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Educating for Global Competence:  
Preparing Our Youth to Engage the World

(Chapter II Excerpt)

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## Chapter II

### Understanding the World through Disciplinary and Interdisciplinary Study

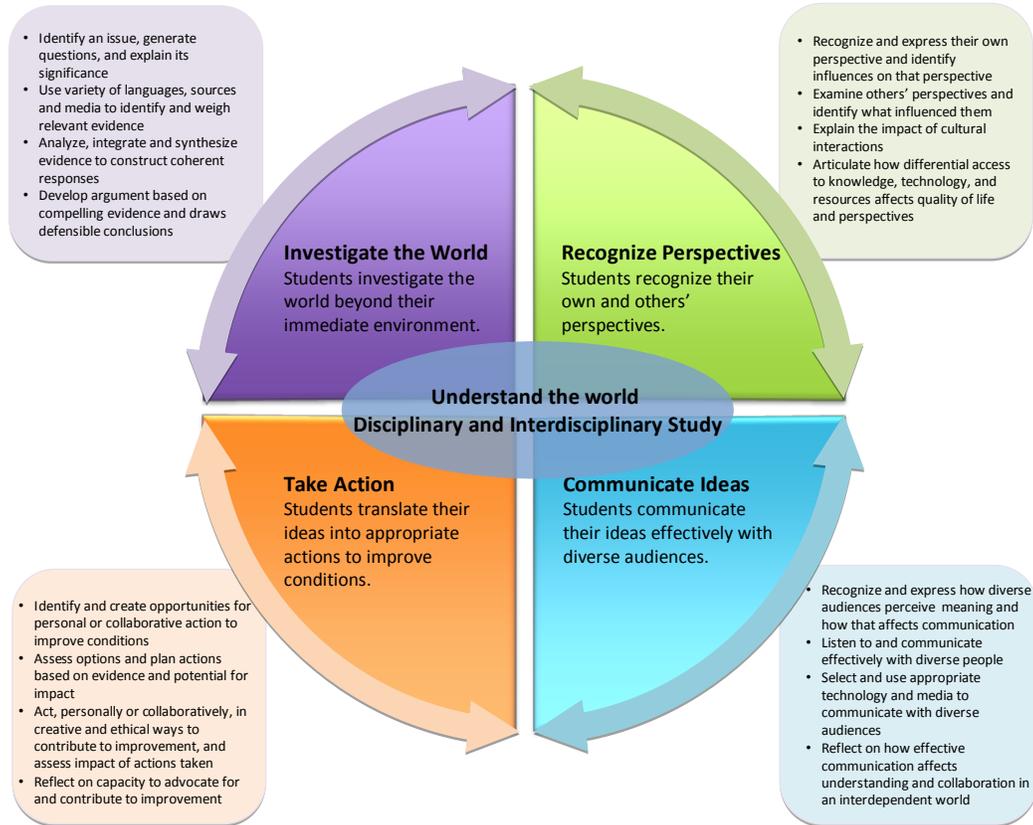
Global competence is *the capacity and disposition to understand and act on issues of global significance*. A substantive understanding of the world is the foundation of global competence. Students demonstrate global competence when they are aware and curious about how the world works, informed by disciplinary and interdisciplinary insights. Specifically, globally competent students are able to:

- (i) **investigate the world beyond their immediate environment**—framing significant problems and conducting well-crafted and age-appropriate research
- (ii) **recognize perspectives, others’ and their own**—articulating and explaining such perspectives thoughtfully and respectfully
- (iii) **communicate ideas effectively with diverse audiences**—bridging geographic, linguistic, ideological, and cultural barriers
- (iv) **take action to improve conditions** — viewing themselves as players in the world and choosing to participate reflectively

While the four capacities above offer key dimensions, global competence is best seen as an integrated outlook on, or disposition toward, the world—not as a collection of independent skills. The graphic below depicts the dynamic interaction among dimensions of global competence. In Appendix 2 you will find a general matrix characterizing elements of global competence as well as a series of subject-specific matrices outlining how the four dimensions above can be interpreted in language arts, mathematics, science, social studies and the arts.

**Dimensions of Global Competence**

*The capacity and disposition to understand and act on issues of global significance*



In this chapter, we focus on the substantive foundation of global competence which is students' disciplinary and interdisciplinary understanding of the world. Teachers the world over are charged with preparing students to become proficient readers and writers, to solve mathematical problems, to master scientific reasoning, to understand history, to exhibit creativity in the arts. Outside of formal schooling too, informal educators in museums, communities or afterschool programs aspire to engage students in expert forms of thinking in fields like life sciences, the performing arts, languages or community organizing. Whether in schools, museums, at homes or over the Internet, effective educators seek to help students develop forms of expertise that are valued by the cultures and societies in which we live. In this chapter we begin by describing the essential role that a well-grounded understanding of the world plays in students' developing global competence. We then examine two examples of student work— one from an early childhood learning center and one from a high school. We conclude the chapter with three core assumptions underlying the framework for global competence here proposed: Global competence involves *engaged learning*; it embraces *the world selectively* and it requires *disciplinary and interdisciplinary knowledge*.

## **Disciplinary and interdisciplinary understanding**

A fundamental premise of our global competence definition is that students' substantive understanding of the world is the foundation for global competence. Globally competent students understand the earth as a system, they understand multiple local contexts well, and they are familiar with the pressing issues defining our times. For instance, globally competent students understand the physical landscapes of the earth and some of its ecosystems, the ways in which human populations are distributed on the planet, the economic resources and trade that sustain life and growth, and the experiences of individuals and peoples past and present. Students demonstrate global competence when they understand particular cases, events, and phenomena taking place in a given community, country, or region (including their own) and can place these in the larger context of a global phenomenon. They may also compare two or more local cases or events revealing telling differences and similarities. A competitive advantage will go to those students who understand key issues and trends shaping our world today, as these topics will frame the work of their generation. These include, for example, globalization, new international job markets, world migrations, the digital revolution, adaptation to climate change, preservation of biodiversity, alleviation of poverty, and our responsibility to global health and universal human rights.

Understanding the world, in the ways described above, demands *disciplinary and interdisciplinary* approaches<sup>1</sup>. Globally competent students learn to view the world through the lenses of history, science, mathematics, their own and other languages, and the arts, among others. They also integrate such lenses to reach deeper, more comprehensive, and personally meaningful insights. Clearly, neither students nor experts can master the large amounts of available information about world geography, history, economics, anthropology, and art. Gaining global competence is not merely a matter of *having* more information about more places in the world. Rather, students' global competence pivots on their growing ability to understand strategically selected contexts, telling phenomena, and revealing transnational connections in depth. Over time, such substantive and developmentally appropriate engagement with disciplines and topics of global significance will build the foundation for global competence: students' *understanding of the world*

School teachers the world over are expected to teach core sets of concepts and skill deemed essential by curriculum experts at the national, state, provincial or local level. In some schools such as those in the Asia Society's International Studies School Network, the United World Colleges, or the International Baccalaureate teaching global competence or nurturing international mindedness is central to teachers' mandate.

However, for most teachers, nurturing their students' global competence requires examining how the subject matter content they teach can best enable students to understand the world around them and participate in it in informed ways.

In the United States, for example, Common Core States Standards embody the expectations for what students need to know and be able to do in areas such as English Language Arts and Mathematics. These expectations offer guidance to public schools and teachers about the general scope and sequence of a Kindergarten to twelfth grade curriculum. They also give considerable freedom to teachers and school to focus instruction in ways that they deem significant. For example, in language arts, students learn to produce a variety of text types: arguments, narratives, and explanatory texts. Teachers enjoy a great deal of freedom when deciding what these texts will be about: Students may write an argument depicting the promises and perils of globalization, a narrative about the life of a migrant child or an explanation of how communication technologies work to influence democracy movements in a given region. In so doing students develop their capacity to write in alignment with Common Core expectations while also becoming more globally competent as they inquire, take perspectives, communicate about and take action on global matters.

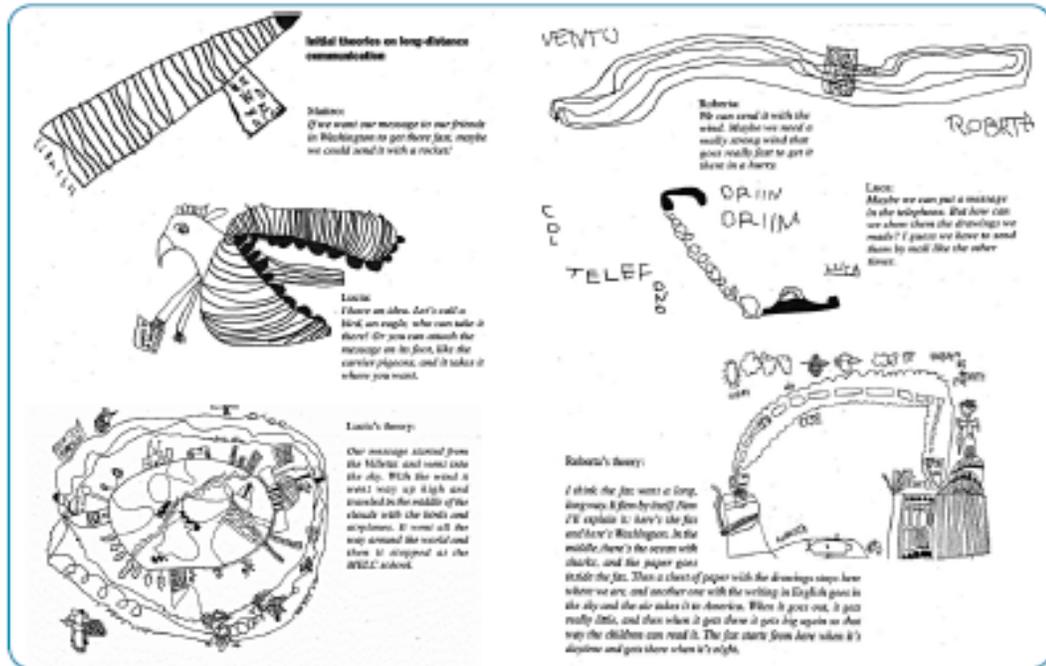
To examine what student understanding of the world looks like, let us now turn to two vivid examples. In the first, a group of five-year-old children at Reggio Emilia Preschool, Italy, are exploring global communication between two cities. In the second example, students in a 10<sup>th</sup>-grade history-science-English linked classroom in Newton South High School, a public school in Massachusetts, explore the promise and perils of globalization.

### Example 1: Sending our letter to Washington, DC

The Municipality of Reggio Emilia Preschools  
Preschool

How does a fax machine work? A group of five- and six-year old children are working together to draw and explain their theories about how a fax machine works to connect their school in the city of Reggio Emilia with a friend in Washington, DC. The children's drawings build on multiple conversations about the most efficient way to send a letter to a friend who has recently moved to the USA. Where is the USA? What is Washington, DC, like? Is it like our city? How does a fax machine work to get the message there quickly? Over the previous weeks, questions of this kind have driven the children's exploration of the globe, places, and communication technologies. They have shared and revised hypotheses about what their friend's school in Washington, DC, looks like (for example, they learned it had a cat), how far away the cities were from one another, and especially how a fax machine communicates across the ocean. Their pictures and

hypotheses below depict their imaginative intuitive fax theories in the early days of their investigation. After discussing their theories, the group collaborated on a final group drawing, included further. <sup>ii</sup>



## How does this work illustrate students' understanding of the world and global competence?

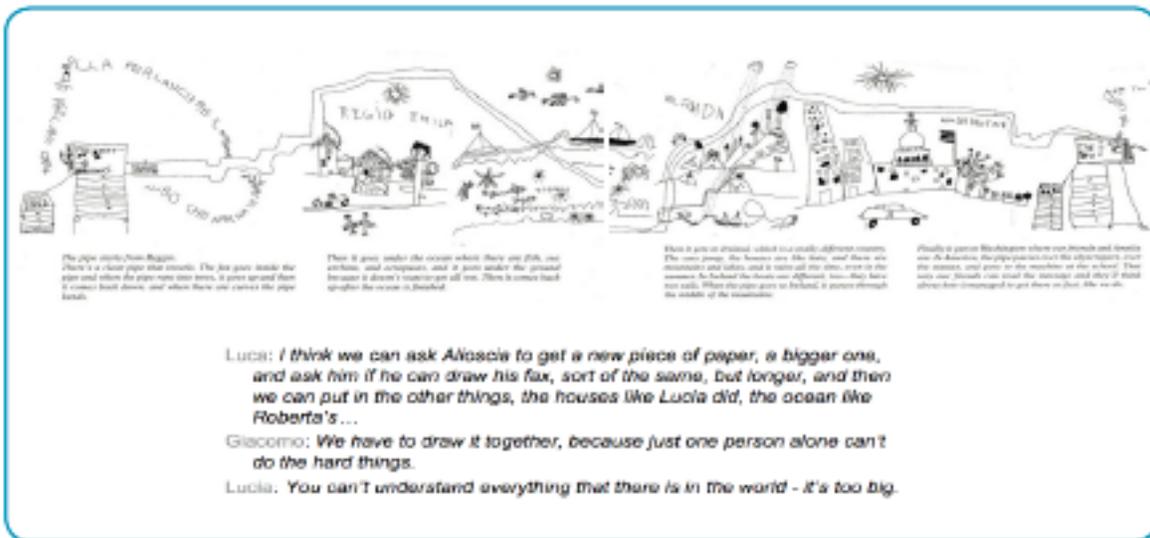
These young children's understanding of the world begins with their curiosity and interest in making sense of how the world is organized spatially and how communication technologies work. The children *inquire* about a world that stands beyond their immediate environment. Their drawings exhibit a beginning sense of spatial representation of the earth. The globe is not a foreign object to them, but one where they can locate themselves, their school, and their city with ease.

To decide where exactly to draw the United States and Washington DC, they must learn to visualize the location of continents. Children include localities that have personal meaning in their globe maps—such as the “hills of Ireland on the way to the U.S.” These examples of children's drawings reveal their intuitive representation of maps and globes—an understanding that will later be informed by geography. Their beginning theories about how a fax machine works reveal their initial—still very concrete—theories

of technology. Such theories will be challenged toward the end of the unit when an expert visits the class to dismantle an old fax machine and explain to them how it works.

Students also *consider perspectives*—theirs’ in Reggio Emilia and their friend’s in Washington DC. The children’s questions about the two cities (the Capitol building in DC and the piazza in Reggio Emilia) illustrate their budding ability to compare localities and search for similarities and differences. Clearly, at this age, comparisons made by these children are rooted in aspects of the cities that are meaningful to them. What animals are there? What do the big buildings look like? Is their city like ours? What are schools and people like?

The children *communicate ideas* effectively through visual and verbal means. Particularly compelling in this work are the nuanced and flexible ways in which students are able to put forth their emerging theories, consider other’s views and solutions, and revise their theories accordingly and collaborate to understand the world. These students are clearly not merely memorizing facts or definitions, nor are they merely playing with interesting artifacts. They are engaging a complex problem in depth, communicating their thoughts collaboratively, making nuanced and thoughtful sense of how the world and the fax machine works. Eventually, toward the end of the unit, informed by their investigation, these students send the fax to their friend—an informed communicative action.



Example 2: Globalization: promise and peril

Newton South High School, Massachusetts, USA

Grade 10<sup>iii</sup>

Every year, history teacher Michael Kozuck and English teacher Joseph Golding, together with colleagues in their departments and in science, dedicate the last few weeks of class to a study of contemporary globalization. In groups, students track the production of objects that are part of their everyday life, such as Apple iPods, Motorola cell phones, Reebok sneakers, and Fender guitars. Their goal is to investigate the impact, positive and negative, that job migration has on job receiving communities in China, India, and Mexico. One year, as one of the final products in this unit, a group presented the promise and risk of building a new Reebok plant in the province of Guangdong, China. An audience of class peers was charged with deciding whether or not the community should approve the plant.

Three students represented the perspectives of corporate interests with detailed descriptions of job opportunities, working conditions, and newly revised health standards. They emphasized the company's compliance with articles 4 and 5 of the Universal Declaration of Human Rights—banning slavery and maltreatment—as well as their voluntarily chosen European standards for greenhouse gas emissions. They spoke of the hardships of Chinese migrant workers facing shifting values in society, and introduced the company's programs to help them maintain mental and physical health.

A student representing an environmental NGO's perspective was less sanguine about the new factory idea. He explained short- and long-term consequences of deforestation on nutrition cycles and the risk of extinction for endangered species like the giant panda and the golden monkey. Other students addressed Reebok labor violations in the early 1990s—cases of child labor, compulsory overtime, and limited freedom of speech—as well as the more recent measures taken by Reebok to prevent new violations.

After complex deliberations in which they weighed environmental preservation and impacts on cultural traditions against poverty elimination and job creation, the class approved the construction of the new plant but requested that local authorities develop stricter monitoring procedures (e.g., surprise visits) to enforce compliance with labor standards. Whether their teachers agreed with the students' verdict or not, one thing was clear: these students were coming to understand the difficult decisions that individuals and societies must make in a rapidly changing world.

How does this work illustrate students' capacity to *understand the world through disciplinary and interdisciplinary study*?

The student's work above reveals their *inquiry on and engagement with a problem of clear global significance*. The current wave of globalization has had an unprecedented reach, leaving no community on the planet untouched. Students in this unit demonstrate

global competence in that they can use the lenses of disciplines like history, economics, biology, and literature to examine and understand the impacts of outsourcing on developing regions. Drawing from economics, they use data about macroeconomic growth and concepts like “incentives” or “purchasing power parity” to make their case. Drawing on biology, they apply their understanding of core scientific ideas such as habitat, biodiversity and ecological balance effectively to argue for the preservation of the particular species that are endangered in each region.

In this unit, students consistently employ skills recognized as important by the Common Core standards to make sense of the lives of people in distant regions. They analyze relevant literary works examining the effectiveness with which authors use figurative language and rhetoric to convey the experiences of individuals confronting economic and societal change in their region. Drawing on history, students compare current and past accounts of how traditional rural families adapt during times of rapid industrialization. Students employ state standards tacitly—not with the goal of preparing for the tests, but because habits of mind such as close reading of text, critical reading of data graphics and compelling rhetoric choices are powerful tools to understand and act on the problems that they are studying. Most interestingly, by bringing together an economic, environmental, and cultural perspective on the problems under study—i.e., by doing interdisciplinary work—these students are better able to reason about their cases with nuanced sophistication. They integrate multiple modes of thinking and sources of information critically to convey a personal stance about globalization. As one student put it,

Globalization, in my opinion, is something that we don't have much control on. It's going to keep growing and there's not much we can do to stop it. However, there are many things that companies, governments, and individuals can do in order to make it run more smoothly and get rid of some of its negative impacts. It was essential to research the cultural, economic and political, and environmental aspects in order to not be biased (e.g., if one only researched the economic part, globalization is obviously great for China when one doesn't analyze the human rights that are being violated and the environmental degradation that it's causing). – Emily

Students are becoming able to take distinct perspectives on the problem of off shoring and sometimes communicate from the standpoint of such perspectives as well. Students take roles as members of the business, NGOs, and local communities. By inquiring about factories in China, India, and Mexico, students take diverse national perspectives. As one

student's comment illustrates: "The two cases were different in how strictly their governments enforced labor laws." Also in some countries like Mexico unions are much more organized than in places like China. "Finally, students begin to reflect about their own cultural perspective. One student tells: "I went right home, turned over all the dishes in my house, and found that they were all made in Malaysia. Pretty much everything in my house seems made in Malaysia!" she explained, lamenting knowing "almost nothing" about the people who made the dishes on which she eats.

Michael and Joe's students have come to understand the ubiquitous nature of global connections as they see "the objects we buy at the supermarket or every plate in my home" as directly tied to the lives of the people and communities who produce them the world over. They *choose to act* by being more judicious in their consumption patterns seeking to support only brands that operate responsibly in their off shoring practices.

## To conclude

Global competence is here defined as a *capacity to use knowledge and skills*. Articulated in this way, global competence calls for deep, engaged learning. Undoubtedly *having* skills and knowledge about the world is necessary. Students must know what globalization is before they can assess its promise or peril. Students in the United States, for example, are called to master the fundamental knowledge, understanding and skills called for in Common Core and State standards. But being able to define globalization, for example, is not sufficient to build and demonstrate global competence. What is needed is the capacity to *think* and *act with* such knowledge—to justify the opening of a new factory in Guangdong and balance the demands of environmental preservation, economic growth poverty alleviation and cultural change.

Similarly, in mathematics, students must know to "represent and interpret data" in plots tables and graphs, that must learn to "make inferences and justify conclusions from sample surveys."<sup>iv</sup> Global competence requires that students apply these very skills, for example, to make sense of the rapid economic growth experienced by a country like China or to make a convincing case against child labor. Students engage in deep learning when they find intrinsic motivations to do the work they do in school and when they come to "own" the questions that guide their inquiry and the content they learn. They set out to learn not merely in order to pass the next quiz or test but because they are experiencing the excitement and fulfillment of coming to understand the world in which they live and their role in it.

In it probably clear by now that to be globally competent, students need the forms of expertise that live within and across disciplines and field such as literature, history, biology, and mathematics, among others. Global competence is therefore best developed *within* disciplinary courses or contexts. Students do not develop global competence *after* they gain fundamental disciplinary knowledge and skills, but rather *while* they are gaining such knowledge and skills. Teaching for global competence occurs in the selection of curriculum content and instructional planning that enables students to meet national or local learning expectations such as the Common Core or state standards, while at the same time providing students the chance to frame, analyze, communicate and respond to issues of global significance.

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The examples above illustrate engaged learning of this kind. In them students are coming to understand the problems they study in their full complexity in age appropriate ways. Students' understanding of the world is not memorized or merely factual. Rather it is nuanced, flexible, personal and rich. Most importantly, by exercising independent and critical thinking about matters of global significance, by building on strong content knowledge, by collaborating and deliberating in groups, by evaluating positions and evidence, students in these units are preparing to participate effectively in increasingly demanding educational settings—including college—as well as in their future worlds of work, civic and community life.<sup>v</sup>

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In this chapter, we have focused on the foundation of global competence—students' disciplinary and interdisciplinary understanding of the world. We have shown how the four global competence capacities above—investigate the world, recognize perspective, communicate ideas and take action—coexist in students' rich understanding. In the next four chapters we examine each of these capacities in depth, illustrating them with exemplary cases of student work. Our examples showcase the work of students from kindergarten to high school, in the U.S. and abroad. They offer exemplary portraits of global competence in a range of contexts including public urban, suburban, and rural schools in the U.S.; independent schools in Argentina, India, Kenya, the Netherlands, and the U.S.; and a learning center in the slums of Bangalore. It is important to note that while each of these examples of globally competent student work stands to illustrate one

of the four dimensions of global competence above, each case embodies multiple dimensions at once.

## An invitation to ponder

In this chapter we have examined the central role that understanding the world in disciplinary and interdisciplinary ways plays in the development of global competence.

- I. Take a close look at the examples of student work provided. What qualities call your attention? What questions do they raise for you? What connections can you make to your own educational practice?
- II. How can the knowledge and skills that your program, school, district or State expects learners to master inform student understanding of the world in meaningful ways?

Businesses, universities, museums, cultural organizations and even retail stores are all important resources to support a school's global mission. Businesses especially have a vested interest in preparing the next generation of entrepreneurs whose global competence will translate into a competitive edge in the global economy. They can be an important source of contacts and resources for students, including financial resources to support specific programs and globally focused student internship opportunities. Among myriad potential partner organizations within a community, World Affairs Councils can be a particularly important resource for guest speakers and international connections for schools. Students can play a key role in uncovering a community's international assets by identifying key cultural and international resources within the community, mapping them geographically, and organizing them as a searchable database that parallels an asset map of parents' global knowledge and skills.

At its core, educating for global competence means creating school culture where *inquiring about the world* is common practice. Such inquiry may take the form of in-depth units of study or intelligent questions following a presentation. In these environments, cultural, religious, class and regional *perspectives are considered*. They appear not only as students examine a historical event or works of literature, but also when they interact informally with their teachers and peers. *Communicating across barriers* in turn occurs not only in Spanish or French classroom presentations, but also as students solve a given misunderstanding in informed ways in the hallway. *Taking action* is seen in students' informed consideration of options to respond to a distant natural disaster in the geography class but also as they self organize to support a chosen cause. As the examples suggest, creating a genuine culture of global competence involves careful consideration at every turn how to connect the school to its global mission.

## An invitation to ponder

- I. In what ways is your school already developing a culture of global competence? How can you build on these beginnings?
- II. How can your school creatively use Common Core or state standards to promote global competence within ELA and Mathematics? Where are the key "leverage points"?
- III. How can your school create professional learning communities and other professional development opportunities to support teaching for global competence?

**Profile of an Asia Society International Studies Schools Network (ISSN)  
High School Graduate**

ISSN graduates are **Ready for College**. They:

- Earn a high school diploma by completing a college-preparatory, globally focused course of study requiring the demonstration of college ready work across the curriculum.
- Have the experience of achieving expertise by researching, understanding, and developing new knowledge about a world culture or an internationally relevant issue.
- Learn how to manage their own learning by identifying options, evaluating opportunities, and organizing educational experiences that will enable them to work and live in a global society.
- Graduate prepared for post-secondary education, work and service.

ISSN graduates have the **Knowledge Required in the Global Era**. They understand:

- Mathematics as a universal way to make sense of the world: solving complex authentic problems and communicating their understanding using the symbols, language, and conventions of mathematics.
- Critical scientific concepts, engage in scientific reasoning, and apply the processes of scientific inquiry to understand the world and explore possible solutions to global problems.
- How the geography of natural and man-made phenomena influences cultural development as well as historical and contemporary world events.
- The history of major world events and cultures and utilize this understanding to analyze and interpret contemporary world issues.
- Arts and literature and use them as lenses through which to view nature, society, and culture as well as to express ideas and emotions.

ISSN graduates are **Skilled for Success in a Global Environment**. They:

- Are “literate for the 21<sup>st</sup> century” – proficient in reading, writing, viewing, listening, and speaking in English and in one or more other world languages.
- Demonstrate creative and complex thinking and problem solving skills by analyzing and producing viable solutions to problems with no known or single right answer.
- Use digital media and technology to access and evaluate information from around the world and effectively communicate, synthesize, and create new knowledge.
- Make healthy decisions that enhance their physical, mental, and emotional well-being.

ISSN graduates are **Connected to the World**. They:

- Effectively collaborate with individuals from different cultural backgrounds and seek out opportunities for intercultural teamwork.
- Analyze and evaluate global issues from multiple perspectives.
- Understand how the world’s people and institutions are interconnected and how critical international economic, political, technological, environmental, and social systems operate interdependently across nations and regions.
- Accept responsibilities of global citizenship and make ethical decisions and responsible choices that contribute to the development of a more just, peaceful, and sustainable world.

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<sup>i</sup> Boix Mansilla, V. (2010). *Interdisciplinary Teaching in International Baccalaureate Schools*. Cardiff International Baccalaureate press.

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<sup>ii</sup> Images re-printed with permission © Preschools and Infant-toddler Centers – Istituzione of the Municipality of Reggio Emilia, from the book "Making Learning Visible. Children as Individual and Group Learners" © 2001 Reggio Children, The President and Fellows of Harvard College, and the Municipality of Reggio Emilia. Reggio Emilia, Italy: Reggio Children.

<sup>iii</sup> The globalization unit was developed by Michael in conjunction with the interdisciplinary studies team led by Veronica Boix Mansilla at Project Zero. See Boix Mansilla & Gardner (2003)

<sup>iv</sup> *ibid* Common Core State Standards p18

<sup>v</sup> *ibid* Common Core State Standards Introduction page 7