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Course Design, Belonging, and Learner Engagement: Meeting the Needs of Diverse International Students in Online Courses

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Abstract

International students comprise a growing population in U.S. higher education institutions, including online courses. Online international students' experiences and needs have been largely understudied, but their increased presence in online courses offers a rich opportunity to understand better and improve their course experiences. This qualitative study draws upon interviews with international and domestic online learners to illuminate the importance of inclusivity and how it can be improved through course design and facilitation. To address our research questions, we interviewed 27 graduate students at a large public research university in the United States. The sample included 17 international and 10 domestic students. The findings show opportunities for enhancing the online learning experience for international learners through culturally attuned teaching, supporting both social and cognitive presences along with clear course expectations, and encouraging instructor's responsiveness and peer engagement. This study concludes with four major implications for online instructors.

Keywords Belonging · Course design · Engagement · Inclusiveness · International student · Online learning

Introduction

Am I the only international student in this class? Will I be able to communicate effectively and comfortably in the class space? How will my peers perceive me? Will my perspective be relevant and valued in this class?

These are questions that international students may find themselves asking upon enrolling in an online course. The answers to these questions can be difficult to gauge in online learning spaces, where students in a class experience time, space, and communication differently even though united within and through the same technology (Dennen & Bong,

2018; Kabat, 2014; Sandel et al., 2019). To some degree, these questions represent elements beyond an instructor's control, such as enrollment, student communication ability and anxiety, and peer reactions. However, course design and facilitation can be leveraged to help overcome some of these uncertainties and create a learning environment where international students feel a sense of belonging and that their engagement is important. This approach can lead to active student participation (Choi & Hur, 2023).

Sense of belonging and engagement have implications for whether and how students fully access the learning opportunities in their online courses. When students do not feel welcome in a learning environment, they are less likely to access and participate in learning activities. In online learning spaces, less engaged students are invisible and easily forgotten. In the case of international students, an instructor might assume that lack of participation represents a student's preference or choice. However, it might actually represent discomfort, uncertainty about how to participate, differing cultural norms, or waiting to be welcomed as a participant in the learning space. Instructors can, through their course design and facilitation decisions, create online learning environments that are broadly inclusive and explicitly invite students to access and participate in the full learning experience.

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This study examines the online learning experiences of international students in the United States. Specifically, it focuses on how they experience inclusiveness, considering how specific course design and facilitation practices either foster or hinder their sense of belonging and engagement. We also include data from domestic students to augment and triangulate the perspective of international students. This secondary data source is focused specifically on their observations of and interactions with international students in their online courses. Prior research has found that domestic students play a role in international students' achievement of inclusion, belonging, and engagement (Lee & Rice, 2007; Shu et al., 2020; Song, 2020), as they represent the counterpart in the membership dynamic of international versus domestic. Collectively, the data from interviews with both populations is used to depict and classify the challenges faced by international students in their online courses and to offer implications for course design and facilitation.

Literature Review

As higher education institutions have become more internationalized (Nixon et al., 2021), courses in American postsecondary institutions are occupied by an increasingly diverse and global student body. According to the Open Doors, 2023 Fast Facts (2023), international students comprise more than 5% of the higher education student population in the United States. This number has continuously increased over the last several decades although there was a small pandemic-related dip (Silver, 2021). The number of international students enrolled in online classes includes international students who study abroad in the host institution's country, those who take online courses while remaining in their home country, and individuals who become part-time online learners while staying in the U.S. for business or family visits (Mittelmeier et al., 2021). Although international students are a minority in most online classes offered by United States institutions, their presence is not inconsequential and their numbers are expected to grow (Goodman & Martel, 2024).

Online international students are a diverse group whose experiences and needs have been largely understudied (Mittelmeier et al., 2021). In online learning literature, international students are recognized for providing valuable perspectives to their domestic peers who mutually benefit from collaboration with domestic counterparts (Lee & Bligh, 2019). However, they are a learner population with their own motivations and needs. Their international status renders them different from their peers in ways that may color their interactions in online courses (Choi et al., 2021; Öztok, 2014; Phirangee & Malec, 2017), and as a result affect their learning performance (Lear et al., 2010; Liu et al., 2007; Zheng & Warschauer, 2015). This phenomenon is evident in Markey et al.'s (2023) study where students demonstrated an 'us' versus 'them' way of thinking in a culturally diverse program.

The different perspectives and experiences that international students bring to the classroom can have positive effects. Heng (2017) found that Chinese international students studying in American colleges wanted their instructors and peers to demonstrate an awareness of and curiosity about their backgrounds. However, instructors tend to reinforce the dominant culture, as was found in Sun et al.'s (2019) study, and may overlook being inclusive of non-dominant cultures. A recent scoping review found that among studies of inclusion and belonging in higher education, inclusive teaching practices were among the least studied elements (Taff & Clifton, 2022). Instructors may not understand how to adjust their teaching practices to be inclusive of international students, which may result in their lesser sense of belonging and engagement in the learning environment.

Sense of Belonging and Engagement in Online Learning

Sense of belonging refers to a connection that an individual develops with people, within institutions, and in locations that leads to feelings of being included and valued (Goodenow, 1993). In a higher education context, sense of belonging may be measured at the institutional level or the classroom level, and may be related to a student's social capital in that setting (Ahn & Davis, 2020). At the classroom level, belonging is connected to learner motivation and self-efficacy and has been found to be higher when teachers exhibit supportive behaviors (Kirby & Thomas, 2021). Factors that foster a sense of belonging include inclusive course policies, student support, and receptivity, while barriers include bias, discrimination, and social exclusion (Taff & Clifton, 2022). In other words, the learning environment may help or hinder a student's sense of belonging.

Sense of belonging is closely connected with engagement. Learners who feel that they belong are more likely to access and participate in learning. Learner engagement has been defined in various ways, with most definitions including cognitive, behavioral, and emotional or affective components (Martin & Borup, 2022). Another review of engagement research found that it is often discussed in terms of its relationship with motivational factors and outcomes (Yang et al., 2018). Learner engagement is an important predictor of learning performance whether learning in a campus-based or online environment. (e.g., Fredricks et al., 2004; Lear et al., 2010; Redmond et al., 2018; Trowler, 2010). In an exploratory study of online learners, all participants indicated that engagement, which was fostered by interactions with their instructors and peers, was an important part of their sense of belonging (Peacock et al., 2020). Because of

their collective importance to learners and learning, a sense of belonging and engagement represent important elements to foster in online classes.

Frameworks for Supporting Online Course Belonging and Engagement

Two frameworks are used in this study to support our investigation of course belonging and engagement. The Community of Inquiry (CoI) framework (Garrison et al., 2000) explains three types of presence – teaching, cognitive, and social – that work together to contribute to students' knowledge construction within the community of inquiry (Shea et al., 2010). Teaching presence plays a pivotal role, guiding the learning process through effective course design (Caskurlu et al., 2021). Effective course design, in turn, supports cognitive presence and facilitates the development of social presence. Cognitive presence accounts for how learners use reflective and discursive processes to construct meaning (Garrison et al., 2001), and social presence accounts for the interactions that foster those processes. With that in mind, Armellini and De Stefani (2015) have suggested that this social component should sit at the center of the framework, as an enabler that unites the other presences in the learning environment.

Brown et al.'s (2022) Engagement in Online Learning framework outlines course design and facilitation strategies for effective learner engagement in online learning. It focuses on three areas, expectation management (e.g., clear communication of course expectations, identification of students' prior experiences and backgrounds), engagement (e.g., tracking and monitoring, recognizing positive online engagement), and nudging (e.g., personalized guidance and feedback). The helpfulness of these and similar strategies has been affirmed by studies of online learners in general (Martin & Bolliger, 2018) as well as studies examining the role of designed course touchpoints that foster cognitive and behavioral engagement (Tualaulelei et al., 2022). Instructors might implement online engagement strategies in varied ways, and their awareness of the specific needs of international students will affect their ability to effectively be inclusive and support belonging and engagement among this group of learners.

Purpose of Study and Research Questions

This study focuses on the experiences of international students as online learners, aiming to identify ways that online course design and instructor facilitation might be adjusted to maximize international students' success. By examining the online learning experiences and perception of international students with a focus on inclusivity, their sense of belonging, and engagement, this study aims to shed light on opportunities and practices for designing more inclusive courses for culturally diverse learners in the online learning environment. The research questions guiding this study are as follows:

1. How do perceptions of inclusiveness and belonging relate to international students' engagement in online learning environments?
2. What course design and instructor facilitation practices support or inhibit international students' belonging and engagement?

Method

Research Design

This qualitative study was designed to provide insights into effective course design and facilitation strategies that enhance the success of international students in online learning environments. Through interviews, participants shared their online learning experiences, providing their thoughts, values, perceptions, feelings, and perspectives (Wellington, 2015). As a qualitative study, this study is explorative and descriptive by nature.

Participants

The primary participants in this study are 17 international graduate students at a large public university in the southeastern United States (see Table 1). Additionally, 10 domestic students were included as a secondary participant group (see Table 2), offering additional insights into how international students are perceived and treated in their online classes. Students were recruited from varied majors, predominantly in the social sciences and information science fields. To be eligible to participate, students must have taken at least one online course that included either asynchronous online discussion or synchronous online interaction with instructors and peers. This criterion was intended to exclude participants whose online learning experiences were limited to self-study and who would, therefore, have limited experience interaction with instructors and peers in online environments. The study was approved by the researchers' Institutional Review Board, and all participants signed a consent form before participating.

To recruit participants, we initially contacted academic programs across different disciplines and asked them to share a recruitment poster via email. We then recruited additional participants through snowball sampling, seeking referrals from the initial participants and researchers' networks. Although we had hoped to have a more gender-balanced sample, it was difficult to recruit male participants.
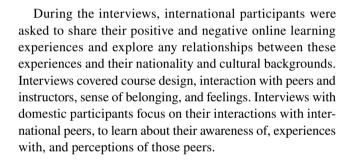
Table 1 International Participants' Demographics

Pseudonym	Region of Origin	Race/ Ethnicity	Gender	Academic Discipline	English as a Primary Language
Athena	Republic of Panama	White	Female	Social science	No
Cai	China	Asian	Female	Social science	No
Elisa	Colombia	Hispanic	Female	Social science	No
Jing	China	Asian	Female	Information science	No
Jiyoon	South Korea	Asian	Female	Social science	No
Kaya	Turkey	White	Queer	Social science	No
Maria	South Korea	Asian	Female	Social science	No
Mario	Colombia	Hispanic	Male	Social science	No
Mei	China	Asian	Female	Information science	No
Melissa	Belize	Black	Female	Social science	Yes (British)
Minjun	South Korea	Asian	Male	Social science	No
Mona	Iran	White	Female	Information science	No
Pema	India	Asian	Female	Social science	Yes (British)
Serin	Turkey	White	Female	Social science	No
Tara	India	Asian	Female	Social science	Yes (British)
Taylan	Turkey	White	Male	Math science	No
Weiy	China	Asian	Female	Information science	No

Table 2 Domestic Participants' Demographics

Pseudonym	Race/Ethnicity	Gender	Academic Discipline
Amelia	Black	Female	Social science
Arnold	Hispanic	Male	Social science
Isabelle	White	Female	Social science
James	White	Male	Social science
Joe	White	Male	Social science
Kate	White	Female	Social science
Marley	Black	Male	Social science
Mia	White	Female	Social science
Nalin	Asian	Female	Social science
Roy	White	Male	Social science

Data Collection

Participants were individually interviewed by one of three researchers using a semi-structured interview protocol that lasted 60 to 90 minutes. The first 13 interviews were conducted face-to-face and recorded using a digital voice recorder on mobile phones. However, with the onset of the COVID-19 pandemic, researchers shifted to remote interviews using video conferencing tools like Zoom for the remaining 14 interviews. Data collection began in November 2019 and concluded in July 2020.

During the interviews, international participants were asked to share their positive and negative online learning experiences and explore any relationships between these experiences and their nationality and cultural backgrounds. Interviews covered course design, interaction with peers and instructors, sense of belonging, and feelings. Interviews with domestic participants focus on their interactions with international peers, to learn about their awareness of, experiences with, and perceptions of those peers.

Data Analysis

Interview recordings were transcribed for analysis using a speech-to-text application, and immediate post-interview summaries were created to capture initial impressions. Participants were invited to review their interview transcripts for member checking, but only one participant chose to participate in this process. After reviewing transcripts and summaries, the research team met to discuss six major themes and indicators identified from the Community of Inquiry (Garrison et al., 2000) and Engagement in Online Learning (Brown et al., 2022) frameworks (see Table 3 for codebook). Researchers individually coded based on the themes and wrote memos for assigned interview transcripts. The team then convened to discuss findings for each theme across participant transcripts. After the discussion, tables were created to include answers to address each question, along with important quotes

Table 3 Codebook

Guiding Framework	Element	Indicators	Examples
Community of Inquiry (Garrison et al., 2000)	Social presence	Presence/absence of social interaction and norms in learning environments that foster social cohesion necessary for active participation.	• Opportunities for conversations, both on- and off-topic • Opportunities for sharing or self-disclosure of identities • Welcoming and inclusive tones • A sense of belonging and community
	Teaching presence	Presence/absence of instructor's instructional management, class activities design, and expectations for student learning and participation.	• Feedback on student work • Clear expectations and criteria for assessments • Setting deadlines for discussions • Varied modes of teaching and student participation
	Cognitive presence	Presence/absence of students' active cognitive engagement with class topics and use of learning strategies.	• Using learning resources (e.g., office hours) • Forming study groups • Participating in dialogues
Engagement in Online Learning (Brown et al., 2022)	Expectation management	Presence/absence of course information and resources that establish the online course expectation, norms, and institutional resources to help students engage in learning.	• Helping students acclimate to online learning norms. • Course participation requirements • Assignments details • Supplemental learning or institutional resources
	Engagement	Presence/absence of instructional strategies that support students' learning engagement.	• Communicating participation rules and expectations • Monitoring and tracking students' engagement. • Acknowledging and affirming positive student contributions • Providing diverse options for participation and non-participation
	Nudging	Presence/absence of instructional strategies that motivate or invite (especially less engaged or marginalized) students to get involved in groups and class activities.	• Pairing students in groups and facilitating collaboration • Following up on group interactions • Encouraging student participation through various means

and relevant themes from the frameworks. Finally, the team met again to look across the dataset and discuss the answers to each question. Throughout the analysis, researchers shared insights in multiple meetings, ensuring researcher triangulation. Helping mitigate bias, three of the researchers identify as 'international' in the U.S. context, all hailing from different countries, while the fourth identifies as domestic but has experience living and attending school in another country.

Throughout the analysis, the primary emphasis was placed on the experiences and perceptions of the 17 international student participants. Data from the interviews with domestic students was used to triangulate the data, typically affirming the challenges noted by the international students and reaffirming the international students' perception of being different from their domestic peers in the context of their courses. In other words, the domestic student interviews confirmed that the international students not only perceived themselves as being different

from their domestic peers, but their peers similarly noted the differences.

Findings

All of the students in this study understood how lack of inclusiveness could affect student comfort and success in online coursework. Throughout the interviews, international students shared stories about moments when they did not feel that they belonged in their classes and were not fully engaged in the learning environment and activities. Data from domestic students confirm that the international students' lack of engagement does not go unnoticed, although as a counterpoint many international students indicated how their peers' actions exacerbate their feelings that they do not belong and subsequent lack of engagement. In this section, we explore how different experiences inhibit inclusiveness, reducing sense of belonging and engagement, along with

ways that course design and facilitation can help or hinder the experience.

Inclusiveness and Engagement

International students framed their experiences of inclusiveness in three ways: Linguistic, cultural, and social. There was overlap between these three forms of inclusiveness, and opportunities for increased engagement were typically highlighted through examples where the participants reported not feeling included or central to the main group or activity within a course. Table 4 shows the prevalence of struggles with each form of inclusiveness. Throughout this section, each form of inclusiveness is discussed along with its connection to the Community of Inquiry Framework, demonstrating how perceptions of inclusivity are pervasive across elements of the online learning experience.

Linguistic Inclusiveness

Linguistic inclusiveness focused on knowledge of, facility with, and confidence in using language. The international students who did not have English as a first or primary language tended to be pushed to the sidelines of a class situation due to their language concerns and challenges. For example, Maria reported superficial levels of class participation to avoid miscommunication or conflicts. Linguistic issues spanned all four areas of language skill (i.e., reading, writing, speaking, and listening). Speaking and listening concerns were common in synchronous settings and when working in project groups. Additionally, participants

Table 4 International Students' Struggles with Inclusiveness

Pseudonym	Linguistic	Cultural	Social
Athena		X	
Cai	X	X	X
Elisa	X	X	X
Jing	X	X	X
Jiyoon	X	X	X
Kaya	X		
Maria	X	X	X
Mario	X	X	X
Mei	X		X
Melissa	X	X	
Minjun	X	X	X
Mona	X	X	
Pema		X	
Serin		X	
Tara		X	X
Taylan	X		
Weiy	X		

reported speaking and listening concerns in their on-campus experiences. Jiyoon shared that she was not comfortable speaking English with American students. She and Mei both reported struggling to understand her peers, whether in classes or social meetings. Kaya, who served as a teaching assistant in a synchronous class, could not always understand students who spoke quickly.

Reading and writing issues tended to focus on meaning and time. Maria shared her fears that she might not be conveying her intended meaning in writing, stating, "We are communicating on Google Docs, but am I being rude? Am I communicating appropriately?" Even students with strong English proficiency struggled with the specifics of language and meaning. Melissa, who spoke British English in her home country, shared about the challenges of idioms and colloquial language, stating, "Sometimes there are things that (domestic students and instructors) might mention that we don't know what they're referring to." Mei similarly gave linguistic examples that were initially confusing, such as American peers' using abbreviations like IDK for "I don't know."

Time was a straightforward concern. With lower levels of English language proficiency than their domestic peers, many international students required more time to complete reading and writing assignments. This meant that these students would need to plan more time for coursework, leaving less time for engaging in other aspects of life, including things like developing social relationships and support systems.

Mario also suggested that the "language of technology" should be considered as a barrier to inclusiveness. Some international students come from countries with lesser levels of technology adoption and integration in higher education, and struggle with both English and digital literacies at the onset of their online learning experiences.

Cultural Inclusiveness

Cultural inclusiveness focused on making connections with others despite different national cultures. In other words, to be culturally inclusive would be to show curiosity about someone else's culture, valuing it and encouraging them to share their background and experiences. Within the Community of Inquiry Framework, cultural inclusiveness touches on social presence, but also relates to cognitive and teaching presence.

The international students in this study reported being highly aware of the cultural differences between them and their American peers, even if they did not find cultural differences problematic. When discussing cultural issues, participants frequently discussed stereotypes. For example, Maria felt uncomfortable because she did not identify with certain Asian stereotypes, and Minjun shared how he relied

on assumptions about what Americans look like to identify who was a domestic student. Mario observed that different cultures have different communication styles, specifically commenting that he felt Americans have a tendency to be direct. Students' beliefs about themselves and others could shape their social presence and the nature of peer interactions they would pursue.

In terms of cognitive and teaching presence, cultural issues shaped the way some international students approached learning and their expectations of teaching. These students faced new ways of thinking about and approaching learning, due to both national cultural differences and the learning modality. Students had to renegotiate their understanding of class roles and expectations – an experience that differed based on one's nationality and prior experiences. For example, Elisa felt that she needed more direct instruction than her peers. James, a domestic student, shared a story about how domestic students would just jump into a conversation whereas his international student classmate would raise a hand and wait to be called upon, often getting overlooked. Mei shared that she felt more comfortable interacting with and asking questions of her American professors than she did at home in China.

Additionally, students reported that their classes typically contained course content that reflected the domestic learning context, reinforced by queries and examples from domestic peers, leaving them to explore relevance to their home country's context individually. Tara discussed class debate on immunization, expressing confusion about why it was a debated topic when it was considered non-debatable in her country. Similarly, Pema mentioned a class situation where the discussion focused extensively on LGBTQIA issues in the US, making her feel somewhat out of place. Seeking inclusiveness on this front would require these students to self-advocate, which was a task they generally were not willing to do.

Social Inclusiveness

Social inclusiveness focused on being a part of class activities and the larger academic community. Within the CoI Framework, social inclusiveness is related to social presence. To feel social inclusiveness, participants reported the need to build rapport and relationships with their classmates. Underlying some of the international participants' statements appeared to be an assumption that the domestic students all felt comfortable interacting with each other and must share a bond. Additionally, several participants such as Taylan indicated that they were shy, an attribute that could inhibit their ability to build social connections. Making friends was one way of breaking down the social barriers but could be difficult to accomplish online.

The degree to which these international students sought out a connection with domestic students varied. Tara spoke of domestic peers ignoring her, suggesting that the lack of connection was due to the actions of those peers, others indicated a preference for communicating and working with students from the same home country when possible, or with other international students. For example, Jiyoon reported being most comfortable interacting with her Korean friend, and Jing, who was the only Chinese student in her academic program, reported bonding with some Indian students. Being an international student was not the only factor that united Jing and the Indian students; they were also younger than most of their domestic counterparts.

Other participants were likely to interact with their domestic peers. Mei preferred to communicate with domestic students and felt that other Chinese students were more likely to judge her English: "Maybe some Chinese students will judge you like the grammar or vocabularies and your like accent, the accent, so yes, … That's the biggest problem." Minjun thought that American students seemed friendlier in online courses "because it seems that the language barrier between them and me falls down…" Additionally, Athena indicated that she felt welcomed by her classmates, stating, "I think they were always kind of fascinated that I am, you know, the combination of elements … I think they never excluded me."

Whereas linguistic inclusiveness was experienced similarly across participants, their perceptions and experiences of cultural and social inclusiveness appear to be personal ones. Students from the same country report different ways of experiencing and acclimating to the new culture. Some international students developed peer relationships and support systems – international and domestic – that helped them feel included in a course. Others remained in relative isolation.

Domestic Students' Perceptions of Inclusiveness

In each interview, domestic students confirmed that their international peers were different from them and might experience challenges due to language, cultural, or social issues. Although none of the domestic students communicated a desire for international students to feel like they do not belong – to the contrary, they claimed to value inclusivity – they readily accepted that a lesser sense of belonging might be a natural consequence of their status as international students.

Domestic students also indicated their own diversity and its potential for affecting belonging. Far from being a monolithic group, the domestic students reported being prone to feeling different from their peers. In other words, they also struggled with inclusivity. For example, Amelia shared about her experiences being the only Black woman

in an educational setting, and Marley also was aware that race positioned him differently from his peers. Other factors such as age or family status similarly caused some domestic students to feel different from their peers. In this way, the domestic students could relate to the need for greater social and cultural inclusivity and could somewhat understand their international peers' struggles in this area. Still, they consistently maintained a sense of domestic students being the ingroup and international students the outgroup, suggesting that their own experiences of belonging were nested within ingroup membership and did not impede their engagement in the online class space.

Language and cultural issues were considered most likely reasons for their international peers to be silent or disengaged. For example, Isabelle worried that international students may not know how to enter the conversation or to read subtle social cues. Arnold reported that he liked to hear the perspective of international students but noticed that many were prone to act in ways that avoided conflict. These students recognized that they may need to be solicitous and patient with their international classmates, acknowledging that silent acceptance is insufficient to foster inclusivity. Instead, domestic students understood the need to make space for international students to enter conversations and affirm the value of their contributions. However, recognizing this need is not equated with taking actions to be inclusive. Domestic students may not have the requisite skills to foster inclusivity and create space for international students to fully access the online learning space. Course design and facilitation are critical elements that provide structure to foster inclusivity.

Course Design and Facilitation

Students shared a variety of course design and facilitation elements, some good and some bad, that affected their sense of inclusion and engagement in their classes. We discuss these issues in terms of Brown et al.'s (2022) framework for higher education engagement in online learning, expectation management, engagement, and nudging.

Expectation Management

Expectation management is about helping students understand the course design and policies and facilitating their entry and adjustment to the course. Mario pointed out that expectation management might occur at a broader level, too. He pointed out that for international students, the first term in a new program can bring multiple adjustments. Beyond language and national culture, he discussed adjustments to new institutional culture, new administrative and technology systems, new levels of education (e.g., MA to PhD). Mona referenced a shift in expectations for verbal communication.

Additionally, the shift in modality to online learning also represents a context where expectation management was needed.

In their online classes, participants discussed expectation management surrounding course participation, assignments, grading, and course content. All of the students, international and domestic, indicated that clear class guidelines were helpful, especially in the absence of face-to-face class meetings that allow for real-time questions and answers, foster spontaneous interactions before, during, and after class, and provide attending students with the confidence that they have not missed anything important. The participants wanted to know things like when and how they should interact in the class and how they would be graded. When expectations were not stated explicitly, students tended to intuit what was important or required. For example, Weiy discussed how an instructor did not explicitly follow up on whether students completed assigned readings and concluded that completing the readings was a personal choice, one that she chose because she wanted to learn the material.

Unsurprisingly, one of the most shared expectations focused on discussion board use in asynchronous classes. Instructors tended to provide expectations for quality, quantity, and timing of posts. Still, students commented on the lack of true interaction or discourse that occurred on class discussion boards. For some students, like Tara, not engaging in discourse with others felt like an act of exclusion; she was aware that her peers did not respond to her messages in a meaningful way, if at all. For others, like Marley and Nalin, it was just the reality of an assignment where students were asked to post a certain number of messages by a deadline. If there were no grade-related consequences for failure to engage, then there was no need to strive for a deeper connection.

While expectations for frequency of posts and word counts were helpful, for some international students these communication expectations were daunting. They worried about their language skills and how others would perceive them, taking much longer than their domestic counterparts to construct discussion posts. James provided an example of a professor who tried to set students at ease regarding their language skills, stating, "He looked at her and said, 'I'm not grading you based on your English ability. I'm not [critiquing you] on your word choice. It doesn't matter. Don't get nervous.'"

However, other students shared examples of class expectations that caused anxiety, such as grading for grammar, and a class that heavily used Turn-it-in, a plagiarism tool. Isabelle, who had befriended an international peer, shared that between lengthy word requirements for discussion board posts and the written assignments, her friend spend a lot of time trying to both compose her thoughts in English and then to later paraphrase them in subsequent assignments in order to neither plagiarize course readings or her own

earlier writing in the course. James discussed the need to proofread discussion posts, with domestic students helping their international peers, and losing points for using British rather than American spellings. While these expectations may have been intended to communicate the expectation for high quality work, they also caused additional stress for international students.

Participants mentioned that course content and the assigned learning materials influenced their perceptions of whether instructors were prepared to incorporate international perspectives in their class. Pema discussed how she struggled to find the space for bringing in her own experiences. Tara reported silencing herself in these instances, whereas Athena had to request assignment flexibility to find personal relevance. Course materials also communicated the degree to which an instructor was in charge of the class. Serin shared that it was confusing when an instructor used class lecture recordings created by a different instructor. These content-focused instructor choices contributed to how students perceived teaching presence and could help them feel both included and closer to an instructor or the opposite.

Finally, expectation management can be used to combat eco-shock in the course space, acknowledging the backgrounds and prior experiences of students and easing students into the course culture. As shared in above examples, it was not uncommon for international students to experience eco-shock along multiple dimensions, and their instructors typically taught their online classes as planned – classes designed with a domestic student as the target learner, and with a focus on the learning that needed to take place in class but not on the learning that might need to take place in order to acculturate to course expectations, including technologies and pedagogical approaches. Mario commented that he felt his domestic peers were better able to understand class expectations because they had been undergraduate students in a similar environment. Weiy shared about online courses where little was done to acclimate students to the online learning environment and approach. Course material and content selection further supported international students' sense that they were less prepared or welcome as insiders in the course community. Whereas domestic students appeared to treat each class as a new hill to climb, for newly enrolled international students the hill could feel more like a mountain because of higher expectation management needs.

Engagement

Engagement encompasses the many ways that instructors support interaction in online courses. As noted above, international students shared their reticence to interact in their online courses due to a combination of language, cultural, and social concerns. Whether students engaged with the instructor or each other, the instructor set the expectations for engagement through their words and actions. Tara discussed the pivotal role of instructors in setting the tone for inclusivity, "I strongly believe that the professor has to take steps towards it, because professors are so lax and show a lack of care, and then [it's] just reflected on the students." Pema noted that instructors could be inclusive by responding positively when international students communicated in class, looking beyond strong accents or uncertain word choices, and Elisa commented that classes worked better when the instructor was engaged in discussion.

To some degree, engagement was related to relationship building and social connections. For example, Mario noted that it was important to share his identity as an international student with his peers. Minjun commented that when instructors required course introductions, students were able to make connections with each other. Finding out that classmates shared an interest in cooking or playing basketball helped break down cultural barriers to interaction.

During synchronous classes, the options for engagement varied. Serin and Jing discussed classes where the expectation was to not be engaged. The instructor lectured and the students listened. In other classes, students could type in the chat, but for Weiy, who typed slowly and needed time to find the right words in English, the topics shifted too quickly to reasonably interact that way. None of the students shared stories of robust engagement during synchronous lessons, and two indicated a belief that those students who chose to interact were domestic students.

Asynchronous classes relied heavily on discussion boards for engagement, with students expected to post messages and interact with each other. Students expressed frustration with instructors who were absent from these discussions and who neglected to provide feedback. These concerns were expressed equally by both international and domestic students. International students seemed to have greater concerns about a lack of response from their peers. They assume it may be because domestic students do not want to interact with them, or they expressed themselves poorly or inappropriately. However, domestic students gave other reasons. Roy responded to people he knew, and Joe found his international peers intelligent but felt it was too much effort to respond to their detailed posts.

Engagement also involves out-of-class interactions and help-seeking. Beyond regular course meetings and discussions, participants reported how instructors made themselves available to students. Most typical were synchronous online office hours or Q&A discussion forums. International students like Mei, Kaya, and Melissa used these communal opportunities to see what questions their peers asked and the response they received. Additionally, students like Serin relied on out-of-class relationships with peers to better understand course expectations, learn the meaning of idioms and cultural references, and social support.

Nudging

Nudging is an act through which an instructor encourages a student to get involved. One approach to nudging, recommended by multiple students, was to connect or pair up students. Kate shared a story about inviting an international student into her social circle, but not all domestic students self-initiated such interactions. Isabelle, a domestic student, commented that it was a welcomed connection to be paired with an international peer but one she might not have made on her own. In contrast, Maria discussed how she, as an international student, lacked social capital. When placed in a group where she was ignored by her peers, she felt like an outsider but did not want to report the problems to the instructor. These examples show how an instructor can help broker connections, but simply grouping students may not be sufficient; follow-up may be needed to ensure effective outcomes.

Nudging also might be used to help bring international students into the class conversation and make them feel welcome and valued. Pema and Mia both suggested that instructors might call in students. Pema stated, "If the instructor asked a student who's from Argentina, 'What is it like in Argentina?' I think it would really add to the discussion. Two domestic students also recognized the role they might play here. Melissa shared that she would seek out and respond to students who had not received a response, and Arnold said he liked to offer positive reinforcement to his peers, acknowledging their efforts to participate in class in hopes that they would be encouraged to continue to participate. Therefore, while nudging is an instructor's responsibility, peers may also elect to nudge each other.

Discussion

Our findings revealed the international students' struggle with a sense of inclusiveness concerning language, culture, and social norms, and its relation to their online learning experiences. The findings also provided opportunities to enhance their online learning experiences through culturally attuned teaching, supporting both social and cognitive presences along with clear course expectations, and encouraging instructors' responsiveness and peer engagement.

Inclusiveness and Online Learning Experience

The findings in this study confirm that international students struggle with inclusiveness along linguistic, cultural, and social dimensions. Additionally, experiences of inclusiveness – or lack thereof – differed across classes, reflecting course design, instructor facilitation, and peer interactions and support. Specific areas of concern varied by student and

reflected elements of their personal background and personality traits. Although other studies have examined and found differences among clusters of online learners from different countries (Dennen & Bong, 2018; Gómez-Rey et al., 2016; Sandel et al., 2019), when considering how a small group of international students fits within a larger class of domestic students, cultural stereotypes are not highly useful. The diverse experiences of the students in this study, including differences among students from the same country of origin, highlight how people are unique in their experiences and needs.

Across the interviews with international students, all could easily share instances and ways in which they were different from their classmates. This awareness of how one is different has been documented in other studies (Phirangee & Malec, 2017; Yang et al., 2010). Differences are not inherently problematic or isolating. Both international and domestic students in this study shared stories about friendships and support networks forged with the other group. However, linguistic, cultural, and social issues can pose an initially imposing barrier to international students in online classes, inhibiting the development of these relationships and or otherwise influencing a student's activities within the class.

From the community of inquiry perspective, when inclusivity is lacking in social and teaching presence, students suffer. Other studies have found that teaching presence predicts student learning outcomes (Caskurlu et al., 2020), which raises the question of whether students who feel excluded are at a learning disadvantage. Although excluded students may be less likely to interact in class and establish visible cognitive presence, prior research is inconclusive regarding whether their levels of cognitive presence are actually lower (Caskurlu et al., 2021). The students in this study were successful learners and exhibited awareness of their learning processes and their role in a class. These insights might be considered evidence of learning presence, a fourth type of presence currently being explored in the CoI framework (Shea et al., 2022).

Course Design and Facilitation Elements

These international students persisted in learning regardless of feelings that they did not fully belong within the Community of Inquiry. Through their stories, various ways to improve the experience through course design and facilitation were shared. Expectation management, the first component of Brown et al.'s (2022) conceptual framework for online learning engagement, was affirmed as an important part of learning success. Some elements that participants appreciated, such as clarity in course design and requirements, are supported by existing course design standards (e.g., Quality Matters Higher Education Rubric, 2023). Instructors can

adopt these standards and use them to design online courses with clear expectations and easy-to-find information, which benefits all learners. If more instructors adopt these standards and if institutions in turn offer detailed orientation to the institutional online learning environment, some of the initial issues faced by online international students may fade.

Other elements are more personal, such as the need for instructors to help international students learn to navigate unfamiliar cultural components of the learning context. Additionally, instructors can demonstrate their desire for inclusivity through their choice of course content and flexibility in discussion prompts and assignments, making space for learners of all backgrounds to find personally meaningful connections. The inclusion of cross-cultural content has been suggested by others who have studied the international student experience (Liu et al., 2010; Sun et al., 2019) but, as shown in this study, clearly remains an issue in settings of practice. While this form of inclusivity is clearly desired by international students, it may not always be practical to implement. Instructors may lack the time or knowledge to effectively represent international viewpoints or may be constrained by tight accreditation or curricular requirements.

This study found that engagement in the form of interaction is important to online learners. Instructors need to be available in and out of class meeting times and might consider communal office hours and help-seeking spaces where quieter students may benefit from answers to questions asked by their peers. Although engagement may occur among peers, instructors set course expectations and affirm performance through their interaction and feedback. Engagement has been a perennial focus of online learning research (Martin et al., 2020), but it all too often takes the form of perfunctory threaded posts. Intersubjectivity, the sense of mutual understanding developed when learning partners (including the instructor) establish rich dialogue, is neglected in many conversations about online learning (Dennen et al., 2023). International students expressed the lack of intersubjectivity – and the overall lack of interaction – they experienced in online discussions, whereas their domestic counterparts seemed to accept this as a part of online learning, seeking the easiest ways to fulfill course requirements. In order to better foster inclusivity through engagement, online instructors need to value and model the depth of responsive interaction necessary to develop intersubjectivity. Additionally, they might consider relaxing onerous expectations for language and interaction (e.g., formality, length of posts, grammatical expectations) and fostering a culture of curiosity and open exchange in which all students are comfortable sharing their thoughts and asking for clarification when they do not understand.

Nudging has become a topic of interest in learning analytics, where researchers want to use data to identify when and how to best provide a nudge to online learners (Brown et al., 2023). This study suggests that small-scale, personalized nudging is appreciated by international students and can foster a stronger sense of inclusivity. Instructors might use nudging strategies to encourage international students to be more active in discussions, to share examples and experiences from their cultural context, and to build relationships with domestic classmates. Additionally, domestic students might be nudged to develop curiosity about other cultures, to explore their own culture through an outsider's lens, and to build relationships with international classmates. Instructor encouragement to ask questions might also be considered an effective form of nudging (Weijers et al., 2024), and students in this study clearly appreciated it when instructors made themselves available for the expressed purpose of answering questions. Nudging at scale could be difficult, but hopefully advances in learning analytics and artificial intelligence can help provide learners in large online classes with the support they need without overwhelming instructors.

Limitations

This study has several limitations. First, as a qualitative study, the findings should not be considered generalizable in other contexts. Of particular note, this study focuses on international graduate students, a population likely to have higher learning persistence and self-efficacy than undergraduates. Additionally, the study is specific to being an international student in the United States. Second, our participants were predominantly female and primarily from the social sciences and information science fields, as they were mainly recruited through snowball sampling. The lack of response from potential male participants may suggest their lower interest or concern in our study topic. Third, the participants took both online and campus classes, and their experiences differ from online students who learn entirely at a distance. Fourth, the domestic participants who opted into the study may hold more positive views of international students than the general population of domestic students. Fifth, these participants experienced diverse course modalities, from fully online to remote courses using video conference technology. Future research might explore experiences of international students learning at a distance as well as focus specifically on a single modality.

Conclusion

While online learning environments hold promise for supporting equitable learning experiences, all too often this potential is not realized in practice. This study focused on the experiences of international graduate students, who shared examples and non-examples supporting the value of culturally attuned teaching, social, and cognitive presences along with clear course expectations, responsive instructor and peer engagement, and nudging to foster that engagement. Data

were collected from domestic students to add a different perspective on the international student experience, but domestic students also affirmed that they benefit from the same course design and facilitation strategies despite differences in perceptions of linguistic, cultural, and social inclusivity.

There are four major implications of this study for online instructors. First, this study has affirmed the value of systematically designed online courses, with the goal of making course structures and expectations visible at the beginning of a course and consistent throughout. Second, this study has demonstrated the importance of social connections for inclusive experiences. With this in mind, online instructors might leverage introductions and facilitate small group work to help students build these relationships in their course. Third, online instructors should examine the role their language, content, pedagogy, and engagement choices play in establishing an inclusive classroom. Fourth, online instructors need to consider their personal responsibility to help students acclimate to their course, which may include providing low-stakes opportunities to practice with course technology and establish mastery of course communication expectations as sensitivity toward the prior experiences and expectations of students, regardless of their background.

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