REVOLUTIONS OF ALL KINDS are a mainstay of social studies and history classes across Canada. Students taking Grade 11 Modern World History in New Brunswick, for example, study the French, Industrial, and Russian Revolutions while their counterparts taking Social Studies 11 in British Columbia grapple with a number of 19th century rebellions in Canada, Québec’s Quiet Revolution, and even the global mortality revolution of the mid 18th century.

While revolution as subject matter is prevalent in Canadian social studies classrooms, it is unclear the degree to which what Howard Gardner calls the ‘cognitive revolution’ has found its way into those same classrooms.1 This is the revolution in thinking about how people learn that began with Piaget, continued in the work of Vygotsky, Bruner, and others, and shows up today in a range of scholarship including Gardner’s own work on multiple intelligences. It has profound implications for teaching and learning, but the evidence we have about practice in social studies classrooms around the world and in Canada indicates this may be one revolution that has not been given its due.

While mathematics and science education were much quicker to take up the challenge of the cognitive revolution, the last 20 years has seen a growing body of research in the area of social education generally and history education in particular. We are at the point now where we can begin to draw lessons from that work to inform our practice as social studies educators. In the remainder of this article, I will explore four of those lessons: the need to pay attention to the knowledge students bring with them to learning situations; the need to focus on developing deep understanding rather than covering material; the need to take seriously students’ abilities to handle complexity; and the need to recognize that good teaching is a complex and multifaceted endeavour requiring knowledge of both pedagogy and content.

LESSON 1: PRIOR KNOWLEDGE MATTERS.

In 1909 American scientist Charles Doolittle Walcott discovered what came to be known as the Burgess Shale in the mountains of British Columbia. The rocky outcropping is one of the richest deposits of fossils in the world, and its discovery precipitated a significant rethinking of evolutionary theory. This rethinking did not begin right away, however, but was delayed more than fifty years because the scientists who first worked on the shale did not see what was there but what they wanted to be there. The late Harvard paleontologist, Stephen J. Gould, argues that Walcott and his immediate successors were so locked into the evolutionary framework of the day they ‘shoehorned’ the evidence into that framework rather than letting it speak for itself.2 It was decades before another group of scientists allowed the fossil evidence to challenge their prior conceptions of evolution.

This story is illustrative of a central tenet of the cognitive revolution: people come to any learning situation with a set of cognitive structures that filter and shape new information in powerful ways. Gardner calls these structures ‘mental representations’ and argues that they underlie the fact that “individuals do not just react to or perform in the world; they possess minds and these minds contain images,
schemes, pictures, frames, languages, ideas, and the like.\textsuperscript{4} The literature uses a range of different terms but generally refers to this phenomenon as prior knowledge.

As in the case of Walcott and his colleagues, these mental representations or frameworks are often incomplete, naïve, or just plain wrong. Research demonstrates that, right or wrong, these frameworks filter and shape new learning, and effective teaching requires that they be taken into consideration.

Keith Barton and Linda Levstik provide a compelling example of how pre-existing frameworks shape new knowledge. A significant body of research demonstrates that American students have a conception of the history of the United States framed by the twin themes of freedom and progress. This view allows for slight deviations, but the overall understanding of American history is of progress toward greater freedom and prosperity. As part of their work, Barton and Levstik exposed students to historical material that countered these preconceptions and found that, “so powerful was the narrative of progress that it led students to distort the historical evidence to fit their preconceptions.”\textsuperscript{4}

This illustrates the central implication of research on prior knowledge; in order to be effective, curricula and teaching must take the cognitive schema of students into account and operate to create the cognitive dissonance necessary to foster the reframing of those schema in line with more accurate and sophisticated understandings of the concepts and/or processes being studied. If this is not done, teaching all the right information in the world will be largely ineffective.

While the knowledge base for young people’s understandings of the key concepts and processes related to other areas of social studies is not nearly as comprehensive as that in history education, it is growing. A number of studies, for example, indicate that young people across the world have a very strong orientation away from conventional forms of political participation associated with formal political systems and toward more unconventional or grassroots engagement. For example, a study of 90,000 14-year-olds in 28 countries found that “the generation of young people represented by the study’s 14-year-olds is gravitating to affiliation and action connected to social movement groups and not to political discussions or formal relations with political parties.”\textsuperscript{5} Similarly, work in Australia shows young people generally gravitating away from engagement in the formal political realm but participating in a range of other ways.\textsuperscript{6} In both cases, the research demonstrates not only that young people behave in particular ways, but also that they understand good citizenship and participation in distinct ways.

This kind of understanding is clear in research a colleague and I conducted on understandings of democratic participation. As part of this work, we showed participants sets of pictures depicting various kinds of civic participation ranging from community-based activities, such as volunteering in a food bank, through more formal political activities like voting or running for office. We asked participants to select pictures they wanted to talk about and then carried out semi-structured interviews designed to elicit their conceptions of democratic participation.

Virtually all of the participants separated the pictures into two groups, clearly identifying one as political and the other as non-political. In looking at the pictures of people voting, participating in party meetings, or running for office, participants said things like, “Now we are talking politics” or “This is politics, are you political?” All participants were also explicit and forceful in saying that they saw their own participation as falling in the realm they considered non-political. One even said about pictures showing grassroots community involvement, “Things like this are real citizen involvement, not politics.”\textsuperscript{7}

It seems to me we can say with confidence that a significant number of young people across democratic jurisdictions have a conception of participation that privileges forms of engagement other than those associated with formal political systems. Some have argued that this is not necessarily a problem for democratic societies, but I disagree for at least two reasons. First, disengagement from formal politics is a threat to the legitimacy and long-term health of democratic governments. Second, feminist scholars and others have raised important concerns about the dangers of depoliticizing or privatizing certain kinds of participation. In other words, the fact that young people seem to both discount political involvement and too narrowly construe it should be addressed by social studies education. In order for this to happen, students have to encounter teaching that causes them to think about and rethink their own conceptions.

The strength of prior conceptions is such that significant rethinking of them will not occur in one or two sessions, but only after strong and repeated challenges. This leads directly to consideration of the second lesson.

**LESSON 2: WE SHOULD FOCUS ON TEACHING FOR UNDERSTANDING.**

Too often social studies education focuses not on developing sophisticated conceptual and procedural understandings but on what Gardner calls the correct answer compromise’. This is where knowing is reduced to “a ritualistic memorization of meaningless facts and disembodied procedures.”\textsuperscript{8}

The most comprehensive study of history and civics education in Canada, conducted 40 years ago, found a “bland consensus version of history” being taught across the country.\textsuperscript{9} In a more recent examination of history education in Australia and Canada, Anna Clark found that things have not changed much. Students from both countries told her that national history was important to know, but that the history education they experienced was “excessively content-driven and teacher-focused,” almost never allowing for the consideration of multiple perspectives or focused on developing deep understanding.\textsuperscript{10}

A major international civics study largely confirms this pattern of teaching. In virtually all the countries involved, teachers reported relying mostly on transmissive approaches to teaching, with rote learning activities far more common than those that promote critical engagement with material. These approaches “frequently consist of encyclopedic coverage of details of government structures or historical documents that may have little meaning to students and do not connect to their own identity as a citizen with responsibilities and rights.”\textsuperscript{11}

In contrast to this rush to cover facts, social studies education should focus on developing understanding of key
concepts and processes with a view to being able to employ them in creative ways in new situations. As Gardner argues, understanding is “the capacity to take knowledge, skills, concepts, facts learned in one context, usually in the school context, and use that knowledge in a new context, in a place where you haven’t been forewarned to make use of that knowledge.”12 Evidence indicates that teaching for this kind of understanding must include taking into account two other lessons from the research.

LESSON 3: WE NEED TO TAKE STUDENTS’ CAPACITY TO LEARN MORE SERIOUSLY.

Research in cognition demonstrates not only that children can handle more conceptual complexity than typically thought, but also that they are interested in important ideas. Jere Brophy and Janet Alleman have built an impressive body of work describing how young American children in kindergarten to Grade 3 understand a range of ‘cultural universals’, which they define as “domains of human experience that have existed in all cultures, past and present.”13 While they found that children’s understandings were often tacit and not particularly well articulated, they also contend that their work and that of others demonstrates “that primary-grade students are interested to learn a much greater range of social studies content than many educators give them credit for.”14

Research in history education from around the world also shows “that with careful teaching, scaffolding and ongoing attention to the uses of sources, students demonstrate a surprisingly advanced understanding of abstract concepts” related to history and historical processes.15 The work my colleagues and I have done with children from Canada and Russia demonstrates that even quite young children can develop complex understandings of civic ideas and processes.16 If social education is going to focus on helping students develop complex understandings, it will be necessary for teachers to have those understandings themselves. This leads to consideration of the final lesson.

LESSON 4: TEACHERS REQUIRE BOTH PEDAGOGICAL AND CONTENT KNOWLEDGE.

A very common and persistent conception of teaching is that it consists of the delivery of correct information. If simple information transfer is what teaching and learning are about, human teachers are redundant. Information is readily available in ways that are far more up-to-date and engaging than any teacher can hope to emulate. Research in cognition, however, demonstrates clearly that merely bringing students into contact with accurate information is not enough for them to acquire the kind of understanding that allows them to use the information in new and creative ways. Teaching for conceptual change and deep understanding requires of teachers quite sophisticated knowledge of the material to be learned, the learning process, and the specific learners to be taught. A “strong body of research indicates that learning experiences that support understanding and effective action are different from those that simply support the ability to remember facts or perform rote sets of skills.”17

There is wide consensus among teacher educators that
good teaching requires a complex combination of pedagogical and subject matter knowledge and expertise. Some of the former is discussed above. Unfortunately, in terms of the latter, the teaching profession in North America and elsewhere is plagued with the phenomenon of “out of field teaching” – that is, teachers being assigned to teach subjects in which they have no academic background themselves. If the intent of education is the delivery of low-level information, this is probably not significant; but if the intent is to develop complex conceptual and procedural understandings, it is quite important. Teachers with little or no understanding of key ideas, concepts, and procedures in a field can hardly be expected to teach them to students. It is time to put to rest for good the dangerous fiction that a good teacher can teach anything. Pedagogical expertise is a necessary but insufficient condition for good teaching. Teachers also require proficiency with the concepts and processes related to the subject matter they are charged with teaching.

CONCLUSION

There are some hopeful signs that the cognitive revolution is beginning to make its way into social studies classrooms. For example, curricula across Canada have moved away from a focus on the superficial coverage of material to emphasize developing understandings of key concepts and processes. As well, a range of support materials to foster teaching for conceptual change is now being produced by and for teachers. The Benchmarks of Historical Thinking project supported by the Historica Foundation is one excellent example.19

This said, there is still much to be done. With the exception of work on historical thinking, social education lags well behind other fields in building a body of research on how students acquire sophisticated understandings of key ideas in the field. In addition, there is considerable evidence that social studies classrooms remain dominated by rote learning rather than critical engagement. Finally, the practice of assigning of teachers with little or no background in social studies to teach the subject continues to be widespread in Canada and elsewhere. Addressing these issues will involve major effort and cause considerable disruption but is absolutely necessary if we want to improve both the practice and the status of social studies in schools. It is time to move beyond simply teaching about revolutions to revolutionizing our teaching.

ALAN SEARS has been a social studies teacher for 31 years. He currently teaches in the Faculty of Education at the University of New Brunswick.

Notes

3 Gardner, 76.
4 Keith C. Barton and Linda S. Levstik, Teaching History for the Common Good (Mahwah, New Jersey, 2004), 170.
5 Judith Torney-Purta, Rainer Lehmann, Hans Oswald, and Wolfram Schulz, Citizenship and Education in Twenty-eight Countries: Civic Knowledge and Engagement at Age Fourteen (Amsterdam, 2001), 81.
8 Gardner, 135, 147.
10 Anna Clark, History’s Children: History Wars in the Classroom (Sydney, 2008), 114.
12 Gardner, 134.
13 Jere Brophy and Janet Allen, Children’s Thinking About Cultural Universal (Mahwah, New Jersey, 2006), 5.
14 Ibid., 433.
15 Barton and Levstik, 188.
19 See http://www.histori.ca/benchmarks/