Teaching the C3 Framework



Inquiry in the Social Studies: Reflections of an Octogenarian

Peter B. Dow

What a pleasant surprise awaited me in Chicago last November! Following an absence of nearly a decade, I attended the annual meeting of the National Council for the Social Studies, where I was invited to appear on a panel to discuss Geoffrey Scheurman and Ronald Evans's new book on the social studies reforms of the 1960s. What struck me about the Chicago NCSS gathering was the amount of attention given to the topic of "inquiry." At the conference bookshop, the first publication that caught my eye was Swan, Lee, and Grant's *Inquiry Design Model: Building Inquiry in Social Studies*. I was also surprised to find that a number of the conference sessions, and even some of the publishers' displays in the exhibit hall, proposed "inquiry-based instruction." Why was I startled by this? After my experience as project director of Jerome Bruner's *Man: A Course of Study*, a 1960s model for social studies inquiry that became a casualty of the politics of the period, I never thought I would see the day when the social studies profession openly embraced a questioning approach to exploring our social world.

Why, I wondered, has "inquiry" become the new mantra in social studies? Are we increasingly troubled by the conventional transmission of the American story? Has a shrinking world of instant communication made the immense diversity of the human condition so accessible that there is growing acceptance for exploring cultural differences? Has the ubiquity of information in the hand-held devices of students made it increasingly difficult to suppress alternative points of view? Or is it the desire to cultivate "critical thinking" in the young, in a cultural environment dominated by "social media?" Perhaps it is all of the above. Whatever the cause, the growing interest in cultivating inquiry in the social studies moves me to reflect on how this effort has played out in the past, and to brood once more on the perils as well as the promise of inquiry, or as the British would say "enquiry," in the social studies classroom.

My introduction to the idea of con-

structing a course around questions rather than answers came in the winter of 1964 when Jerome Bruner arrived in Philadelphia to describe a course he wanted to design for elementary students that was built around the question "What makes human beings human?" As a mere classroom teacher, I wasn't invited to the meeting, but afterwards, having been impressed by his little book The Process of Education, I listened to the tape. It stopped me in my tracks. In nine years of teaching social studies to junior high and high school students, it never occurred to me to build a course around a question, much less a question so fundamental as "What makes us human?" Bruner spoke about what he called the "four great humanizing forces": technology, social organization, language, and belief systems. (Later, under pressure from a developmental psychologist colleague, Richard Jones, he added a fifth: prolonged childhood.) To learn more, I tracked him down and persuaded him to

let me help him build the course. With the brashness of youth, I argued that he needed collaborators with classroom experience. Working with Bruner on this course convinced me that honest inquiry about the nature of our humanness, however challenging, is an essential ingredient of schooling if we wish to build a better world.

But I begin with a caveat: inquiring about our humanity in classrooms is a hazardous endeavor. Why? Because many of the interesting questions about human society, perhaps most of them, are potentially controversial. I vividly recall a conversation with Jerrold Zacharias, the MIT professor who pioneered one of the first Sputnik-inspired reforms called PSSC Physics. When I mentioned that we were asking our students, "How do Inuit children learn to kill?" the phone went silent. He was obviously taken aback. He then said, recalling the Manhattan Project, "We learned to kill-ten cents a head in lots of a million." Should we ask children to consider questions like, "Is violence an inherent characteristic of human nature?" Sometime later, when I was writing a dissertation on Man: A Course of Study, I interviewed George Homans, who was teaching sociology at Harvard. Homans was not surprised to learn about what had happened to the course. "You can't teach honest social science to ten-yearolds," he remarked. "I can't even teach it to my graduate students!" I guess I shouldn't have been surprised when a proposal to expand Man: A Course of Study produced a two-hour debate on

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the floor of the House of Representatives.

With the hazards of the enterprise fully in mind, and from the perspective of an aging school reformer, let me offer a few reflections on the value of an inquirybased approach to teaching social studies as called for in the *College, Career, and Civic Life (C3) Framework*. Consider, for example, three elements of inquiry that may prove useful in our effort to engage the curiosity of students in this confusing age of fake news, alternative facts, and information overload: *the pedagogical power of inquiry, the importance of firsthand experiences, and the value of student-initiated questions*.

The Pedagogical Power of Inquiry

In the interest of full disclosure, I confess that my commitment to "inquiry-based teaching" comes largely from work I have done in science, not social studies. As a pragmatic reformer, when the money dried up for social studies (brought about, in part, by the controversies surrounding Man: A Course of Study), I turned to science innovation. During the 1980s and 90s, the National Science Foundation invested heavily in elementary science curricula (e.g., Science and Technology for Children, Insights, the Full Option Science System) and in the implementation of these programs through teacher professional development and what came to be called "systemic reform." As education director of the Buffalo Museum of Science, I was fortunate to receive several NSF grants to implement elementary science systemwide in the Buffalo Public Schools. Most elementary teachers tend to be a bit "science phobic," so this was an opportunity to see if exposure to inquiry could make a difference in their willingness to teach science. In the TEAM project (Teacher Education at the Museum), we set out to introduce 1,400 teachers in 60 elementary schools to new curricula in the life, earth, and physical sciences.

Observing a wary group of teachers fall in love with science teaching through an immersion in the process of scientific inquiry, including apprenticing themselves to a museum scientist to develop expertise in a museum specialty like botany, entomology, mycology, mammology, geology, paleontology, archaeology, anthropology, or the physical sciences, was an eye-opening experience. Defying all predictions, these teachers enthusiastically embraced month-long summer programs held at the Museum, together with Saturday morning seminars during the school year, in an effort to maximize their skills as inquiry-based teachersa commitment largely driven by the engagement of their students. What was once an alien academic domain became what many described as the most valuable professional development experience of their academic careers. Why? Because they were learning science by doing science, and because their students were learning that way as well.

The Importance of Firsthand Experiences

Another lesson I learned from science teaching is that *direct engagement with* real phenomena is enormously motivating for learners at all levels, including teachers. There is something about working with materials that you can experience firsthand-balls and ramps, observing caterpillars transform themselves into butterflies, even building your own fossil collection—that is intrinsically question producing. And with many students it can be far more motivating than the printed page. This result may be harder to achieve in social studies but is still quite possible. As a museum employee, I became fascinated with the power of objects to motivate interest. With funding from the Howard Hughes Medical Institute, we developed a program called Object Lessons where children, among other things, examined 52 artifacts taken from a simulated archaeological dig to figure out the identity of a "mystery site" that was based on a real excavation. It turns out that interrogating the source materials from which history is created, and introducing the process through which historians and archeologists "discover" the past, is essential if we

want to engage young people beyond the tedious exercise of memorizing what is already known.

Contemporary map study may be another way of helping students to ask new questions about the past. A colleague recently gave me a book that tells the story of American history though historical maps alone. What a different picture you get of our past if you look at it from this perspective. You can see, for example, what our ancestors did not know about the continent in which they lived-whole areas that were yet to be explored. You can also discover things that we may have forgotten, like the actual location of the slave population in the pre-Civil War South. It turns out that Abraham Lincoln regularly consulted such a map in plotting his strategy for the war (see the facing page). How did this map prove useful to him? It revealed the areas where resistance to military incursion would most likely be the weakest.

Historical artifacts are full of information that is not discussed in the textbook and therefore open opportunities for firsthand investigation by student historians. So are seminal moments. The Scheurman and Evans book contains a celebrated curriculum lesson of the 1960s called "What Happened on Lexington Green?" Drawing on a variety of contemporary and eyewitness accounts, students debate questions like "Who was really responsible for starting the Revolutionary War?" One of my mentors, Elting Morison, who taught the history of technology at MIT and was a devotee of this "postholing" approach, once quipped, "You could write most of the history of the United States by a careful investigation of how the battleship Kentucky was built in 1900."

The Value of Student-Initiated Questions

Materials that naturally invoke student questions, often a neglected priority, are among the most valuable materials for developing inquiry-based instruction. Recently, I interviewed a second-grade teacher who was using a journal with



her students to record their responses to a unit on plants. The journal asked two questions at the beginning of the study: What do you know about plants? What questions do you have about plants? At the end of the study, the journal asked the same two questions. She told me that the questions not only provided a focus for student inquiry, but also provided her with a good deal of information about what was going on in her students' heads as they progressed through the unit. I asked her if any of her students' questions surprised her. She said, "Yes, they wanted to know, 'Do plants have feelings?"" I referred her to Peter Wohlleben's The Hidden Life of Trees. Imagine second graders investigating how trees warn each other about the presence of danger.

Unless we ask, and make classrooms places where students are motivated to ask, we really can't know what questions are in the minds of our students. So often we are driven by our effort to transmit the prescribed curriculum, that student curiosity is left by the wayside. It still resonates with me that, as a graduate student preparing a paper on the Italian Renaissance, my professor asked me what I was particularly interested in. My initial thought was, "What does that have to do with passing this course?" When I revealed that my passion was education, he suggested that I do a paper on a fifteenth-century Italian educator named Vittorino da Feltre. What a revelation it was to discover that Vittorino da Feltre, like me, was interested in finding ways to get his students to fall in love with learning. Up to that point,

I had thought of Renaissance Italy as a place and time primarily studied for its extraordinary innovation in the arts and architecture. How amazing to find that there was much to learn about education from this Renaissance inventor of a new kind of schooling.

Sometime in the late 1990s, I was asked to chair a committee of the National Academy of Sciences that was charged with developing an "Inquiry Addendum" to the National Science Education Standards. My role was to try to moderate a somewhat contentious discussion about how best to foster science inquiry in classrooms. Among the "gurus" on the committee were the director of the Workshop Center at City College in New York City and the head of the Inquiry Institute at the Exploratorium in San

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Essential Feature	Variations of Investigations, from Student-Initiated to Teacher-Directed			
1. Learner engages in scientifically oriented questions	Learner poses a question	Learner selects among questions, poses new questions	Learner sharpens or clarifies question provided by teacher, materials, or other source	Learner engages in question provided by teacher, materials, or other source
2. Learner gives priority to evidence in responding to questions	Learner determines what constitutes evidence and collects it	Learner directed to collect certain data	Learner given data and asked to analyze	Learner given data and told how to analyze
3. Learner formulates explanations from evidence	Learner formulates explanation after summarizing evidence	Learner guided in process of formulating explanations from evidence	Learner given possible ways to use evidence to formulate explanation	Learner provided with evidence and how to use evidence to formulate explanation
4. Learner connects explanations to scientific knowledge	Learner independently examines other resources and forms the links to explanations	Learner directed toward areas and sources of scientific knowledge	Learner given possible connections	
5. Learner communicates and justifies explanations	Learner forms reasonable and logical argument to communicate explanations	Learner coached in development of communication	Learner provided broad guidelines to sharpen communication	Learner given steps and procedures for communication

Francisco. There were eight of us altogether, including a geologist member of the National Academy, and a professor from George Peabody College who was particularly concerned that students understand how real scientific inquiry is conducted. The discussions were surprisingly quarrelsome and turned primarily around the degree of control and direction that must be provided by the teacher in order to ensure that "true inquiry" was taking place. At one point we even joked about the differences between "West Coast Inquiry" and "East Coast Inquiry." In time we produced a document that attempted to resolve our differences, in part by providing "vignettes" of working scientists carrying out their investigations and a table that showed classroom inquiry as a continuum ranging from teacherdirected to student-initiated investigations (see table above).

Concluding Thoughts

Given the challenges, what value is there

in replacing the didactic transmission of the facts of history with an exploratory, questioning approach? One of the central features of Man: A Course of Study was what I liked to call the pedagogy of contrast. I was in the midst of trying to describe it to Jerrold Zacharias one day when he pronounced, "Without contrast you can't see." Jerry Bruner put it another way: "The French have a proverb that says, 'The fish will be the last to know water."" To understand our society, we need an external perspective. We thought that by comparing the lives of the Netsilik Eskimo with our own way of life we were helping children to understand both what is universal about our humanity as well as what is unique to a particular culture. From this contrasting point of view, we believed that they could best discover their own cultural values. We also thought they would get new insights about what it means to be human by studying other hominids, like free-ranging baboons. While such evolutionary and culturally relativistic perspectives may not yet be acceptable

in schools, I would still say that the challenge for social studies teachers in our very complex world is to find ways to explore honestly with our students what it means to be human, not just what it means to be an American. As the globe shrinks, our survival as a species may depend upon it.

PETER Dow is co-founder of First Hand Learning, Inc., a non-profit corporation dedicated to inquiry-based learning, teacher professional development, and collaboration between cultural institutions and schools. As Director of Education at the Buffalo Museum of Science, he implemented district-wide elementary science reform in the Buffalo Public Schools with support from the National Science Foundation. Dow has served on several committees of the National Research Council and chaired the group that developed the Inquiry Addendum to the National Science Education Standards. He is the author of Schoolhouse Politics: Lessons from the Sputnik Era (Harvard University Press. 1991).

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