

**EXPLORING HOW INSTRUCTOR ROLE, STUDENT ENGAGEMENT,
AND STUDENT RESPONSE SYSTEMS INTERFACE TO FACILITATE
CROSS-CULTURAL LEARNING IN A LARGE-LECTURE DIVERSITY
COURSE**

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Abstract

Many issues challenge the efficacy of cross-cultural course requirements in promoting multiculturalism among students. For example, many of these courses are taught in large lecture formats, cultivating an environment in which students are passive receivers of information rather than active participants in open interactions with the instructor and their peers. Student response systems (SRS) are commonly used classroom technologies that, when incorporated into cross-cultural large lecture courses, can facilitate the active involvement and engagement that are necessary to increase students' openness to adopting more pluralistic perspectives. However, the extent to which the SRS is an effective learning tool hinges on the instructor's ability to promote a comfortable learning environment while reinforcing the significance of students' SRS responses with thoughtful commentary. The present study probes more deeply into this relationship by investigating students' perceptions about how instructor teaching style (i.e., classroom climate, credibility) and the SRS (i.e., peer engagement, content engagement) interface to facilitate achievement of course objectives (e.g., awareness, reflection, critical analysis, cross-cultural learning). Results from a survey (n = 181) conducted in a large lecture diversity course that utilized an SRS indicate that both the SRS and the instructor's method for using the SRS (e.g., discussion of student responses) facilitate cross-cultural learning.

Keywords: Pedagogy, student response systems (SRS), large-lecture, cross-cultural learning

Introduction

In recent years, colleges and universities across the United States have ramped up their initiatives geared toward diversity and inclusion. Broad strategies that support this objective include attracting and retaining diverse faculty and students, ensuring that campus organizations and support services are inclusive of all university populations, mandating training (e.g., unconscious bias) for all university employees, and establishing offices of diversity to oversee these efforts (Deruy, 2016; Shih, 2017; Simons, 2018). At the curricular level, many institutions are requiring all students to fulfill a mandatory diversity course requirement and are charging instructors to integrate discussions surrounding diversity, inclusion and equity into all of their courses, regardless of discipline (Deruy, 2016; Shih, 2017).

A criticism of cross-cultural course requirements at the collegiate level is just how effective these courses are in promoting multiculturalism among students (Miller-Spillman, Michelman, &

Huffman, 2012). The central argument about these course requirements is that completing one course to learn about an under-studied topic area (e.g., U.S. Latino Culture and Politics; Appalachian Studies; Women and Islam) does not sufficiently equip students with the multicultural communication abilities that will help them navigate life on campus, and later, the workforce (Deruy, 2016). The purpose of the present study is not to investigate this argument. Instead, this research acknowledges that the increased implementation of diversity and inclusion initiatives at academic institutions is coinciding with an evaluation of the efficacy of existing initiatives (e.g., cross-cultural course requirements). To that end, this study seeks to explicate best practices for dissemination of cross-cultural courses in the large lecture format, which is a common classroom structure for these requirements (Taylor, 2013).

This research investigates student perceptions about how instructor the instructor's teaching style (i.e., classroom climate, credibility) and the SRS (i.e., peer engagement, content engagement) interface to facilitate their achievement of course objectives (e.g., awareness, reflection, critical analysis, cross-cultural learning) in a large lecture diversity course. The impact of demographic characteristics on student perceptions is also explored. To the author's knowledge, the present study is the first to explore the relationship between an instructor's pedagogical style, SRS use, and achievement of cross-cultural learning outcomes in a large lecture diversity course.

Literature Review

Challenges to Cross-Cultural Course Instruction Mitigated by SRS Use

Many cross-cultural course requirements are taught in large lecture formats that cultivate an environment in which students are passive receivers of information rather than active participants in open interactions with the instructor and their peers (Mayer et al., 2009; Taylor, 2013). Student response systems (SRS) are now commonly used classroom technologies and can be especially beneficial to instruction in large courses (Holland, Schwartz-Shea, & Yim, 2013). SRSs allow instructors to poll students to determine their understanding and retention of course subject matter (i.e., content polling) and to glean their opinions on content-related questions (i.e., opinion polling; Heaslip, Donovan, & Cullen, 2014; Holland et al., 2013). SRSs are also useful for classroom management (e.g., tracking attendance) and assessment (e.g., for-credit questions related to assigned readings), both of which can be used by the instructor to encourage engagement in large lecture courses (Sprague & Dahl, 2010). Comparatively, students in large lecture courses that do not utilize an SRS can more easily "acquiesce into a large tranquil sea of anonymity" (Taylor, 2013, para. 2). This disengagement has been "attributed to decreased efforts by students to understand the content presented in the classroom, decreased course performance, and an inability to articulate learning outcomes when reflecting on their experience in the large lecture course" (Cavender & Gannon, 2019, p. 3). Perhaps more so in cross-cultural courses than in other courses, learning outcomes cannot be fully achieved without this self-reflection (Holland et al., 2013; Trees & Jackson, 2007).

Incorporating a student response system (SRS) into a cross-cultural large lecture course can facilitate the active involvement and engagement that is necessary to increase students' openness to adopting more pluralistic perspectives (Cavender & Gannon, 2019; Fox-Turnbull & Snape, 2011; Heaslip et al., 2014). In addition, an SRS's anonymity can foster a more comfortable learning environment for students when issues of a sensitive nature (e.g., race, religion) are discussed, as is often the case in cross-cultural classes (Cavender & Gannon, 2019). However, the SRS can only augment the instructor's pedagogical strategy. It is reasonable to assume that the extent to which the SRS is perceived as an effective learning tool in a cross-cultural, large lecture course hinges on the instructor's ability to promote a comfortable learning environment (i.e., classroom climate) while objectively sharing knowledge (i.e., teacher credibility) with the class that reinforces the significance of students' SRS responses. The present study addresses a gap in the literature by probing more deeply into this assumption.

Another challenge to the success of cross-cultural course requirements at many institutions is that some instructors naturally integrate diversity into their pedagogical strategies, while others "don't necessarily buy the idea that they need to incorporate diversity" into their instruction (Deruy, 2016, para. 4). An SRS can be an especially useful tool for instructors who are hesitant to integrate diversity into their curriculums or who are unsure how to implement this change (Deruy, 2016). Additionally, instructors' views are situated in their own sociocultural backgrounds, and an SRS provides an added layer of objectivity to lectures as the class is polled and results are viewed and discussed in real time (Deaton & Deaton, 2013).

Integrated Inquiry learning and Constructivist Theory

Two theoretical foundations shaped the present study. The first, the integrated inquiry method, discusses the idea that, for students, active involvement in developing their knowledge on a particular subject is crucial for effective knowledge retention (Fox-Turnbull & Snape, 2011). The relationship between social learning and technological development is complex but inseparable in today's culture. Within the framework of technology education, providing students with classroom challenges that permit them to work within a technological culture motivates them more so as it has a direct relevance to their everyday lives. The students can make authentic and actual connections to issues and practices in society through activity and reflection (Fox-Turnbull & Snape, 2011). Integrating technology and education, students are given realistic opportunities to solve problems, write papers, and discuss a manner of various issues (e.g. social, health). Integrated inquiry learning is an effective teaching approach that easily lends itself to technology in a large lecture classroom (Fox-Turnbull & Snape, 2011). In the present study, the modality for integrated inquiry learning in the classroom is the SRS.

Heaslip et al. (2014) discuss how the constructivist theory of learning means that students' engagement and attention are both important to learning in the classroom. Constructivism and interactivity can be measured through students' involvement with the technology used in the class, students' engagement and participation in the class, and students' self-efficacy levels in the course (e.g., overall satisfaction, achievement of learning objectives; Heaslip et. al., 2014).

Methodology

Research Setting, Pedagogical Approach, and Description of Technology

In order to contextualize this study, it is necessary to provide a brief explanation of the research setting, the instructor's pedagogical approach, and how the SRS was used in the course prior to students' voluntary completion of the survey for this research at the end of the semester. The research setting for the present study was a three-credit, large lecture course at a university in the Midwestern United States. The course, Introduction to Fashion and Culture, is a major and minor requirement for students in the retail merchandising program and also fulfills the university's cross-cultural requirement. The course comprised 225 students and was open to all university majors and academic levels. Class sessions were 75-minutes in length and held twice weekly over the 16-week fall semester. The large lecture hall had theater seating, Wi-Fi connectivity, and instructional support technology (i.e., dual projection screens, audiovisual equipment). Course content was disseminated via PowerPoint presentations. The instructor also employed media content (e.g., video clips), contextual commentary, and the SRS system to aid the class's exploration of dress's role in shaping societal and cultural norms.

The instructor, a Caucasian female aged 36, describes her teaching philosophy as aligning with the constructivist paradigm in which knowledge is socially constructed through interaction with others and further, that active involvement is essential to the learning process (Fox-Turnbull & Snape, 2011; Heaslip et. al., 2014). Rather than perceiving the large lecture format as having a potentially negative impact on student learning, the instructor believes that teaching a cross-cultural course in a large classroom provides an invaluable opportunity to leverage the diverse student perspectives to facilitate achievement of course learning outcomes. The instructor also acknowledges the responsibility associated with teaching a diversity course and follows a pedagogical approach akin to that of Holland et al. (2013), which seeks to "avoid privileging one point of view, to encourage critical thinking and the development of authentic opinions, and, ultimately, to promote respect for the opinions of those with whom students disagree" (p. 279).

To cultivate the desired level of student engagement in the classroom, the instructor employed an SRS called Top Hat for use during lectures. Top Hat is seamlessly integrated with students' devices (i.e., laptops, tablets, cell phones, mobile apps), making it a convenient alternative to the traditional clicker. Top Hat was selected over other available SRS programs due to its recent license agreement with the university where the study was conducted which made the application free to all students. This also increased the likelihood that students in the Fashion and Culture course had been previously exposed to the SRS program in other classes. During the first class meeting, Top Hat was introduced and the instructor confirmed that all students understood how to use the technology. During each lecture, between two and four questions were deployed to students and their responses counted as class participation points. The real-time response data allowed the instructor to incorporate a discussion of the results into her lecture and create "teachable moments." Although individual student responses were visible to the instructor, only the collective poll results were shared with the class, allowing students to anonymously weigh-in on the socio-cultural topics being discussed. An SRS's anonymity lends itself to a more comfortable and honest exploration of subject areas (e.g., race, gender and sexuality, social class,

religion, etc.) that some may perceive as being sensitive in nature and/or contentious (Cavender & Gannon, 2019). Attendance points were also logged in Top Hat, mitigating the challenge of poor attendance that is often associated with large lectures (Mayer et al., 2009).

Two types of polling, background and opinion, were utilized via Top Hat. Background polling allowed the instructor to gauge students’ familiarity with and understanding of course topics, both before and after the lectures. This allowed her to monitor changes in student understanding or viewpoints that resulted from course instruction. The following example demonstrates a typical “before and after” background question posed by the instructor. During one class session, students were asked to respond to a question (see Figure 1) that gauged their perceptions of the environmental impact of the clothing industry. After the instructor lectured on the topic and showed an informational video segment, students responded to the question for a second time (see Figure 2). The reported change in student perceptions of the clothing industry’s environmental impact likely occurred due to the increase in knowledge that stemmed from the lecture and informational video.

Figure 1. Student responses to a background question posed on Top Hat before instructional content was disseminated.

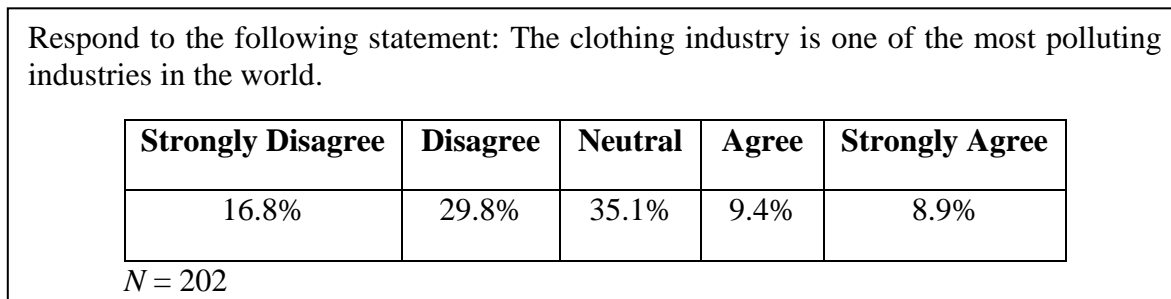
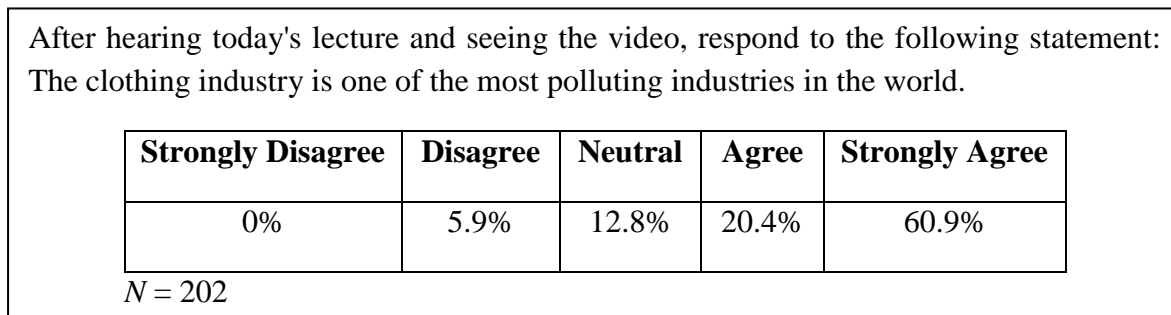
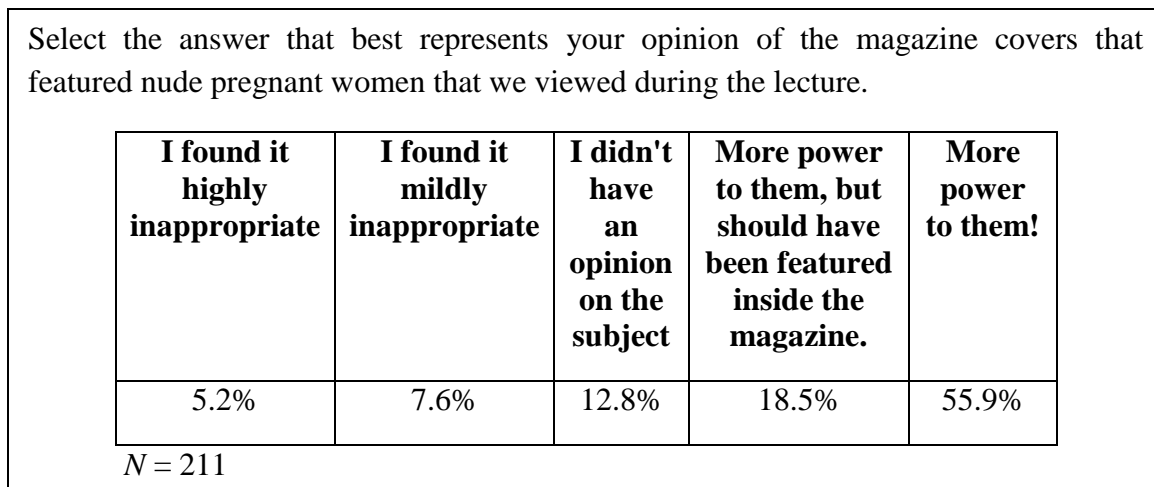


Figure 2. Student responses to a background question posed on Top Hat after instructional content was disseminated.



Holland et al. (2013) found that opinion polling may be more appropriate to instruction in a diversity course than content polling. The instructor of the course that comprises the sample for the present study shares this stance and formatted the majority of the Top Hat questions as opinion-based. The following example demonstrates a typical opinion question posed by the instructor. In order to facilitate a lecture on the evolving cultural norms for expectations of pregnant women, students were asked to respond to an opinion-based question (see Figure 3). This question also demonstrates a regular occurrence on Top Hat in which a clear majority was evident in the results. Top Hat’s anonymity allowed the instructor to discuss questions’ results without singling out students whose responses were among the minority. In addition, the instructor was able to highlight the class’s diverging views on lecture topics (norms of pregnancy in this case) and the underlying sociocultural factors (e.g., religion, gender) that may shape their perceptions, thereby creating teachable moments.

Figure 3. Student responses to an opinion question posed on Top Hat as instructional content was being disseminated.



Sample and Data Collection

This exploratory investigation utilized a convenience sample comprised of college students in a cross-cultural course, Introduction to Fashion and Culture, taught in the large lecture format at a university in the Midwestern United States. Holland et al.’s (2013) recommendations for future inquiry on students’ perceptions of SRS use in diversity courses informed survey development, and similar to Beard et al. (2013), “content validity was established by the subjective judgment of [two] expert reviewers who studied and utilized the SRS in the classroom” (p. 137). The survey instrument consisted of 16 closed-ended questions on a 5-point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (5), followed by 10 demographic questions.

The opportunity to participate in the study was announced by the instructor during the final week of the fall semester. Data were collected via an online survey (i.e., Qualtrics), accessible to

students through an anonymous email link. The landing page included an IRB-approved explanation of the study, informing students that their completion of the survey implied their consent. Other details were also provided, namely, that participation was voluntary and anonymous and that no course points could be earned through the activity. Despite participants' responses being anonymous, because the course instructor was one of the investigators for this research, data analysis did not commence until after the conclusion of the course.

Results and Discussion

Data from the closed-ended questions were analyzed using the Statistical Package for the Social Sciences Version 22. Survey completion was voluntary and 181 out of the 225 enrolled students (80%) responded. Table 1 presents the respondents' demographic characteristics. The sample was largely female ($n = 142$) and Caucasian ($n= 153$). Additional races cited by participants included African American ($n= 14$), Asian or Asian American ($n= 6$), Hispanic or Latino ($n= 4$), American Indian ($n= 1$), and Mixed Race ($n= 3$). The majority of students ($n=176$) were born in the United States and cited English ($n=175$) as their first language. Many students ($n= 149$) also indicated that they were religious. There were 142 underclassmen and 39 upperclassmen in the sample with students' ages ranging from 18 ($n = 22$) to 23 ($n= 2$).The sample included students in the retail merchandising program ($n=39$) for whom the course filled a university and a major requirement, but was widely represented ($n= 142$) by students from various majors across the university.

Table 1. Demographic Characteristics of the Sample

| Demographic characteristic % | |
|--------------------------------|-------|
| Student Characteristics | |
| Born in U.S. | 97.24 |
| English First Language | 96.68 |
| Female | 78.45 |
| Religious | 82.32 |
| Heterosexual | 95.01 |
| Race/ethnicity | |
| Asian or Asian American | 3.31 |
| Black or African-American | 7.73 |
| Hispanic or Latino | 2.21 |
| White | 84.53 |
| Other | 2.21 |
| Age | |
| 18 | 12.15 |
| 19 | 43.09 |

| | |
|-----------------------------------|-------|
| 20 | 27.07 |
| 21 | 12.71 |
| 22 and up | 4.97 |
| School Characteristics | |
| Class Rank | |
| Freshman | 18.78 |
| Sophomore | 59.67 |
| Junior | 10.50 |
| Senior | 11.05 |
| Major | |
| Arts and Sciences | 7.73 |
| Fine Arts | 2.76 |
| Business | 24.31 |
| Retail Merchandising | 21.55 |
| Health Sciences | 12.71 |
| Engineering and Technology | 4.42 |
| Communications | 18.23 |
| University College | 8.29 |
| Reason for Taking Course | |
| Cross-Cultural Requirement | 56.35 |
| Major Requirement | 23.76 |
| Personal Interest in Course Topic | 18.78 |
| Needed Extra Class/More Hours | 1.10 |

Role of the Instructor, Student Engagement, and Cross-Cultural Learning

The closed-ended questions were divided into three dimensions: role of the instructor, student engagement through Top Hat, and cross-cultural learning outcomes (see Table 2).

Role of the instructor measured two related concepts that have been found to positively influence student learning in cross-cultural courses, teacher credibility and classroom climate (Holland, 2006; Holland et al., 2013). Of course, the assumption among students is that their course instructors will have a high level of expertise (i.e., teacher credibility) in the subject matter they are teaching. However, instructors of cross-cultural courses must also be “multicultural and possess the skills to provide a classroom environment that adequately addresses student needs, validates diverse cultures, and advocates equitable access to educational opportunity” (Brown, 2004, p. 325). Instructors must also present information in an objective manner that considers students’ diverse beliefs and be prepared to navigate the class through discussions on course

topics that are particularly sensitive or divisive (Cavender & Gannon, 2019). Role of the instructor also included items related to the professor's cultivation of an open and interactive classroom climate (Salemi, 2009). In the course that is the focus of this study, the instructor employed Top Hat to cultivate the open classroom climate and emphasize to students that she was interested in their opinions and perspectives. The anonymity of Top Hat also provided students with a level of comfort to answer honestly when responding to questions. The instructor stated that, because Introduction to Fashion and Culture is an introductory course, students are exposed to many topics for the first time and might not yet have fully formed views in these areas. The size of the course also yielded an array of responses that reflected students' opinions. The real-time feedback provided by Top Hat allowed the instructor to incorporate commentary on the response data into the lecture. The instructor could also adjust to the specificities of the class and address poll results that were surprising or unexpected in addition to addressing poll results that were in the minority or majority and offering possible explanations. When necessary, the instructor could probe more deeply into student viewpoints by deploying additional Top Hat questions on the topic of study (Holland et al., 2013). In this regard, Top Hat provided a means for the instructor to create an open classroom climate in the large lecture by "encouraging and respecting student opinions, rather than simply lecturing to students who have no opportunity to respond" (Holland et al., 2013, p. 275). Survey results revealed that the majority of respondents either agreed or strongly agreed that the instructor was credible and cultivated an open classroom climate.

Student engagement through Top Hat measured the extent to which students' believed that Top Hat increased their engagement with their peers and with the course content. Survey results revealed that, for the majority of students, the use of Top Hat increased engagement in the large lecture classroom. Many respondents either agreed or strongly agreed that Top Hat was important to their course content engagement (84.5%) and their course content learning (76.3%) and that using Top Hat increased their feelings of connectedness with other students in the class (69.1%). In addition, 85 percent of respondents indicated that they enjoyed viewing the class poll results and 82.9 percent noted that viewing the class poll results contributed to their learning.

One barrier to student learning in cross-cultural courses is resentment (Holland, 2006). Students of all cultural backgrounds begin diversity classes with their own biases, values, and beliefs. In classes where course objectives suggest that students need to "change" their stances on cross-cultural issues, student resentment is particularly high (Brown, 2004). A more effective pedagogical approach geared toward facilitating diversity learning prompts students to "interrogate their beliefs and exchange ideas in an environment that supports multiple and varied views" (Holland, 2006, p. 199). The instructor for the Introduction to Fashion and Culture course aimed to mitigate resistance to cross-cultural instruction in order to instill in students a desire to continue developing their cultural competencies after course completion in order to become global citizens. To that end, the instructor explicated student-learning outcomes as a sequential process (i.e., awareness → reflection → critical analysis → cross-cultural learning) that did not cite a change in beliefs as a learning outcome (Holland, 2006). The survey results revealed that a

majority of participants agreed (83.5%) that viewing the poll results increased their awareness of the diverging views that the class held on cross-cultural issues. Results also suggest that Top Hat use prompted students to reflect on (78.5%) and think critically (75.2%) about their positions on cross-cultural issues. Finally, the majority of students(81.7%) indicated that comparing their responses with those of their peers contributed to their cross-cultural learning in the Introduction to Fashion and Culture course.

Table 2. Student perceptions of Top Hat use in a Cross-Cultural Large Lecture Course

| | | Percentage | | | | |
|--|--|-------------------|----------|----------|----------|-----------|
| | | SD | D | N | A | SA |
| Role of the Instructor (i.e., classroom climate, teacher credibility) | 1. The instructor was knowledgeable about course content. | 0.6 | 0.0 | 2.8 | 12.2 | 84.5 |
| | 2. The instructor created a classroom environment that made me feel comfortable exploring the cross-cultural subject matter. | 0.6 | 1.7 | 4.4 | 14.4 | 79.0 |
| | 3. The instructor created a classroom environment that fostered diversity learning. | 0.6 | 0.6 | 4.4 | 23.2 | 71.3 |
| | 4. The instructor’s discussion of the class’s Top Hat responses was interesting. | 0.6 | 2.2 | 9.4 | 27.6 | 60.2 |
| | 5. The instructor’s discussion of the class’s Top Hat responses contributed to my learning. | 1.1 | 3.3 | 9.4 | 29.3 | 56.9 |
| | 6. The use of Top Hat in the course was a good fit with the instructor’s teaching style. | 1.1 | 1.7 | 6.6 | 23.2 | 67.4 |
| | 7. The instructor’s teaching style increased my enjoyment of using Top Hat in the course. | 2.2 | 6.6 | 14.4 | 23.8 | 53.0 |
| Student Engagement through Top | 8. Using Top Hat contributed to my level of engagement with the lecture content. | 1.7 | 2.8 | 11.0 | 30.9 | 53.6 |
| | 9. Using Top Hat increased my learning of | 2.2 | 2.2 | 19.3 | 35.4 | 40.9 |

| | | Percentage | | | | |
|-----------------------|---|------------|-----|------|------|------|
| | | SD | D | N | A | SA |
| Hat | course content. | | | | | |
| (i.e., peer, content) | 10. Using Top Hat made me feel connected to my peers during lectures. | 5.0 | 6.1 | 19.9 | 26.0 | 43.1 |
| | 11. I enjoyed viewing the reports of the class's Top Hat responses. | 1.1 | 3.9 | 9.9 | 32.0 | 53.0 |
| | 12. Viewing the reports of the class's Top Hat responses contributed to my learning of course content. | 1.7 | 6.1 | 9.4 | 40.9 | 42.0 |
| | 13. Using Top Hat increased my awareness of the class's diverging viewpoints on cross-cultural issues. | 1.7 | 2.8 | 12.2 | 36.5 | 47.0 |
| Cross-Cultural | 14. Using Top Hat prompted me to reflect on my position on cross-cultural issues. | 1.1 | 6.1 | 14.4 | 36.5 | 42.0 |
| Learning Outcomes | 15. Using Top Hat prompted me to think critically about my position on cross-cultural issue. | 1.7 | 5.5 | 17.7 | 35.4 | 39.8 |
| | 16. Comparing my responses with those of my peers contributed to my cross-cultural learning in this course. | 1.7 | 4.4 | 12.2 | 39.2 | 42.5 |

Note: SD = Strongly Disagree; D = Disagree; N = Neither Agree Nor Disagree; A = Agree; SA = Strongly Agree

In order to examine the relationships between the three dimensions, the items measuring the role of the instructor were averaged to produce a composite score. Reliability tests were run and resulted in a Cronbach's alpha of .867 ($\alpha = .867$) for the scale. The items measuring student engagement through Top Hat were averaged to produce a composite score. Reliability tests were run and resulted in a Cronbach's alpha of .868 ($\alpha = .868$) scale. The items measuring cross-cultural learning outcomes through Top Hat were averaged to produce a composite score. Reliability tests were run and resulted in a Cronbach's alpha of .888 ($\alpha = .888$) scale.

Allen and Seaman (2007) suggest that the "analysis of Likert scalar data should not involve parametric statistics but should rely on the ordinal nature of the data" (para. 21). Therefore, a Spearman's correlation was utilized to measure the strength and direction of the association

between the scale variables (Allen & Seaman, 2007). There was a strong and positive relationship between role of the instructor and student engagement, which was statistically significant ($r_s(179) = .742, p = .000$). There was a strong and positive relationship between role of the instructor and cross-cultural learning, which was statistically significant ($r_s(179) = .661, p = .000$). There was also a strong and positive relationship between student engagement and cross-cultural learning, which was statistically significant ($r_s(179) = .739, p = .000$). These findings align with existing literature (e.g., Holland, 2006; Lee, Williams, & Kilaberia, 2012; LeHew & Meyer, 2005; Miller-Spillman, Jackson, & Huffman, 2006) that documents the positive effect of classroom engagement on cross-cultural learning, as well as research that supports the role of the SRS in cultivating the engagement that is necessary to achieve cross-cultural learning outcomes (e.g., Holland et al., 2013). The important role of the instructor is also evident, as hypothesized by Holland (2006). The findings indicate that the relationship between role of the instructor and student engagement is stronger than the relationship between role of the instructor and cross-cultural learning outcomes. This seems probable, as the instructor of the sample course facilitated student engagement through Top Hat polling and her commentary about the polling results. Students' increased engagement with the course content and their peers, in turn, increased their cross-cultural learning. Although the instructor did positively influence the class's cross-cultural learning, students' own levels of engagement most strongly influenced their achievement of cross-cultural learning outcomes.

To probe more deeply into the relationship between role of the instructor, student engagement, and cross-cultural learning outcomes, a multiple regression was run to predict cross-cultural learning from student engagement and role of the instructor. The response variable (i.e., dependent variable) was transformed using the Lg10 function in SPSS. These variables statistically significantly predicted cross-cultural learning, $F(2, 178) = 155.28, p < .001, R^2 = .636$. Both variables added statistically significantly to the prediction, $p < .001$. This finding demonstrates that SRS programs can be useful pedagogical tools in cross-cultural courses taught in large lecture formats. However, the efficacy of SRSs depends on the extent to which their advantages (e.g., cultivating engagement in large lectures, highlighting the diversity of student opinions and beliefs) are leveraged through instructors' pedagogical style to facilitate open classroom environments where reflection and critical analysis of cross-cultural issues can occur (Cavender & Gannon, 2019; Fullan, 2007; Holland et al., 2013; Trees & Jackson, 2007).

Role of Demographic Variables

In accordance with Allen and Seaman (2007), the Likert scalar data was analyzed at the ordinal level using the nonparametric equivalents to the t-test and ANOVA tests, Mann-Whitney U and Kruskal Wallis respectively. Nonparametric tests are more powerful than parametric tests when the sample is not normally distributed (De Winter & Dodou, 2010). The Mann-Whitney test was employed to determine whether significant differences existed in responses for cross-cultural learning, student engagement, and instructor role for the two values of each demographic (i.e., categorical, independent) variable. In order to conduct statistical analysis using the Mann-Whitney test, respondents were grouped into two categories for the following variables: birth

country (i.e., U.S., other), first language (i.e., English, other), gender (i.e., male, female), and religion (i.e., religious, not religious). The Shapiro-Wilk Test of Normality was performed and the results confirmed that groups significantly deviated from a normal distribution ($p < .05$), an assumption of the Mann-Whitney test (Field, 2000). The nonparametric test for homogeneity of variance was then conducted using rank scores for the sample and mean ranks for each group in order to calculate absolute deviation scores. Results indicated that the assumption of homogeneity of variance was retained ($p > .05$). Therefore, the distribution of scores for both groups of each independent variable are assumed to have the same shape, an assumption of the Mann-Whitney test (Field, 2000). The Mann-Whitney test did not yield any statistically significant differences in responses related to cross-cultural learning, student engagement, or instructor role for the four demographic variables.

The Kruskal-Wallis test (i.e., nonparametric ANOVA) was then employed to determine whether significant differences existed in responses for cross-cultural learning, student engagement, and instructor role based on students' sexual orientation, race/ethnicity, age, class rank, major, or reason for enrolling in the course. Each of these demographic variables had three or more categorical, independent groups, an assumption of the Kruskal-Wallis test (Field, 2000). The Kruskal-Wallis test did not yield any statistically significant differences in responses related to cross-cultural learning, student engagement, or instructor role for the six demographic variables.

These findings indicate that demographic factors did not significantly affect students' perceptions of the SRS's impact or the impact of the instructor's pedagogical style on their cross-cultural learning. This finding provides support for the value of an SRS in facilitating the achievement of course objectives (i.e., more pluralistic students) in a large lecture diversity course, regardless of the class's student composition.

Conclusions and Recommendations

The increased focus on diversity and inclusivity at American colleges and universities has resulted in the implementation of new diversity initiatives and necessitated an evaluation of the efficacy of existing initiatives, such as cross-cultural course requirements. Many challenges (e.g., student resistance, class size, instructor teaching style) to the successful dissemination of these courses exist, although the benefits (e.g., preparedness for global citizenship) are clear as well (Deruy, 2016; Shih, 2017; Simons, 2018). This study contributes to the growing body of pedagogical research on best practices for fostering student learning in cross-cultural large lecture courses and provides a foundation for further research exploration.

Results from data analysis suggest that SRS programs can be useful pedagogical tools in cross-cultural courses taught in large lecture formats when the instructor is perceived as credible and committed to cultivating an open classroom climate. This research also provides support for the Holland et al. (2013) finding that despite the size of the class, large or small, the instructor's pedagogical approach may be the most important factor in cross-cultural learning. Furthermore,

the success of an SRS depends on how it is employed by the instructor to support the overall pedagogical approach to the course.

Future research is needed to continue delineating best practices for cross-cultural course instruction in large lecture formats. Importantly, the culture of every classroom is unique (i.e., composition, student learning styles, individually held opinions and beliefs) and strategies that are successful and facilitate learning in one class section may not be as successful under different conditions (Cavender & Gannon, 2019; Holland et al., 2013; Trees & Jackson, 2007). Collecting data from a sample of large lecture diversity courses that are housed in a range of academic programs may be a meaningful next step in this area of exploration.

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