

Chapter 12

Social Studies and Sustainability: A Global Competency Framework

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Introduction

Using the framework of four critical global education competencies, this chapter considers the possibilities in curriculum and pedagogy for social studies education in the USA to engage the concept of sustainability. Although it is acknowledged at the outset that social studies has just begun to engage with this topic, suggestions are offered for further development of sustainability within the disciplinary and interdisciplinary contexts of teaching this school subject in K-12 classrooms.

In the USA, the field of social studies is just beginning to pay attention to sustainability as a curricular framework and research interest for K-12 schools and teacher education. Nonetheless, the disciplines that comprise the social studies (i.e., history, geography, political science, and economics) have taken up sustainability-related issues for decades. Even more important, perhaps, social studies is a school subject focused on civic decision-making. Thus, its affinities with sustainability are abundant. Sustainability is an arena of inquiry, discourse, and action aimed at considering issues at the intersection of the economy, society, and ecology.

For purposes of this chapter, we adopt the definition of sustainability given by the World Commission on the Environment and Development in 1987, sometimes referred to as the Brundtland report: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” More recently, Nolet (2009) raises a set of concerns with the implications of this

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definition over the last 20 years in his analysis of education for sustainability in teacher education.

As in social studies, education for sustainability is shaped by competing values and informed by knowledge from a variety of disciplines that come together to consider the present and future state of human society, nature, and the planet. The National Research Council also questions: “How and where will nine billion people live?” “How will we feed everyone sustainably in the coming decade and beyond?” “How can we best preserve biological diversity and protect endangered ecosystems?” “How are climate and other environmental changes affecting the vulnerabilities of coupled human-environment systems?” (National Research Council, 2010). Both social studies and sustainability involve deliberation about such questions that is based in knowledge, skills, and values. Many educators believe that in sustainability education and social studies education, action should follow deliberation.

From a values orientation, teachers of social studies have been concerned for decades with human rights, equity, and social justice—all core commitments of the sustainability movement. The issues-oriented pedagogical approaches (Evans & Saxe, 1996) that have been prominent within social studies are ideally suited to addressing questions such as those above. Social studies theorists (i.e., Gaudelli 2003; Hanvey 1975; Merryfield 1991) provide notable examples of an interdisciplinary, issues-oriented and inquiry-based curriculum aligning well with many perspectives within the sustainability movement. If we look at the constituent disciplines of social studies, we find a foundation for aspects of sustainability, although not necessarily the integration of perspectives that is so critical to education for sustainability. For example, “environmental history,” characterized as a “developing field” (Stewart, 1998) over 10 years ago, has seen the roster of historians working in this area grow considerably (see, e.g., Cronon, 1996; Limerick, 2001; Nash, 2001; Steinberg, 2008 for US history; and Bender, 2006; Diamond, 2011 for world history). In geography, sustainability issues are central features of the discipline (see, e.g., the National Research Council (2010) publication, *Understanding the Changing Planet: Strategic Directions for the Geographical Sciences* and Lee & Williams, 2006). In civics and economics, the potential exists for applying disciplinary tools and pedagogical approaches to the economic, ecological, and social questions associated with sustainability. In each of these cases, the integration of perspectives drawn from these fields will be crucial to a social studies approach to sustainability.

We believe that the conditions are ripe for acting on this opportunity. Recently, calls for developing citizens adept at critical thinking, group problem solving, and global cooperation have become more prominent (Owen & Videras, 2006; Risinger, 2006). Since its founding as a formal school subject in 1921, the mission of the social studies has been citizenship education (Barr, Barth, & Shermis, 1977; Woyshner, Watras, & Crocco, 2004). As such, social studies is uniquely well situated to provide an educational platform for developing a multifaceted and well-integrated approach to teaching about sustainability, deliberating public issues related to sustainability, and making informed decisions as adjudicated through the “tournament of values” lying at the heart of the sustainability enterprise (Robertson

& Hull, 2001). Public misconceptions about many topics related to sustainability make this an urgent matter for the field as it considers its own development over the next few years (see, e.g., the misconceptions within the public energy use, in Attari, DeKay, Davidson, & DeBruin, 2010).

For many years within social studies education and, indeed, within public education and civic discourse more generally, citizenship has been defined in nationalistic terms. The recent calls for global citizenship and global citizenship education (see, e.g., Gaudelli & Heilman, 2009; Mitchell & Parker, 2008; Myers, 2010; Parker, 2007) have added another dimension to the mix of educational outcomes public schooling should attempt to deliver.

Numerous parallels exist between the reform efforts aimed at global education and education for sustainability. Both movements promote developing modes of analytical and critical problem-solving skills to deal with issues beyond school; fostering identification of one's own stance on an issue and accepting multiple perspectives regarding complex issues; structuring learning as an integrated, multidisciplinary endeavor; focusing on a global perspective while advocating attention to local issues; and offering students opportunities to respond to their learning by taking action (Merryfield & White, 1996). Likewise, both platforms—education for sustainability and education for global competence—believe in the need to use inquiry-oriented approaches to learning to develop student knowledge and the need to develop information, communication, and analytical skills to deepen understanding and clarify the affective and evaluative orientations (values) that will motivate learners to respond outside of school in ways that engage the issue proactively.

In the remainder of this chapter, we offer examples of how sustainability education might be integrated into social studies using a conceptual framework for global competency developed under the sponsorship of the Asia Society and the Council of Chief State School Officers in the USA (Boix-Mansilla & Jackson, 2011). We use this framework strategically as a means of yoking sustainability education to a prevailing concern among many educational reformers, that is, preparing students for a world of heightened global competitiveness, or what might be called, borrowing from Thomas Friedman (2008), the “flat world” of global education.

In the context of pervasive rhetoric around the “flat world,” accountability, and reform of teacher education, it must be acknowledged that the challenges of infusing education for sustainability into social studies curriculum are currently quite formidable, despite the efforts of organizations such as Rethinking Schools and Facing the Future to provide models of sustainability-oriented curriculum in social studies. If the field is to move forward along these lines, then the desired academic and nonacademic knowledge, skills, and dispositions associated with sustainability education will need careful clarification (see Ladwig, 2010, for an interesting discussion of this matter). In light of the above pressures, we believe aligning sustainability education with education for global competence offers an avenue into social studies that will improve the odds that teachers, teacher educators, and policymakers take up this approach. Education for sustainability offers a critical lens with which to consider the economic, ecological, and social choices we make as human

beings who are entrusted with stewardship over the earth as well as a set of mutual obligations to fellow citizens of the globe.

Although we have argued for the affinities between sustainability and social studies, especially in the guise of global education, we raise two concerns: the first has to do with the wide variety of approaches to global education currently circulating within the field of social studies education (see Gaudelli & Heilman, 2009, for a useful typology) and the second involves the strong disciplinary orientation existing within secondary social studies. The latter reality may interfere with an orientation toward sustainability based on a holistic, integrated approach to curriculum (UNESCO, 2005).

With these concerns in mind, the following examples are suggestive of the possibilities within social studies. We offer new ways of thinking about topics that are standard fare in the social studies curriculum but might be transformed into sustainability-related public issues by modifying approaches to them to raise questions and pose problems that lead to knowledge formation, deliberation, and action. We introduce these suggestions by linking the suggested strategies to the four global competencies outlined in the Boix-Mansilla and Jackson platform developed for the Council of Chief State School Officers and the Asia Society cited earlier.

Global Competency One: Investigating the World, Both Near and Far

Students should investigate the world beyond their immediate environment, framing significant problems and conducting well-crafted and age-appropriate research. (Boix-Mansilla & Jackson, 2011, p. 11–12)

Although we acknowledge that sustainability is not isomorphic with the “green” movement, one dimension of the sustainability framework is ecology or “public ecology” as some sustainability-oriented authors have called it (Robertson & Hull, 2001). Within the context of courses in history, students might consider the relationship of human societies to land, water, and air. Both historical and cross-cultural variations exist in this relationship, as books by Diamond (2011) and Steinberg (2008) emphasize dramatically.

Investigating such relationships within geography courses, specifically by looking more closely at the concepts of “place” and “interdependence,” fits neatly within the sustainability framework. Besides reviewing the National Geography Standards (Geography Education Standards Project, 1994), teachers might also draw upon questions and teaching strategies from geography books that stress a conceptual, interdisciplinary, and inquiry-oriented approach to the field, for example, Lambert and Morgan’s (2010) *Teaching Geography 11–18: A Conceptual Approach*.

From a contemporary perspective, students might investigate the mounting ecological problems that are likely to lead to the degradation of world ecosystems in the next 30 years. For instance, the US Department of Defense’s Quadrennial Defense Review (2010) recently determined that anthropogenic climate change will

contribute to food and water scarcity, increase the spread of disease, and may spur or exacerbate global mass migration. Likewise, the United Nations has determined that by 2050, the world population will rise to nine billion, thus dramatically increasing global demand for environmentally harmful fossil fuels such as coal and oil. Additionally, other ecological problems continue unabated. Forests, grasslands, wetlands, tundra, and deserts are continually being depleted, while the percentage of oceanic and fresh water “dead zones” grows exponentially each year. Continuing on with the themes of “place” and “interdependence,” students might look at their own and their communities’ contributions to these problems.

When introducing such themes in the classroom, the overall goal should be to critique media coverage of global ecological issues. An analysis of this theme in both preservice and in-service social studies programs is particularly important in light of the fact that the Center for Media Literacy (2009) estimates that the average person in the USA is exposed to more than 400 commercial images every day. Recent findings also link media exposure to profound social outcomes, such as how people relate to and treat the environment (Gilding, 2011). Trends such as these suggest that there is a need for social studies educators to generate higher order outcomes for learners so that they will be able to function as effective and informed citizens long after they leave the classroom.

For example, US high school students are repeatedly confronted with a barrage of advertisements pertaining to various types of new energy initiatives, ranging from “clean coal” to “third-generation nuclear power” to “wind power,” among many others. Each energy program is presented as a cure-all for the nation’s environmental ills yet with little analysis of the accuracy of such claims or the colossal economic and social undertakings that would be needed for such initiatives to have a lasting impact.

Ultimately, high school social studies educators need to provide their students with an understanding of the pros and cons of the energy policies presented to us. Students can then question whether various energy industries are acting in the public’s best interest or if their aims are more unseemly. For example, major news outlets have recently featured prime-time commercials from the American Coalition for Clean Coal Electricity (AACCE), asserting that “clean coal” technologies have been proven to reduce emissions of ash, sulfur, and heavy metals from coal combustion (American Coalition for Clean Coal Electricity, 2011). While certainly true, such advertisements fail to mention that carbon capture and storage technology—the key for reducing climate change—is many years away and has never been demonstrated to actually sequester carbon on a large scale. Likewise, advocates of wind and solar energy often fail to mention that associated initiatives will not have a major impact on climate change mitigation efforts for the next 20 years (Streeker, 2010).

While much of this energy discussion is scientific, the outcomes will affect the social, economic, and political fabric of the US policy in many domains. It will take years of intense policy negotiating to determine the best ways to approach such sustainability efforts. The most important first step for schools, then, is to begin a dialogue and debate, with social studies serving as a primary platform for doing so.

Only then will sustainability-oriented topics be moved out of what Eisner (1985) calls the “null curriculum” (important topics excluded from school settings) into meaningful learning opportunities for students.

Global Competency Two: Recognizing the Legitimacy of Competing Perspectives

Students should recognize perspectives, others’ and their own, articulating and explaining such perspectives thoughtfully and respectfully. (Boix-Mansilla & Jackson, 2011, p. 11–12)

Because the world’s goods and services, including natural as well as man-made resources, are finite and distributed inequitably across societies, dealing with economic issues as part of a sustainability framework will inevitably lead to a consideration of the social and ecological factors shaping human history. If students are going to pursue questions related to the interrelationships of economics, ecology, and human society, they will need to come to terms with competing perspectives within and across human societies about the origins and remediation of the fundamental economics concept of scarcity. Within this competency, students will, for example, explain how differential access to resources and technology affects economic systems and quality of life (Boix-Mansilla & Jackson, 2011).

Likewise, they will need a framework for considering issues of fairness, justice, equity, and equality as a way of managing different perspectives about the distribution of the world’s goods. Inequalities in access to shelter, land, food, clean water, sustainable livelihoods, technology, and information pose challenges to human security, economic growth, and environmental sustainability (National Research Council, 2010). A useful introduction to considering social justice issues such as these might be found in Sandel’s book (2010), *Justice: What’s the Right Thing to Do?* Many students (and teachers) will need help in deliberating about the meaning of social justice, and this book provides a highly readable introduction to the topic.

In considering the problem of scarcity and social justice, one place to start is the limited nature of productive resources worldwide. Given the restricted nature of these resources, people must choose some goods and services while giving up others (Council for Economic Education [CEE], 2010). Students, parents, businesses, and governments make such choices daily by evaluating the opportunity cost associated with that choice. These groups must identify and systematically compare alternatives to make more informed decisions. Unfortunately, most economists agree that people often overlook relevant consequences of the choices they make (Ariely, 2010). Not surprisingly, most opportunity costs analyses ignore the social and ecological costs of their choices (Ecotrust, 2011). In investigating opportunity costs, students should consider how culture and societies influence consideration of opportunity cost across economic systems.

Economic systems use different methods to allocate goods and services. Individuals and organizations rely on various systems to determine what should

be produced, how it should be produced, and who will consume it (CEE, 2010). Whereas each system (command, market, traditional, majority rule, etc.) has its advantages and disadvantages, no one system will be able to satisfy all wants and needs. Individuals, groups, and organizations evaluate different methods by comparing the benefits and costs of each. Thus, students could be asked to evaluate how the current US economic model promotes sustainability or how this system contributes to economical, ecological, and social problems and their solutions, especially from a social justice perspective. Because the USA uses a market system, most economists compare this system with those found in other nations such as China, Cuba, India, Singapore, and the United Kingdom. Considering how other nations handle sustainability-related issues would be a useful contribution to class discussion.

Individuals, groups, and organizations stimulate economic growth through investment in productive resources such as equipment, factories, technology, infrastructure, and the education of people (CEE, 2010). The consequences of investment may vary. However, these investments should lead to an increase in the standard of living for people in an economic system. Given this widely accepted premise, an emphasis on global competency requires that students examine how varied access to resources shapes perspectives of different societies toward their economic systems (Boix-Mansilla & Jackson, 2011).

Historically, increases in per capita output caused by economic growth have helped alleviate poverty and raise standards of living (CEE, 2010). In teaching economics for sustainability, teachers can assist students in exploring the ecological and social consequences of economic growth. Some examples of questions to guide student learning in this area include:

- What occurs when economic growth results in an unequal distribution of raises in the standard of living?
- How do investments in new physical capital (factories and equipment) affect the social, political, economic, and ecological growth in an economic system?
- Which investments result in economic growth while maintaining the health of ecosystems? (Ecotrust, 2011)?
- What path should we follow to create a sustainable economy that also allows for economic growth?

Analyzing these questions can help students assess more completely the economic, ecological, and social costs and benefits of economic growth across localities, nations, and regions.

When teaching about sustainability in K-12 economics courses, social studies teachers must emphasize the idea that natural resources, such as land and water, are finite. The use of these factors of production does involve externalities, unintended environmental costs that occur during the production or consumption of a product or service (Ecotrust, 2011; Wilke, Peyton, & Hungerford, 1987). For example, the building of a new sports or entertainment complex might mean giving up the best alternative use of that resource, such as a public park or a nature preserve (CEE, 2010). Further, externalities may extend beyond one nation's borders.

When analyzing a problem such as this, students should move their focus beyond individual states and identify the relationships between externalities on a global scale and shifting patterns of inequality across nations (National Research Council, 2010). Teachers may ask students to evaluate how externalities from our carbon-based economy impact people across the world. Thus, students should examine the perspectives of neighbors beyond their own nation. The inclusion of the environmental externalities also makes possible a richer ecological and social analysis of the economic issues related to scarcity.

In educating students about sustainability, social studies teachers should aid students in analyzing the economic and ecological consequences of each economic system. For example, students may examine the major risks and consequences to natural and human systems in using a market-based allocation system (McKeown et al., 2002). In looking beyond the USA, students can also analyze how other patterns of production, allocation, and consumption affect ecological sustainability. Such an analysis enables students to look beyond local and national boundaries in gauging sustainability across economic systems.

Rawls (1996) has argued that a critical analysis of citizenship responsibilities can best contribute to learners' democratic enculturation since there is more of a perceptible effort to distinguish between biased and unbiased sources of information, weigh alternatives to solve problems, and predict consequences. His essential argument was that the individual citizen bears a great deal of responsibility for determining public policy outcomes. For instance, as Rawls noted, ideally, citizens should think of themselves as if they were legislators and ask themselves what statutes, supported by what reasons satisfying the criterion of reciprocity, they would think are most reasonable to enact (Rawls).

A wide-ranging body of literature also points to the development of democratic attitudes among social studies learners, which in turn, leads to responsible actions (Noddings, 2006; Parker, 2003). Kohlberg's (1981) research into moral reasoning development, for instance, has found that learners, particularly in adolescence, are drawn to the study and discussion of new concepts with which they do not necessarily agree. The cognitive dissonance or conflict of one's values caused by the presentation of unresolved debate serves as a motivational force and helps to develop learners' democratic dispositions for public discussion and responsible actions.

Global Competency Three: Communicating and Interacting Effectively

Students should communicate ideas effectively with diverse audiences, bridging geographic, linguistic, ideological, and cultural barriers. (Boix-Mansilla & Jackson, 2011, pp. 11–12)

As Friedman (2008) makes clear in the conclusion to his book *Hot, Flat, and Crowded*, the economic, ecological, and social conflicts we face will need to be

deliberated through civic processes. Although technology can, perhaps, provide some mitigation of our problems, there are no “fixes” and certainly no “quick fixes” to the long-term dilemmas around sustainability. As global citizens, students will need to communicate effectively across differences of class, race, and culture and within highly competitive interactive settings marked by tensions over the increasing scarcity of the world’s natural resources.

Moreover, if the notion of global citizenship is to be successful as a pedagogical framework in the USA, social studies educators need to reflect carefully on the cultural investment in—and language used to characterize—American values of individualism, freedom, tradition, and science. In short, the language we generally use to interpret our lives.

In the classroom, social studies educators can examine the consequences of past environmental damages and lead their classes in important ethical discussions of the following questions:

- To what extent are we responsible for a growing ecological crisis?
- Why do we buy the things we do?
- How can we reduce our energy needs?
- What do we ultimately believe to be of importance for a good life?

Adjudicating differences related to personal and communal choices will require reflecting on values and developing communication and conflict resolution skills. Students will need to learn how to weigh and represent their own choices in terms of economic, ecological, and social resources (CEE, 2010). Students must also be able to articulate their understanding of alternative perspectives about how and why such decisions are made and consider the role values and judgments about cost-benefit relationships play in shaping personal decisions that have communal consequences (Boix-Mansilla & Jackson, 2011).

Global Competency Four: Taking Action

Students should take action to improve conditions, viewing themselves as players in the world and participating reflectively. (Boix-Mansilla & Jackson, 2011, p. 11–12)

The public response to Rachel Carson’s *Silent Spring* (1962) is often cited as the beginning of strong citizen interest, particularly among American adolescents, in becoming part of an actual environmental movement. This effort first started to grow after the realization of the negative effects of industrial pollutants on human health through direct and indirect exposures to toxins like DDT as well as the contamination of groundwater from thousands of new landfills (Carson). Other ecological disasters, such as a 1969 fire on Ohio’s polluted Cuyahoga River, also captured the attention of millions of young television viewers as they witnessed oozing, toxic sludge engulfed in flames. Thousands of young Americans began to feel as if unnatural events were beginning to happen on a much larger

scale and that they needed to do something in order to conserve the Earth's resources (Nash, 1989).

In many ways, social studies curricula and ideas pertaining to sustainability have been dispersed through grassroots efforts on the part of individual teachers for decades. Today, the ubiquity of Internet communication technologies, particularly among America's youth, helps promote concern for the environment. In one recent example, high school students in an advanced placement social studies class at Isidore Newman School in New Orleans produced a video that was highly critical of The American Society of Civil Engineers (ASCE) for allegedly downplaying the structural failures of the levees system during an investigation of Hurricane Katrina thus increasing the level of environmental degradation and social harm. The well-produced 3-min video created by the students was viewed more than one million times on YouTube for 7 days, until the ASCE threatened a lawsuit. Although the video was soon removed, several newspaper editorials, such as those in the New Orleans *Times Picayune*, (Livingston, 2007), indicated that the students raised some legitimate questions about the lack of openness in the investigation of what went wrong before, during, and after Hurricane Katrina. Further, the fact that a world-renowned engineering association actually felt threatened by accusations made a small class of high school social studies students is noteworthy in itself, in that students everywhere now have the ability to spread their critiques and criticisms more easily in regard to what they believe is wrong with their surrounding environment (Livingston, 2007).

Despite such successes, the challenges posed by introducing sustainability into social studies classrooms are several and wide ranging. Namely, which sustainability-oriented problems are believed to be worth solving, according to whom, to what ends, and in whose favor? (Evans & Saxe, 1996). To engage with these questions, students would need all four competencies associated with being a global citizen. Questions such as these lie at the heart of education for sustainability and are well suited to deliberation within social studies classrooms. For example, the publications on the environment produced by the National Issues Forums have been used in many social studies classrooms.

Taking action is often conceived of as collective action, but it needs to involve a personal dimension as well. For example, McKibben (2007) suggests that, when dealing with sustainability problems, human beings need to cut back on excess, both personally and socially. Accordingly, this is a call for taking action against the status quo on both an individual and global level. From a philosophical perspective, this stance has been advocated by Singer in *The Life You Can Save: Acting Now to End World Poverty* (2009) where he recommends that individuals in wealthy nations voluntarily do with less in order to provide more for the poor worldwide.

Such decisions require systematic study of an interdependent global economy as one nation's current economic model affects other systems across the world (National Council for Social Studies [NCSS], 2010; UNESCO, 1997). As students develop new understanding of the implications of personal decision-making, social studies educators should encourage reflecting this new understanding.

Conclusion

The National Council for the Social Studies promotes study of all the elements needed for dealing with sustainability through its curriculum standards. Indeed, many social studies teacher educators and teachers embrace sustainability's fundamental insights into the interconnected nature of ecology, economics, and social issues and the future of the planet. Moreover, many social studies educators, especially those with a focus on global education, promote the values of cosmopolitanism, internationalism, and ethical concerns for others who are not members of our own society but are affected by the choices we make (Appiah, 2007).

An urgent need exists for teacher educators to help teachers find ways to incorporate education for sustainability into their classrooms (McKeown et al., 2002). Teachers are the ones charged with helping young people to participate fully in a democratic society (Darling-Hammond, 2006). As we have argued throughout this chapter, social studies education stresses the need to reflect upon and deliberate about value conflicts, thus providing an ideal atmosphere for infusion of education for sustainability (UNESCO, 1997). To reorient existing teacher education for sustainability, social studies teacher educators must emphasize three priorities.

First, teacher education programs should prepare preservice teachers in ways that promote an understanding of sustainability in their own classrooms. Teacher educators need to provide opportunities for their students to discuss and debate these issues at local and global levels so they can better understand others' perspectives on these matters (UNESCO, 2005). Such opportunities will help them develop the skills and dispositions necessary for participatory citizenship (Hess, 2009). Further, such experiences will help students reflect upon and refine their own values orientation (McKeown et al., 2002).

Second, in order to assist teachers in promoting sustainability in their classrooms, researchers need to develop an understanding of how students think about sustainability. By expanding knowledge about the preconceptions students bring into K-12 classrooms, researchers and curriculum developers can design approaches that address preconceptions and misconceptions about sustainability issues in order to deepen knowledge about these complex issues.

Third, we know that a teacher's life experiences, beliefs, and assumptions influence their own perceptions and conceptions about sustainability; these factors will shape what they do in their classrooms. Because teachers serve as curricular and instructional gatekeepers (Thornton, 1991), it is important that social studies programs of preservice and in-service teacher education attend more vigorously to infusing sustainability issues into teacher education from an integrated, multidisciplinary perspective that is aligned with the global education competencies outlined here.

We recognize that what we are outlining here will be a complex and challenging agenda for the social studies. Despite the hurdles, bringing sustainability into social studies is just the sort of curricular move that has intrigued and motivated the field since its inception decades ago. By connecting sustainability education to the global competencies framework, we hope that this will provide stimulus to social studies leaders worldwide to move the field forward.

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