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Describing Students' Intercultural Competence after Completing a Cultural Diversity Course Online or Face-to-Face

ABSTRACT

This study describes students' development of components of intercultural competence after completing a cultural diversity course and compares degrees of intercultural competence between a face-to-face course and an equivalent online section of the same course. Analysis of final written reflections from students demonstrate that students gained a deeper awareness of their lack of knowledge related to culture. The analysis also reveals that students in the online version of the course demonstrated higher degrees of intercultural openness and cultural self-awareness than did those in the face-to-face context. Findings from this study contribute significantly to the research on intercultural competence and the teaching of cultural diversity courses.

KEYWORDS

intercultural competence, online education, teaching and learning, social justice, diversity

INTRODUCTION

Given the increasing popularity of distance education, considerable research has been conducted on comparing online and face-to-face teaching and learning. This research has included comparing learning outcomes (Callister and Love 2016; Sussman and Dutter 2010), student experiences and perceptions (Cleaveland, Dutcher, and Epps 2015; Horspool and Lange 2012; Thompson, Miller, and Franz 2013), and student performance (Beck 2010; Bourelle et al. 2016; Sussman and Dutter 2010).

These studies have incorporated a wide variety of courses, but most of those studied focused on developing cognitive skills, such as research skills (such as that by Liu 2007), business law (such as that by Cleaveland, Dutcher, and Epps 2015), or writing (such as that by Bourelle et al. 2016). Our study focused on a diversity and social justice course for agricultural students in which students are expected to develop not only cognitively, but affectively. Acquiring intercultural competence is a developmental process that is ongoing and challenging, and like any other competency or skill, developing cultural sensitivity and skills requires intentional effort and practice. A culturally sensitive individual needs to learn more about how communication styles and perspectives are influenced by cultural upbringing and lived experiences. This suggests that helping students achieve more general, non-culturally grounded personal or even interpersonal awareness is necessary. The cultural content is a foundation for reflection

and learning from the intercultural experiences (Vande Berg and Paige 2009), and students' development depends on the interventions (assignments, projects, activities, and simulations) that help them increase both their cultural self-awareness and cultural awareness of others—that is, differences between their own cultural values and those of other cultural groups.

There have been few studies conducted comparing online and face-to-face courses that emphasize affective development, and fewer that have looked at intercultural competence. One study explored students' intercultural competence specifically with the German culture after taking an online language course (such as that by Baumann and Shelley 2006), but to our knowledge, there have been no empirical studies focused on comparing students' intercultural development after completing a social justice course in an online versus face-to-face format. Through this study, we hope to contribute to filling this gap in the literature.

The purpose of our study was to describe students' reflections of their growth in intercultural competence in a cultural diversity and social justice course. We were interested in exploring the outcomes of two different course formats because we wanted to examine the equivalency between them, and thus asked the two following questions:

1. *In what ways were students aware of their development of intercultural competence?*
2. *How did the degree of development of specific components of intercultural competence differ between the face-to-face and equivalent online sections of the course?*

CONCEPTUAL FRAMEWORK: INTERCULTURAL COMPETENCE

There is a growing sense of urgency for citizens of the twenty-first century to increase their understanding of people from diverse cultural and ethnic backgrounds. With rapid changes in the global economy, technology, transportation, and immigration, the world is becoming a small, intersecting community (Diller and Moule 2005). People find themselves in increased contact with individuals who are culturally different. Neither knowledge nor language alone is sufficient in the development of intercultural competence (Deardorff 2009). It is therefore imperative for people to think interculturally. The changing world requires individuals and organizations to begin the journey toward intercultural competence.

Within the realm of higher education, supporting students in starting or continuing that journey is part of postsecondary education's contribution to meeting the complex challenges of civil society and the workforce. This effort requires everyone involved to engage in a four-step process: (1) be more aware of their own norms for behavior and the cultural values that underlie them; (2) build a solid foundation of knowledge of other cultures; (3) manage their emotions and thoughts in the face of ambiguity and challenging circumstances; and (4) bridge cultural gaps between themselves and others (see Hammer 2012, 116; Vande Berg 2016). This is necessary to shift perspectives and adapt in effective and culturally appropriate ways.

Mitchell Hammer, Milton Bennett, and Richard Wiseman (2003, 422) define intercultural competence as "the ability to think and act in interculturally appropriate ways." Elsewhere, we (Morris and Iseminger 2017) expand this idea, defining intercultural competence as "a process whereby individuals develop competencies in multiple ways of perceiving, evaluating, believing, and doing in order to communicate and interact effectively and appropriately in diverse environments. Communicating appropriately and effectively refers to being mindful of valued rules, norms, and

expectations of the relationship so they are not violated significantly" (Morris and Iseminger 2017, 96). While people can learn to transform themselves and others by engaging in the four-step developmental process described above (Hammer 2012; Vande Berg 2016) to bridge cultural differences, it is necessary that this process be an ongoing, conscious effort as there is no point in which an individual becomes fully interculturally competent.

Given that lifelong learning is inherent in the development of intercultural competence, it is important that learners engage regularly and consistently in reflective practice regarding their own development (Deardorff 2006; Yershova, DeJaeghere, and Mestenhauser 2000). It is possible to assist individuals in the development process by providing workshops, courses, and seminars. However, for the best results, the integration of different aspects (that is, knowledge, awareness, and skills) of the developmental process should be incorporated throughout the educational arena and life in general.

MATERIALS

An assignment, the final reflection essay of the course, was used as data for this study. In this assignment, the students were asked to reflect on their experiences in the course. The prompt was as follows:

1. In what ways has this course helped you to develop a better understanding of your multicultural self and cultural others?
2. From your perspective, describe your stages of your growth from the beginning of the semester until now?

We used these self-reflections because they were firsthand accounts of the students' experience. Because one of the theoretical frameworks of the course is social constructivism, which asserts that people create their own realities (Detel 2015), using a source that provided self-reflection of learning was appropriate.

We scored and quantified the reflections using the Intercultural Knowledge and Competence VALUE rubric (Association of American Colleges & Universities 2009), an instrument developed by experts in the intercultural competence field. The rubric has four levels, each described and matched with one of the six components (cultural self-awareness, knowledge of cultural worldview frameworks, empathy, verbal and nonverbal communication, curiosity, and openness) of intercultural competence representing attitudes, knowledge, and skills:

- Level 1 (benchmark) represents minimal awareness or interest, or a surface level of understanding;
- Levels 2 and 3 (milestones) demonstrate partial or adequate understanding, as well as being able to identify and recognize cultural differences, asking simple questions and deep questions; and
- Level 4 (capstone) represents a sophisticated or complex understanding of cultural differences.

In reviewing the reflection essays, we were able to glean direct evidence of actual learning, such as knowledge of cultural worldviews, which is evidence of intercultural openness. Guided by the definitions of each component provided in the rubric, we found examples within the reflections of the various intercultural competence components.

METHODS

This study took place over the fall 2015 and spring 2016 semesters at Purdue University, a large, public, research-intensive, university located in the midwestern United States. The study was conducted in a course titled Communicating across Cultures and was deemed exempt by our university's Institutional Review Board. The course is primarily taught to agriculture students, but is open to all students at the university. Because the data used in this study was a part of a course assignment and we did not collect any additional information beyond the regular coursework, we cannot report on the demographic information from the students. The majority of students in the course were from the College of Agriculture, which, based on fall 2015 enrollment, served 55 percent women and 45 percent men: 88 percent of whom were White, 4 percent Hispanic/Latinx, 3 percent Black/African American, 2 percent Asian-American, and 2 percent multiracial. Five Native American/Alaska Natives and one Native Hawaiian/Other Pacific Islander were enrolled in the college at that time, and 14 percent of students were international (Purdue University, 2020).

Course description

Communicating across Cultures provides an opportunity for students to understand their place and others in the multicultural, multiethnic, multinational country of the United States. It fulfills the College of Agriculture's core curriculum multicultural awareness requirement (undergraduate students are required to complete three credit hours in a multicultural education course in order to graduate). The course is designed to present an academic overview of the field of social justice as it has evolved to the present. It offers a basic overview of the variety of differences among human beings, a sampling that includes (but is not limited to) race, ethnicity, gender identity, age, and social class. Issues of poverty, language, power, and oppression are also examined in relationship to these areas of emphasis (Morris 2018), and the course addresses inherited and imposed prejudices, biases, and associated behaviors.

In terms of pedagogy, in addition to lectures, the course uses student-centered approaches such as occasional flipped lectures and active, collaborative, and experiential learning. The lecture and discussion sessions of this course work in concert to help students recognize, respect, and embrace human diversity as a way of life and further develop their intercultural competence. The pedagogy included invited expert lecturers, Socratic questioning, individual and group activities, community-based service engagement, web-based curriculum exercises, and demonstrations, as well as YouTube videos, case studies, current events, and virtual reality simulations, among the authentic materials of culture that served as the basis of discussion and critical reflection (Ohara, Saft, and Crookes 2000). Moreover, it is offered both online and face-to-face, which provided us an important point of comparison.

With the purpose of increasing student engagement and thus higher achievement of course learning goals and objectives, the course consists of two weekly, fifty-minute lectures. Additionally, the face-to-face section has a weekly, two-hour, discussion-based lab session. The online section has a discussion forum where students are required to post their answers to a prompt related to the topic of the week, as well as three replies. (See a comparative summary of the courses, table 1).

Table 1. Comparison of face-to-face and online sections of the course

Face-to-face	Online
Two weekly, 50-minute lectures	Two weekly lectures (video-recorded and chunked into ~10-minute segments)
Weekly, two-hour discussion-based labs/recitations	Weekly discussion boards (students are required to post an initial post and reply to three classmates)
Weekly quiz in lab section	Weekly quiz online
Midterm and final exams online (multiple choice)	Midterm and final exams online (multiple choice)
Five written reflections throughout the semester	Five written reflections throughout the semester

As noted above, students were required to participate throughout the semester in guided service-learning experiences viewed through the lens of diversity. Students in both the online and face-to-face sections of the course completed this project within their community, receiving feedback from the sections' teaching assistants throughout the semester. Used appropriately, service-learning can lead to a more nuanced understanding of human diversity, and it can challenge students to connect the concepts and ideas they encounter in course with their personal value and belief systems. In a structured sequence, students progress from individual reflection to dialogue with others in the community, noting personal connections and relating experiences to issues of social justice. The students are expected to make significant shifts in cognitive and affective thinking as a result of this process: from simple to complex, dualistic to multiplistic. Increased cognitive ability allows individuals the possibility of increasing the complexity of moral reasoning, which is imperative in understanding today's critical social issues (Perry 1999).

Data collection and analysis

We analyzed students' written reflections to better understand their experiences in the course. Using a randomizer, we selected 10 essays from each group (online and face-to-face) and used provisional coding (Saldaña 2009, 120) according to the Intercultural Knowledge and Competence VALUE rubric. After independently coding the papers, we met and discussed each paper, how we had coded it, and why we ranked different sections of each paper at different levels on the rubric. For each place on the rubrics where we were not in agreement on the scores, we came to a consensus through discussion. We then used the consensus scores to rank each coded section of the paper on a range from benchmark to capstone. Table 2 provides definitions of each intercultural competence component we examined.

Table 2. Definitions (adapted from Association of American Colleges & Universities [2009] and Deardorff [2006])

Components of Intercultural Knowledge and Competence		Definitions
Attitudes	Openness	Valuing of other cultures by suspending judgment and demonstrating a willingness to initiate and engage in interactions with individuals from other cultures.
	Curiosity	Asking questions and seeking out information about other cultures through interactions with others different sources.
Skills	Empathy	The capacity to interpret intercultural experiences and situations using more than one perspective as well as imaginary participation in the experiences of culturally different others.
	Verbal and nonverbal communication	Capacity to recognize and make meaning of different verbal and nonverbal forms of communication and interactions with culturally different others, such as physical contact, eye contact, and understanding direct and indirect meanings.
Knowledge	Cultural self-awareness	Recognizing and acknowledging how one's lived experiences have shaped their perspectives as have the cultural rules and biases based on the shared values of the society or group to which they belong.
	Knowledge of other worldviews	Demonstrating an understanding of complex elements related to history, politics, beliefs, values, communication styles, and economy that are important to culturally different others and inform their perspectives.

RESULTS AND DISCUSSION

As described above, the purpose of this study was twofold. We first wanted to understand what ways the students were aware of their development of intercultural competence. This was an important inquiry in understanding students' perceptions of their own learning and their own awareness of their growth. Second, we sought to identify and compare any difference in the students' development of intercultural competence across the two formats.

Self-perceptions of growth

The trends we found in the final reflection essays suggest an increase in students' intercultural competence growth as a result of taking the class. After completing the course, students realized that behaviors important to the development of intercultural competence, particularly personal reflection, were not behaviors they engaged in regularly prior to the course beginning. By the end of the course, they were just starting to recognize the value of reflecting and being aware of their own cultural rules and biases, as suggested in the following excerpts from the essays:

> *Everyone thinks they know themselves and where they stand on certain hot topics like racism, gender rights, etc. This course was a big eye opener for me. It made me realize that I really did not have a lot of stances on a lot of topics and topics I thought I did. I was wishy washy* (Reflection 2, face-to-face).

I always thought that I was fairly understanding and well-rounded in a multicultural sense . . . What I didn't realize was all the subconscious judgments that I make without intending to. This class helped open my eyes (Reflection 6, face-to-face).

One thing I did not expect going into this class was to have a better understanding of myself . . . This course has helped me become more aware of these situations in my own life (Reflection 9, online).

These quotes demonstrate that some students came into the course believing they were proficient in knowing themselves, but after completing the course they recognized their knowledge was lacking. These and other passages in the students' reflections demonstrated something akin to the "meta-ignorance" (a person's lack of knowledge of what they do not know) of the Dunning-Krueger effect (Dunning 2011). This phenomenon occurs when people are not only ignorant of what they do not know, but are also convinced they have expertise in specific areas in which they are ignorant. In the case of this study, the students' reflections reveal that they assumed they knew themselves but came to realize that they were not as knowledgeable about themselves, their feelings about diversity, and their understanding of other cultures as they assumed.

Differences between online and face-to-face sections

The components of intercultural competence in the students' self-reflections also documented differences between the face-to-face and online sections of the course. As illustrated in figure 1, the student reflections in the online sections of the course were scored at a higher level on the rubric in the areas of attitudes and knowledge, while those in both the online and face-to-face sections were scored low in the area of skills. Figure 1 shows that students in the online section of the course had a greater degree of development in intercultural attitudes compared to students in the face-to-face section. This was based on their progress toward valuing other cultures, evidenced by being open to interactions and by asking and seeking answers to questions about cultural differences. Figure 1 also illustrates that students in the online section of the course showed a greater degree of development than the students in the face-to-face section. The students in the online section also showed a greater degree of development in intercultural knowledge about themselves and others than the students in the face-to-face section.

We note that the low score for skills does not indicate that the students did poorly in empathy and communication; rather, it reflects that most of the students did not address verbal and nonverbal communication and did not demonstrate especially high levels of empathy in their reflection essays (figure 2), thus causing the overall skills score to be low. It is also worth pointing out that none of the students' reflections demonstrated competence that was consistent with the level 4 (capstone) description of the different intercultural competence components. Nevertheless, capstone mastery was not an expectation after the completion of a single course as many students were at the stage of beginning to develop these competencies.
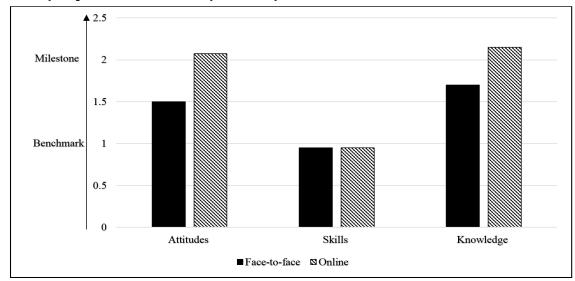
Figure 1. Comparing overall intercultural competence components, online versus face-to-face

Exemplar components: Openness and cultural self-awareness

As shown in figure 2, both classes scored highest on openness (one of the intercultural attitudes) and cultural self-awareness (part of intercultural knowledge). However, students in the online section of the course showed a greater degree of development across most components, especially related to these two items.
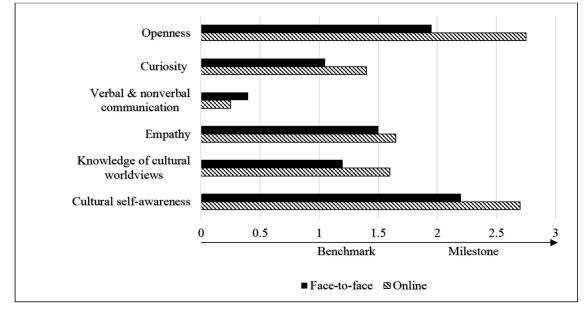
Figure 2. Comparing specific intercultural competence components online versus face-to-face

Openness

Students in the face-to-face section of the course were approaching the border of the lower milestone for their development of openness, as described by the VALUE rubric. This indicated that

students in the face-to-face section of the course were on the verge of beginning to express "openness to most, if not all, interactions with culturally different others," but have "difficulty suspending judgment in her/his interactions with culturally different others," and are "aware of own judgment and expresses a willingness to change" (Association of American Colleges & Universities 2009, 2). As one student in the face-to-face section of the course wrote, "Getting insight into the everyday life of people who faced these injustices is something that this class really did well and I feel that I am a much more aware individual to my own multicultural identity as well as the numerous other varying cultural personalities that make up the rest of the world." This student demonstrates an openness to interactions with culturally different others, as described by a level 2 on the VALUE rubric. The student's reliance on the class to provide insights into the injustices of other cultures, however, shows a lack of personal initiation of cross-cultural relationships, as would be indicative of someone in an upper milestone level of development as described on the rubric.

Students in the online section of the course were approaching the border of the upper milestone level of development in openness as described by the VALUE rubric. This indicated that students in the online section of the course were on the verge of beginning "to initiate and develop interactions with culturally different others" and "to suspend judgment in valuing her/his interactions with culturally different others" (Association of American Colleges & Universities 2009, 2). An example of demonstrating openness is illustrated in an excerpt from a reflection from a student in the online section:

> I thought culture brought with nationality and the place you came from. I was totally wrong. When I read my classmates' post on blackboard, I always could find someone hold the same feelings and opinions as me. From then on, I realized that I am a multicultural individual. Not only nationality could stand for your culture, but also your gender, race, citizen status and so on could determine your cultural properties (Reflection 5, online).

This student's recognition of being "totally wrong" about his or her original conceptions of other cultures and the ability to find similarities with students from other cultures illustrates cultural humility. Additionally, the student's epiphany about being a "multicultural individual" shows that through the student's recognition of their similarities with cultural others, this student has begun to suspend judgment in interactions with culturally different others. The student quoted above, however, writes nothing to indicate initiation of interactions with people from other cultural backgrounds (which is why they did not score higher) as is seen in the excerpt that follows: "I also touched a stage of integration where I tried to integrate myself into other cultures and really spend time with the way they live life" (Reflection 9, online). This student demonstrates an attempt to initiate interactions with other cultures which is a characteristic of openness. Based on these two reflections, both students highlighted different aspects of intercultural openness, which involves suspending judgment about others and initiating interactions with individuals from other cultures.

The difference in intercultural openness, with the online section at the milestone level and the face-to-face section at the benchmark level, could be explained by the nature of the discussion portion of the class. The face-to-face section requires students to attend a discussion-based lab, but their accountability for participating is at the discretion of the teaching assistant in charge of the lab. There

are also no standardized requirements for depth of discussion within the face-to-face section of the course. Therefore, although students attend the lab section, they may not necessarily participate, or they might participate in ways that are not constructive to the general class discussion. In the online section of the course, students are held accountable for the depth of their participation with a rubric that requires them to actively reflect on the material in different ways. Multiple students in the online section of the course also cited the discussion board as helpful to them in their learning experience. This supports the idea that the discussion forum was structured in a way that was beneficial for students in becoming more culturally open.

Cultural self-awareness

Students were between levels 1 and 2 on the VALUE rubric for knowledge. This means that after taking the course, students were able to demonstrate partial understanding of the complexity of elements that are important to people from other cultures and begin to identify their own cultural rules and biases. Darla Deardorff (2009, xii) describes developing cultural self-awareness as an essential component of intercultural competence: "As we develop knowledge of ourselves, we gain insights into our own ways of viewing the world and the impact of our cultural values on our behaviors and our understanding of others' behaviors. By becoming more culturally self-aware, we are able to begin understanding others who are different from us." Because students were at a higher level of cultural self-awareness than knowledge of cultural worldviews, we focus on cultural self-awareness as an example for comparison between the face-to-face and online sections. One student recounted,

> *In all honesty, I feel that my older self was very narrow-minded and selfish compared to who I am now. I did not take into consideration the fact that people with different cultural backgrounds and identities are in a way just like me. I was not aware that there were many parallels that could be drawn between them and [me]* (Reflection 1, face-to-face).

This student identifies her "own cultural rules and biases (e.g. with a strong preference for those rules shared with own cultural group and seeks the same in others)" (Association of American Colleges & Universities, 2009, 2). The student's emphasis on how people of different cultural backgrounds are just like her place her at a level 2 on the rubric. Although she is beginning to recognize that she has her own cultural rules through which she operates in the world, her focus on the similarities between herself and people from other cultures ("people with different cultural backgrounds . . . are in a way just like me") demonstrates her preference for her own cultural rules.

Conversely, a student at a level 3 on the rubric is less concerned with finding similarities between their own cultural rules and is more comfortable with the complexities present in difference. This is exemplified by a student in the online section of the course who reflected,

> *I've become more aware of the privileges I've garnered throughout my life based on my race alone. I didn't realize how much "white" privilege that still existed today . . . In direct contrast to this, I've become aware of the stigma's I've had to face as a low-income, white female growing up in the U.S. As a female there have always been tasks I wasn't allowed to do because they were deemed unable to be performed by women. I haven't had the opportunity to meet women of high social status because*

where I come from, they don't really exist. There is a wide consensus where I grew up that women should be stay at home mothers. I wasn't super aware of these stigmas until this class. This class made me really look at what I've had to face. Overall, I've become aware of how my gender, race, and class have shaped the wom[a]n I am today (Reflection 10, online).

This student has recognized that there are various cultural rules that set the expectations of how she is to behave as a woman, a White person, and a person of a lower socioeconomic status, and these rules do not necessarily align with one another. Rather than focusing on perceived similarities between the various social identity groups in which she finds herself a part, she is comfortable with the complexity presented in her status as a privileged White person who is simultaneously disadvantaged by her gender and class.

IMPLICATIONS

Students' self-reflections provide insight into how students experienced some intercultural competence development during the course. The results contribute to the research on teaching and learning about cultural diversity, social justice, and intercultural competence. First, it is important to note that although the students in both sections of the course demonstrated modest levels of development of the components of intercultural competence, their perceptions of their own learning showed that many began the course at a very low level of intercultural competence. Therefore, for students to be beyond the benchmark level of development for knowledge and attitudes is a testament to the effectiveness of the course in raising their self-awareness with respect to their intercultural competence. Expecting students to be at the upper milestone or capstone levels in their development after completing a one-semester course is not reasonable; as a result, there is need for intercultural competence outcomes to be embedded throughout students' curricula during their tenure in higher education. Additionally, the course needs to have a greater focus on students' skills development and a better way to assess them.

Second, the qualitative differences between the face-to-face and online formats have implications for pedagogical practice. The relatively greater degree of intercultural competence illustrated in the online student reflections suggests the online discussions contain some benefits that some face-to-face discussions might lack. Nevertheless, the structure and accountability of the online environment is available to face-to-face discussions. Based on the findings of this study, a participation rubric and grade were added to the face-to-face version of the course as an additional level of accountability for students during discussions.

Finally, the higher scores in openness and cultural self-awareness suggest that students are in the beginning stages of developing the requisite components of intercultural competence that will help them to continue improving their intercultural competence beyond the course. These findings, however, highlight the need to incorporate more targeted activities and assignments that allow students to develop in all components of intercultural competence and incorporate ways of facilitating deeper reflections across components. By identifying the different components of intercultural competence, instructors can design activities and assignments to meet different developmental levels.

FUTURE DIRECTIONS

Future research can seek to address the variances between contexts and determine if there is a difference in the intercultural competence of students who enroll in the online section of the course versus those who enroll in the face-to-face section. This would facilitate deeper understanding of how we can structure and organize online and face-to-face courses with intentionality to facilitate students developing intercultural attitudes, skills, and knowledge. Additionally, although the course we studied was designed to increase students' intercultural competence, the reflection paper we used as data was not created using the VALUE rubric. Therefore, we could not assess components of intercultural competence that weren't addressed in the papers. As a result, when we evaluated the papers, we had to assign zeros for certain sections because students did not address it in their papers. This does not necessarily mean that the students did not grow in that area of competence. For example, the skill of verbal and nonverbal communication was often not mentioned by students in their papers because improved communication skills are more likely to be practiced than documented in writing. In future studies, researchers will want to look for a way where all of these competencies are addressed in the assignment being evaluated for research, or evaluate multiple course assignments.

Finally, it is important to continue to evaluate classroom practices and student outcomes, and to bring the findings back into the classroom. This is crucial for the continual development of scholarly teaching (Savory, Burnett, and Goodburn 2007). For example, as a result of our findings, we instituted more accountability into the assessment of discussions in the face-to-face section of the course. Future study would inform us as to whether this was an effective change in the course design to increase intercultural competence development. Similarly, all courses should undergo continual assessment to examine whether student learning outcomes are being met. In the case of courses focused on intercultural competence and development, to achieve the promise of equal educational opportunity we must be intentional about how we teach and assess the knowledge and skills students need to transfer awareness gained in classrooms into action. Supporting students' development of different components of intercultural competence is one such way.

CONCLUSION

In describing our process of evaluating students' intercultural development after participating in an online or face-to-face cultural diversity and social justice course, we do not mean to suggest that we subscribe to the idea that taking a single course of this kind will make students interculturally competent. We recognize, however, the importance of intentionally developing content, activities, and experiences through different media (whether in face-to-face or online contexts) to facilitate students' development of intercultural competence. The specific components of intercultural competence assessed in this course allowed course coordinators and instructors to reflect on ways to be more intentional in the course design, organization, structure, and outcomes assessment. As the demand for graduates who are culturally competent increases, coupled with the increasing use of distance education, there is a need for intentionality in designing, organizing, and assessing courses and programs that facilitate undergraduate students' intercultural development.

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REFERENCES

Association of American Colleges & Universities. 2009. "Intercultural Knowledge and Competence VALUE Rubric." Accessed July 14, 2020. https://www.aacu.org/value/rubrics/intercultural-knowledge.

Baumann, Uwe, and Monica Shelley. 2006. "Distance learning of German and Intercultural Competence." *Open Learning: The Journal of Open, Distance and E-Learning* 21, no. 3: 191–204. https://doi.org/10.1080/02680510600953153.

Beck, Victoria Simpson. 2010. "Comparing Online and Face-to-Face Teaching and Learning." *Journal on Excellence in College Teaching* 21, no. 3: 95–108. http://celt.miamioh.edu.ezproxy.lib.purdue.edu/ject/issue.php?v=21&n=3.

Bourelle, Andrew, Tiffany Bourelle, Anna V. Knutson, and Stephanie Spong. 2016. "Sites of Multimodal Literacy: Comparing Student Learning in Online and Face-to-Face Environments." *Computers and Composition*, no. 39: 55–70. https://doi.org/10.1016/j.compcom.2015.11.003.

Callister, Ronda Roberts, and Mary Sue Love. 2016. "A Comparison of Learning Outcomes in Skills-Based Courses: Online Versus Face-o-Face Formats." *Decision Sciences Journal of Innovative Education* 14, no. 2: 243–56. https://doi.org/10.1111/dsji.12093.

Deardorff, Darla K. 2006. "The Identification and Assessment of Intercultural Competence." *Journal of Studies in International Education* 10, no. 3: 241–66. https://doi.org/10.1177%2F1028315306287002.

Deardorff, Darla K. 2009. "Preface." In *The Sage Handbook of Intercultural Competence*, edited by Darla K. Deardorff, xi-xiv. Thousand Oaks: Sage.

Detel, Wolfgang. 2015. "Social Constructivism." In *International Encyclopedia of the Social and Behavioral Sciences*, edited by James D. Wright, 2nd ed., 228–34. Waltham: Elsevier.

Diller, Jerry V., and Jean Moule. 2005. *Cultural Competence: A Primer for Educators.* Belmont: Thomson Wadsworth.

Dunning, David. 2011. "The Dunning-Kruger Effect: On Being Ignorant of One's Own Ignorance." *Advances in Experimental Social Psychology*, vol. 44, edited by James M. Olson and Mark P. Zanna, 247–96. Waltham: Elsevier.

Cleaveland, Mary Catherine, Cristen Dutcher, and Kathryn Epps. 2015. "Comparing Business Law in Online and Face to Face Formats: A Difference in Student Learning Perception." *Academy of Educational Leadership Journal* 19, no. 1: 123–34. https://pdfs.semanticscholar.org/7f64/2173e3b4946ce047cc2eb24cf7a84269bec6.pdf.

Hammer, Mitchell. 2012. "The Intercultural Development Inventory: A New Frontier in Assessment and Development of Intercultural Competence." In *Student Learning Abroad: What Our Students Are Learning, What They're Not, and What We Can Do About It*, edited by Michael Vande Berg, R. Michael Paige, and Kris Hemming Lou, 115–36. Sterling: Stylus.

Hammer, Mitchell R., Milton J. Bennett, and Richard Wiseman. 2003. "Measuring Intercultural Sensitivity: The Intercultural Development Inventory." *International Journal of Intercultural Relations* 27, no. 4: 421–43. https://doi.org/10.1016/S0147-1767(03)00032-4.

Horspool, Agi, and Carsten Lange. 2012. "Applying the Scholarship of Teaching and Learning: Student Perceptions, Behaviours and Success Online and Face-to-Face." *Assessment & Evaluation in Higher Education* 37, no. 1: 73–88. https://doi.org/10.1080/02602938.2010.496532.

Liu, Yuliang. 2007. "A Comparative Study of Learning Styles between Online and Traditional Students." *Journal of Educational Computing Research* 37, no. 1: 41–63. https://doi.org/10.2190%2FTJ34-6U66-8L72-2825.

Morris, Pamala V. 2018. "Communicating across Cultures." Course syllabus, Purdue University, West Lafayette.

Morris, Pamala V., and Shalyse I. Iseminger. 2017. "Understanding the Basics of Culture." In *Communicating across Cultures*, edited by Pamala V. Morris, 10th ed., 95–118. New York: Pearson.

Ohara, Yumiko, Scott Saft, and Graham Crookes. 2000. "Teacher Exploration of Feminist/ Critical Pedagogy in a Beginning Japanese as a Foreign Language Class." Paper presented at the University of Hawaii, Manoa, March 22, 2000. http://www2.hawaii.edu/~crookes/crpj.html.

Purdue University. 2020. Student Enrollment. Accessed July 7, 2020. https://www.purdue.edu/datadigest/?dashboard=EnrollmentBars_1.

Perry, William. G., Jr. 1999. *Forms of Intellectual and Ethical Development in the College Years: A Scheme*. San Francisco: Josey-Bass.

Saldaña, Johnny. 2009. *The Coding Manual for Qualitative Researchers*. Thousand Oaks: Sage.

Savory, Paul, Amy Nelson Burnett, and Amy Goodburn. 2007. *Inquiry into the College Classroom: A Journey toward Scholarly Teaching*. Boston: Anker.

Sussman, Stephen, and Lee Dutter. 2010. "Comparing Student Learning Outcomes in Face-to-Face and Online Course Delivery." *Online Journal of Distance Learning Administration* 13, no. 4. https://www.westga.edu/~distance/ojdla/winter134/sussman_dutter134.html.

Thompson, Nicole L., Nicole C. Miller, and Dana Pomykal Franz. 2013. "Comparing Online and Face-to-Face Learning Experiences for Nontraditional Students: A Case Study of Three Online Teacher Education Candidates." *Quarterly Review of Distance Education* 14, no. 4: 233–51. https://go-gale-com.ezproxy.lib.purdue.edu/ps/i.do?id=GALE%7CA369914192&v=2.1&u=purdue_main&it=r&p=PROF&sw=w

Vande Berg, Michael. April 13-15, 2016. "Intercultural Learning and Teaching Program Workshop 1." West Lafayette: Purdue University.

Vande Berg, Michael, and R. Michael Paige. 2009. "Applying Theory and Research: The Evolution of Intercultural Competence in U.S. Study Abroad." *The Sage Handbook of Intercultural Competence*, edited by Darla K. Deardorff, 419–37. Thousand Oaks: Sage.

Yershova, Yelena, Joan DeJaeghere, and Josef Mestenhauser. 2000. "Thinking Not as Usual: Adding the Intercultural Perspective." *Journal of Studies in International Education* 4, no. 1: 39–78. https://doi.org/10.1177%2F102831530000400105.