ADVANCING GLOBAL AWARENESS THROUGH STUDY AND SERVICE

Developing Global Awareness and Responsible World Citizenship With Global Learning

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Global learning is a student-centered activity in which learners of different cultures use technology to improve their global perspectives while remaining in their home countries. This article examines the use of global learning with gifted students to develop the knowledge, attitudes, and skills necessary for world citizenship. We describe a pedagogical approach that is based on a set of conditions for global learning, associated learner attributes, and processes developed in global learning leading to acquisition of world citizen characteristics. Six processes and nine attributes are identified as essential for global learning. Two examples are presented of how this approach can be used to integrate global learning into the curriculum—one at a university level and another in a middle-school setting.

Ours is a world of 24-hour news cycles, global markets, and high-speed Internet. We need to look no further than our morning paper to see that our future, and the future of our children, is inextricably linked to the complex challenges of the global community. And for our children to be prepared to take their place in that world and rise to those challenges, they must first understand it. (Paige, 2002)

Globalization in its broadest sense provides all peoples of the world with major challenges—chiefly related to trade, technology, and the environment—and poses significant implications for how best to prepare future world citizens to meet these challenges (Adams & Carfagna, 2006; Banks, 2004; Carnoy & Rhoten, 2002; Istance, Schuette, & Schuller, 2002; Merryfield, 2001; Nordgren, 2002). The term globalization has numerous definitions and interpretations, some positive and some negative (Holton, 1998; Kahler, 2004; Lindner, 2003; Patton, 2001; Robertson, 1992; Scholte, 2000; Tonnelson, 2000; Waters, 2001). During the Sir Robert Menzies Oration, Patton prophetically alerted the audience to inequality, instability, and unsustainability as three major risks, which require the world's attention, lest there be retaliation, such as the 9–11 New York disaster, by those with a less than equal share of the benefits from globalization.

The effects of globalization can be summarized as increased interdependence, interconnectedness, and cultural diversity (Anheier, Glasius, & Kaldor, 2001; Ong & Verville, 1998; Rimmington, 2005). An example of global interdependence is climate change, which illustrates the cumulative effects of seemingly innocuous human activities when viewed at the level of the individual that translate into global-scale phenomena when multiplied up to whole populations and repeated over decades or centuries (Gore, 2006; Houghton et al., 2001; Wang, Handoko, & Rimmington, 1992). As a result of the Internet, people around the world have become increasingly interconnected on a global scale; they have become more critical consumers of, and contributors to, news and information systems, and more in touch with each other. The world is becoming more diverse on a local scale due to migration and a high volume of air travel, and this has implications for the classroom and the workplace.

The same Internet technology that in part contributes to these global challenges can also provide opportunities to meet the challenges. One such opportunity is called global learning. It involves the combination of technology that supplies global reach and the global perspectives that arise from interactions between learners of different cultures,
while remaining in their home countries (Rimmington, 2003). Already, such opportunities have been provided for gifted students (Gibson, Vialle, & Rimmington, 2004; Rimmington & Bever-Goodvin, 2005). When global-learning opportunities are integrated into the gifted curriculum, they can benefit gifted students’ studies in geography, science, technology, English, foreign languages, and mathematics while allowing them to develop attributes and processes such as intercultural communication competence necessary for participation in a globalized world (Alagic, Gibson, & Rimmington, in press; Rimmington, Gibson, & Alagic, 2007). Although some global-learning opportunities have emerged in gifted education, the potential of these opportunities for preparing world citizens and leaders is hindered by obstacles to the identification of the gifted and priorities within intervention for gifted learners (Van Tassel-Baska, 1992).

Gifted learners of all cultural backgrounds can develop the attributes and processes needed for world citizenship by participating in global-learning activities (Bailey, Boyce, & Van Tassel-Baska, 1990; Rimmington, 2003). Education programs without global-learning activities tend to give less attention to the interpersonal, intrapersonal, and naturalistic intelligences (Gardner, 1993) that are important for world citizenship. Utilitarian characteristics of giftedness are favored by the powerful nations of the world in which a mechanistic lens and androcratic values prevail (Eisler, 1987). Ambrose (2000) contended that there are moral-ethical dangers of entrapment within any single philosophical or ideological framework. This contention is consistent with Belbin’s (2001) model of human behavioral archetypes—Primeval, Warrior, Slave, Professional—and recent interpretations of archeological data from Neolithic cultures that suggest these societies were not "barbaric" or "disorderly" as portrayed in modern media and literature but, rather, were largely egalitarian, peaceful, prosperous, and culturally advanced (Eisler, 1987). The effect of male-dominant, hierarchical androcracy in modern, Western societies and the consequent influences of industrialism and militarism on priorities for education generally, and gifted education in particular, has resulted in marginalization of the gifted with exceptionalities and associated dispositions and values in areas that would prove beneficial for solving some of the global challenges described previously. Gifted education programs need to be more inclusive so all societies can take advantage of the potential of these individuals (Peterson, 1999).

If the obstacle of broadening identification of the gifted can be overcome, then there needs to be an intervention focused on learning activities that will contribute to the preparation of future world citizens. Such interventions should include the design of global-learning activities in order to maximize improvement of critical thinking, intercultural communication competence, collaboration, teamwork, reflective practice, and dispositions and values (Roepcr, 1988). Provision of global-learning opportunities can facilitate the development of intercultural collaboration competence (Belbin, 2001; Cifuentes & Murphy, 2000) in gifted education. Successful intercultural collaboration is contingent upon effective communication between people of different cultures and greater global awareness (Kane, 2003). The design of gifted curricula that incorporate global learning to improve these attributes and processes necessary for world citizenship is the topic of the second part of this article.

The terms world citizen, citizen of the world, or global citizen can mean different things to different people. At one extreme, from the perspective of a nationalist, they imply the threat of world government and loss of sovereignty; they are seen as the antithesis of being a national citizen or a patriot. A different view is that world citizenship is another level of citizenship that joins regional, state, and national citizenship and is concerned with global issues such as the environment, peace, trade, hunger, disease, and the threat of terrorism. This second view of world citizenship has closer links with the term cosmopolitan (Osler & Vincent, 2002), which relates to international experience, respect and honor for other cultures, and a concern for global issues. Whatever people may think about world citizenship, what is inescapable is the effect of increased cultural diversity locally and globally, increased interconnectedness, increased interdependence, and the challenges these provide for future generations.

One half of the solution to solving global-scale challenges is to broaden the range of exceptionalities being selected for and cultivated through the integration of global learning within gifted education programs. This also will involve broadening the cultural diversity of gifted cohorts. The second half of the solution is to design appropriate curriculum for the intervention activities that incorporate global-learning opportunities.

**PEDAGOGIC APPROACH WITH GLOBAL LEARNING**

Globalization affects every aspect of our lives and continuously presents us with new challenges. In order to deal with these challenges, effective world citizenship knowledge, skills, and attitudes are essential and underpin the required processes (Merryfield, 2002; Noddings, 2005). Gifted students with exceptional abilities in intrapersonal and interpersonal skills, and global environmental awareness hold the promise of being the leaders and problem-solvers in our future. Leaders in a globalized world need skills that allow them to collaborate, communicate, negotiate, think critically, and gain multiple perspectives through dialogic co-construction of meaning with individuals from different cultures.

Global learning provides opportunities for gifted students to relate to each other across cultural barriers and vast distances and thus promotes deeper understanding of
diverse cultures and "humanizes" people who might otherwise seem abstract. Global learning provides a vehicle by which gifted students in K–12 settings can interact with diverse populations to meet the challenges of our rapidly changing world. Merryfield (2002) emphasized how educators using global-learning experiences can help students "confront stereotypes and exotica and resist simplification of other cultures and global issues; foster the habit of examining multiple perspectives; teach about power, discrimination, and injustice; and provide cross-cultural experiential learning" (p. 18).

Success in the implementation of global learning is not guaranteed, especially when starting with a largely didactic, teacher-centered paradigm. Global learning is a social-constructivist learning activity that involves experiential and project-based learning. It is not simply a matter of connecting learners by way of modern communication technologies. It cannot be achieved by listening to "experts" speaking third-hand about some other part of the world. Rather, it is a very student-centered activity rooted in dialogic co-construction of meaning between learners of different cultures, who are located in their home cultural contexts. For this reason, educators need to consider global learning in terms of the conditions necessary for it to emerge, the requisite attributes and processes that intermesh with the content during global-learning activities, and finally the characteristics and responsibilities of the world citizen in relation to the attributes and processes developed through global learning (see Figure 1).

Conditions for Global Learning

Global learning is an emergent phenomenon. There is no particular pedagogical approach that can make it happen directly as a first-order effect. Rather, global learning is a higher order effect that results from a set of necessary conditions (see Figure 2).

**Cultural contrast.** A global-learning experience is more effective for the learners when a high degree of cultural contrast is achieved. The greater the cultural difference, the greater is the participants' frequency and intensity of "culture shock," and consequently the learning experience is more vivid and memorable. To create a great a contrast as possible, one should consider the extent of difference between the cultures of the global-learning partners. Examination of cultural characteristics such as values and beliefs related to religion, the political system, economics, and language can help determine the extent of cultural contrast that can be achieved in a particular global-learning experience. Additionally, language differences contribute to cultural contrast on a continuum that has at one end speaking the same first language and at the other end no common language, a condition which requires the use of a translator.

Cultural contrasts that create a rich, authentic global environment for learning are maximized when participants remain immersed within their "home" cultural context (Rimmington, 2003; Rimmington, Gruba, Gordon, Gibson, & Gibson, 2004). This interaction is made possible with modern communication technologies. By comparison, when one travels to another country the level of cultural contrast is lessened due to enculturation.

**Modern communication technologies.** Communication technologies, such as the telephone, e-mail, videoconferencing, text messaging, instant messaging, and Web-based threaded discussions allow the learners to interact without leaving their homes. In recent years, many universities and schools have installed Internet and Internet2-based technologies, including those for videoconferencing, into the regular classroom. The availability and cost of the Internet infrastructure and tools such as Web cams have fallen to a level where it is becoming affordable for education.
Communities in most countries. Communication technology, however, is only one part of the set of conditions needed to design effective global learning.

Substantive and authentic goal. The instructor needs to articulate a goal that the participating global learners can work towards. Ideally the goal should be authentic in terms of the content area. For example, in a Kansas elementary school a Scrapbook Project has been undertaken where all ability levels of first and second graders create, compose, and edit theme booklets every 4-6 weeks that are then exchanged with Chinese students of the same age. English-speaking students are learning Chinese and cultural aspects about China while Chinese students are learning English and American culture through primary source booklets. As the participants combined their projects into the larger, collaborative cultural exchange, the students gained functional expertise and intercultural appreciation for their future as world citizens.

As well as being authentic, the goal should also be substantive. It needs to be unattainable by an individual in terms of the amount of work required, the range of functional expertise required, and the intercultural considerations. As the team members consider the goal, they may divide the project into tasks that require different expertise or functional roles. To achieve the overall goal, however, the global-learning participants eventually must combine their expertise and knowledge in a collaborative effort.

The Kansas/Hong Kong Rainforest global-learning project provides an example of an authentic, substantive goal designed for elementary students; teams of Kansas and Chinese students researched the plants, animals, and biodiversity of rainforests and then created artwork depicting their research. The artwork was mailed to the partner school, where those students researched and created background murals to reflect the cultural background, geography, and content of the artist’s works. Photographs were taken and exchanged, by means of the Internet, so that all students could learn, evaluate, and reflect on the two finished, collaborative murals. The murals resulted in the achievement of an authentic, substantive goal to learn about the rainforest while establishing student dialogue and developing a global perspective of the interdependence of human action.

Teamwork. The global-learning team should comprise members from at least two different countries. Part of the challenge of global learning is not only the collaboration with people living in another country but the limitations associated with the communication technology compared with face-to-face interactions. Teamwork under such circumstances stimulates the need for improved communication, which is only possible if there is attention to the perspectives of each of the participants. A range of attributes and processes need to be considered in the pedagogical design of global learning in order to translate this set of conditions into the desired characteristics of a world citizen.

Attributes and Processes

As gifted learners operate within the set of global-learning conditions that the instructor has established, they typically are required to use certain attributes and processes that further their development toward becoming world citizens (see Figure 3). Therefore, it is assumed that gifted learners, who are beginning a global-learning project, will to some extent already possess the attributes and use the processes that are discussed here.

For example, global-learning projects would be, in Renzulli’s (1977) terminology, classified as a Type III Enrichment—Individual and Small Group Investigations of Real Problems, and in Betts and Kercher’s (1999) Autonomous Learner Model, classified as Dimension 5—In-depth Studies. Such advanced levels of enrichment and study require prior learning experiences, which facilitate the growth of a relevant knowledge base, technology skills, and various skills related to communication, collaboration, reflection, and critical thinking. Global learning, then, provides further opportunities to develop such attributes and processes in the context of authentic global issues and intercultural contexts.

Dispositions and values. Participation in global learning requires certain dispositions identified as affective needs of gifted learners, such as sensitivity toward, and tolerance of, others (Van Tassel-Baska, 1992, 1998). Gifted learners must possess basic respect for differences and openness to others’ views in order for global learning to be productive. Gifted learners tend to be more sensitive to moral issues and the rights and feelings of others, and generally demonstrate a deep concern for local as well as global social issues (Clark, 2008). Van Tassel-Baska (1992) pointed out that an environment that encourages listening and the consideration of others’ viewpoints is important to the development of these two dispositions. Global-learning projects provide such an environment.

Clark’s (1986) Integrative Education Model indicates that a clear set of values provides direction and purpose to one’s life. Learners must consciously recognize and clarify their values as a first step. Clark recommends the use of discussion groups to help students become aware of the many perspectives and possible solutions related to an issue or problem. Global-learning experiences challenge gifted learners to define the values and dispositions that affect their judgment and decisions through intercultural communication, reflection, and collaboration.
**Global awareness.** In this article, the term *global awareness* refers to knowledge of globalization and the resulting issues and problems that affect everyone's lives. It refers to an understanding of the interconnectedness and interdependence of the world. Students need to acquire initial awareness before their global-learning interactions in order to be sensitive to the general beliefs and values of the other culture and so that the most benefit can be derived from the experience.

Global learning provides a critical lens through which the learner can evaluate and contextualize this initial, third-hand information. Participation in global learning can then enrich student understanding and knowledge both in terms of breadth and depth through exposure to the perspectives of their counterparts.

**Technology skills.** Today, it is probably safe to say that almost all gifted learners in developed countries have experience in accessing information on the Internet; using e-mail to communicate; text messaging; participating in asynchronous and synchronous interactions using venues such as discussion boards, blogs, wikis, moodles, and chat rooms; and creating numerous presentations using software such as PowerPoint. A considerable number of gifted learners also will have experience with Web cams and videoconferencing. Knowing technology fundamentals can mean the difference between the success and failure of a global-learning project. Teachers as well as learners need to know how to operate equipment and communication technologies to facilitate the efficient use of online time. Student "rehearsals" with the technology necessary for a project are advisable. Global-learning projects demand that gifted learners fine-tune their existing technology skills and add new ones to their repertoire. Such skills are essential for world citizenship.

**Intercultural communication skills and interpersonal intelligence.** Competent intercultural communication skills lay the foundation for meaningful exchanges between people from different cultures. Improved communication technology facilitates disintermediation. In other words, people no longer have to rely on the media and government for news and information but can meet directly in a virtual environment; however, with intercultural communication comes the possibility for misunderstandings, unintentional insults, and the appearance of insensitivity.

It is therefore advantageous to raise the project participants' awareness of such communication problems, and if possible improve participants' intercultural communication skills through instruction and practice. The Cage Painting Simulation (Alagic et al., in press; Rimmington et al., 2007) provides opportunity for such practice. The simulation is based on a metaphor in which a cage represents one's perspective while the cage bars identify characteristics and details of one's cultural background, life experiences, and the current context that effect one's perspective (Mackay, 1994). Initially, one is oblivious to this or lacks perspective consciousness (Hanvey, 1976), which is captured in the metaphor of the cage being invisible. When people of different cultures interact, their invisible "cages" interfere with effective intercultural communication. Cage painting represents the process of dialogic co-construction of meaning that makes the cage visible. This coreflective activity facilitates the continual painting (perceiving) of the bars (characteristics) that are relevant to the context. Cage painting
helps us see our cage, both through our eyes and through the eyes of the other person, just as we begin to see his or her cage. Practicing the four strategies shown in Figure 4 (as the missing steps) facilitates cage painting and improvement of the learner’s intercultural communication competence.

In Figure 5, an educational sequence is presented, beginning with the goal for project- and team-based learning between people of different cultures. This goal requires teamwork. In turn, such teamwork depends on high levels of intercultural communication. As indicated previously, this communication can be improved through better appreciation of multiple cultural perspectives.

Since windows of opportunity for global learning between different hemispheres (East and West, North and South) and between different time zones can be short, it is important that global learners be prepared beforehand. To this end, a computer simulation game, the Cage Painting Simulation (CPS), has been developed (Alagic, Gibson, & Rimmington, 2005). It allows the learner to apply the four cage painting strategies in Figure 4 in simulation scenarios. By applying these strategies, learners can make progress in accommodating for and reflecting on the perspectives of others, as well as their own. The CPS is now available online (http://gl wichita.edu/cps) and allows registered users to develop new scenarios that can be shared as simulations for general use. Authoring new scenarios based on personal experience would be appropriately challenging for gifted learners.

To further minimize risks of misunderstandings, it is imperative that gifted learners conduct some research on the other culture’s current affairs, historical events, communication conventions, and at least some key words in the other’s language, prior to commencing global-learning interactions. Such preparation will help to ensure the exchange of ideas in a mutually respectful manner. It is also important to agree on an agenda or purpose so that all team members understand the focus of the communication as the team collaborates to achieve the goal.

Generally, gifted learners who have exceptional interpersonal intelligence (Gardner, 1999) can quickly hone their intercultural communication skills because of their existing ability to communicate effectively, can readily empathize with others, and can sense others’ emotions, feelings, and motivations. Global learning provides a challenging context in which to develop further both intercultural communication competence and interpersonal intelligence.

Reflection, metacognitive development, and intrapersonal intelligence. Effective reflection, metacognition, and intrapersonal intelligence also are critical for the achievement of the global-learning goal. Reflection involves the conscious act of thinking and examining one’s experiences so as to engage in a process of continuous learning and improvement. People with exceptional intrapersonal intelligence are highly self-aware. They are able to understand their own emotions and motivations and enjoy activities that are thought based. Reflection and metacognition in global learning are examples of mindful learning (Langer, 1997) behaviors that enhance understanding and communication. The blending of affective and cognitive dimensions of global learning has been described as body mindfulness (Nagata, 2006).

In order to develop multiple perspectives and to achieve a global-learning project goal, participants are compelled to coreflect on and appreciate their own and others’ viewpoints in order to make informed decisions based on multiple perspectives. Some gifted learners have a natural ability for self-reflection and coreflection but others need mentoring and guidance in productive reflection. Using global learning as a pedagogic approach, educators can make available opportunities for the improvement of reflective practice, metacognitive growth, and intrapersonal intelligence within any discipline or curriculum.
Collaboration skills. Global learning can be thought of as virtual, collaborative learning that provides opportunities for development of critical thinking skills, increases group process skills, and fosters leadership skills. It also presents an environment in which students can co-construct meaning and identity to develop multiple perspectives. High levels of collaboration are required as global learners work in a multicultural team to achieve a common goal, such as developing a shared artifact (Figure 4). The ability to collaborate is essential to building and sustaining productive work relationships, and participating as an effective citizen in a globalized world.

Some factors that influence the success of virtual collaborative teams include the establishment of trust, cultural background and current context, preferred learning and work styles, as well as intercultural communication and collaboration competence. Achieving effective collaboration remains a significant challenge, even more so when it is global or intercultural in nature, because of the differences in perspectives of people from different parts of the world.

Similar to the development of intercultural communication competence, it is advantageous to practice and develop students’ basic collaborative competence before participation in a global-learning project. In this way, the project time can be used more productively.

Critical thinking skills. Critical thinking is disciplined and self-directed. It encompasses logic and reasoning skills such as: comparing, classifying, determining cause and effect, patterning, deductive and inductive reasoning, predicting, sequencing, planning, hypothesizing, and critiquing (Marzano & Pollock, 2001). It requires the practice of reflection and metacognition in order to make one’s thinking more precise, defensible, and unambiguous to others.

Global learning is interdisciplinary in nature and is based on authentic, real-life issues and problems. Critical thinking skills are vital to successful problem solving and the making of ethical decisions that are respectful of all project participants and informed by a variety of worldviews or perspectives made within a global context. The complexity of any one global-learning project requires numerous critical thinking skills in order to generate possible solutions, make decisions, and reach the project goal.

World Citizenship

Recently, Educational Leadership (October, 2002 and April, 2007) highlighted globalization and the resulting implications and challenges for education institutions. In 2007, the World Council for Gifted and Talented Children held a conference with the theme Worlds of Giftedness from Local to Global, and Phi Delta Kappa International hosted a summit on global education. Books and articles continue to be published that emphasize the need for global learning and stress the importance of including global education in all curriculum areas (Adams & Carfagna, 2006; Burbules & Torres, 2000; Cummins & Sayers, 1997; Davies, 2006; Jarchow, 1993; Noddings, 2005).

One important component of global learning is preparing students to participate as citizens in a globalized world. The dictionary (Agnes, 1999) defines citizenship as the duties, rights, and privileges of a citizen. Scorza (2007) pointed out that along with world citizenship rights come duties or responsibilities, which are dependent on a person’s place in the world and the relationship of that place to global problems. Additionally, these responsibilities require an attitude of respect for the rights of others and actions that are just for all.

In the literature, global or world citizenship is defined as a set of key elements: knowledge, skills, and attitudes that equip a person to function as a citizen in the globalized world (Adams & Carfagna, 2006; Carlsson-Paige & Lantieri, 2005; Fisher & Hicks, 1985; Oser & Vincent, 2002; Oxfam, 2006; Pike & Selby, 1999). These elements are more evident if the learner has had experience interacting with people who are from different cultures and who hold different values, beliefs, and perspectives. Each key element is made up of the details shown in Table 1.

The details go beyond simple global awareness toward a range of characteristics that the learner needs to have in order to be an effective world citizen (see Figure 6). As discussed earlier, world citizenship does not replace national citizenship, but it is a necessary addition, since the entities that shape our lives are no longer just our governments but also global corporations. Reading through the details, one can see that student actualization of these elements is dependent on acquisition of the global-learning attributes and processes discussed earlier in this article.

| TABLE 1 Knowledge, Skills, and Attitudes and Values of a World Citizen |
|--------------------------|--------------------------|
| **Element** | **Details** |
| Knowledge | Understanding of culture, diversity, globalization, interdependence, global irregularities, peace and conflict, nature and environment, sustainable development, possible future scenarios, social justice |
| Skills | Emphasize research and inquiry skills, theory testing, critical thinking, communication skills and political skills essential for civic engagement in a global society, ability to challenge injustice and inequalities, cooperation, and conflict resolution |
| Attitudes and values | Appreciation of human dignity, respect for people and things, belief that people can make a difference, empathy toward other cultures and viewpoints, respect for diversity, valuing justice and fairness, commitment to social justice and equity, curiosity about global issues and global conditions that shape one’s life, concern for the environment, and commitment to sustainable development |

Note. See Fisher and Hicks (1985) and Oxfam (2006) for more detail.
Whereas knowledge can be gained and skills developed in an educational setting, the cultivation of attitudes is culturally embedded in a more subtle way. For example, if an education system supported by a society presents knowledge about other parts of the world in a manner that suggests other people are less important or inferior, or objectifies those people, then the seeds of injustice and oppression are being sown (Lindner, 2003). Hearing about people from other cultures third-hand and from the perspective of dominance and superiority is not helpful for the development of world citizenship or for dealing with the complexities of globalization. Provision of global-learning opportunities in which learners can interact directly with their counterparts in other cultures provides a way to avoid the consequences of third-hand knowledge, and is more likely to lead to the positive attitudes required for world citizenship.

One of the five interdisciplinary dimensions of Hanvey’s (1976) definition of global education is perspective consciousness—an awareness of and appreciation for other images of the world. Similarly, Carlsson-Paige and Lantieri (2005) described a global consciousness that is required to be a citizen of the world; they assert that such a consciousness is developed when children engage in decision making, practice prosocial action, view situations from multiple perspectives, use conflict-resolution skills, and have the opportunity to deal with social injustice. By participating in global learning, learners are exposed to different perspectives; and they not only improve awareness of their own culture, but also improve their understanding of other cultures, and the state of the planet. Thus, global learning provides opportunities that nurture a global consciousness and develop knowledge, skills, and attitudes necessary to be an effective world citizen.

In terms of the cultural awareness levels identified by Hanvey (1987), global learning facilitates progress toward Level IV (see Table 2) through virtual immersion and first-hand interactions that bring the learner closer to seeing issues from the viewpoint of a person in another culture. It should be noted that one essential skill that is missing from Table 1 is foreign-language competence. A foreign language is itself like a lens that allows the learner to see the world in a different way. Learning a foreign language would certainly be necessary for immersion in a society that does not speak a learner’s first language and in turn would be necessary for achieving Level IV cultural understanding (see Table 2).

TABLE 2
Levels of Cultural Awareness

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
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<tbody>
<tr>
<td>I</td>
<td>Awareness of superficial or very visible cultural traits or stereotypes based on tourism, textbooks, and travel magazines</td>
</tr>
<tr>
<td>II</td>
<td>Awareness of significant and subtle cultural traits that contrast markedly with one’s own due to culture conflict situations</td>
</tr>
<tr>
<td>III</td>
<td>Awareness of significant and subtle cultural traits that markedly contrast with one’s own through intellectual analysis</td>
</tr>
<tr>
<td>IV</td>
<td>Awareness of how another culture feels from the standpoint of the insider by way of cultural immersion: living in the culture</td>
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Note. See Hanvey (1987) for more detail.

GLOBAL LEARNING AS AN APPRENTICESHIP FOR THE TEACHER

The task of collaborating with a teacher in another part of the world to design a global-learning curriculum is a form of apprenticeship or experiential learning. The teachers deal with challenges such as differences in time zones, weather conditions, technologies, or classroom management styles. In other words, the teachers themselves are subject to the necessary conditions for global learning (see Figure 2). The teachers, who are from contrasting cultures, use modern communication technologies to work as a team toward the substantive and authentic goal of preparing a global-learning activity. They develop toward mastery of the attributes and processes involved in global learning (see Figure 3) so that they advance toward the knowledge, attitudes, and skills of a world citizen (see Figure 6). The following examples provide apt illustrations of this process.

GLOBAL-LEARNING CURRICULUM EXAMPLES

Two examples are now presented to illustrate how global-learning projects can be integrated into curricula in higher education and K–12 programs. Here, the second example is an outgrowth of the first; a graduate student, who participated in a global-learning project in the first example, then provided similar opportunities for her own students in the second example.
Higher Education Project for Gifted Education Teachers

Education faculty at the University of Wollongong in Australia and at Wichita State University integrated a global-learning project into gifted education graduate courses (Gibson et al., 2004). The project provided an intercultural context in which the teachers could reflect on their beliefs and attitudes about their concepts of giftedness and appropriate education for gifted students, which would eventually lead to positive change in their teaching approaches and their development of a perspective consciousness (Hanvey, 1987). The ultimate outcome for the teachers was to develop multiple perspectives concerned with giftedness and gifted education.

As student diversity in classrooms has grown, it has become more and more important that teachers have knowledge and dispositions that recognize and meet the educational needs of gifted learners from all cultural backgrounds. In initial course work, teachers in gifted education graduate studies at the two universities discuss and reflect on their understanding of giftedness and what attributes indicate giftedness. From these reflections, it is intended that the teachers will gain an insight into the characteristics of gifted learners that helps them to develop and implement appropriate curriculum for their students. Because teachers in the Wichita State program generally are from the same culture, diverse ideas and views are largely absent from the discussions. Integration of global learning into the two graduate programs in gifted education provided an intercultural context in which the teachers could develop the necessary multiple perspectives.

Ten women and 6 men who were enrolled in or had just graduated from the gifted education program at one of the two universities participated in the discussions. All of the participants had 3 or more years of teaching experience and ranged in age from their mid-20s to mid-50s. All eight teachers at Wichita State University had lived and taught in the Midwest of the United States for their entire lives with the exception of one who had taught in China for 3 years. At the University of Wollongong, five of the teachers were born in Australia, one was from Korea, one was from England, and one was from China. One of the five Australians was completing a 4th year of teaching in the Sultanate of Brunei.

To organize the global-learning interaction, the university faculty communicated by e-mail and phone. They collaborated to identify the learner outcomes, decide how the teachers would be grouped for discussions, brainstormed potential technology problems, generated a set of guiding questions for the discussions, and established how research data would be collected. Students were enrolled in a Blackboard™ account and then assigned to one of the discussion groups. Each group had at least two members from each university.

Over 6 weeks, the faculty gave prompts and posed questions related to the students’ life experiences, cultural backgrounds, current contexts, and the students’ beliefs about giftedness and gifted education. The faculty also co-reflected through e-mail during the 6 weeks on the progress of the project and adjusted questions for the discussion as needed.

After completion of the project, a survey was e-mailed to the participating teachers to determine the effectiveness of the project design and the benefits that students perceived they had received from their participation. Although the tentative survey results require more substantive empirical analysis, they suggest some hopeful patterns in the effects of the intervention. The teachers identified three main ways in which they had benefited. First, they believed the global-learning project had improved their teaching ability, particularly in relation to Asian students. They also reported gaining insights into the cultures and educational systems of other countries. Finally, the teachers stated that they had a better understanding of the concept of giftedness across a number of cultures and had a heightened awareness of their own views on gifted education.

All of the teachers believed that they had gained multiple perspectives about gifted learners and gifted education through their participation in the global-learning interaction. The intercultural reflections led participants to an appreciation and greater understanding of the cultural differences that influence the identification of culturally diverse gifted students.

The acquisition of multiple perspectives helped these teachers to think more globally. The teachers felt that they were better prepared to work in diverse educational settings and that the experience facilitated their ability to guide the educational experiences of all gifted learners.

K–12 Project by a Teacher of Gifted Education

One of the global learners in the project described in the first example went on to pursue global-learning opportunities for her own K–12 gifted students. Landwehr-Brown, one of the authors of this article, recounts that her global-learning experience was challenging and that it fundamentally changed her perspective both personally and professionally. She has refocused her program to integrate global learning into all areas of academic, social, and affective learning. An important goal of her teaching now is preparation of her students as global citizens.

During her own global-learning experience, she discovered a common humanity, but significant cultural differences with the other participants, including KSY, a learner from Korea. Landwehr-Brown and KSY’s discussions were officially concerned with gifted education: theories, definitions, and applications. They discovered that before they could discuss these topics effectively, they first needed to establish personal relationships through what can be described as cage painting. Some topics for discussion were
educational values, personal goals, and family concerns with the Internet. Such a discussion by learners in Wichita and Wollongong would have been impossible just a decade before. Landwehr-Brown was impressed by the similarities that she shared with KSY. This led her to the question of what had been missing from her learning before experiencing global learning as a graduate student. Her next question was how could she, in turn, provide the same opportunity for her own students?

In Landwehr-Brown's school, a social studies teacher arranged for a Chinese student's mother to provide an introduction to China, including its music, tea, silk, and handcrafted items. The mother remarked on the students' lack of knowledge about the Chinese culture. For example, she asked the students to name present and past premiers of China. There was no response. She asked the question, "We [people of China] know of your presidents. Why do you not know of our premiers?" We live in a global economy in which China figures prominently. Landwehr-Brown came to the realization that we are not preparing our students to live in culturally diverse settings and in a globalized world. It became her mission to rectify this shortfall. She resolved to acquire and use technology and locate contacts in other countries so that her students could experience global learning.

Achieving this took 2 years of persistence working to overcome a state education system that did not have educational standards concerned with international content and a school district without the requisite technological resources or qualified support staff. Most importantly, she had to figure out how to establish international contacts. Support was sought from the other authors of this article to overcome these challenges through participation in a workshop on global learning and ongoing consultation.

The solution to the technological barrier came in the form of help from the university global-learning program and from a nearby learning network. The latter provided both expertise and access to equipment. Eventually, funds were allocated for the acquisition of equipment and it was installed.

Landwehr-Brown recognized that her lack of experience interacting with people from other cultures was also a barrier. She took the initiative to pursue travel opportunities in the summer to Southeast Asian countries. She had learned from the experience of interacting with KSY that she must be a global learner and become connected globally herself. Without this, she would not have the attributes or be able to use the processes discussed in this article, or have the credibility to lead her gifted students in this adventure. Landwehr-Brown attended an institute for teachers to explore East Asian cultures, funded by the Freeman Foundation that provided a historical, philosophical, and interdisciplinary perspective. She was exposed to information about Chinese, Korean, and Japanese cultures.

She then took advantage of a field experience to China and Korea in the summer that was again supported by the Freeman Foundation.

The 3-week field experience was intensive and crucial to her development as a world citizen. Landwehr-Brown regarded this as a dramatic and life-altering experience because it threw into contrast many aspects of life between the East and West. She was able to learn of the stereotypes held by East Asian people of her own culture and then reflect on the reasons for this. She learned about historical interactions between other nations that our education system does not cover in the K–12 program. One revelation in Korea was the effect of language on perspective. For example, Koreans rarely use the word "I" but instead use "we," which reinforces a collectivistic versus an individualistic viewpoint. She observed the more formal protocols for introductions with East Asians. Yet another contrast was the brief history of European-occupied North America and the long history of East Asia. The experience stimulated every sense, especially the tastes of new and unusual foods. Landwehr-Brown discovered that kimchi, a national dish of Korea, has deep cultural and social significance. She observed that it was the subject of a popular play and was a museum artifact. She was exposed to the Korean perspective on the war and how devastating it was to the population of Seoul. She felt that through this experience, she was on the way toward becoming a globally responsible citizen.

Back in her classroom, Landwehr-Brown discovered that her newly developed passion for global learning was infectious with the students. The first global-learning videoconference for her students allowed them to converse with students in Hong Kong and Shenzhen, P. R. China. Subsequently, in a link provided by the Global Nomads Group (http://www.gng.org), they learned more about malaria in a discussion with a physician in Mozambique. One of her gifted students was inspired to apply for a Goldman-Sachs Foundation Prizes for Excellence in International Education Scholarship that was focused on the need for cultural awareness and appreciation at the high-school level. Another student enrolled in an online course about Japanese culture and language at his own expense.

Global learning has become a regular part of the curriculum now that this small, suburban school district has a gifted-education facilitator with a passion for global learning, the conceptual framework, the intercultural communication experience, and the necessary technology. Success in this venture is the result of a combination of persistence, administrative support to acquire the necessary technical resources, collaboration with more experienced global educators, and a willingness to pursue a life of global learning and travel. Landwehr-Brown and her school district serve as an example for others across the country to provide meaningful global-learning experiences for gifted learners.
CONCLUSION

At no time in human history have we been faced by so many challenges of global proportion, such as climate change, terrorism, or spread of diseases. These are challenges that will require unprecedented levels of collaboration across many cultures to reach sustainable solutions. A paradigm shift from the prevailing democratic national governance to a mix of concern for this and the effects of global corporations necessitate world citizenship and global awareness on a level that is not familiar to most people. Societies need to identify and cultivate world citizenship and leadership among the gifted, not just in the predominant culture groups but in all constituent ethnic groups in order for there to be enough capacity and diversity to deal with current and future global challenges. These needs have implications for the education of teachers in general, and for teachers of gifted students in particular.

It is our contention that the integration of global-learning experiences into teacher education programs and the flow into K–12 programs constitutes the most effective way to bring about this change. Although global learning cannot replace exchange programs, it has the advantage of lower cost and fewer logistics. University faculty and K–12 teachers need to have a formal introduction to conceptual frameworks for global learning and experience as participants in global learning before they can credibly lead such activities themselves. Proliferation of global learning throughout the education system to a level that positions a country and its citizens for active involvement in global affairs will require widespread leadership in teacher preparation programs with an emphasis on gifted education.

Global-learning curricula require the creation of a set of conditions that demand the integration of a number of processes and attributes along with the use of technology to facilitate global connections to educate the future world citizen. The level of challenge for both the educator and the learner is substantial and would be met best by concentrating on gifted individuals who already have exceptional abilities in intrapersonal, interpersonal, and naturalistic intelligences, critical thinking, intercultural communication, collaboration, reflection, and technology that lead to world citizenship. A move toward national standards is called for to achieve the required level of proliferation across student populations.

The curriculum examples herein illustrate the requirements and challenges that need to be met in order to provide global-learning opportunities for teachers and gifted learners. It is essential that the teachers experience global learning as part of their preparation. At this stage, without widespread provision of the necessary technological resources and a consistent conceptual framework, the pioneers in this area need persistence and passion to achieve this vision.

REFERENCES


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