Research in Social Sciences and Technology

A HISTORICAL APPROACH TO SOCIAL STUDIES LABORATORY METHOD[1]

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Abstract
In the early years of Social Studies education, great attention was given to "Social Studies Laboratories" and a teaching and learning pedagogy called "The Laboratory Method". This study examines historical documents about the development of the social studies laboratory. The researchers examined certain periodicals published in the US such as Education, The Historical Outlook and The History Teacher's Magazine along with the non-experimental historical research methodology. In an age of inquiry-based projects and "hands-on" approaches to the learning of Social Studies, a brief historical overview of the foundations of such approaches in the Social Studies seems appropriate from US perspective. Parallels are drawn by using comparative approach, and suggestions made, for a twenty-first century approach to a Social Studies Laboratory and a Laboratory Method of teaching the many disciplines that define the Social Studies. The findings of this study indicate that despite the social studies classroom, method and laboratory may have changed a great deal over the past century, the goals of the social studies teacher have not changed. The social studies teacher still works to keep his or her students actively engaged in learning, still works to help them learn new concepts and skills, and still works to help each and every student succeed. Above all, the social studies teacher still looks for strategies and tools to help students prepare for life outside of the classroom. In conclusion, a valuable lesson is to be learned from the early development of the social studies laboratory: the room, the technology and the innovative ideas are meaningless unless accompanied by a commitment to move toward student-centered activities and learning, a twenty-first century version of the "laboratory method". It is when technological access becomes inexorably entwined with teaching strategies that empower students to use, develop and critique the technology that substantive learning takes place in the social studies classroom.

Keywords: Social studies education, laboratory method, inquiry method, United States

Introduction

During the first quarter of the twentieth century, a small cadre of United States (US) social studies educators began calling for what they envisioned as a "social studies laboratory",

[1] Earlier version of this study was presented at II. International Congress of Educational Research, Antalya 29April-2May 2010

a phrase that came to encompass both an idea for a separate room devoted to the exploration of social studies concepts and a methodology for teaching. For the time, both ideas were revolutionary. The "pure sciences" had only recently adopted laboratories in some American schools – rooms where "hands on" experimentation and problem solving would take place. Perhaps more revolutionary than the conceptualization of a laboratory for the social studies was the notion that a significant change in teaching strategies would need to accompany the physical changes envisioned to create the social studies laboratory. Teachers were no longer to assume the role of a presenter of information; now they would need to become an informed guide for their students.

The idea for a social studies laboratory and what subsequently became known as the "laboratory method in social studies" can be traced directly to Professor Mary Sheldon Barnes. As early as 1896, Professor Barnes described the duality of the social studies laboratory and the "laboratory method":

And as science has pushed her way out of the narrow textbook and the common schoolroom, with its dogmatic teacher, into the world of phenomena, and into special laboratories fitted with work-tables, collections, and apparatus…so history is destined to push its way out of the same narrow textbook and common schoolroom, with its dogmatic teacher into the world of human nature, and into special seminaries, fitted with maps, pictures, and books, with a work-table for every student, this whole provided over by a specialist who can guide the student to his sources, and show him how to interpret them truly and critically (p. 44-45).

The first social studies laboratory in an American school is attributed to the Pratt Institute of New York City (Monroe, 1907; Baldwin, 1929). Created and developed by one of Professor Barnes' former students, the Pratt Institute's social studies laboratory aroused both educational and public interest when it was first described.

The concept and design of the early social studies laboratory were formed through various articles that appeared in Education, The Historical Outlook and The History Teacher's Magazine between 1902-1916, articles that largely expanded Barnes' description of more than a decade before. The descriptions of what a social studies laboratory should include were remarkably similar throughout the articles – chairs and tables for students instead of fixed desks, political and geographic maps and globes, bookcases, dictionaries, atlases and newspapers (Roberts, 1902; Morehouse, 1916).

In his doctoral dissertation for Columbia University's Teachers College, J.W. Baldwin (1929) suggested that in addition to the numerous articles written during this period concerning how to outfit a social studies laboratory, a seminal moment in the development of such laboratories occurred during the 1909 annual meeting of the American Historical Association in New York City. Two professors exhibited a collection of the latest laboratory-teaching aides from around the United States and Europe. The exhibition caused a sensation of sorts among professors, teachers and school administrators who had already read of such laboratory equipment for the social studies in the leading educational journals of the day, yet now had the opportunity to handle the latest maps, globes, photographs, books and lantern slides. Perhaps more significant than what was brought to the exhibition was who brought it - Professors Henry Johnson and James Shotwell of Columbia's Teachers College.

The fact that professor Henry Johnson of Columbia's Teacher College was substantially involved in the promotion of a social studies laboratory is testament to the interest surrounding social studies laboratories. Johnson had already earned himself a well-deserved reputation for being a "frontier thinker" in the social studies. Johnson's interest in the social studies laboratory did not wane after the 1909 American Historical Association meeting. Indeed, Johnson and Shotwell led the discussions regarding social studies laboratories during the Middle States

Association's meeting in March of 1910 and both the North Central Association's meeting and the New England Association's meeting in April of the same year (Baldwin, 1929).

In addition to furthering the discussion in professional conferences and meetings, Johnson and Shotwell's exhibition fueled a multitude of articles throughout the 1920s and 1930s, but these articles differed from previous ones on the subject of the social studies laboratory in two distinct ways. To be sure, the authors continued to advocate for the creation of a social studies laboratory, and their descriptions of the basic equipment necessary for such laboratories included many of the same items mentioned in articles dating from the turn of the century. Understandably, some authors (Wilgus, 1921; Dawson, 1924; Kidder, 1925; Kutak, 1925-6; and Baldwin, 1929) were beginning to advocate equipping social studies laboratories with more technologically advanced equipment such as motion picture projectors and screens, films, projection lanterns and multigraph (a precursor to the mimeograph) machines.

The second way in which these articles differed from previous literature on the subject of the social studies laboratory was in their focus on how one would need to teach in the laboratory setting using a specialized method of instruction. This new form of instruction, dubbed the social studies laboratory method, included a substantial amount of what educators today refer to as "student-centered" learning. The laboratory method was so revolutionary because students of the social studies were no longer to be passive learners sitting in fixed rows of desks, preparing for exams and recitations. The social studies teacher was no longer to be a purveyor of information, but rather a knowledgeable guide, coach and referee. A.C. Wilgus (1921) described the laboratory method as follows:

Since this is the laboratory method of teaching and studying history, most of the work is done by the pupils under the constant guidance of the teacher. It is a method whereby the pupils write history and thus study it instead of going to class and reciting after supposedly studying it… The teacher should be the pupil's constant advisor and guide (p. 24).

Under the laboratory method, social studies students were free to move about large tables, counters and workspaces. Students conducted their own research on a given topic using the dictionaries, maps, charts, atlases, encyclopedias, magazines, newspapers and journals that were the staples of the social studies laboratory. In the process, students utilized the equipment and technology within the laboratory to create books, bias-relief maps, scale models, charts, graphs, posters, and other visual displays to illustrate their understanding of subject (Morehouse, 1916).

As the early roots of the progressive era began to form, both the social studies laboratory and the laboratory method experienced subtle changes. Some educators of the late 1920s began to conceptualize the social studies laboratory in a different way (Hill, 1925). The social studies laboratory began to emerge as a "minimal benchmark" in the progressive school. The new social studies laboratory would encompass laboratory work by students in the community of the school, not just in the laboratory room itself. Many educators of the era took this concept one step further, insisting that teachers and students visualize the social studies laboratory as existing beyond the four walls of the classroom. These changes to the laboratory were brought about through changes in the laboratory method, chief among them the idea that students of the social studies should work on real problems facing their school and their community. Teachers who employed the laboratory method of instruction were beginning to de-emphasize the compilation of timelines and completed historical outlines in favor of a problem-based study and instruction. Popularized by textbook authors like Harold Rugg, using community problems as a catalyst for research, discussion, and action on the part of social studies students seemed to be the perfect way to revitalize the laboratory method.

If the spark of interest that surrounded the adoption of the social studies laboratory and laboratory method was fanned into flame by the progressive era, it was the gathering storm of World War II that put the fire out. As America entered World War II, the emphasis in social studies curriculum shifted to issues more readily recognized as teaching students about "democracy" and "citizenship". In addition, some administrators began to question how much "real learning" was taking place in the laboratories, given the fact they were much more expensive to equip than a traditional social studies classroom. Teachers were also slow to adopt the social studies method. It was time and energy consuming, and many cast a suspicious eye towards reforms that, at least in appearance, suggested that the traditional amount of subject material would not be covered and a substantial amount of "teacher control" over curriculum, learning, testing and discipline would be surrendered to the students.

A social studies laboratory for the twenty-first century

It is our hope that a renewed emphasis and interest may revive the social studies laboratory and laboratory method. The two core components of the laboratory method, student-centered learning and social problem solving, are strategies that have not "gone out of fashion" since they were conceived more than a century ago. Indeed, practitioners of the social studies are still arguing for the implementation and development of such ideas throughout American schools.

The concept of a separate laboratory for the social studies is as intriguing in the twenty-first century as it was in the twentieth century. More than a century ago, the development of the laboratory was fueled by a combination of pedagogical and technological advancements: tables and chairs in place of fixed desks, supplies to create, build, and help explain numerous concepts related to the social studies, and a belief that students should assume a preponderance of the responsibility for learning. Rapid technological advancements, accompanied by equally

rapid declines in costs, are reasons to re-consider the development of a social studies laboratory for the twenty-first century (Tarman, 2011).

The nature of technological advancement in the twenty-first century is, in itself, evidence in support of social studies laboratories. Becoming facile in the use of computers, peripheral equipment, and the Internet as a research tool are skills necessary to compete in the national and international marketplace of twenty-first century. Important social studies concepts, lessons, skills and ideas can be taught and learned while students become facile in the educationally appropriate use of technology (Tarman & Acun, 2010). In this way, the nature of the social studies laboratory and the social studies laboratory method become entwined in a significant and meaningful manner that extends far beyond providing students with a new way to present evidence of their learning.

One area of great promise involves using technology to explore primary sources of information. Primary sources of information in a social studies classroom can eliminate the traditional "filters" of textbook authors, editors and publishers. Textbooks introduce bias ("history is written by the victors"), rarely present opposing viewpoints of historical events or people, and seldom raise moral or ethical questions regarding historical events. Many educators who employ primary sources of information within their classrooms cite research findings that show students who are exposed to these primary sources are more actively engaged as learners and more fully develop their critical thinking, reasoning and problem solving skills. The argument is that the nature of primary sources themselves can help students "eclipse" the act of simply "absorbing" the material and lead students to analyze and evaluate such sources, recognizing both bias and the potential significance of the information in the process. Kathleen Craver (1999) argues that it is precisely these skills that students will need to acquire and fully develop if they are to compete in the global arena of the twenty-first century.

In decades past, the availability of primary sources for teachers was limited in comparison to what is available to the social studies teacher today. The technological revolution has made it possible for teachers and their students to search through millions of primary source materials. In addition, technology makes these sources readily available, often through "printer friendly" formats that can be easily printed and shared with students. Of more promise is the notion that students can search and analyze primary sources of information that are meaningful to them and of use in their studies, rather than passively accepting what a teacher or textbook says is important. An added benefit is that students who search for and evaluate primary sources of information would become more facile in using the Internet as a research tool.

Technology (via the computer and Internet) can expose students to more than just the printed word. Internet sources can also provide digital images of artifacts, paintings, dwellings, sounds and places, often in stunning clarity. Many museums, both across the United States and the world, provide digital images of much of their collection. Some museums even make available artifacts that are not on display to the general public due to space limitations of the facility. In exploring these sites, students are often provided with a digital image (sometimes multiple images of the same artifact from a variety of perspectives) along with written documentation and even sound or video clips to add explanation and meaning to the image. Students and their teachers can take virtual tours of historic sites or structures, often being able to listen to diary excerpts or travelogues as they "walk" through rooms of historic structures. Many historic sites, museums, national monuments and art galleries have created multi-media "tours" available on CD-ROMS for students and teachers to peruse.

These same technologies can help teachers who want their students to develop a global perspective. Students can access CD-ROMS and the Internet to view collections, documents, art, architecture and literature from almost any global culture. Often, there exist multiple opportunities for students to interact with local experts, teachers and museum curators regarding

the cultural significance of anything a student discovers on the Internet. In addition, "listservs" and cultural "chat rooms" can provide students with many opportunities to digitally converse with people from around the world.

All of these technological resources available to social studies teachers and students provide ample support for the social studies laboratory. Such a laboratory can provide students and teachers with the physical space to house the infrastructure necessary to support technology in a way that can both protect equipment and ensure the optimal placement of computers, printers, Smartboards, scanners, videocassette recorders and televisions. The social studies laboratory supports student research, small group instruction, cooperative learning, and student presentations that would utilize a variety of multimedia tools.

Conclusion

Though the social studies classroom, method and laboratory may have changed a great deal over the past century, the goals of the social studies teacher have not changed. The social studies teacher still works to keep his or her students actively engaged in learning, still works to help them learn new concepts and skills, and still works to help each and every student succeed. Above all, the social studies teacher still looks for strategies and tools to help students prepare for life outside of the classroom.

Access to technological hardware and software combined with the need to develop our students to be critical consumers of information and to become facile in the use of technology have important implications for developing social studies laboratories for the twenty-first century. Many arguments similar to those of over a century past can still be voiced, such as the need for a separate (or better yet, adjoining) room that would both be wired for and house the technological tools of our time. Innovative teachers of the social studies are still advocating forms of the laboratory method – inquiry learning, constructivist approaches, cooperative learning, "hands on" active learning, and other student-centered approaches. Much like their

twentieth century counterparts, today's social studies teachers support the adoption of technological innovations and tools to enhance student engagement, thinking and learning.

Unfortunately, one fact of life in American public education that has remained unchanged since the appearance of the first social studies laboratory is that many school districts across the nation are woefully under-funded. Technological hardware and software are expensive, and some school buildings have yet to be wired to support the technological infrastructure necessary to equip a school with the type of social studies laboratory about which we have written. Additionally, there are substantial costs associated with meaningful teacher training programs that will help teachers develop the skills necessary to operate, maintain and utilize the capabilities of a given technology.

And what of state and national standards? Classroom teachers have complained that the pressure to "teach to the standards" so that students succeed on high-stakes tests curtails their ability to teach some important skills and concepts (Ayas, 2009). What promise does technology hold for alleviating this pressure? Technology is a precise tool, but what it is used for and how well it is used is dependent upon the person who uses it. It may be no better or worse at helping students succeed on standardized tests than more traditional instructional tools. School districts and classroom teachers should not adopt technological hardware and software based solely on their desire to address the standards in social studies or any other discipline.

If understood and developed properly, the social studies laboratory of the twenty-first century will not be a seldom-used educational gimmick full of "bells and whistles" of dubious educational value. To fund technology for the sake of appearing to be on the cutting edge of education is a waste of time and money and both commodities are too valuable in today's schools. A valuable lesson is to be learned from the early development of the social studies laboratory: the room, the technology and the innovative ideas are meaningless unless accompanied by a commitment to move toward student-centered activities and learning, a

twenty-first century version of the "laboratory method". It is when technological access becomes inexorably entwined with teaching strategies that empower students to use, develop and critique the technology that substantive learning takes place in the social studies classroom.

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