

Peer-Reviewed Article

ISSN: 2162-3104 Print/ ISSN: 2166-3750 Online  
Volume 5, Issue 1 (2015), pp. 38-49  
© *Journal of International Students*  
<http://jistudents.org/>

## **Promoting Critical Thinking through an Interdisciplinary Study Abroad Program**

*WeiWei Cai, EdD*

Professor of Education

West Chester University of Pennsylvania (USA)

*Gopal Sankaran, MD, DrPH*

Professor of Public Health

West Chester University of Pennsylvania (USA)

### **Abstract**

*This paper discusses the promotion of critical thinking through an interdisciplinary curriculum design using multidisciplinary faculty as well as details the implementation of an experiential short-term study abroad program in China. To achieve this educational goal of critical thinking, along with meeting the requirements specific to each course, the program was built on a framework using two interrelated approaches – theme-based interdisciplinary curriculum and cultural immersion. The theme-based interdisciplinary curriculum was constructed on three principles (the ability to pose great questions that encompassed drawing knowledge and skills from each discipline, acquiring global awareness, and developing glocal awareness). Cultural immersion was accomplished through carefully selected site visits, activities, and assignments. Students' experiences, reflections, and applications were assessed through formative and summative evaluation.*

**Keywords:** Critical thinking; study abroad; interdisciplinary curriculum; cultural immersion

---

Critical thinking is a subject of much discussion and debate in higher education (Petress, 2004). It is highly desirable for employment in the current marketplace. Casserly (2012) identifies critical thinking skills as one of the top ten most in-demand skills for employment in 2013 and found critical thinking as required for nine out of the ten most in-demand jobs. Critical thinking is the process that leads to improvement in the quality of one's thinking by the thinker skillfully taking charge of the structures inherent in thinking and imposing intellectual standards upon them (Paul & Elder, 1999). Critical thinking is, "in short, self-directed, self-disciplined, self-monitored, and self-corrective thinking, which requires rigorous standards of excellence and mindful command of their use" (Paul & Elder, 1999, p. 2).

The research on critical thinking in higher education can be broadly categorized into two areas: i) perceived need for a consistent and precise definition; and ii) pedagogical approaches used to promote critical thinking (Lloyd & Bahr, 2010). The latter is accomplished either through standalone courses or integrated into preexisting courses that are part of general academic programs. While there is much debate about what constitutes critical thinking, it is often thought of as having three components involving a person's knowledge, attitude, and skills. The combination of rigorous academic coursework combined with a carefully crafted study abroad experience with clear objectives can enhance critical thinking through global understanding, cultural competency, and intellectual development.

There are at least two approaches, multi-disciplinary and interdisciplinary, to promote critical thinking skills among learners. The multidisciplinary approach emphasizes teaching across more than two subject areas or disciplines. It helps learners to make connections among disciplines and empowers them to address issues where a single disciplinary perspective may not provide feasible and effective solutions (Longa & Yost, 2007). In contrast, Rowntree (1982, p. 135) defined interdisciplinary approach as “one in which two or more disciplines are brought together, preferably in such a way that the disciplines interact with one another and have some effect on one another’s perspectives.” Ivanitskaya et al. (2002, p. 108) stated that the teaching and learning for this approach “focuses on the methodologies, interpretive tools, and language of several disciplines on a central problem, issue, or theme.”

The purpose of this paper is three-fold: i) to explain the promotion of critical thinking through an interdisciplinary curriculum design using multidisciplinary faculty and multicultural perspectives; ii) to describe the implementation of an experiential study abroad program in China to promote critical thinking; and iii) to provide a framework to promote critical thinking through an interdisciplinary approach in a study abroad program.

### Review of Related Literature

The number of students from the United States, who are studying overseas increased to 283,332 in 2012 from 273,996 in 2011, an increase of 3.4 percent (International Institute of Education [IIE], 2013). However, critical questions about the value of study abroad programs continue to rise (Salisbury, 2012). The Commission on the Abraham Lincoln Study Abroad Fellowship Program (2005) noted study abroad programs as an important step towards creating a more globally informed American citizenry, many of whom are our future leaders with the ability to shape policies both within and outside the United States. Such engagement with other cultures outside the United States is key to understanding globalization and to be effective proponents of glocalization that is understood as “providing a global offer (brand, idea, product, service, etc.) while taking local related issues into account” (Luigi & Simona, 2010, p. 159). In recognizing various benefits that may accrue to students learning through study abroad programs, Steinberg (2007) identifies one as the understanding and appreciation of the world and one’s place in it. This is exemplified by reflecting on one’s own and other cultures and developing perspectives on the role of politics and the arts in shaping the human condition.

One of the concepts that is often discussed in the educational arena and receives a lot of attention in the context of study abroad programs is globalization. According to Stiglitz (2002), globalization is the closer integration of the countries and peoples across the globe, facilitated through reduced costs of transportation and communication, resulting in the breaking down of artificial boundaries that limit the flow of goods, services, resources, knowledge, and people. The forces of change constituting globalization are evident in every facet of life and is articulated by Friedman in his book, *The world is flat* (2006). Friedman (2006) addresses the importance of culture in glocalization as to how much a culture is both outward and inward. Moreover, the ability of the culture to absorb new ideas and global best practices and blends those with its own traditions nurtured through centuries is critical for glocalization (Friedman, 2006). Thus, students in modern times have to become proficient in understanding the process of globalization, and yet have the openness of understanding different perspectives, and readiness to utilize some of the principles and practices of other cultures. Such an on-going effort in their educational journey is facilitated by experiences that immerse them in cultures different from their own allowing for their understanding the world through a horizontal rather than a vertical perspective.

Educators are urged to be models of the empathetic and integrative thinking and help students develop a sympathetic stance (Gardner, 2008). This could be done by providing models and offering lessons that lay the foundation for students to understand and respect differences. Study abroad programs, in addition to disciplinary content, also bring learners into new cultures wherein physical, cultural, and educational adaptations become necessary (Smith & Kruse, 2009). The key then is to have

a curriculum that connects with foundational skills, forms of knowledge and methods of inquiry, and with the world. Through exploring big global questions that call for integration of knowledge, skills, and personal and social responsibility, students could develop capacity for global citizenship or engagement (Hovland, 2010). Study abroad programs help in the development of intercultural skills and a sense of world-mindedness (Anderson, Lawton, Rexeisen, & Hubbard, 2006).

Kolb (1981) provides a learning model to facilitate a continuum of the learning cycle that fits well study abroad programs with strong experiential components integrated into them. The educational curricula, according to him, should provide learning experiences that move the learner through different phases – one that begins with concrete experiences, supported by observations and reflections that then help their formation of abstract concepts and generalizations, which in turn allows for them to test the implications of the learned concepts in new situations. Six characteristics of experiential learning, as espoused by Kolb (1984), include: i) learning is best conceived as a process, not in terms of outcomes; ii) all learning is re-learning; iii) learning requires the resolution of conflicts between dialectically opposed modes of adaptation to with world; iv) learning is a holistic process of adaptation; v) learning results from synergetic transactions between the person and the environment; vi) learning is the process of creating knowledge (see Passarelli & Kolb, 2012; In Berg, Page, & Lou, 2012).

Both instructional methods and interdisciplinary curriculum are fundamental to reaching the student learning goals in study abroad programs (Jones, 2010). Ivanitskaya et al. (2002, p. 97) mention that multidisciplinary learning “refers to the involvement of several different professional areas, though not necessarily in an integrated manner.” However, there is a need for interdisciplinary studies that go beyond multidisciplinary studies (Repko, 2008).

An interdisciplinary study is also identified “as a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline or profession” (Klein & Newell, 1997, p. 393). It “draws on disciplinary perspectives and integrates their insights through construction of a more comprehensive perspective” (Klein & Newell, 1997, p. 394). The key is on the principle of integration which is something multidisciplinary studies do not have as a goal. Repko (2008) identifies “in the context of interdisciplinarity, integration is a process by which ideas, data and information, methods, tools, concepts, and/or theories from two or more disciplines are synthesized, connected, or blended” (p. 4). Klein and Newell (1977) had earlier identified the strength of interdisciplinary studies as its ability to address a topic that is too broad or complex to be adequately dealt with by a single discipline. They indicate that multiple perspectives and insights from different disciplines are integrated through construction of a more comprehensive perspective. Jones (2010) reiterates that methodology is the key to interdisciplinary success and points out that neither the domain of subject material or textbooks alone is sufficient to the success of interdisciplinary teaching and learning. The interdisciplinary techniques help the learner’s “lifelong learning habits, academic skills, and personal growth” besides helping him/her “learn any one single discipline or solve a problem in a synthesized manner” (Jones, 2010, p. 78)

Powerful learning outcomes are likely if every off-campus program, whether international or domestic, is built around specific learning goals. Well-structured pre-trip and post-trip learning experiences are important parts of study abroad program and the field trip must have linkage to these on-campus learning experiences (Musil, 2006; McLaughlin & Johnson, 2006). Lutterman-Aguilar and Gingerich (2002) identify the following ten key principles as guiding experiential pedagogy in study abroad programs: i) process and personal integration/development; ii) problem-based content; iii) critical analysis and reflection; iv) collaboration and dialogue; and v) community; vi) diversity and intercultural communication; vii) action and social transformation; viii) mutuality and reciprocity; ix) facilitation by trained faculty and staff; and x) evaluation and assessment. They further posit that formation of communities of learners, their immersion in the host country community, and aided by reflection of each learner to one’s own connections to the global community leads to education for global citizenship.

Combining students from different universities in a short-term study abroad program can further facilitate student learning by bringing together difference campus cultures to exchange in a new learning

environment (Mills, Vrba, & Deviney, 2012). Providing students course requirements and expectations at an early time can help students become aware of what is expected of them academically, promoting positive student interaction to help establishing friendship among them, and preparing students in advance with basic cultural information and customs. They also concluded “simply raising awareness on the part of students as to how the activities and processes involved in the study abroad program could help them better relate their experiences to qualities and skills that are typically valued by employers” (Mills et al., 2012, p. 961). Furthermore, students need opportunities to discuss their experiences and how the experiences might provide an opportunity for their professional career-related personal growth, how the experiences were structured, and how students learn affect their learning outcomes (Mills et al., 2012).

Curriculum design, pedagogical methods, and measurable goals are critical components of any educational program. Difficulty in measuring student learning outcomes, especially isolating the component of the program itself from other factors such as gender, language of the study abroad country, amount of cultural immersion, previous student international travel experience, and other factors, has been noted by McKeown (2009). A study by Zamastil-Vondrva (2005) examined students’ perceptions of their experiences to identify meaningful conclusions about the impact of short-term immersion study abroad programs. Results showed that through clear objective oriented and carefully designed study abroad programs, students were provided with opportunities to confront, accommodate, and assimilate new information and concepts into their existing body of knowledge. Students also are able to reflect on their experiences and learn to interpret their surroundings in a different manner.

### **Research Method**

China as the venue for this experiential learning program was based on the need to: i) allow students to learn in a cultural setting that was more foreign to them; ii) expose them to a nation where English is not the native language; and iii) utilize the prior experience of all three program faculty with Chinese culture including multiple visits to the nation.

### **Participants (Student and Faculty)**

A dozen students, three female and nine male, ten of whom were 19-22 years old, from two universities in the United States participated in this program. Students had diverse academic majors including political science, history, elementary education, public health, economics and environmental science and ranged from second to fourth year of study. The group included nine Caucasian (including one international student from Greece currently enrolled in an American university), two African American, and one Asian student. Except for one student, this was their first study abroad experience. Two students had taken an introductory course in Mandarin prior to their visit to China.

Three faculty members (from education, public health, and environmental health) collaboratively conducted the program, with each bringing his or her areas of disciplinary expertise. All faculty members had extensive prior international to different countries. Two faculty were born outside the U.S., and speak another language besides English. The third was a Fulbright scholar in Asia for one semester.

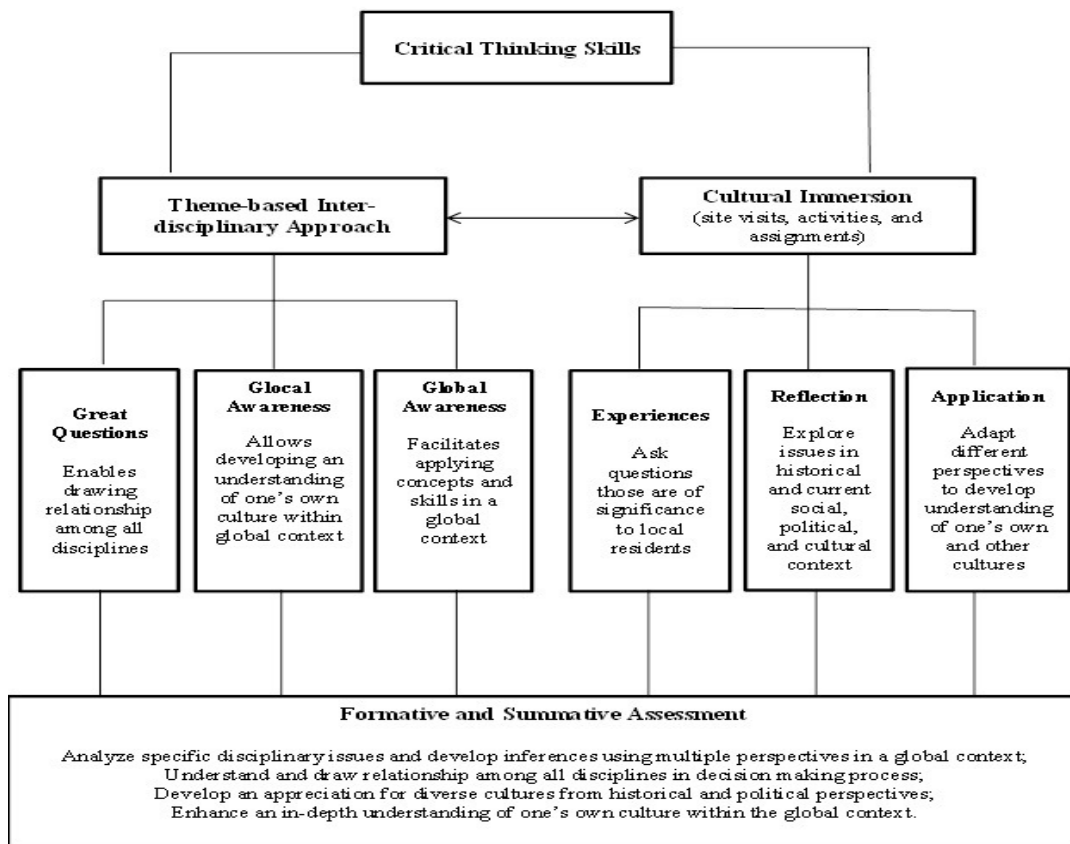
### **Program Design**

The university has specified general education goals for all baccalaureate programs. One of them focuses on developing students’ critical thinking skills. To achieve this educational goal, along with meeting the requirements specific to each course, the program intentionally focused on two interrelated approaches: i) theme-based interdisciplinary curriculum, and ii) cultural immersion.

A conceptual framework of the theme-based interdisciplinary curriculum supported by a cultural immersion to promote critical thinking in this study abroad program is presented in Figure 1.

Theme based interdisciplinary curriculum: The program was designed as a six-credit undergraduate course integrating three existing general education courses (Global Perspectives, Transcultural Health, and Humans and Environment) available to majors from different disciplines. The Global Perspectives

course laid the foundation for the program by addressing issues in international relations, education, social, and economic systems, globalization, and global citizenship. Global viewpoints were integral to the other two courses as well to help students apply knowledge and skills developed to the content areas addressed in Global Perspectives. These were discussed in the context of culture, politics, health and environment, medical system, and social and economic development in China.



**Figure 1.** Framework to promote critical thinking through an interdisciplinary approach in a study abroad program

Three basic principles were used to choose study themes. These were: i) the ability to pose great questions (answers for which requires drawing knowledge and skills from each discipline); ii) acquiring global awareness (applying concepts and skills in a global context), and iii) developing glocal awareness (understanding one's own culture in depth within the global context). Based on these three principles, the three faculty after much thought and deliberation selected four themes – i) the impact of construction of a new dam; ii) the school system; iii) the role of a wastewater treatment plant; and iv) the integration of a traditional system of medicine with western medicine. These themes were deemed appropriate to meet content requirements of each course and its expected outcomes. They also were to help lay the foundation to develop connections among the disciplines and obtain a deeper understanding of the issues.

The cultural immersion: The Theme-based Interdisciplinary approach was supported by and operationalized through cultural immersion that included practical experiences, opportunities for reflection, and appropriate applications (see Table 1). The cultural immersion experiences, viz., site visits, activities, and assignments, were carefully chosen to enable students to raise and answer

questions that are of significance to local residents, facilitate students to explore issues in historical and current social, political, and cultural context, and apply different perspectives, in understanding of the issues in the context of multiple cultures, including their own.

These site visits provided an experiential learning related to the four themes cited earlier. They added authenticity of the learning process and allowed students to draw connections among the three disciplines. Additionally, visits to cultural and historical sites were included to stimulate students' critical thinking.

**Assessment:** Assessment focused on student growth in cognitive and affective domains such as use of the following skills: analyze specific disciplinary issues and develop inferences using multiple perspectives in global and local contexts; understand and draw relationship among all three disciplines in decision making process; develop an appreciation for diverse cultures; and adapt to different cultures and develop an in-depth understanding of one's own culture.

The formative evaluation guided making changes to content and instructional delivery based on student needs. Such formative evaluation was through frequent conversation and contact between the faculty and students, through face-to-face meetings, e-mail, and online discussions, and journal article critiques.

The summative evaluation revealed what the participating students learned the content as studied through interdisciplinary perspectives in a global context, developed cultural awareness and cultural sensitivity, and enhanced their critical thinking skills. Summative evaluation was based on a written report of students' experiences, reflections, and application of lessons learned, submitted individually. Both oral and written reports and the daily journals were to reflect on the course and the learning process, as well as demonstrate their use of critical thinking skills. A final presentation to the class using appropriate technology was also required.

### **Operationalizing the Curriculum**

**Pre-trip:** The pre-trip study included disciplinary content, cultural learning, and reflections operationalized through seminars, assigned readings, films, and video clips. Chinese philosophy, brief history, fine arts, beliefs and customs, economic and political systems, educational system, environmental issues, health care system including Traditional Chinese Medicine (TCM) were introduced. Frequent correspondence and conversations between students and faculty, and formal and informal meetings and interactions were encouraged and expected. Student learning was guided through a variety of questions that integrated the three disciplines and related to the cultural immersion planned for them.

**During Trip:** The visit itself focused on cultural immersion, problem-solving, critical thinking skills, and application of disciplinary knowledge to issues in an authentic way. Students were expected to interact with local experts, lay persons and participate in on-site discussion with their peers and faculty about their observations and offer perspectives about the issues identified. Students were also required to keep a daily journal to record and reflect on their experience and to read the local daily English newspaper (available readily at their housing sites) to learn about issues from Chinese perspective. Faculty purposefully used every "teachable moment" during the trip.

**Post-Trip:** Students presented a written final report of his or her experiences, reflections, lessons learned and plans to share their experience with their family, friends and peers. Students made an oral presentation using technology while reflecting on the course, the learning process, and the integration of their cognitive, analytical, and critical thinking skills.

### **Result and Discussion**

This section illustrates how the program operated in relation to one of the four selected themes, integrative medicine. Figure -2 operationalizes the conceptual framework presented in Figure 1 and further explains how students' critical thinking skills were further developed in understanding of TCM through the study of disciplinary content within the cultural milieu. This process can be readily applied to other themes as well within an interdisciplinary course

**Theme: Integrated Medicine**

**Theme-based Inter-disciplinary Approach**

**Great questions:** How do you relate the philosophy of TCM to cultural beliefs and values about health and illness? How is the practice of TCM affected by urbanization and globalization as they relate to the physical and cultural environment? How would you construct a future scenario with various systems of medicine to effectively combat global health issues?

**Glocal awareness:** What do you perceive the value of alternative medicine for your own health? What do you foresee as the debate in adopting integrative medicine widely in the United States?

**Global awareness:** What other types of traditional health or medical care systems exist in the world today and what are the similarities and differences among them? How does the introduction and acceptance of western medicine influence the lives of Chinese people? What is the relationship between herbal medicine and living environment and how does this relationship reflect the TCM philosophy?

**Cultural Immersion (site visits, activities, and assignments)**

**Experiences:** Observe and interact with local residents about how they apply the philosophy of integrated medicine to their daily lives.

**Reflections:**

Site visits and activities: The TCMH and pharmacy, experiencing acupuncture, cupping, and medical massage, discussion seminar with experts (TCM practitioner), patient interview  
Assignments: Critique articles; reflect on history of TCM and development of integrated medicine in China; document your experience regarding local residents' reactions to the practice of TCM; comment on the role of "barefoot doctors" as providers of health care in China; develop a course report.

**Applications:** Reading assignments, discussions, and reflection on the following topics. Identify how the "barefoot doctors" concept as providers of health care could be suitably modified and adopted for training and placement of community health workers to deliver care

**Assessment**

**Formative assessment:** Journal article critique, daily travel journal, personal reflection/position paper, discussion group  
**Summative assessment:** Final report

**Figure 2.** Example of Theme Development in the Curriculum Design Process

Students were informed of an upcoming visit to a Traditional Chinese Medicine Hospital (TCMH) in Beijing, during the program. They were expected to develop an understanding of the Chinese perspective of TCM and seek and draw parallels among western medicine and TCM. This included the historic role of ‘barefoot doctors,’ exploring reasons for each system’s popularity in the historical, political and cultural contexts of China and the US, and identifying the genesis of integrative medicine and its popularity globally. They were directed to particularly focus on similarities, differences, availability, acceptability, affordability, and effectiveness of TCM and western medicine.

During the visit, students were provided details about the hospital to provide them in-depth knowledge about its history, structure and functions to facilitate their understanding of the medical system in China. They were briefed on the diagnostic process and viewed certain treatment modalities such as acupuncture, medical massage, and herbal medicine. Students also observed and interviewed a patient receiving acupuncture for stroke. A student, who had pulled a muscle in the neck, voluntarily underwent a cupping procedure to relieve muscle stiffness. Several others volunteered to experience acupuncture and medical massage for problems with their back, neck or shoulder. Students were introduced by the clinicians to the concept of holistic medicine and the importance of attending to the needs of the person (i.e., mind, body, and spirit) versus the focus on treating the medical condition in western medicine. The visit to the herbal pharmacy at the hospital kindled a wide-ranging discussion on cultivation of herbs, climatic and other environmental conditions for their growth, and cultural traditions associated with their use. Sources of modern pharmaceutical agents, impact on ecology particularly in rain forests, stewardship of the planet, and corporate responsibility were some of the other issues addressed. Students also expressed surprise that the pharmacy prepares each dose for every patient by carefully measuring and mixing the appropriate herbs. This generated discussion about the way TCM is practiced where the focus is on customizing treatment for every patient versus western medicine where standard protocols are the norm.

The pharmacy personnel detailed the planned cultivation of herbs rather than relying on them growing in the wild, as used to be the tradition in the past. The conflict between use of land for growing of medicinal herbs versus its use for new construction to support rapid industrialization and urbanization was identified by the students.

Several questions arose spontaneously and were discussed. For example, students were asked to relate the philosophy of TCM to cultural beliefs and values about health and illness. They were instructed to use their own observations and understanding of Chinese culture to analyze how the Chinese people we are incorporating TCM in their day-to-day practices to promote health and prevent illness. Additionally, students were asked to construct a future scenario with various systems of medicine to effectively combat global health issues.

### **Student Personal and Professional Growth**

Students’ reflections in their daily journal and final report provided valuable information about their growth in developing global and local awareness, critical thinking skills in analyzing issues, and decision making ability in the context of historical development and present social and cultural milieu and using multiple perspectives. This is in line with what Montrose (2002) states as the key to understanding experiential learning. According to her, what transforms the study abroad program into a valuable academic experience is the critical analysis of the activities and not merely the activities themselves. Examples of students’ reflections that support the application of their critical thinking skills are provided next.

When a great question “What does the Great Wall mean to ordinary Chinese in their daily life?” was posed to students, their answers demonstrated their understanding of connectedness of global issues, depth of analysis, and their desire to learn more beyond the question itself. A sample response is given here.

“I was trying to answer the question by linking to concepts of human rights, environmental protection, national security, global citizenship, and the sad and touching Chinese story, Meng Jiang Nu Crying the Great Wall. This wall has been in my mind



forever. Suddenly, I realized there are other walls that are significant as well such as the Berlin Wall, the newly built wall at the border between the US and Mexico, and the wall surrounding Vatican. What does the wall at the US border mean to Americans and Mexicans? ... I could not get the question out of my mind, what the wall means to an ordinary person in China. I know this is how I am going to think when learning about other things..."

Examples of glocal awareness gained by three different students are reflected in their statements after visits to a middle school and a wastewater treatment plant.

"Today, while visiting a middle school, I learned something about Confucianism and science development.... Pictures of the world famous scientists (all white and male except for Marie Curie) were hanging on the walls, in each hallway, in the school. No picture of Chinese scientists was included. I learned that the Chinese culture, shaped by Confucius' ideology, continued to place greater emphasis on the ability to manage people (and thus having power) rather than the study of science and engineering. I did not know of any of those famous scientists myself, but had opportunity to learn about them today while visiting the middle school. I am going to adopt this to my future classroom. However, I will be sure to include females, scientists from different nations and cultures, and human rights leaders."

"The visit to waste water treatment plant provided me the opportunity to realize how lucky I am in the US as most places I visit I can drink the water from any faucet without worrying whether it is clean or contaminated. I never thought of how much public and environmental health works in the background to protect the community's health. However, I still have concerns every now and then when I hear or read about the dumping of toxic or sewer waste into the neighboring rivers and streams. "

"Another thing that I will never forget is our participation in the Kongming lantern ceremony to honor the Chinese affected by the earthquake. We were welcomed by hundreds of Chinese who had gathered near the Yangtze river for this ceremony. At that time, I did not feel like a visitor or a foreigner, but as another human being in this community. We lifted the lanterns along with the Chinese and sent it up with our prayers for those who were not with us. It dawned on me that when such unexpected natural disasters occur in the US, people who are unrelated come together and help one another just as what I was experiencing then."

Global awareness was illustrated in a student's reflection after the visit to the Three Gorges Dam and the need for utilizing multiple perspectives.

"We had a great time visiting the Three Gorges Dam. This has interested me in finding other related man-made constructions to benefit humans such as canals and reservoirs. In the history of civilization, humans have to decide between the benefit to the people and changes to the natural environment. Certainly, the Three Gorges Dam has created a lot of controversy similar to the construction of dams in other nations such as the Aswan Dam in Egypt and other dams in places like India, Brazil and Turkey. Loss of cultural and historical sites, mobilization of millions of people for construction, changes to marine life, generation of more electricity to satisfy the needs of residents, and reduction of flooding along the Yangtze River are some of the issues to consider. No wonder, a Chinese said it was a dream of hundreds of years to build the dam. Now I know that

there is a need to think from perspectives of history, culture, environment, needs of humans, politics, and maybe others that I am not aware of to truly understand an issue.”

Appreciation for diverse cultural practices was affirmed by the following reflections from two participants in the study abroad program.

“Undergoing cupping was a new experience for me. I was very hesitant at first, but my desire to experience something new and learn overcame my fear. I felt better soon after the procedure. I had less muscle stiffness, even though I had a patch of skin that looked like a pepperoni! I now understand why TCM, based on its centuries old philosophy and practice, is so popular among the Chinese.”

“... Since our arrival, we have followed the Chinese tradition by ordering group dishes and sharing them together at each dinner. I recounted this experience with Chinese college students in my group while we were visiting the Summer Palace. They told me that sharing helps one taste a variety of foods and get multiple nutrients in one meal. It also relates to the value placed on collectivism in the Chinese culture. I appreciate the notion behind the idea, but on reflection I note that it does deviate from my upbringing with a focus on individualism...”

The desire for lifelong learning was captured succinctly in the following reflection offered by a student.

“The China program has motivated me to study about China and other countries. I know my answer to questions and personal reflections are somewhat novice in many ways, and I need to continue to study more about China, the US, and the world to better respond to these questions.”

As is evident, the student reflections in their daily journals and final report support enhancement of their critical thinking skills developed through cultural immersions during this program. Since student learning was highly individualized in this study abroad program, the formative and summative evaluation focused on qualitative aspects of student educational needs and learning outcomes. Thus, qualitative data obtained throughout the students’ learning experience and their reflections at the end of the program provided an appropriate and authentic picture of their learning.

### **Conclusion**

This thematic interdisciplinary approach for a short term study abroad program was effective in developing analytic and critical thinking skills among students. The basic principles of the program such as asking great questions, selecting sites for visits that allowed the learners to draw content knowledge from different disciplines, and choosing themes that permitted analysis of issues in both global and glocal contexts proved to be beneficial. Cultural immersion and focus on higher order thinking questions helped develop student understanding and appreciation of their own and other cultures. Both formative and summative evaluations were applied to understand students’ learning process and outcomes. This approach effectively stimulated students’ critical thinking skills and the desire and ability to apply them to real life issues besides kindling in them the desire for lifelong learning. Thus, with well-coordinated efforts from students, faculty, and the counterparts in China, this study abroad program became a true learning experience for all.

## References

- Anderson, P. H., Lawton, L., Rexeisen, R. J., & Hubbard, A. C. (2006). Short-term study abroad and intercultural sensitivity: A pilot study. *International Journal of Intercultural Relations*, 30(4), 457-469.
- Casserly, M. (December 10, 2012). The 10 skills that will get you hired in 2013. *Forbes*. Retrieved from <http://www.forbes.com/sites/meghancasserly/2012/12/10/the-10-skills-that-will-get-you-a-job-in-2013/>
- Commission on the Abraham Lincoln Study Abroad Fellowship Program. (2005). *Global competence and national needs*. Washington, DC: Author.
- Friedman, L. T. (2006). *The world is flat*. New York, NY: Farrar, Straus and Giroux.
- Gardner, H. (2008). The five minds for the future. *Schools: Studies in Education* 5(12), 17-24.
- Glaser, E. M. (1941). *An experiment in the development of critical thinking*. New York, NY: Columbia University Teacher's College.
- Hovland, K. (2010). *Global learning: Aligning student learning outcomes with study abroad*. Washington, DC: National Association of Foreign Student Advisors.
- Institute for International Education. (2013). *Fast facts Open Doors 2013*. Retrieved, from <http://www.iie.org/en/Research-and-Publications/Open-Doors>
- Ivanitskaya, L., Clark, D., Montgomery, G., & Primeau, R. (2002). Interdisciplinary learning: process and outcomes. *Innovative Higher Education*, 27(2), 95-111.
- Jones, C. (2009). Interdisciplinary approach: Advantages, disadvantages, and the future benefits of interdisciplinary studies. *ESSAI*, 7, 76-81.
- Klein, J. T., & Newell, W. H. (1997). Advancing interdisciplinary studies. In J. Gaff & J. Ratcliff (Eds.), *Handbook of the undergraduate curriculum: A comprehensive guide to purposes, structures, practices, and change* (pp. 393-415). San Francisco, CA: Jossey-Bass.
- Kolb, D. A. (1984). *Experiential learning: Experience as a source of learning and development*. Upper Saddle River, NJ: Prentice-Hall.
- Lloyd, M., & Bahr, N. (2010). Thinking critically about critical thinking in higher education. *International Journal for the Scholarship of Teaching and Learning*, 4(2), Article 9. Retrieved from <http://digitalcommons.georgiasouthern.edu/ij-sotl/vol4/iss2/9>
- Luigi, D., & Simona, V. (2010). The glocal strategy of global brands. *Studies in Business and Economics*, 5(3), 147-155.
- Lutterman-Aguilar, A., & Gingerich, O. (2002) Experiential pedagogy for study abroad: Educating for global citizenship. *Frontiers*, 8, 41-82.
- McKeown, J. S. (2009). *The first time effect: the impact of study abroad on college student intellectual development*. Albany, NY: State University of New York Press.
- McLaughlin, J. S., & Johnson, D. K. (2006). Assessing the field course experiential learning model: Transforming collegiate short-term study abroad experiences into rich learning environments, *Frontiers*, 8, 65-85.
- Mills, L. H., Vrba, T., & Deviney, D. (2012). Enriching the short-term study abroad program: A case study. Retrieved from <http://asbbs.org/files/ASBBS2012V1/PDF/M/MillsL.pdf>
- Montrose, L. (2002). International study and experiential learning: The academic context. *Frontiers*, 8, 1-15.
- Musil, C. M. (2006). *Assessing global learning: Matching good intentions with good practice*. Washington, DC: Association of American Colleges and Universities.
- Passarelli M. A., & Kolb, D. A. (2012). Using experiential learning theory to promote student learning and development in programs of education abroad. In M.V. Berg, M. Page, & K. Lou (Eds.), *Student learning abroad*. Sterling, VA: Stylus Publishing.
- Paul, R., & Elder, L. (1999). *The miniature guide to critical thinking: Concepts and tools*. Dillon Beach, CA: Foundation for Critical Thinking Press.
- Petress, K. (2004). Critical thinking: An extended definition. *Education*, 124(3): 461-466.

- Repko, A. F. (2008). *Interdisciplinary research: Process and theory*. Thousand Oaks, CA: Sage.
- Rowntree, D. (1982). *A dictionary of education*. Totowa, NJ: Barnes & Noble Books.
- Salisbury, M. (2012b, November 16). It's time to rethink study abroad. Retrieved from <http://chronicle.com/blogs/worldwise/its-time-to-rethink-study-abroad/31064>
- Smith, J. M., & Kruse, J. (2009). Making connections at the University of North Carolina: Moving toward a global curriculum at a flagship research university. *The Journal of General Education*, 58(2),107-120.
- Steinberg, M. (2007). The place of outcomes assessment in higher education today. In M. C. Bolen (Ed.), *A guide to outcomes assessment in education abroad* (pp. 7-22). Carlisle, PA: The Forum on Education Abroad.
- Stiglitz, J. E. (2002). *Globalization and its discontents*. New York, NY: W. W. Norton and Company.
- Zamastil-Vondrova, K. (2005). Good faith or hard data? Justifying short-term programs. *International Educator*, 14(1), 44-49.

---

**About the Authors:**

WEIWEI CAI, EdD, Professor of Education, teaches at the College of Education, West Chester University of Pennsylvania, USA. She has developed numerous international programs both for faculty and students since 2001. Her research areas include global education, multiculturalism, cognitive development and ways of thinking. E-mail: [wcai@wcupa.edu](mailto:wcai@wcupa.edu)

GOPAL SANKARAN, MD, DrPH, MNAMS, CHES, is professor of public health and former assistant vice president for international programs at West Chester University of Pennsylvania. His professional interests include three interrelated disciplines - medicine, public health, and health promotion. His research areas include epidemiology of infectious and non-communicable diseases, transcultural health and issues in higher education. E-mail: [gsankaran@wcupa.edu](mailto:gsankaran@wcupa.edu)