Intercultural Competency: Steps for Introducing Active Learning Case Studies Internationally in Confucian Heritage Culture †

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Educational interculturalism continues to expand for our increasingly diverse classrooms, both at home and globally. When visiting faculty share active-learning, case study–based learning activities internationally with host faculty in Asian settings, instruction must take into consideration culturally-appropriate pedagogy in the context of Confucian Heritage Culture (CHC). The challenge for visiting faculty lies in not being completely versed in host culture yet remaining open to discovering how educational practices might be adapted within a CHC context. Additional care must be taken by visiting faculty at this first level of host faculty training to engage in active learning interculturally. This Perspectives article attempts to highlight intercultural competency steps, strategies, and examples provided as supplementary material, that are useful for the creation and implementation of an active-learning case study for CHC faculty development: 1) cultural preparation, 2) immersed engagement in the host country and reflection on self-cultural competency, 3) development of a culturally relevant case study addressing a host country need, 4) a contextual problem to incite interest, 5) learning outcomes, 6) making the case a real, personalized, narrative and 7) relevant faculty development questions to find the best fit in their culture. During implementation of the case study, 8) the visiting instructor models active learning, acting as a guide to international host faculty, who experientially learn about active learning while engaging in solving the case study themselves. Additional strategies include the presenter leaving the room to provide space for collaborative learning to occur where CHC cultural barriers prevent full engagement. Finally, in step 9) resources are provided.

INTRODUCTION

Slurping noodles is polite, or not. Finishing all the rice in a bowl is important in one country, while in another, leaving food on the plate signifies something different. Challenging a professor's thoughts can be uncomfortable, or even wrong according to some non-Western norms associated with Confucian Heritage Culture (CHC) dominant in China and other regional countries impacted by CHC (1–3). These norms all have deep rooted meanings. If Western faculty do not realize the foundations of these cultural norms, then educational practices are not fully accounting for cultural diversity at home and abroad. Even the terms *West* and *East* have evolved from a Euro-centric worldview, demonstrating our need for intercultural competency (4), which is the ability to develop behavior and communication for effective engagement with other cultures—an ability that is part of lifelong learning by individuals and part of educational development for developing critical thinkers in science.

As educational interculturalism continues to expand, and evidence of the benefits to science education of case-based active-learning mounts, educators must decide which key curricular elements are beneficial to use in globalized education and must be aware how these strategies impact culture (5). This is true in our increasingly diverse classrooms at home, where international students adapt to Western pedagogies. Similarly, it is crucial with the importation of educational theory and practices from a Western viewpoint when visiting faculty invited to teach in Asia, or to share teaching strategies internationally with faculty in different cultural settings, may not fully comprehend CHC nuances. With educational reforms, such as Republic of Korea's revised *National Curriculum of Korea* emphasis on science teachers, Japan's *Global 30* project for internationalization at the university level, and China's *quality education* program (6–8), all often importing and adopting Western pedagogies, extra attention to cultural context is vital.

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교육적 문화상호주의 개념은 세계적으로 점점 다양해지는 교육환경으로 인해 계속 확대되고 있다. 교수진이 아시아 지역을 방문해 능동학습 (active-learning) 혹은 사례 연구에 기반한 활동들을 공유할 때, 유교문화권 (CHC)이라는 맥락에서 문화적으로 적절한 교수법을 선택해야 한다. 방문 교수진의 과제는 방문 국가의 문화를 완벽히 숙달하는 점에 있는 것이 아니라 어떻게 교육적 관행이 유교문화권에 적용될 수 있을지를 발견하는 것이다. 연수의 첫번째 단계에서 방문 교수진은 호스트 교수들이 상호 문화간의 능동학습에 참여할 수 있도록 추가적 조치를 취해야 한다. 이러한 관점은 몇가지 다문화 역량의 단계를 강조하고자 하는 것이며, Appendix 1 에서 예시들을 볼 수 있다. 이 단계들은 유교문화권 교수진을 위한 능동학습 사례연구의 개발과 실행을 하는데 유용하다: 1) 문화적 준비 (cultural preparation), 2) 방문 국가에의 몰입과 자기 문화 역량의 반영, 3) 방문 국가의 필요를 반영하는 문화적으로 관련있는 사례 연구의 개발. 방문 교수진은 능동학습 과정을 본보기로 보이고, 사례연구를 함께 해결하는 활동에 참여함으로써 직접 능동학습을 경험하며 배우는 국제적 호스트 교수진들의 가이드 역할을 한다. 사례연구는 4) 흥미를 유발하는 문맥적 문제, 5) 학습 결과, 6) 사례를 실제적이고 개인적인 서술로 만들며 7) 해당 문화에 가장 적합한 교수법을 찾기 위해 교수진 개발 관련 문제를 포함한다. 8) 추가 전략은 CHC 문화 장벽이 완전한 참여를 방해하는 곳에서 협동 학습을 위한 공간을 제공하기 위해 발표자가 잠시 떠나있는 것을 포함한다. 마지막으로, 9) 자료가 제공된다.

CHALLENGES IN CULTURALLY APPROPRIATE PEDAGOGY

While it may not be feasible for a visiting faculty member to be completely versed in host culture, it is important to remain open to learning through intercultural interactions to discover how Western educational practices might be adapted for international use within a cultural context. This begins with essential processes of cultural exploration and intercultural competency to integrate both educational curricular strategies and global cultural sensitivity to meet the needs of multicultural education (5). This is particularly true with constructivist problem-solving through social interaction, also known as student-centered learning, and with active learning, both of which may create mismatches if group learning is done solely through a Western-based approach (2, 3).

When introducing active-learning, case study–based activities in many Asian international settings, instruction requires attention to culturally appropriate pedagogy in the context of CHC. A challenge arises when active-learning case studies may be so unfamiliar, not only to students in a classroom but also to the faculty in faculty development training who are learning to use these strategies, that additional care must be taken at this first level. Even while collectivist cultures predominant in CHC benefit from group learning, practices must account for cultural nuances within CHC's unequal relationship hierarchy, such as not contradicting a teacher in the student-teacher dyad, a prevalent custom rooted in the honorific language and behavior of the host culture (1–3). Here, the teacher is not only expected to have and convey all knowledge needed for proficiency, as opposed to active group learning through which students may develop alternative responses and challenge ideas, but also has an obligation as a *moral guru* in teacher-focused guidance (2, 3). In order to address this challenge, it is valuable to introduce case studies to faculty and develop them as culturally appropriate pedagogy together in cross-cultural settings rather than simply importing and applying them. Rightfully, some pushback occurs if strategies are imported without consideration for the host country's culture and mismatches occur (2).

From globalization to multiculturalism, it is recognized that classroom interculturalism requires greater awareness of the cultural contexts, on behalf of international visiting students and faculty, that may clash with domestic students' cultures (9); however, less direct work specifically addresses this through faculty development. A developed instrument to measure culturally responsive pedagogy helps by providing questions for faculty to consider for diverse students in home classrooms as well as for intercultural education (10). While the focus here is on CHC, we see common pitfalls globally in attempts to reform educational systems with social constructivism and student-centered learning when teacher-centered modes are the norm and the roles that cultural, economic, and political forces play have not been considered (11). Others have examined the complexities of adopting learner-centered pedagogies (12). A review of attempts, barriers, and failures to introduce learner-centered educational paradigm shifts demonstrates specific challenges—on a global level—with

questions remaining for how educators can better share strategies (13). In educational reform, teaching the teacher who holds knowledge and experience has several caveats, so an experiential sharing of ideas interculturally with host faculty as active agents is recommended (14). To do so effectively, one answer lies in intercultural competency.

Based on Vygotsky's sociocultural framework, social engagement is shaped by historical and cultural knowledge from previous generations (15, 16). This framework assumes that social and cultural practices include behaviors that have strong influences in how learning takes place in the classroom. Thus, new pedagogies need to be introduced and developed with host faculty interculturally.

Cultural competency plays a role in presenting new information and engaging learners while acknowledging underlying biases or cultural conflict (17). Those raised in CHC traditionally value teacher authority and avoid conflict that may arise through case-study problem solving and open Socratic public probing. Silence itself can be a form of respect (1–3). Yet, it is vital that one does not fall into the stereotypical trap linking ethnicity and culture so tightly as to form a *cultural learning style*. Instead, look to individual learning within a cultural community via a cultural-historical approach (18)—one that can be explored through introducing a culturally sensitive case-based learning approach adapting to a non-Western use sensitive to CHC.

Through several cross-cultural experiences in Asian international settings following practices of obedience and respect for elders and hierarchical structures outlined by Confucius within a CHC context (China, Korea, Japan, Vietnam, and others), these practiced and confirmed strategies provide useful steps in addressing the challenge of preparing and introducing active-learning, case study–based activities in cross-cultural CHC faculty development experiences. This Perspectives article attempts to highlight some intercultural competency steps, summarized with examples, including how language can be a useful icebreaker within a cultural context (Appendix 1). These are useful for faculty acting as visitors alongside CHC host faculty and for adapted use with students. Through this intercultural case study process, host faculty gain ways to subsequently introduce active learning into their classroom teaching in a more culturally appropriate manner that better fits their own culture.

INTERCULTURAL COMPETENCY PREPARATION

To lead faculty development workshops about active-learning strategies in Asian countries using a case study–based approach is a viable first step—especially for scientific educators. A good case study needs context. Intercultural competency steps for the visiting faculty are outlined for the creation and implementation of a case study for international faculty development: 1) visiting faculty cultural preparation through reading, language studies, and a private tutor prior to arrival in the host country is beneficial, as even a small introduction prepares the mind for thinking outside one's own culture and associated worldview; 2) some immersed engagement in the host country and reflection on self-cultural competency provides appropriate context that will be helpful when introducing a new teaching and learning strategy; 3) development of a culturally relevant case study should address a host country need, such as the desire to engage students in problem solving and build critical thinking.

Spending time immersed in the country engaging with local people is barely enough to begin to appreciate the richness and complexity of a culture sufficiently to apply a culturally relevant context—but it is a valuable start, even if for a short week before meeting with faculty. It is important to eliminate Western-culture examples and assumptions (4). An opening joke can go well, or not, so caution is advised and knowing in advance how it may be received is recommended. What may be a common joke in one part of the country may not work in another part—even food and language differ regionally. Engaging in conversational practice with locals can reveal nuances of esteemed values, which help make connections to faculty and students alike, but it is a good idea to confirm with the host. Following steps 1 to 3, some well-learned and tested examples are provided as icebreakers (Appendix 1). Each is intended to show respect for trying to learn from the host country, to put faculty at ease as they learn about a new teaching practice, and to show vulnerability in the visitor learning their language as the hosts will likely interface in English or via a translator. These efforts are all important signs of respect in CHC. Using a cultural-historical approach (15, 16) and portraying oneself as the visiting individual within the host cultural, linguistic, or historical context is invaluable and often rewarded by appreciation (and surprise) for the presenter's efforts to know a slice of culture—language.

CULTURALLY RELEVANT CASE STUDY DEVELOPMENT

During the case study implementation, the visiting instructor can model active learning by acting as a *guide on the side* to international host faculty who experientially learn about active learning while engaging in solving the case study themselves. The case study (steps 4 through 7, expanded in Appendix 1) includes 4) a contextual problem to incite interest, 5) learning outcomes, 6) making the case a real, personalized narrative, and 7) relevant faculty development questions using a format new to them to find the best fit within their culture.

A case study presents a real problem to solve. For example, in discussions with the hosts before the presentation is developed, the faculty may voice challenges that the active-learning activity can address. An example from China includes how to teach students who are *like sheep needing to be fed* (less motivated) as well as those who are *like hungry wolves* in the same classroom. This becomes part of the background for setting up the challenge in the case to be solved, e.g., how to motivate students with varying levels of preparation and engagement. This challenge, echoed in Korea and Japan, builds on the desire to have students

solve problems and be more creative, part of the impetus for importing these techniques.

IMPLEMENTATION AND SUPPORT STRATEGIES

For step 8, additional attention to modeling strategies for active learning within the context of CHC include the presenter leaving the room to provide space for collaborative learning to occur where CHC cultural barriers often prevent full engagement. Host faculty experientially discover the theory and practice of case-based learning and discuss how strategies fit within their own culture. Humility on the part of the visitor to learn from host faculty and not just share as a visitor is imperative for bringing intercultural concepts back to diverse home classrooms.

Learning outcomes are a starting point: key information, concepts where terminology may not be as important, depth of thought, abilities, or in one case simply having faculty naïve to this type of learning exposed experientially (Appendix 1). These considerations frame the narrative and the body of questions using a real, personal, storytelling account as a driver for bridging cross-cultural gaps.

Instead of lecturing to faculty on how to use case studies, host faculty themselves engage in a case study experientially. Through modeling a case-study approach using the cooperative group approach (19), the presenter, as a *guide on the side*, leads the host faculty to answer and solve some of their own challenges and envision how this type of activity might work in their cultural setting. This not only demonstrates what a case study is in concept, but also allows the host faculty to discover ways to use it through the presenter modeling. Alternatively, the visitor can demonstrate active learning as a guest lecturer. This approach, however, is more challenging, as students are unaccustomed to the instructor and the method, and there is a language barrier.

A case study allows some space to explore new ideas, but also to provide support. In a Western model, while acting as a *guide on the side*, the presenter moves around to groups to observe and motivate learning. However, with the presenter sitting at the table with the learners, or walking around the room as an observer, the CHC barrier increases. Faculty and students showing honor and utmost politeness to the presenter may not question authority and may hesitate to engage in their native tongue to each other; some may remain silent out of respect. While, in a native English-speaking situation, it may be preferred to enforce that all discourse remain in English, novice speakers may experience increased switching between languages, increasing cognitive load (20, 21). Thus, in a situation requiring a translator, additional time is needed and the presenter should account for this in planning.

Even with this additional support, CHC barriers to full engagement may remain. As the presenter gets to know which faculty may be more engaged, or which are leaders in the hierarchical structure, a shepherd-leadership tech-

nique develops these faculty as leaders within the small groups, while the presenter engages more deeply with these leaders behind the scenes (1, 22). Since this model of assumed shared leadership may not be as effective in CHC with a hierarchical structure, it proves helpful to use the shepherd-leadership technique by specifically providing the questions and direction to a few more fluent faculty leaders and simply leave the room, letting them break the silence and avoiding putting anyone in the hierarchy on the spot. In the presenter's absence, they can relax and dig into the questions. This tried and documented practice by a third-party observer allows peer leaders and translators to play a larger role in group work participation; however, innate hierarchies in the room may still persist if faculty are not all on the same level. This dynamic may also be complicated by the younger generations having a stronger command of English than the older ones in the hierarchy. Upon returning, the presenter can facilitate a deeper peer-led discussion showing how this approach, especially in a CHC situation, may be helpful. This helps host faculty determine how this strategy may work in their classrooms. Further explanation and discussion with faculty about how often to leave the room, and for how long, as a way to allow students more freedom to build critical thinking without hierarchy, helps faculty envision how they might structure their activities in their own classrooms to include more active learning within CHC and achieve more individual critical thinking—even if it still may be within a collective.

While this technique may still have barriers with less motivated students or in large classrooms, it has been demonstrated in faculty development situations and, in an adapted form elsewhere, that setting expectations with support, walking away to provide space, and having a follow-up discussion using the case study is a useful tool in helping the "sheep" and the "wolves" learn together. Implementation in large classes can be facilitated by meeting with small groups individually. Likewise, when international non-native-English speaking students in the United States or other Western classrooms are thrust into active-learning collaborative groups and expected to engage, the barriers can be overwhelming at first, so smaller peer groups, additional support, and longer time can be beneficial (21), supported by studies of student involvement theory (23). Even with growing competition between students in some CHC settings, other predominant measures to save face or keeping silent to maintain group harmony must be acknowledged. The gender of the presenter also influences the interaction with others in CHC, in addition to the group hierarchy and participation (4).

Finally, in step 9, the visiting faculty shares resources in Appendix 1 to sample science cases for host faculty adoption. Herreid's work (24) summarized as an online resource (www.actionbioscience.org/education/herreid.html) helps faculty in developing their own cases. The practice faculty development exercise template and the real science case study examples are provided as something tangible to try

(25). Science Case Network (http://sciencecasenet.org/) and other NSF-funded repositories provide password-protected examples for educators. These steps, with examples provided in Appendix 1, are useful for further use in CHC-influenced learning situations.

CONCLUSION AND CONTINUED STEPS

According to philosopher Kierkegaard, there can be multiple subjective truths; truth is defined by the individual through a subjective process (26). Thus, although learning is guided by an instructor, it is heavily impacted by individual perceptions. The dimensions of culture must be accounted for when importing educational learning activities. Considering the ambiguity of culture leads to diverse interpretations and meanings in the development of case studies within CHC. Through an intercultural case study approach, we can explore these meanings and keep cultural context relevant for diverse learners to avoid terms and examples that introduce bias and barriers. The instructor can better know each student, or faculty member, as in this example, and train individuals for peer leadership (1).

Understanding and tolerance are the first step, but intercultural competency is next. This understanding globally also translates to thoughtful actions toward Asian international students in other (Western) classrooms. Globally, as more countries experience increasingly diverse classrooms, it is valuable to be cognizant of how international students from CHC may be impacted (2). Understanding diversity in a globalized culture may seem daunting, but many resources and lifelong learning provide approaches to the next steps in the challenge (4).

Through this author's successes in bridging cultures and continued growth as part of lifelong development, this Perspectives article highlights some useful steps. Simply being more culturally competent does not solve the problem. If it helps narrow intercultural gaps globally and educational gaps in our science classrooms through broader perspectives, then it is a step in the right direction, but we must also put it into practice.

While it may be easy to generalize these CHC attributes as a cultural learning style within a collectivist culture, some leaders learn to slurp soup to show appreciation or leave the room to allow space and bridge cultures. It is important to remember that each student is an individual learner, so while some learners just begin to question and challenge an idea, attention to the individual learner is as significant as the respect given to a single grain of rice within the culture that shapes them.

SUPPLEMENTAL MATERIALS

Appendix 1: Sample strategic steps involved in introducing the use of case study pedagogy in CHC international settings

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