

# **The Implementation of Liberatory Design Thinking and Virtual International Exchange as a Tool for Dismantling Inequities in Education and Improving Cultural Intelligence**

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## **Abstract**

The purpose of this paper is to describe a pedagogical practice that combines virtual international exchange and liberatory design in a way that allows preservice teachers from different continents to partner in equity-based projects. Research practitioners describe the methods they implemented and the partnership built between two universities with teacher certification programs. This practice allowed preservice teachers students who may not have had access to study abroad or experience with other cultures to have a meaningful virtual international exchange where deep conversations were structured to help participants examine systems (like education) from different cultural perspectives.

*Keywords:* virtual international exchange; liberatory design, culturally responsive pedagogy, teacher preparation

## Introduction

Teacher preparation programs across the United States are tasked with preparing preservice teachers to meet a diverse and ever-changing range of student needs through the implementation of culturally responsive teaching pedagogy (Briscoe & Robinoe, 2022). According to Irvine and Armento (2001), as many as nine out of ten teachers in culturally diverse schools are White females who grew up in suburban communities. As a result of being raised and attending school in predominantly White communities, many White teachers have limited knowledge and understanding of other cultures (Lawrence & Tatum, 1997). Bradshaw et al. (2010) noted that cultural differences exist between students and teachers. Research suggests that teacher perceptions of students are greatly influenced by culture (Chubbuck, 2004; Rong, 1996; Oates, 2003).

In efforts to improve teacher candidates' cultural competence many teacher preparation programs have implemented courses, programming, and field experiences focused on cultural diversity and improving preservice teachers' culturally responsive teaching pedagogy. According to Helms (1997), the development of a healthier White racial identity occurs through meaningful interracial interactions. Study abroad experiences often provide students with experiences that "critically challenge their frame of reference- a necessary condition for becoming a multicultural educator" (Briscoe & Robino, 2022, p.119). In 2016, the National Association of International Educators (NAFSA), reported that only 1.6 percent of students enrolled in post-secondary education in the United States had completed a study abroad experience (Morely et al., 2019). Within this low statistic, there is an equity gap in access to study abroad experiences that exists across racial, ethnic, and socio-economic statuses (NAFSA, 2023). In the past access to study abroad experiences has often been limited to individuals who were of a higher socio-economic status (Norton, 2008). Access to study abroad experiences is even more limited for preservice teachers. Licensure programs for preservice teachers often have rigid requirements and lengthy internships (Morely et al., 2019). Due to these programmatic challenges, there is often little or no flexibility within teacher preparation programs that allows for study abroad experiences (Morely et al., 2019).

Faculty at a non-profit university in New England recognized that more needed to be done to prepare the predominantly White preservice teachers in their teacher preparation program to meet the needs of the diverse learners who would be entering their classroom. These faculty realized that many of their students had limited experience interacting with other cultures and that the majority of preservice teachers enrolled in their teacher preparation program lacked access to study abroad experiences. In an effort to improve the cultural competence of preservice teachers and remove the financial barriers of traditional study abroad programs, two education faculty in America partnered with two education faculty in Madrid to develop a three-phase program. The purpose of this program was to provide meaningful experiences for teacher candidates that would engage them in comparative education experiences and provide them with meaningful opportunities to collaborate with preservice teachers from different cultures.

From a generalizable perspective, the content is less important than the ways in which faculty collaborated. This partnership allowed students who could not travel to have meaningful interactions with students in other countries through the implementation of principles of design thinking and liberatory design as tools with which to engage in a synchronous learning environment. While this strategy was born out of necessity during the pandemic, this innovative pedagogical practice demonstrated the value of virtual international exchange and how liberatory design serves as a valuable pedagogical tool for having teacher candidates from various countries learn together.

## **Culturally Responsive Pedagogy**

The student population in the United States is becoming increasingly diverse (NCES, 2022). As the diversity of the student population increases, there is little change in the demographics of the teaching population. During the 2017-2018 school year, approximately 79% of the teaching population was comprised of White, non-Hispanic teachers (NCES, 2022). The education system in the United States continues to face challenges such as disproportionate discipline rates for students of color (Fenning & Rose, 2007; Mendez & Knoff, 2003; Skiba, Michael, Nardo, & Peterson, 2000; Townsend, 2000; U.S. Department of Education Office for Civil Rights, 2014; Vavrus & Cole, 2002) and disproportionate identification of students of color for special education services (National Center for Learning Disabilities, 2020).

Culturally responsive teaching values students' cultures and intentionally integrates students' cultures into the "validates and affirms the cultures of the students and intentionally incorporates those cultures into student learning and the classroom environment (Armstrong, 2020). When culturally responsive pedagogy is implemented in the classroom, educators hold all students to high expectations and believe that they all have the ability to learn (Armstrong, 2020). For teachers to implement culturally responsive pedagogical practices in their classrooms, teachers must have an in-depth understanding of culture and its influence on behaviors and interactions (Equity Assistance Center, 2016).

## **Human-Centered Design**

While Human-Centered Design or Design Thinking has been very popular for more than three decades, its application to teacher education is fairly limited. Design Thinking is often attributed to David and Tom Kelley and their IDEO lab at Stanford University. Design Thinking seeks to include the user of a product or process in the design of that product or process. The Kelleys' book, *Creative Confidence* (2013) popularized its use in several fields- like business, health care, and higher education. The research practitioners attended workshops at the Teaching and Learning Studio at Stanford to better learn the practices and to be able to implement them in their own context. The Design Thinking model generally uses a five-step model- Empathize, Define, Ideate, Prototype, and Test to create something new. Design Thinking includes a set of mindsets and tools as resources for implementation. Tools can include ways of conducting the work, including the use of journey maps or 2x2 matrixes. The researcher practitioners designed the curriculum for this course using tools and mindsets of design thinking with students.

## **Liberatory Design**

Liberatory Design builds upon the work of design thinking to take an equity-minded approach to the work. The National Equity Project (2023) states its goals are to:

Create designs that help interrupt inequity and increase opportunity for those most impacted by oppression; Transform power by shifting the relationships between those who hold power to design and those impacted by these designs; Generate critical learning and increased agency for those involved in the design work. (para. 1)

Liberatory Design acknowledges that designers often come to work with a certain amount of privilege and that without explicating thinking about own's own biases and assumptions, a designer may design for themselves and not for the population the new creation would serve. To this end, Liberatory Design expands upon the five steps utilized by the Stanford d. School model. It adds a notice phase as the first step, where designers spend time contemplating their positionality in connection with the work. It also expands upon empathy work, where one doesn't only study the users and do research about the problem they are trying to address; rather, liberatory designers also contemplate the systems in which this

creation lies. To this end, empathy also includes a subcategory of “See the System.” Finally, liberatory design adds to the model a stage called “Reflection” where the designer periodically thinks about the progress they’ve made in the work, and makes sure that they are still designing for the users and not themselves. They reflect on their work to see if they have made decisions that are reflective of their biases and assumptions. Liberatory Design includes its mindsets. Its mindsets include things like building relational trust and recognizing oppression. Research practitioners utilized the liberatory design methodology to organize class content and explicitly taught mindsets to participants in the course. These pedagogical frameworks were used to help students bring an equity-minded lens to the work.

### **Methods**

This partnership began when the study abroad office at one university connected four faculty in the field of education, two from Spain and two from the United States, to form a partnership. The faculty from both universities were allowed the academic freedom to collaborate in the creation of a project that met the needs of both universities. The collaboration consisted of several planning sessions that were conducted on a monthly or biweekly basis through a virtual platform throughout the 2020-2021 academic year. Prior to the first meeting, both universities drafted proposals for collaboration that outlined the needs of their university and desired outcomes. After the initial meeting, a three-phase model was developed to meet the needs of both universities: (a) Phase 1: Masterclasses; (b) Phase 2: Virtual Study Abroad; and (c) Phase 3: Travel Abroad to Partner Universities.

#### *Phase 1: Masterclasses*

Both universities were eager to begin the partnership and decided to launch the Masterclasses in the Fall of 2020. The implementation of Masterclasses in Phase I allowed both universities to begin the partnership immediately while also serving as a vehicle for building interest in and recruiting participants for the next two phases of the project. This modality was decided upon as a way to deliver primer-level content to students who might not have any background in education in the partner’s country, and it would allow students to decide if they wanted to take part in the next phases of the work. This also allowed time for faculty to collaborate and plan Phases II and III. The Masterclasses were a series of six interactive, simultaneous online sessions that were open to students at all levels from both universities. Undergraduate, Masters, and Doctoral level students from both universities attended the sessions with some sessions having over 50 participants in attendance. Students who attended the Masterclasses earned non-credit bearing certificates for participation that were endorsed by both universities.

The opening Masterclass focused on Empathy, Compassion, and Identity. This Masterclass was co-taught by the Senior Director of Inclusive Learner Engagement from the American University and a faculty member who served as the Head of the Wellbeing Center from the Spanish University. This Masterclass was deliberately planned to lay the foundation for students to connect and interact with each other. The second session focused on the United States, its education system, and a historical overview of race and ethnicity. This session highlighted many events that are rarely discussed in traditional history classrooms in the United States, including the Tulsa Race Massacre. Session three focused on the education system in Spain and attrition with immigrant populations in Spain. The fourth and fifth sessions focused on pedagogical practices in the United States and Spain. During session four, faculty leaders from the American university taught interactive sessions addressing Design Thinking and Universal Design for Learning. Faculty from Spain introduced the concepts of non-violent communication and awareness towards international education and the development of emotional intelligence. The Masterclasses concluded with a session facilitated by the same faculty who led the first Masterclass and was dedicated to reflection on what was learned during the Masterclass content.

## Forum on Public Policy

Masterclasses were conducted in English. Many of the students from the university in Spain were fluent in English, however, many of the students from the American universities had limited Spanish proficiency. At the beginning of each Masterclass, all participants were asked to rename themselves when entering the virtual classroom and include a number after their name that alerted us to their fluency levels in English and Spanish. This allowed faculty to place Masterclass participants in heterogeneous groups that included participants who were fluent in both languages. A faculty or staff member from either the American or the Spanish university was also placed in each breakout room to assist in the facilitation of conversations and to assist with any technical difficulties participants might encounter while in the breakout rooms.

There were many benefits to launching the three-phase plan with the Masterclasses. The Masterclasses were purposefully launched during International Week in an attempt to gain more participation from students from multiple disciplines across campus. The participation of students from across the globe, and from various disciplines across campus allowed students to hear and express multiple perspectives during breakout room sessions and discussions.

### *Phase II: Virtual International Exchange*

In the Spring of 2021, the first Virtual International Exchange course was launched. This course was co-taught by two faculty from the American university and two faculty from the university in Spain. The course met synchronously every week beginning in January through the end of April for 2 hours. The two universities had different systems for awarding course credits to students and different costs for enrollment. Students were enrolled in this course through their own universities for financial and credit allocation purposes. Approximately 60% (n=9) of students who were enrolled in the course were from the American University and 40% (n=6) were from the university in Spain. Students enrolled in the course from the American university were preservice teachers seeking dual licensure in elementary and special education. After two weeks, one student from the university in Spain withdrew from the course because they were concerned about the security of using Google as a platform.

Faculty used Google Classroom as a learning platform for all materials and communication associated with the course because the two universities utilized different learning management systems. A Zoom link was provided by the American university and used for weekly class logins. The Zoom platform also allowed for the creation of breakout rooms that were utilized for small group discussion and group work. To provide equitable access to all students in the course, class agendas and materials were translated and copies of the materials were posted in Google Classroom in both English and Spanish prior to each class.

Using Liberatory Design Thinking, preservice teachers from both universities were tasked with solving a problem of inequity in education that is faced by a group that has traditionally been discriminated against. From a pedagogical perspective, the initial plan was to have preservice teachers design for one another to build empathy and understanding between the two cultures. After completing the Empathy phase of Liberatory Design Thinking, it became clear that preservice teachers would benefit more from collaborating in groups with preservice teachers from other countries, than from only working with students from their own country to solve the problem. This allowed students to actively implement the Liberatory Design Mindsets during collaboration, examine issues from different perspectives, and develop connections with preservice teachers from different cultural backgrounds.

The final product of the course was a research presentation where participants shared how they utilized design thinking and liberatory design methods to create a product or process for the teacher candidate that would be appropriate for implementation in the other's country. Students did research into dropout rates, how bullying affects learners, and how to close gaps in mathematics education, for

example. Through the design process, students created lesson plans, handbooks, and presentations to help the teacher candidates in their partner's country.

### *Phase III: Travel Abroad to Partner University*

The third phase of this project was intended to culminate in both universities traveling to each other's countries and presenting their final projects to stakeholders at the university and in the field of education. Due to the impact of the COVID-19 pandemic, neither university was able to travel in the Spring of 2021. As an alternative to the final project presentation, students from both universities were offered the opportunity to present their work virtually at the university's Undergraduate Research Day Conference in Spring of 2021.

In the Spring of 2022, students from the university in Spain had the opportunity to travel to the United States and spend a day at the American University. During their visit, students from both universities had the opportunity to engage in team-building activities with the American students, participate in engaging content presentations, and tour the campus. In the morning, students from both universities were divided into groups consisting of students from both universities and participated in a variety of team-building challenges to connect with each other.

### *Challenges*

With any innovative pedagogical initiative, unanticipated challenges often arise. One of the greatest challenges that was faced was the differences in time zones. During initial planning, faculty knew that they would have to intentionally plan for the six-hour time difference between Spain and the students enrolled at the American University, who were on Eastern Standard Time. Due to the COVID-19 pandemic, many of the students from both universities were located at home, instead of in the same time zone as their university. During the spring of 2021, students enrolled in the course were logging in from Spain, Chile, Hong Kong, New England, and California. Classes were scheduled at 8 AM EST and 2 PM Central Europe Standard Time. However, when it was 8 AM in New England, it was 5 AM in California and 9 PM in Hong Kong. For the first several weeks of the semester, everything went very smoothly. Students even worked well together setting up times and accommodating time zone differences for group work outside of the synchronous class time. No one from either university considered the impact of Daylight savings on class meeting times. On the Monday after Daylight Savings, students and faculty from the American university joined the Zoom link and no one showed up from the university in Spain because the American university had experienced a time change, but the university in Spain had not. An hour into class, students from the university in Spain began joining the Zoom link. This meant that the students had lost valuable course time, and the schedule for the course needed to be adjusted for both universities for the last several weeks of the course.

Another challenge was the semester schedule for both universities. The semester began in mid-January for students at the American university, but students from the university in Spain did not begin classes until February. Faculty from the American university used the weeks prior to having the students from Spain join as an opportunity to administer the Cultural Intelligence (CQ) Assessment. The results of the CQ Assessment were discussed with students, as well as how their cultural values influence their interactions with others. This time was also used to have students research Spanish culture and the Spanish education system.

Another challenge was the lack of alignment between universities regarding course credit. Students from the American university were enrolled in the course for 3 credits and required to complete assignments, readings, and journal reflections outside of class time to earn course credit. The university in Spain offered the course as an elective and students were not required to complete the assignments that

were given outside of the synchronous class time. A great deal of the content work assigned outside of class time was voluntary for the students because they were not receiving the same amount of course credit as the American students. Many of the students from Spain completed the additional assignments, however, not all of them. This led to a great deal of preparation for the faculty to ensure that the majority of the coursework connected to the partnership was completed during synchronous class meeting times.

Finally, both universities needed to gain approval to collect data on this pedagogical practice. The American University was approved through their university's Research Review Board to collect data for both groups of students. The university in Spain did not approve the collection of qualitative data for the students from Spain. The data collected during the Virtual International Exchange experience is only reflective of the American students' experience in the course. Data from the students enrolled in the university in Spain could not be analyzed.

### **Findings**

This innovative pedagogical practice has the potential to transform how teacher preparation programs prepare students to meet the needs of more diverse learners. The impact the Virtual International Exchange experience had on students was visible both through the engagement of our students and in their reflections on the course. Although this was not initially launched as a research study, faculty noticed several strengths in the implementation of the project and themes among students. At the conclusion of this course, approximately 77% (n=7) of students from the American university registered for travel in an upcoming study abroad trip through the School of Education. Due to the COVID-19 pandemic, travel was suspended at the American University and the trip students initially enrolled in was postponed twice. When study abroad travel resumed many of the students who were initially enrolled in the course had graduated and left the university. It is important to note that 33% (n=3) of the students who were enrolled in this course traveled on the next available study abroad trip once study abroad trips resumed at the university.

From a student satisfaction level, faculty members were pleased with the tremendous interest put forth by students. Students from Spain, who were not receiving credit, still found ways to take the course across time zones and around busy work schedules. Students reported a desire to maintain friendships and they articulated the desire to have more informal conversations beyond the work of the course. They shared personal information and they made plans to meet one another in the partners' country when the pandemic was concluded.

From an assessment perspective, faculty were pleased with the combination of methods to maximize student learning. Virtual international exchange provided a way for students to gain intercultural competence skills during a pandemic. Furthermore, it provided an inclusive setting that allowed students who may not have the opportunity to participate in traditional study abroad to learn from preservice teachers in other countries. The liberatory design method offered students the ability to reflect upon their positionality and its influence on the work that they engaged in. Furthermore, the research presentations demonstrated students' deep understanding of the system in which their partner lived. Grades, engagement, and attendance were better than the average courses at the American University, even though the course had to be taught at 8 a.m. for time zone differences.

Spanish students were particularly thankful to practice their English and faculty from the University in Spain explained that the importance of knowing English as a Spaniard has never been greater. Spanish students were also given the opportunity to share their research at the American school's Undergraduate Research Day, allowing students to add an international presentation to their resumes.

### **Next Steps and Limitations**

As stated, this research was born from a global pandemic and had limitations. The course was offered to a small number of students, and approximately 25 total students from two different countries participated in this research. Only one of the universities was able to offer this course for credit. The Spanish University could not add the course to their curriculum and as a result, was only able to add it as an additional educational workshop. Another limitation was the language barrier for students. While the Spanish students were fluent in English, the American students did not necessarily have any Spanish language education. In the future, this course would be ideal for students to take after having taken some basic language courses. Finally, the pandemic was still happening at the conclusion of the semester and some students who wanted to travel were unable to take part in phase three of the model and travel abroad were not able to participate in study abroad activities.

In terms of the next steps, both authors will continue offering virtual international exchange as both a pathway for students to gain intercultural competence when a student is unable or unwilling to study abroad. They will also offer this kind of experience for students who desire to study abroad and this can help better educate the students before they leave their home country. As a partnership, this learning opportunity was a remarkable experience for the faculty and was considered one of the most successful partnerships either university has maintained.

### **Concluding Remarks**

This paper shared one example of faculty from two countries working together so students from their institution could better understand and implement culturally-responsive education. To accomplish this work, faculty planned learning opportunities that leveraged virtual international exchange, liberatory design, and design thinking pedagogies. The result was a positive experience where students reported high levels of satisfaction. Faculty were pleased with the research deliverables generated by students, artifacts that demonstrated a careful examination of culturally responsive solutions to problems each found in their home education systems. Researchers plan to expand this offering and refine the assessment practices they utilized in this first exploration.



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