much work is needed to verify these preliminary results. In particular, we are interested in looking at students’ overall achievement in history and social science classes using these tools, particularly low achieving and ESL students. If technology based discourse is leading to greater involvement in higher level historical thinking and understanding, does this then lead to greater student achievement in history/social science? We are also interested in how the use of these tools changes the classroom and learning environment. In particular, what adjustments do the teachers need to make in their thinking about their instructional strategies to optimize the positive effects of these online tools?

**Importance of the study**

Discourse is an important methodology in History/Social Science classrooms. In particular,
discourse combined with authentic historical activities can be a powerful approach to learning. The traditional forms of discourse are the classroom discussion and the small group discussion. Teachers find that both of these forms are limited. The teachers who participated in this research believe that only about 15% of their students participated in these two forms of discourse. The action research these teachers conducted indicates that the use of technology-based discourse tools seems to increase both the motivation to participate and the actual participation in (to nearly 100%) discourse. The teachers perceived this to raise the level at which students are engaging in historical thinking and understanding. This increase gives the teacher a solid foundation on which to make the change from history as a subject which teachers teach and students take, to a discipline, where historical thinking and understanding are core processes.

**Conclusion**

This is an action research project. As such, it has yielded rich information on the use of discourse and the use of technology to support discourse for the advancement of student historical thinking and understanding in History/Social Science classrooms. It is the intention of all the teachers in this project that action research on these issues, and on the issues that these studies brought up, be continued. It is also the hope of all the teachers’ that a more formal treatment of these issues will be pursued within the professional community.

**Bibliography**


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