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Improving Critical Thinking Skills in History

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Abstract

This action research project, conducted by a classroom teacher, investigated strategies and techniques to improve critical thinking skills and engagement in a high school history classroom. The research methods involved comparing quiz, test, and essay scores as well as student surveys, interviews and teacher-created field notes from inquiry-based and lecture-based classrooms. The inquiry classroom involved role-playing, simulations, re-enactments, multiple text analysis, and oral/visual presentations. Students engaged in analyzing bias, examining different viewpoints and perspectives, and analyzing documents. The findings indicate that when critical thinking skills were emphasized and integrated in lesson planning, students achieved higher scores on tests, quizzes, and assignments and gained a deeper and more meaningful understanding of history.

Introduction

This action research paper explores whether lecture or inquiry methods for teaching history yielded higher test results and a fuller understanding of history at the secondary level. Specifically, I addressed whether critical thinking skills or memorization should be emphasized in teaching history. The issue is important because students often exhibit apathy and boredom with history. History is considered worthless and useless because of the emphasis on memorizing dry, and dead “facts”. Researchers have found that in teaching history a critical component is missing in the traditional lecture presentation or “transmission” approach (Foster & Padgett, 1999). There is no “enduring understanding”, no analytical or critical reflection, evaluation, or long-term synthesis (Foster & Padgett, 1999; Goodlad, 1984; Loewen, 1995; Schug, Todd, & Beery, 1984; Schug, Todd, & Beery, 1984; Shaughnessy & Haladyna, 1985; Shaver, Davis, & Helburn, 1979). Foster and Padgett (1999) emphasized authentic historical inquiry, focusing on critical thinking skills, to counter the transmission mode and rote-memorization approach in teaching history (Foster & Padgett, 1999).

I conducted the action research while teaching American History and World History classes at an alternative education high school in Michigan. The

student enrollment was 150 students with a faculty of eight teachers. This research was important because alternative education students are at-risk students who have not succeeded in the regular education setting due to poor academic achievement and disciplinary problems. Alternative education students are at greater risk of dropping out of high school (Conner & McKee, 2008). Motivation and engagement are much more salient issues in an alternative education setting. Most of my students appeared to find the standard and traditional lecture format to be ineffectual and not meaningful. My objective in doing the action research was to determine if an inquiry method of teaching history would motivate and engage the students in the alternative education history classes. To engage and motivate students, critical and independent thinking were emphasized. Memorization and regurgitation were minimized while critical thinking skills were emphasized and integrated in the lesson plans. Critical thinking is a central focus of the Michigan Department of Education benchmarks and standards for Social Studies. The critical thinking benchmark for history is as follows:

Strand I. Historical Perspective

Standard I.3 Analyzing and Interpreting the Past.

All students will reconstruct the past by comparing interpretations written by others from a variety of perspectives and creating narratives from evidence. History is not a succession of facts marching to a settled conclusion. Written history is a human construction and conclusions about the past are tentative and arguable. Documents, eyewitness accounts, letters, diaries, artifacts, photos, historical sites, and other fragments of the past are subject to analysis and interpretation. Credible reconstruction of the past draws upon a variety of records and compares interpretations that reveal more than one perspective on events. One can engage in “doing history” by assessing historical narratives written by others or by creating a narrative from evidence that has been compiled, analyzed, and interpreted. (Michigan Curriculum Framework, 1996)

In this paper, I define critical thinking and explain its importance in teaching history. Teaching history by the standard lecture format will be compared with the inquiry format. Using the lecture format, teachers present lessons as lectures with little if any interaction or discussion with the students. In inquiry classrooms, teachers present lessons using inquiry methods that allow for maximum interaction and discussion with the students while employing inquiry teaching methods and techniques. Inquiry teaching methods include role playing, simulations, re-enactments, analyzing multiple texts, studying oral and visual presentations, analyzing bias, examining different viewpoints and perspectives, and analyzing documents.

I discuss the teaching methods that I have found effective in increasing critical thinking skills. The effective strategies were incorporated into my teaching methodology in the inquiry classroom. The effects of inquiry methods were compared to the effects of lecture methods. Test, quiz, and essay scores for each method are compared. I then examine and analyze the findings from surveys, questionnaires, and interviews, to determine if the new teaching methods were effective in improving critical thinking skills. Finally, the conclusions will be presented and the potential threats to the validity of the results will be discussed.

Critical Thinking Skills

The research on improving critical thinking skills and student engagement and involvement has suggested various strategies and techniques that

have been successful in other settings. Teacher researchers have found that dramatizations of historical events, “performing history”, contributed to creating greater enthusiasm and greater involvement in history (Otten, Stigler, Woodward, & Staley, 2004). Elise Calabresi (1993) demonstrated that she was able to stimulate enthusiasm and higher academic achievement in an ethnically diverse classroom by relating on the economic, gender, ethnic, and racial make-up of the classroom to issues taught in the course. Topics in history were chosen because they related to the characteristics of the students. For example, the majority of students were Hispanic, so the lessons were tailored to have relevance and meaning for Hispanic students. Lessons were made relevant and topical by having students make oral presentations and discuss current events. The program was successful. This was effective strategy for reducing apathy, boredom, and lack of interest.

Henry Milton (1993) found that student critical thinking skills improved when students examined and studied eight different historical themes. Each theme featured an accompanying critical thinking skill. Students identified the frame of reference and determining the viewpoint or perspective. The critical elements inherent in an issue were determined. Students distinguished between the factual or evidentiary and speculative support and identified the main ideas presented. The consequences, implications, and ramifications for the events were analyzed. Assumptions were identified. Students distinguished between valid or “justified” inferences and those that were “faulty” or invalid. Finally, the students synthesized the content and concepts that were examined by applying the skills in small groups or working independently. Assessment was made based on written and oral assignments and exercises. Based on the analysis of test results, Milton (1993) concluded that students had “progressed from intellectually functioning at the more basic levels of Bloom's taxonomy to the more advanced levels”. Benjamin Bloom's hierarchy progresses from knowledge, comprehension, application, analysis, and synthesis to evaluation. Milton (1993) also found that critical thinking skills were mastered more effectively when they were taught concurrently with the subject matter of the course rather than separately.

A strategy used to improve critical thinking skills was the use of multiple texts which allowed students to see different viewpoints and perspectives on historical issues and problems

(Hynd, 1999; Rothman, 1987; Stahl, Hynd, Britton, McNish, & Bosquet, 1996). When high school students were presented with multiple texts and documents on the Tonkin Gulf Incident, the strategy was found to be of limited value because it was found that students do not benefit from multiple texts or viewpoints unless “some specific instruction in integrating information” is provided by the teacher (Stahl, Hynd, Britton, McNish, & Bosquet, 1996). Using multiple texts resulted in an overall improvement in student critical thinking skills and in their level of intellectual sophistication (Shanahan, 2003).

The use of position or research papers was also found to improve higher-level thinking skills (Mitchell, 1993). Students increased their mastery of critical thinking skills when they were required to write research papers on historical issues. In addition, critical thinking skills increased when there was a cooperative learning format that used the jigsaw approach, when there were structured research experiences, and when students role played and participated in game situations (Mitchell, 1993).

Critical viewing skills were emphasized in order to counteract the manipulation and distortion of the media (Payne, 1993). Students need to be taught media literacy in ways that help them to develop critical thinking skills. Students need to make distinctions between entertainment and media spin and information. Media images and sound-bites can present distorted and manipulated views. Students must understand that reality is complex and not black and white, not Manichean, and that ambiguity is present in all complex phenomena (Payne, 1993; Hynd, Hubbard, & Holschuh, 2004).

Different theories and approaches on the role of history have been suggested by researchers. Some researchers have argued that the teaching of all history should be regarded as inherently subjective and relative in nature, based on the particular experiences of nations, cultures, and peoples (Norman, 1996). These approaches emphasize how we understand and interpret texts, epistemology, how we know what we know, phenomenology, and historiography (Kidwell, 1996). These researchers argue that history should be taught using constructivist approaches that address why and how we study history. Critical thinking skills and the importance of individual perspectives are central to these approaches.

Inquiry approaches to teaching social studies have been advocated to develop and reinforce critical thinking skills (VanFossen & Shiveley, 1997). In inquiry learning, the first step is to define the purpose of the inquiry - problem solving. Tentative answers or solutions to the problem are then postulated. The hypotheses are then tested. Tentative conclusions can then be drawn from these results. Finally, conclusions are applied to new situations or scenarios.

Critical thinking skills are most effectively developed and learned when they are taught in conjunction or embedded with content - not in isolation (Warren, Memory, & Bolinger, 2004). Moreover, student attitudes, motivations, and dispositions are crucial factors in whether students retain, internalize, and use critical thinking skills in the future. Infusion and immersion approaches were applied to analyzing the Vietnam War. In the infusion approach, students learn content in the process of solving real-world issues or problems, which is usually collaborative and promotes engaged learning that focuses on authentic tasks. In the immersion approach, an in-depth understanding of the content is emphasized by engaging students in the pursuit of knowledge. Warren, Memory, and Bolinger (2004) developed critical thinking exercises by having students break up into groups. Students were then assigned readings that presented different viewpoints and perspectives on the Vietnam War. The starting point was the revelation by U.S. Senator Bob Kerrey that when he was a soldier in Vietnam in 1969, he killed Vietnamese civilians. The conclusion was that student critical thinking skills were increased as students compared, contrasted, and evaluated different viewpoints and gained understandings about how authors persuade and convince. The immersion approach was seen as the most effective because it allowed students to fully understand the content of the subject matter and did not emphasize critical thinking skills in isolation (Warren, Memory, & Bolinger, 2004).

Research on improving critical thinking skills in the teaching of history at the secondary level focuses on designing lesson plans, assignments, and activities that challenge students to evaluate different viewpoints and perspectives, examine multiple texts, rely on factual evidence and primary sources, analyze deceptive and misleading arguments, develop critical viewing skills, and assess, judge, synthesize, and conceptualize information. These skills consist of fundamental concepts of how we understand and learn that are the epitome of

education (Shaughnessy, 1985). Critical thinking is the process of determining whether to accept or reject a claim by careful evaluation and assessment (Moore & Parker, 2007).

The impetus for improving critical thinking skills gained momentum in the 1980s when many schools, districts, and states began placing a greater emphasis on critical thinking skills in teaching, curriculum design, and testing (Paul, 1984). In 1985, 8th grade students in California took the first state-wide history tests to emphasize critical thinking skills. The U.S. National History Standards (1994) which were incorporated into Goals 2000 encouraged critical thinking skills, active learning, and the use of primary sources and documents. Critical thinking skills are currently emphasized in the Michigan standards and benchmarks for history and social studies.

History is a subject that has been disparaged because students merely memorize accepted truths, without critically examining the subject matter. History becomes memorization of dates and key "facts" (Milton, 1993). Henry Milton (1993) analyzed the results of the "Cornell Critical Thinking Test, Level X" and a teacher-constructed questionnaire that showed that students spend more time memorizing subject matter than they do in synthesis, evaluation, or analysis.

In summary, the goal of education is to achieve enduring understandings and gain meaningful understandings of history - not just to memorize and regurgitate memorized facts. The problem with the traditional lecture approach is that teachers merely cover material and students engage in activities where there is no focus and no plan to ensure that meaningful learning has occurred. Critical thinking can be encouraged and developed in teaching history at the secondary level. The issue is important because students often demonstrate apathy and boredom while history is considered worthless and useless because students just memorize accepted, dry, and dead facts. In teaching history, a critical component is missing. There is no enduring understanding. The successful teaching methods that were identified through empirical research were applied in my action research project. We know the teaching methods can facilitate critical thinking. Teachers have found that critical skills are improved when students are allowed to think for themselves and examine multiple perspectives. I wondered whether these teaching methods would work in my classroom and whether they were superior to the lecture method.

We need to know how effective they were and whether they could be reproduced or replicated.

Teaching Methods in My Classrooms

Different teaching methods and strategies were used in an inquiry classroom and in a lecture-based traditional classroom. In the inquiry classroom, teaching methods improved critical thinking skills, while in the traditional lecture and textbook-based classroom less engagement and learning was evident.

Inquiry Method Classroom

Six key teaching pedagogical practices or methods were used in the inquiry classroom. These teaching methods included: 1) simulations, 2) class or group discussions, 3) individualized student research projects, 4) multiple perspectives and viewpoints, 5) using multiple texts, and, 6) critical literacy, searching for biases in texts and in the media.

Activities and assignments were designed to test the strengths and weaknesses of various teaching approaches to see which induced the greatest enthusiasm and understanding of history. I designed activities that comprised group role play activities, simulations of historical events, dramatizations of history, visual presentations of history, and oral presentations. The goal was to determine which approaches generated the greatest increase or improvement in critical thinking skills and created the most enthusiasm and engagement for history. I assessed the results through testing, student participation and interaction, and student feedback. I combined qualitative and quantitative approaches, basing evaluation on test scores, and re-evaluating the depth and breadth of their understanding of history. Data were collected through tabulating test score results and making statistical comparisons among test scores. I also used questionnaires, essay questions, and surveys, to determine qualitative improvements, gauging their improvement in critical thinking skills as well as their commitment and enthusiasm.

The results suggested future changes in the curriculum at my alternative high school. The most effective strategies and techniques were retained and incorporated into lesson planning and curriculum design for the history courses I taught and in developing lesson plans for upcoming units.

Simulations. Simulations of historical settings were created that were based on the periods we

were studying. For example, in studying the Cold War, the class simulated the United Nations General Assembly. The class was divided into three groups or teams. One group represented the U.S. Another group represented the U.S.S.R. A third group represented the other UN member nations. The class engaged in role play activity - a simulation of the Cold War conflict. We examined the 1949 Berlin Crisis and Berlin Airlift by having the groups role play UN assigned delegations.

Multiple perspectives. Different perspectives and viewpoints were analyzed. Inquiry teaching approaches were applied to class discussions that focused on the experiences of minorities and women who played key roles in American history, such as World War I, World War II, the Great Depression, and the Civil Rights Movement.

Specifically, one lesson plan focused on the role that women and African-Americans played in World War I - topics that were not covered in the history textbook. This approach had two advantages. It made the topic relevant and meaningful for students that normally could not relate to the subject matter. Women and African-American students could connect personally to the subject. Moreover, they were learning to conduct independent research that extended beyond the narrow confines of standard textbooks. Students were learning to think independently and develop critical thinking skills.

Students were assigned research projects which they presented to the class for discussion and debate. This assignment was successful in that the levels of student engagement, enthusiasm, participation, and interest were radically increased.

Multiple textbooks. Multiple textbooks were examined to allow students to analyze different perspectives and viewpoints on historical issues. For the section on the Cold War, American textbooks were compared with Soviet textbooks (Appendix D). Students were able to see how that in many instances the same event was described and characterized in diametrically opposed terms, depending on which textbook was consulted. This multiple text approach forced students to think critically and independently and to assess and evaluate claims and assertions. Judgment and analysis are important tools in understanding and grasping history.

Bias. Bias was analyzed and deconstructed. A set of criteria was developed to allow students to assess documents and analyze them for bias (Appendix C).

Students examined the source of the information, the language used, and the stated objective. Did the language appeal to emotion? Was the appeal to logic? Did the author rely on stereotypes and illogical reasoning? What were the motivations of the author? Was the goal to persuade or to inform? Students were able to analyze and examine arguments to assess whether they were reliable and accurate.

Critical media literacy. Critical media literacy was also emphasized in the inquiry approach. Students developed skills and strategies for evaluating and assessing sources of information. News accounts from television, cable, satellite television, newspapers, magazines, radio, textbooks, and the Internet were analyzed and examined for reliability and accuracy. The students taught through the inquiry method examined television stations as corporate actors who had a stake in how and what news was reported. What role did public relations firms and lobby groups play in how information was presented? What role did the government play in deciding what news and information were presented? News stations selected and censored information based on their own self-interest and advantage. Radio stations and cable news networks were recognized as corporate actors who did not present neutral and unbiased information. Students learned to apply critical media skills to news and information dissemination and to assess and evaluate the credibility and accuracy of the news accounts. Using this approach forced students to use their own independent judgment and to use objective criteria in assessing information and sources for information.

Group discussions. After each lesson presentation, students were organized into groups to discuss the issues and themes of the lesson. Students took sides on issues and debated and analyzed the issues. Debate and counter-arguments were encouraged. Students challenged and analyzed evidence by taking positions on the issues studied.

Lecture Method Classroom

In the classroom where the lecture method was used, daily lessons were presented in a lecture format without student interaction. Daily assignments consisted of reproducible assignment sheets that were provided by the course textbook.

Lecture format. Lessons were presented as lectures by the teacher and were presented as PowerPoint outlines on the television monitor in

the class. The students listened to the lecture and copied the PowerPoint outline in their notes.

Textbook assignments. Daily lessons involved assignment sheets reproduced from the assignment supplement that accompanied the textbook. These assignments were linked to the textbook and based on presentations from the textbook. Answers generally required memorizing the material presented in the textbook.

Textbook quizzes and tests. The quizzes and tests were provided as supplemental materials created by the authors of the textbook and based on the textbook.

Research Method

Both qualitative and quantitative methods were used effectively to conduct action research in my high school history classroom to identify effective teaching methods that would increase critical thinking skills. I designed an experimental action research project that compared the effectiveness of two different methods of instruction. One method of instruction involved lectures using the textbook. The other method presented material in an inquiry format combining discussion, simulation, and role-playing activities.

The Research Project

Students in history classes participated in either the lecture or the inquiry method of teaching. The conceptual knowledge of the students was then tested and the results compared. Student learning in each class was assessed using an objective test. The average scores on these tests were used to evaluate the effectiveness of the two teaching methods.

My first and second hour classes were both American History II classes studying the same period of US history, using the same textbook, and taking the same quizzes and tests. The lecture method was randomly chosen for the first hour class and the inquiry method was chosen for the second hour class.

Time, materials, age, gender, grade level, and teacher characteristics were the same for both classes. Both classes had the same female to male ratio. Both classes consisted of 11th and 12th grade students. They ranged between 16-17 years old and

all students attended an alternative high school. The average socio-economic status was middle to low income. Some were in alternative education because of poor attendance, disciplinary problems, or learning disabilities. Approximately a third of the students were African-American. One participant was Asian-American. Several students had disabilities that prevented them from attending class regularly negatively impacting their engagement and involvement in the class. Some of the students had transferred from other school districts.

The two classes involved only general controls. Due to school policies, student-to-student matching was not possible. The two classes did not differ significantly - age, gender, socioeconomic status, ethnicity/race, or grade level, were similar for both classes. The classes were both held at roughly the same time of the day - first hour (8:00-9:00 am) and second hour (9:00-10:00 am). The same textbook, *The American nation* by Davidson and Stoff (2005), was used and the same assignments, quizzes, and tests were administered in both classes. The ability level was comparable for both student groups. The same room was used with the same equipment and teaching materials which included overhead transparencies, PowerPoint capabilities, computer, and video clips. The timeline for both lecture and inquiry formats involved a 12 week period covering two units in one semester.

Quantitative Methods

Data collection for the quantitative component for both groups involved student scores on assignments, quizzes, and examinations. The assignment, quiz, and test scores were tabulated for each student in all the hours. It was crucial to be able to assess whether students were able to demonstrate their understanding and grasp of the subject in a quantifiable manner so that overall trends and patterns could be graphed and generated. Moreover, students needed to develop and to retain effective testing and test-taking skills as they were required beyond the high school level. The results were graphed on a bar or line graph (Figure 1). Test scores for the two classes were compared. I computed the averages for each class and then compared averages for the two classes. These results were compared on a bar graph (Figure 2).

Figure 1. Frequency line graph

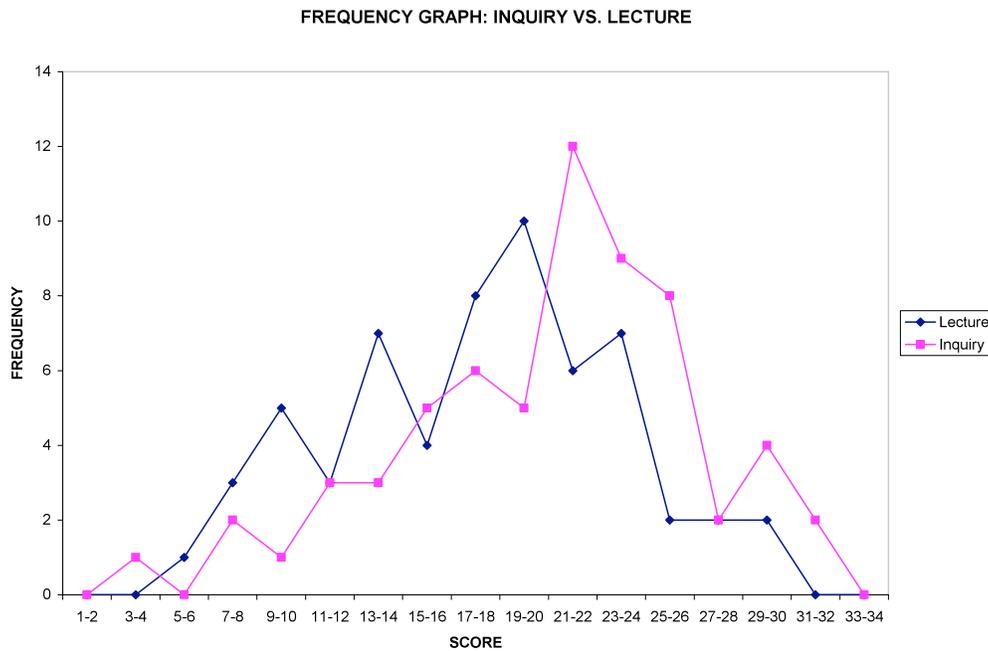
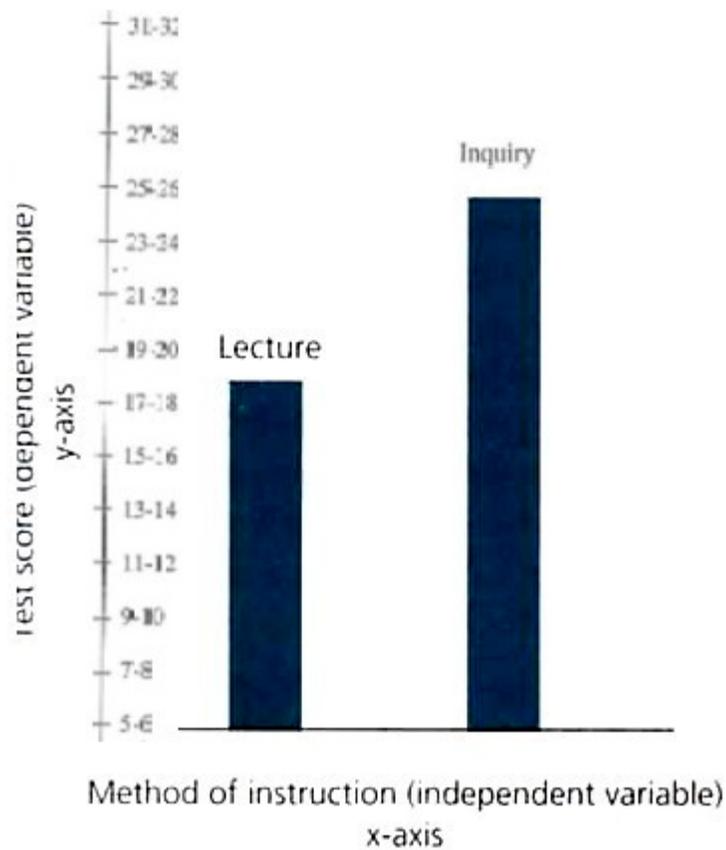


Figure 2. Bar graph: Lecture method versus inquiry method



Qualitative Methods

Qualitative data consisted of observations, evaluations and assessments of student participation. The qualitative method was important and necessary because it allowed the researcher to assess students' engagement and participation. Test scores alone did not reveal student initiative, creativity, or independent thinking. The qualitative approach allowed me to assess whether students were thinking "outside the box" and independently. Because I taught both the classes, I was able to observe the students' level of participation, motivation, interest, engagement, and critical thinking. Qualitative data involved surveys, recorded observations, rubrics, attitude questionnaires, interviews, and videotaped presentations.

Surveys. Surveys were used to determine which teaching method students felt was most effective. Survey questions included:

- 1) Did reading multiple texts increase your understanding of the issues involved and their complexity?
- 2) Did the simulation exercises allow you to experience events more fully?
- 3) Did the awareness of bias improve your comprehension of the issues?
- 4) Did individual research and the examination of primary sources change your understanding of issues?
- 5) Did thinking independently and critically about issues change your understanding of those issues?

Students were asked to rate and to assess the two teaching methods on a scale from 1-5 (one indicating a minimal effect). The results were then tabulated and an average score was generated for each class for each question. An average of four or above indicated a reported improvement. An average score of 3 or below indicated no improvement or minimal improvement. The average score allowed me to determine how students viewed the inquiry teaching methods. Surveys also involved both short answer and essay format questions, to assess student presentations, involvement, textbook analysis, and critical thinking skills.

Observations. For the qualitative component, I kept a log book and a daily journal to assess students' participation in discussions and activities. Students were scored on their level of their engagement in the lessons (1-10). I kept a journal of observations in both classrooms.

Rubrics. Rubrics were created to assess student participation. Students were assigned points based on the originality of their presentations, how involved they were in the debate, how critically they analyzed the textbook, and how effectively they used critical thinking skills to resolve issues and problems; they were assessed on a scale of 1 to 10. These rubrics, which were used in both classrooms, allowed me to identify the effects of inquiry and lecture formats.

Attitude questionnaires. I also examined changes in student attitudes. I prepared a questionnaire that students in both classes completed. I then used the results to assess students' attitudes. The attitude questionnaire included the following questions:

- 1) Did critical thinking allow you to see the complexity of all issues in history?
- 2) Do you consider it important to have different viewpoints on historical issues?
- 3) Is the examination of bias important in understanding history?
- 4) Does the study of history have a meaning and impact on your life?
- 5) Can understanding history allow you to improve your life?

Students answered either yes or no to each question. The percentages of positive and negative replies were calculated to determine whether there were differences in students' attitudes.

Written interviews. Students were asked a series of essay questions about what they had learned from their research projects. The questions included:

- 1) What inaccuracies did you find, if any, in the standard textbook presentation of your subject?
- 2) Were there biases, and if so, how do you know?

3) How important is it to think independently about the issues presented in your research project?

4) Was critical thinking important, not important, or only important to some extent in understanding the subject?

5) Did you find your attitude or understanding of an issue changed by examining it critically and independently?

An average score was calculated by scoring each answer from 1 to 5 based on the degree to which they reported that their understanding and attitudes had changed.

Findings

This action research project demonstrated that inquiry teaching methods, including group role play and simulations, provided a better understanding of historical events by allowing for greater empathy and internalization resulting in improved critical thinking skills. When test results from the two classes were compared, the inquiry teaching method resulted in higher average test scores (Figure 2).

I asked the students in the lecture format class to assess that method. The results were then compared to student assessments from the inquiry class. This occurred in the last two weeks of the 12 week action research project. The results demonstrated that an overwhelming majority of the students in the inquiry class preferred that method of instruction over the traditional lecture format. Conversely, in the lecture class, the majority of students were dissatisfied with the lecture format.

Several general themes emerged. I learned that students were more assertive and could relate to history and historical issues much more meaningfully in the inquiry classroom. The inquiry method invited them to internalize the issues and relate them to their own lives. Under the lecture method, there was very little connection to the subject matter. The inquiry method challenged students and motivated them to think independently and critically about issues. The student presentations demonstrated that they found meaning and relevance in historical issues. One student wrote on the questionnaire: "The history textbook leaves out the role minorities played in events. When I researched the role of minorities in World War I, I found out that they

played a big part in the war." Students were able to articulate and to express their own ideas and responses to historical events and to conduct research independently rather than relying on textbooks. Students were able to see the big picture. For example, students noted how wars are endemic in human history and how they are all fundamentally the same. They saw how deception and futility are common in times of war. They were able to relate World War I to the Iraq War. Students could think critically and independently about major issues in history. The inquiry approach was more effective than memorizing facts. Students were able to view history as constantly evolving and changing and recognize that they have a role in its evolution. History is not dead and static. Students were able to see the relevance and meaning of history in their own lives.

This action research project demonstrated that students who engaged in inquiry experiences gained a greater and more meaningful understanding of the subject. They learned to appreciate the complexities, uncertainties, and ambiguities inherent in historical issues and problems.

Conclusion

Both quantitative and qualitative research methods demonstrated that when critical thinking skills were integrated in lessons, students achieved higher scores on tests, quizzes, and assignments and gained a deeper and more meaningful understanding of history. Based on these results, I was encouraged to design a future action research plan that would further assess inquiry teaching strategies and methods. Based on the test score results, I concluded that there was a substantial difference between the inquiry and lecture formats that warranted future changes in my teaching. Because there was a marked difference in the results for the two teaching methods, I encourage other teachers to replicate my research to determine whether critical thinking skills can be improved in their classrooms.

I also learned that students were able to find greater meaning and significance in history when they could relate it to their own lives. The inquiry method forced them to experience the issues for themselves and to think them through with much greater depth and empathy and sympathy. Not only did they achieve higher test scores, but they

were also able to appreciate and to scrutinize historical events and issues. Students were able to view the complexity of issues and recognize how perspective and viewpoint were crucial for comprehension. A critical approach allowed the students to grasp the meaning and importance of history in their lives. They were able to see history as a constantly evolving, interactive process, not as a static process.

Finally, potential threats to the internal validity of the findings were identified. A possible threat was researcher bias. I may have skewed the results due to anticipated outcomes. I may have recognized certain findings and ignored or discounted others because they did not fit with my expectations. This may have impacted the ways I implemented both instruction and data collection. In addition, students in the lecture format classroom may have learned that they were being taught differently than students in the other class. This may have affected their attitudes. The “Hawthorne effect”, conscious knowledge on the part of participants that they are receiving “special” attention, may have skewed the results in a more positive direction for students in the inquiry class resulting in inflated results.

Based on my findings, I have designed lesson plans for the future that incorporate interactive activities, discussions and role play. While some lecture was retained, simulations and interactive activities were added. This project can be replicated as an action research project to address student disinterest or increase student critical thinking skills in schools.

In conclusion, I have learned that the inquiry methods for teaching history provide students with more meaningful understandings of subject matter. This method also creates greater engagement and interest. While the lecture format is still necessary, at times, to establish the background information and to present the fundamental concepts and terms, in my future teaching I will design lessons that will draw upon inquiry methods to increase student critical thinking skills. By implementing an inquiry teaching format, teachers can increase student scores on tests and their engagement. This improvement would be reflected in higher grades and improved academic achievement.

References

- Andolino, M. (2002). *Practical guide to critical thinking*. Albany, NY: Delmar.
- Bennett, C. & Forney, L. (1997). Oral history: A bridge in thinking historically. *Southern Social Studies Journal*, 22(2), 11-25.
- Calabrese, E. (1993). *A plan for enhancing student achievement in an eleventh grade large classroom American history course through a multicultural curriculum*. Retrieved March 21, 2008 from ERIC Database.
- Chiodo, J. J., & Byford, J. (2004). Do they really dislike social studies? A study of middle school and high school students. *Journal of Social Studies Research*, 28(1), 16-26.
- Conner, E., & McKee, J. (2008). Drop-out challenges: Pathways to success. *Principal Leadership*, 9(3), 38-43.
- Craver, K. (1999). *Using internet primary sources to teach critical thinking skills in history*. Westport, CT: Greenwood Press.
- Davidson, J. W., & Stoff, M. *The American nation*. Upper Saddle River, NJ: Prentice Hall, 2005.
- Foster, S., & Padgett, C. (1999). Authentic historical inquiry in the social studies classroom. *The Clearing House*, 72(6), 357-363.
- Gagnon, P. (1988). Why study history? *The Atlantic Monthly*, 262(5), 43-66.
- Goodlad, J. I. (1984). *A place called school*. New York: McGraw-Hill.
- Herman, E., & Chomsky, N. (1988). *Manufacturing consent: The political economy of the mass media*. NY: Pantheon.
- Herman, E., & Chomsky, N. (1997). *The myth of the liberal media: The propaganda model of news*. Northampton, MA: Media Education Foundation.
- Hynd, C. (1999). Teaching students to think critically using multiple texts in history. *Journal of Adolescent & Adult Literacy*, 42(6), 428-436.
- Hynd, C., Hubbard, B., & Holschuh (2004). Thinking like a historian. *Journal of Literacy Research*, 36(2), 2, 141-176.

- Kida, T. (2006). *Don't believe everything you think: The 6 basic mistakes we make in thinking*. Amherst, NY: Prometheus Books.
- Kidwell, F. (1996). "Why do I have to study history?" *Social Studies Review*, 36(1), 66-69.
- Lacey, B. (1994). Evaluating viewpoints: Critical thinking in United States history. *History Teacher*, 27(4), 502- 503.
- Loewen, J. W. (1995). *Lies my teacher told me: Everything your American history textbook got wrong*. New York: New Press.
- Michigan Department of Education (1996). *Michigan curriculum framework*. Lansing, MI: Michigan Department of Education.
- Milton, H. (1993). *Improving the critical thinking skills of ninth grade world history students by integrating critical thinking skills and course content*. Ed.D Practicum, Nova University.
- Mitchell, W. (1993). Using the position paper to teach higher-level thinking skills in American history. *OAH Magazine of History*, 7(4), 5-7.
- Moore, B. & Parker, R. (2007). *Critical Thinking*. New York, NY: McGraw-Hill.
- Norman, B. (1996). A postmodern endeavor. *Journal of Curriculum Studies*, 28(6), 713-723.
- O'Reilly, K. (1990). *Spanish-American war to Vietnam: Critical thinking in American history*. South Hamilton, MA: Critical Thinking Company.
- Otten, M., Stigler, J., Woodward, A., & Staley, L. (2004). Performing history: The effects of a dramatic art-based history program on student achievement and enjoyment. *Theory and Research in Social Education*, 32(2), 187-212.
- Pattiz, A. (2004). The idea of history teaching: Using Collingwood's idea of history to promote critical thinking in the high school history classroom. *History Teacher*, 37(2), 239.
- Paul, R. (1984). *Critical thinking and educational reform: The emerging revolution*. Position paper presented at the Harvard International Conference on Thinking, Cambridge, MA, August 19-23, 1984.
- Paul, R., & Elder, L. (1999). Critical thinking: Teaching students to seek the logic of things, part II. *Journal of Developmental Education*, 23(2), 34-35.
- Payne, B. (1993). A word is worth a thousand pictures: Teaching students to think critically in a culture of images. *Social Studies Review*, 32(3), 38-43.
- Rothman, R. (1988). Ending the silence on the Vietnam war. *Education Week*, 7(37), 1-19.
- Rothman, R. (1987). Americans, Soviets critique texts. *Education Week*, 7(12), 5.
- Schug, M., Todd, R., & Beery, R. (1984). Why kids don't like social studies. *Social Education*, 48, 382-387.
- Shanahan, C. (2003). *Using multiple texts to teach content*. Retrieved March 24, 2008 from <http://www.learningpt.org/pdfs/literacy/shanahan.pdf>
- Shaughnessy, J. M., & Haladyna, T. M. (1985). Research on student attitudes toward social studies. *Social Education*, 49, 692-695.
- Shaughnessy, M. F. (1985). *Critical thinking: Attitudes, skills, and ambiguity*. Position paper. Portales, New Mexico: Eastern New Mexico University. (ERIC Document Reproduction Service No. ED 383 593)
- Shaver, J., Davis, O. L., Jr., & Helburn, S. M. (1979). The status of social studies education: Impressions from three NSF studies. *Social Education*, 43, 150-153.
- Stabile, C. (2001). *Improving the performance of sixth-grade social studies students through exposure to philosophy*. Doctoral dissertation.
- Stahl, S., Hynd, C., Britton, B., McNish, M., & Bosquet, D. (1996). What happens when students read multiple source documents in history? *Reading Research Quarterly*, 31(4), 430-456.
- VanFossen, P. & Shiveley, J. (1997). Things that make you go "hmmm...": Creating inquiry "problems" in the elementary social studies classroom. *Social Studies*, 88(2), 71-77.
- VanSledright, B. A. (1998). I don't remember- - The ideas are all jumbled in my head: 8th graders reconstructions of colonial American history. *Journal of Curriculum Supervision*, 10, 317-345.

Warren, W., Memory, D., & Bolinger, K.
(2004). Improving critical thinking skills
in the United States survey course: An
activity for teaching the Vietnam war.
History Teacher, 37(2), 193-209.

Wiggins, G., & McTighe, J. (2005).
Understanding by design (2nd ed.).
Alexandria, VA: Association for Supervision
and Curriculum Development.