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Making meaning of intercultural experiences: Exploring the effectiveness of the intercultural pendulum for education abroad students

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Abstract

Acheson and Schneider-Bean (2019) depicted the five developmental stages of the Intercultural Development Continuum (IDC) (Hammer, 2012) on a pendulum that swings between a focus on similarity and a focus on difference, in order to capture the fluctuating, nonlinear, complex nature of intercultural competence development and maintenance across different contexts and points of time. To investigate the practical utility of the Intercultural Pendulum as a teaching tool with study abroad participants, this framework was tested as a coding schema with a qualitative dataset drawn from a reflective assignment completed by students who spent at least one semester in an education abroad program. The study qualitatively explored the intercultural competence of participants and the applicability of the Intercultural Pendulum to lived experiences in this context, concluding with discussion of implications for praxis when using the model in this context.

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Abstract in Spanish

Acheson y Schneider-Bean (2019) describieron las cinco etapas de desarrollo del Continuo de Desarrollo Intercultural (IDC) (Hammer, 2012) en un péndulo que oscila entre un enfoque en la similitud y un enfoque en la diferencia, con el fin de capturar la naturaleza fluctuante, no lineal y compleja del desarrollo y del mantenimiento de la competencia intercultural en diferentes contextos y momentos. Para investigar la utilidad práctica del Péndulo Intercultural como herramienta de enseñanza con participantes de estudios en el extranjero, este marco se probó como un esquema de codificación con un conjunto de datos cualitativos extraídos de una tarea reflexiva completada por estudiantes que pasaron al menos un semestre en un programa de educación en el extranjero. El estudio exploró con métodos cualitativos la competencia intercultural de los participantes y la aplicabilidad del Péndulo Intercultural a las experiencias vividas en este contexto, concluyendo con una discusión de las implicaciones para la práctica al usar el modelo en este contexto.

Keywords

Cultural adaptation; intercultural competence; Intercultural Development Continuum; Pendulum model; study abroad outcomes

1. Introduction

While the fields of communication, education, psychology, and social and health sciences have not come to perfect agreement about the definition or components of intercultural competence (Spitzberg & Chagnon, 2009), scholars have made strides in constructing theoretical models that elucidate how intercultural competence (IC) is/can be developed (Bennett, 1986; Deardorff, 2006; Hammer, 2015). These models not only allow for the conceptual understanding of developmental processes but, practically speaking, they also provide the theoretical foundation for instruments that assess where people are developmentally and offer frameworks for intercultural instructors, facilitators, trainers, coaches, and other mentors to sequence learning materials with a developmental agenda. More recently, Acheson and Schneider-Bean (2019) proposed arranging the five developmental stages of the Intercultural Development Continuum (IDC) (Hammer, 2012) adapted from Bennett's (1993) Developmental Model of Intercultural Sensitivity (DMIS) on a pendulum. In Acheson and Schneider-Bean's Intercultural Pendulum model, IDC orientations swing between a focus on similarity (manifested in Denial and Minimization)

and a focus on difference (manifested in Polarization and Acceptance), with the balance point at Adaptation. This Intercultural Pendulum aims to capture the fluctuating, nonlinear, complex nature of IC development.

To investigate the practical utility of the Intercultural Pendulum in the study abroad context, the framework was tested as a coding schema with a qualitative dataset drawn from a reflective assignment completed by students who spent at least one semester in an education abroad program. The following research questions guided the project: What does the application of the Intercultural Pendulum to lived experience reveal about participants' intercultural competence development during an education abroad program (RQ1)? What can we learn about the applicability of the Intercultural Pendulum to education abroad students' experiences by analyzing how learners are articulating their experiences (RQ2)?

In the sections below, after reviewing relevant literature and describing our study methodology, we present our findings and then discuss their theoretical and practical applications.

2. Literature review

The field of intercultural communication competence has been developed through five decades of scholarship. Researchers, educators, and practitioners through their work have addressed a wide range of crucial issues, from theory development such as defining the construct of IC (Deardorff, 2006) and creating models that represent the process of intercultural learning (Spitzberg & Chagnon, 2009) to practical tasks of designing intercultural learning tasks and activities (e.g., Berardo & Deardorff, 2012). While this body of work has established some disciplinary infrastructure, scholars have continued to call for more research and investigation both articulating the conceptualization of IC (Arasaratnam-Smith, 2017; Vijver & Leung, 2009) and operationalizing the construct for measurement purposes (Deardorff, 2017; Fantini, 2009).

One benefit of theoretical development in the field is better capacity to design effective learning experiences (Harvey, 2017; Nolan et al., 2022). Bennett (1986) critiques many intercultural training programs as “a potpourri of exercises and ideas” instead of deliberately selected and sequenced materials that vigorously facilitate students' development (p. 180). A guiding framework for intercultural development that meets the needs of learners with stage-based intervention design is the Developmental Model of Intercultural Sensitivity

(DMIS) (Bennett & Bennett, 2004). This model positions IC along a 6-stage progressive spectrum. The first three stages in the DMIS are ethnocentric, meaning that interactants regard their own culture as central in understanding the reality: (i) a parochial Denial of difference, (ii) an evaluative Defense against difference, and (iii) the universalist position of Minimization of difference. The last three stages present ethnorelative orientations, which means that interactants experience their own culture in the context of other cultures and can frame-shift to other viewpoints as they encounter cultural differences: (iv) the Acceptance of difference; (v) Adaptation to difference; and (vi) the Integration of difference into one's worldview.

The DMIS marked a significant theoretical advancement in conceptualizing and assessing IC (Paige et al., 2003; Spitzberg & Chagnon, 2009) and has become an internationally renowned scale for assessing intercultural progression, especially in corporate environments (Hammer, 2012). Based on the DMIS, the Intercultural Development Inventory (IDI) was created to assess individuals' intercultural sensitivity and place them on the DMIS spectrum (Hammer, 2009). Later, the Intercultural Development Continuum (IDC), a revision of the DMIS grounded in data from the IDI, was introduced with five developmental stages from Denial to Adaptation arranged in order from more monocultural to more intercultural mindsets (Hammer, 2012).

In the area of curricular design for intercultural training, the DMIS and related models have also been adopted as a framework for sequencing instructional materials (Vande Berg, 2015). Janet Bennett and Michael Paige, in particular, were renowned for training practitioners and scholars at the annual Summer Institute for Intercultural Communication in stage-based pedagogy – that is, choosing activities for workshops and courses based on the developmental needs of participants as identified by the DMIS or IDC (Bennett, 2012). Scholarship has documented the application of the DMIS in curriculum development in a wide variety of settings all over the world, including assessing the intercultural sensitivity of students and teachers' (Straffon, 2003), expatriates (Cassiday, 2005), study abroad students (Anderson & Lawton, 2011), and service-learning participants (Westrick, 2004).

Practitioners and scholars have noted that learners' trajectory of intercultural growth is not as stable and linear as implied in the DMIS and IDC (e.g., Brizgys et al., 2023; Johnson et al., 2022). In Van Der Poel's (2016) research, study abroad participants were found to move in both directions of the IDI while Krishnan and colleagues (2017) initially saw declination on the IDC from

participants before adding more reflection and mentor support to interventions. Garrett-Rucks (2014) recounts experiencing difficulties in using the DMIS to place learners' IC on a fixed stage when they provide contradictory information in their writing, indicating both ethnocentric and ethnorelative orientations (p. 187). More recently, Jones and colleagues (2019) found regression in IDI scores to be quite common in semester-long study abroad students without support from a mentor, while regression was significantly reduced for students with either group or individual mentorship support. Furthermore, Starr, Yngve and Jin (2022) demonstrated that iteratively revising a learning community curriculum to intentionally support intercultural development reduced the number of students experiencing regression on the IDC in later cohorts of the program. Since the IDC model's linearity does not fully capture the fluid and complex work of maintaining and developing IC, users of the Intercultural Development Inventory (IDI) have reported struggling to understand "regression" over time because "the [IDC] model only projects forward growth" (Acheson & Schneider-Bean, 2019, p. 44).

The intercultural pendulum

Acheson and Schneider-Bean's (2019) article revamps the DMIS and IDC in light of the lived experiences of expatriates and shares Schneider-Bean's story as she moved from the Midwestern U.S. to Switzerland and later to Ouagadougou, Burkina Faso. Being an established American professional in Switzerland, Schneider-Bean's IC had already developed to ethnorelativism, which enabled her to adapt well to Swiss society. However, amidst the unfamiliar context of West Africa, she found herself being pulled towards too much focus on difference: from appreciating its "exotic" daily life, a sign of polarization-reverse, to feeling disappointed and making negative comparisons with her previous life, which indicates polarization-defense (p. 53). The intercultural swings Schneider-Bean experienced are not unique among culture-crossers. Indeed, similar phenomena have been observed by both Schneider-Bean and Acheson in their years of work -- Schneider-Bean as an intercultural coach with expatriate clients and Acheson as a professor and intercultural mentor to university faculty and staff.

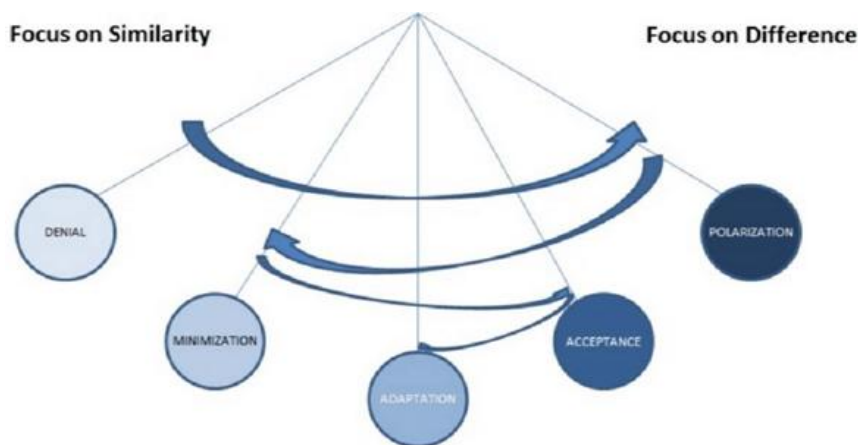
Thus, Acheson and Schneider-Bean proposed the model of the Intercultural Pendulum with the arrangement of the five developmental stages of the IDC, from Denial to Adaptation, swinging between too much focus on similarity (manifested in Denial and Minimization) and too much focus on difference (manifested in Defense and Acceptance), with Adaptation at the

balance point between the two extremes (see Figure 1 on the next page). These scholars argue that the pendular model can explain and demonstrate the fluctuating nature of IC as the interactant enters a new cultural context, reacts to events and internal phenomena, and/or stops actively focusing on maintaining effective intercultural practices.

The analysis of Schneider-Bean's narrative continues with attention to her experiences and coping strategies. For example, while there were barriers for her to make friends with Burkinabe locals, she reached out to the expat community in Ouagadougou and, at the same time, maintained strong connections with her loved ones from afar. These practices, in her reflection, gave her a sense of security and helped her become more stable and adaptive to the new life in Burkina Faso. A year later, however, the Ebola outbreak occurred in West Africa and the World Health Organization declared a state of emergency in the region. This epidemic situation left Schneider-Bean struggling in her social interactions, as she was torn between being "prudent" to protect her children and being "rational" (p. 14). Just when the anxiety from the potential spread of Ebola settled, there was a political uprising in Burkina Faso, leading to escalating political uncertainty around governmental transitioning. These successive events gradually pushed Schneider-Bean into a state of "expat fatigue". To cope with this challenge, she adopted self-care strategies such as running, arranging evenings out with friends, and spending a little time reading or journaling at night, all of which helped her feel more "grounded".

FIGURE (1)

IDC ORIENTATIONS ON A PENDULUM (ACHESON & SCHNEIDER-BEAN, 2019, p. 50)

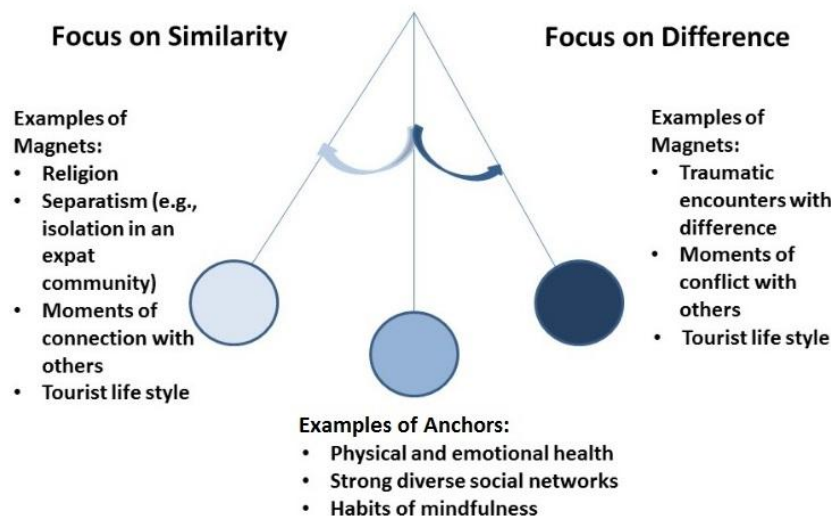


To explain how external forces and personal practices can destabilize or stabilize one's intercultural pendulum, Acheson and Schneider-Bean introduce

the metaphors of magnets and anchors (see Figure 2.). “Magnets” refer to “the exterior forces which tend to pull the pendulum to one side or the other” and induce the culture crosser to focus on either similarity or difference (p. 12). One may experience magnets that pull their intercultural pendulum towards too much focus on similarity or difference. For instance, a life insulated from local cultures may prevent an expatriate from understanding deeper cultural practices such as communicative styles and belief systems. Thus, this buffer could encourage a conclusion that life abroad is not really all that different from life back home (denial) or that beneath surface level differences like food and architecture we are all just human beings who want the same things (minimization).

FIGURE (2)

FORCES THAT ACT ON THE PENDULUM (ACHESON & SCHNEIDER-BEAN, 2019, P. 54)



On the other hand, there are magnets that pull us towards too much focus on differences. Entering an unfamiliar environment with a system of values and beliefs that challenges our own can induce an “us vs. them” stance as a self-protection mechanism (polarization). We may also be pulled towards difference when we find ourselves recognizing and respecting other cultures’ practices but not able or willing to engage in local practices or behavioral norms (acceptance).

If magnets pull people into swings on the intercultural pendulum, “anchors” help stabilize and maintain development (preventing regression). While magnets themselves can be beyond our control, we can cultivate anchors to create more stability and balance. One kind of anchor that can help

counteract the effects of magnets is self-care in both physical and emotional areas. Activities such as getting enough sleep and exercise, eating well, or managing stress help foster our personal resilience when we have to settle in unfamiliar settings. We can maintain strong social networks with our loved ones which can serve as an anchor of emotional support and build up membership in local communities as a resource to learn about and adapt to the new culture.

The intercultural pendulum, with emphasis on the fluctuating nature of IC under external forces over time and across contexts, addresses several gaps in the disciplinary discourse on intercultural competence development and maintenance. First, it reconciles the conflicting views about global and local aspects of IC, i.e., whether intercultural competencies can be transferable, by demonstrating how one's IC can be partially transferred to a new context at the global level but should be adjusted at the local level. Second, it normalizes (and thus removes the shame from) nonlinear development of IC through the swings between orientations and the magnets that cause them. The metaphors of magnets and anchors offer useful visual demonstration of external forces that cause these swings and internal strategies that counterbalance them. Lastly, the IC Pendulum highlights the importance of intentional maintenance of IC after its initial development. It encourages culture-crossers, especially those who have reached multicultural orientations, to purposefully practice strategies such as mindfulness and self-care in order to sustain progress they have made towards more ethnorelative/multicultural orientations.

3. Methods

Participants ($N = 129$) in this study were U.S. university students from a large, Midwestern land grant university engaged at the time of data collection in semester-long education abroad programs in other parts of the world. These students were voluntarily taking an online mentored course to support their intercultural development while abroad. Written reflections were anonymized by the course coordinator so demographic data is not linked to specific writing samples. However, demographic data for the course reflects a participant group that identified as: 111 STEM students versus 18 non-STEM students; 55 males, 72 females, and 2 of unidentified gender; and 17 international students and 112 domestic students of Asian (11), Black (3), Hispanic (14), White (72) and Other (12) ethnic backgrounds. Most students were studying for a semester or more in Europe (111), but the destination was East Asia for ten students and Latin

America for eight. All participants took the IDI as part of the course curriculum, and the pretest group mean Developmental Orientation score was 92.4, which falls within the Low Minimization orientation on the IDC.

As part of the course, participants were familiarized with the Intercultural Pendulum by watching a brief introductory video on the model. Students then completed a digital reflective writing assignment in the Qualtrics platform to apply the Pendulum to their prior intercultural encounters and debrief their learning experiences while on study abroad. Three open-ended questions they answered included:

1. Do you tend to focus primarily on how you are similar to or different from other people in your life (home, work, community)? Describe specific examples.
2. Where do you think you are in terms of movement on the pendulum's arc right now? Are you stable? Swinging? Anticipating an upcoming swing? Explain.
3. Think through your own personal magnets and anchors. Identify and describe at least one personal magnet and one anchor. Reminder: Magnets are exterior forces which tend to pull the pendulum towards too much focus on similarity or too much focus on difference. Magnets operate on the pendulum largely outside of our control. Anchors ground you and allow you to resist swinging to previous stages on the IDC in times of stress. Anchors require deliberate cultivation on our part.

The authors extracted anonymized qualitative data from Qualtrics and imported them into NVIVO for coding.

Data was analyzed by mapping participants' narratives and reflections onto the Intercultural Pendulum. In particular, analysis of a narrative or reflection happened at two levels. First, for each, we identified instances that indicate the following components of the Pendulum:

- A general focus on cultural difference
- A general focus on cultural similarity
- Swings
- Magnets
- Anchors

This analytic approach enabled us to observe the trajectory of intercultural development that a participant underwent and verify how well the

Intercultural Pendulum and its components reflect the participant's experiences. We anticipated that a participant's experiences could be mapped entirely or partially onto the Pendulum depending on the degree of details given in their narrative or reflection.

The complete coding schema used in NVivo by the team of coders can be found in the Appendix. Two members of the author team coded the entire dataset independently. The coding sets were compared in NVivo to identify discrepancies, which most often involved one person coding text that the other had missed, or the two coders identifying text under aligned categories (e.g., *Overall Swing Direction: Similarity and Magnets: Direction of Pull: Similarity Pull*). The two coders met with a third member of the team to review and resolve via consensus all discrepancies. Finally, authors worked in teams to review all coded text for themes that emerged within the data identified as magnets, anchors, etcetera.

In the next section, we illustrate our mapping practices and present the study results. Throughout the findings and discussion, note that grammatical errors and misspellings in all direct quotations from participants have been left unaltered and unmarked for the sake of authenticity. Note that there is some conceptual overlap between the anchor types. In cases where more than one code could apply, the research team determined which seemed to best describe the primary purpose of the behavior. For example, meditation could be thought of as self-care because it is generally recognized as offering physical and emotional health benefits, but since its primary purpose in the data was described as using metacognitive processes to direct participants' attention inward to their own thoughts, feelings, and reactions, meditation was coded as a mindfulness strategy.

4. Results

This section first focuses on the results emerging in response to the first research question: What does the application of the Intercultural Pendulum to lived experience reveal about participants' intercultural competence development during an education abroad program? The second research question is addressed later in the section.

Magnets. Magnets were first coded into two a priori categories from the Acheson and Schneider-Bean (2019) Pendulum research study: a pull towards similarity or difference. Then, authors thematically analyzed patterns that emerged in the data in a grounded theory approach. The coded data revealed

that similarity and difference codes were fairly well balanced in terms of percentage of text and number of instances coded. There were 259 instances coded as a similarity focus and 221 instances coded as focus on difference. While difference was mentioned slightly less often, the coded text in that category represented a higher percentage of the overall text because difference tended to be described in slightly more detail. We further analyzed the distribution of Similarity and Difference Magnets by identifying subcategories for each, as detailed in Table (1) and Table (2).

TABLE (1)
CODING OF SIMILARITY MAGNETS

| Similarity Magnet | Frequency | Examples |
|--------------------------------------|-----------|---|
| Feeling connection with others | 29 | "One personal magnet towards similarity for me has been talking to students from other countries participating in my study abroad program. Talking to people from different parts of the world makes it much easier to find the parts of our experiences which are the same." |
| Finding common interests with others | 14 | "I like to find the one way that I connect with someone and choose to use that to build a bond or connection with that person or group." |
| Religion | 9 | "Religion is a magnet for me. I am very connected with my faith and I have actively sought out a church club at my school to meet others of the same religion as me. I felt that I could become friends with them easier because we share the same values." |
| Sharing a language | 3 | "One magnet is the fact that there are so many English-speaking ERASMUS students here in the city and it is easier to interact with them and lead more of a tourist lifestyle." |

The common magnets that pulled towards similarity included feeling connection with others (29), finding common interests with others (14), religion (9) and sharing a language (3). Feeling connection with others describes the pull towards identifying points of connection with culturally different individuals to create emotional bonds. An example from the dataset explains that having conversations with locals "makes it much easier to find the parts of our experiences which are the same." Feeling connection with others was the most coded Similarity Magnet; the second most frequent was finding common interests with others. While this magnet also implies a pull to build connections, the focus here is on the activities or similarity in interests that allowed students

to build these connections. Occasionally students would mention a particular hobby, such as “swimming,” but most often they simply articulated that they were intentionally looking for shared interests with others as ways to get to know strangers. Similar to Acheson and Schneider-Bean’s (2019) Pendulum study, religion in our study appeared as both a Similarity Magnet (Table 1) and Difference Magnet (Table 2), with nine occurrences coded as pull towards similarity. As a Similarity Magnet, many students indicated that their religion encouraged them to look at all people as equals and to focus on how “everyone is a child of God no matter our differences.” Interestingly, language also presented itself as both a Similarity and Difference Magnet and is therefore, like religion, detailed in both Table (1) and Table (2). There were three occurrences in the dataset of language as a Similarity Magnet, where shared language acted to pull students to spend time with others who spoke English. It may be difficult to separate language and other aspects of culture in some examples, as in the statement of one student who never noticed “the difference of being abroad” in their living setting because their four roommates were U.S. Americans.

TABLE (2)
CODING OF DIFFERENCE MAGNETS

| Difference Magnet | Difference Magnet Subcategories | Frequency | Example Coded Text |
|--------------------------------|--|-----------|---|
| Differences in perspectives | <ul style="list-style-type: none"> • Contrasting values • Political or religious differences | 30 | “Those with strong opinions on a topic...if a person has a strong opinion that differs from mine then I tend to argue and focus on our differences.” |
| Navigating unfamiliar contexts | <ul style="list-style-type: none"> • Education system • Physical environment • Transportation system • Local bureaucracy | 27 | “One magnet in my life right now is German bureaucracy. Registering to live here and jumping through all the required hoops to be here legally is an incredibly exhausting challenge and one hampered by the German way of doing things that is more than 10 years out of date technologically and seems to force slowness in the system. It causes me stress and pushes me to polarization at times which is frustrating.” |

| | | | |
|-------------------|---|----|--|
| Cultural distance | <ul style="list-style-type: none"> • Language barrier • Social isolation | 15 | “I think one magnet for me is talking in English with native Spaniards. This makes me remember that I do not know Spanish very well and that they do not know English very well and therefore highlights a large difference.” |
| Conflict | <ul style="list-style-type: none"> • Conflict • Traumatic interactions • Rudeness | 14 | “It was my experience with Dutch directness in a Dutch cafe. It was a small cafe and after ordering my coffee I was awkwardly standing waiting for my drink. I was then told by the barista with a stern voice “Can you get out of the way so the next customer can pay?” At first I was shocked at how rudely I was asked to move.” |
| Tourism | <ul style="list-style-type: none"> • Sight-seeing • New experiences • Lack of immersion • Being an outsider | 13 | “I think the biggest magnet for me is the tourist lifestyle. This is my first time out of the US so naturally everything I see is completely new and I still feel like a tourist even weeks after I’ve been here. But because of that I am constantly comparing everything to what I have back home.” |
| Feelings | <ul style="list-style-type: none"> • Stressed • Motivated • Energized • Lazy | 4 | “One magnet for me is competitiveness. This pulls me to view and focus on the differences in an attempt to categorize something as better and the other thing as worse.” |

The magnets that pull towards difference included two very popular categories: differences in perspective (30) and navigating unfamiliar contexts (27). These two categories may have a large number of occurrences included because they are compilations of smaller related subthemes. As such, they were difficult to name. The most common Difference Magnet students described was noticing a striking difference between their own and locals’ cultural values, perspective or interpretation of events, political orientation, or religious beliefs. An example from the dataset indicates the impact of religion as a pull towards

difference, specifically coming from a Protestant background while studying in a Catholic country. The student described feeling “alone when I am attending church virtually by myself.” Many examples from the dataset also identify how general observations of “how the society and the people function and behave” pull them towards difference. Navigating unfamiliar contexts was the second most common Difference Magnet. This included examples of opening a bank account, registering with immigration bureaucracy, finding their way around complex public transportation systems, and the slow pace at which some of these processes took place. Many students also elaborated on the negative ways that coping with these situations impacted their energy, feelings, or attitude towards their host culture, describing them as “stressful” and “incredibly exhausting.”

Several other categories of Difference Magnets also emerged but had less frequent occurrences: cultural distance (15), conflict (14), tourism (13), and feelings (4). Facing the language barrier was the third most common Difference Magnet with 15 occurrences; the struggle with language fluency often led to students’ feelings of social isolation due to “moments where I do not understand the language or how to express myself effectively.” Experiencing conflict had 14 occurrences as a Difference Magnet in the dataset, and many examples of traumatic social experiences and rudeness were a result of “communication conflict” that focused students on difference and sparked reflection on their location within the pendulum’s swing range. Participant examples in this category also referenced other miscellaneous moments of discomfort, like a student who had “an intense experience” involving an individual with an open wound on the metro.

There were 13 occurrences of students referencing “the tourist lifestyle” as a Difference Magnet in the dataset. Similarly to the “diverse social networks” example for Similarity Magnets, this phrase was used in the model presented to students and may have appeared frequently for that reason. In the Intercultural Pendulum, though, tourism is listed under both Similarity and Difference Magnets, so it is worth noting that in this dataset the tourist lifestyle only seemed to emerge under pull towards difference. Many students gravitated towards traveling to tourist destinations and participating in tourist activities across their experience which led to feelings of “separation” from the local culture, perhaps because these sights emphasized for them points of local culture and history that were unfamiliar. Finally, there were four instances of students providing internal emotional states (stress, motivation/energy/laziness) as

examples of Difference Magnets. One student described how “feeling overwhelmed...causes stress and tends to lead to focus on the differences.”

Anchors. As with both Similarity and Difference Magnets, anchor coding followed a similar pattern of initial application of a priori categories (relational, mindfulness, and self-care anchors) that were drawn from Acheson and Schneider-Bean’s (2019) Pendulum research. However, while the initial magnet analysis was followed by a grounded theory analysis of the coded data in each category for emerging sub-themes, the anchor analysis did not lend itself to such sub-categorization easily.

TABLE (3)
OCCURRENCES AND EXAMPLES OF CODED ANCHOR TYPES

| Anchor Category Distribution | Frequency | Examples |
|------------------------------|-----------|--|
| Relational | 85 | “One personal anchor: so far this semester I’ve made a very diverse friend group of people from all over the world which I think is helping to keep me grounded by seeing an equal balance of similarities and differences in everyone.” |
| Mindfulness | 39 | “My anchor is journaling because it promotes mindfulness and reflection upon this experience. It also allows me to go back and read about my thoughts from before and see how they have changes which helps to remind me that everything will work out and be okay.” |
| Self-care | 30 | “For anchor I think it would be my passion photography. Whenever I am doing what I am passion[ate] about I would be in a really good mood and would tend to calm down and really process things in [my] head properly.” |

Anchor category distribution, detailed in Table (3), demonstrates that the dataset skewed strongly towards Relational Anchors as the most commonly described (e.g., 30 instances of self-care and 39 of mindfulness versus 85 instances of relational). When describing Relational Anchors, the creation of “diverse social networks” was a common example. The term might have been popular because this language is borrowed directly from the Intercultural Pendulum. However, many students used their own words to illustrate Relational Anchors, including connection, strong relationships, telling stories, friends, family, new people, and getting along with others. Additional subthemes that emerged within Relational Anchors include emotional support and opportunities to learn. More so than with the other two categories of

anchors, with Relational Anchors students were likely to mention explicitly that the anchor kept them balanced by emphasizing both similarity and difference. In other words, in addition to maintaining or refueling their emotional resources, for these participants their relationships seemed to fulfill a function of directly counteracting magnets that may have been pulling them towards one side or the other of the Pendulum.

Common Mindfulness Anchor examples were journaling, meditation, practicing the local language. The impact of using Mindfulness Anchor activities tended to be vaguely described, using language such as “settle in”, “feel comfortable”, and “very stable emotions”. Self-care Anchor examples included many activities: entertainment (music, reading, social media, movies, etc.), physical activity (hiking, running, etc.) and some that could be coded also with Mindfulness Anchor activities such as yoga. Interestingly, the language participants used to describe the benefits they get from Self-care Anchor activities was very similar to Mindfulness Anchors, and students often expressly noted meta-cognitive and emotional regulation processes more associated with mindfulness when talking about self-care.

Having presented results in response to RQ1, the remainder of this section focuses on the results emerging in response to the second research question: What can we learn about the applicability of the Intercultural Pendulum to education abroad students’ experiences by analyzing how learners are articulating their experiences? We present the findings and our analysis of the diverse ways students applied the five concepts of the Intercultural Pendulum, namely, similarity, difference, swing, magnet, and anchor, in articulating their experiences. This model provides students with language to help them reflect on and examine their intercultural experiences, specifically their intercultural development fluctuations. With the language from the Pendulum, students were able to determine when an intercultural fluctuation (swing) happened, identify if the direction of the swing was towards cultural similarities or differences, trace what caused the swing (magnet), and recall the strategies/factors that stabilized it (anchor). That said, students demonstrated different levels of engagement with the language of the Intercultural Pendulum.

Similarity, difference, and swings. To understand how students articulated their intercultural experiences using the language of the Pendulum, we analyzed the transcripts and looked at students’ utilization of similarity, difference, and swing altogether because students were asked to reflect on their intercultural swings and determine which side of the Pendulum their

intercultural competence was pulled towards – similarity or difference. Hence, in their answers, students mentioned “swing” and either “similarity” or “difference” together. Eighty-seven references were coded as similarity versus 61 references coded as difference, suggesting a relative balance representing intercultural experiences that caused a swing.

Overall, students understood the three concepts of swing, similarity, and difference correctly. They were able to identify both, whether they were experiencing an intercultural swing and which side of the pendulum they were being pulled towards – cultural similarities (“I would I say I swing but spend most of my time focusing on similarity”) or differences (“I am swinging towards differences right now. I have some culture shock from living and working in Germany. The differences are mostly expected so the swing is not too large”).

Some students were also able to self-place their IC on the IDC as a result of examining their swing: “I think I am in a swing of minimization as I am trying to adapt but also it has only been two weeks that I have been here so I am not focusing on how different it is yet but mostly just similarities and making it my new home for the next few months.” In this statement, the student identified the stage the swing brought them to, which was minimization, and justified their identification by connecting “minimization” with the cultural similarities they were focusing on. This type of statement indicates a more nuanced reflection and thus, engagement with the Intercultural Pendulum as the learner could name the orientation they were employing in interacting with the host culture.

Magnets. The majority of students understood what Magnets meant. Specifically, they referred to “magnets” as either external factors or unintentional habits that prompted them to be attentive to cultural commonalities or differences as a reaction to their new environment: “I think that my magnets that lead me to difference are traumatic encounters and moments where I do not understand the language or how to express myself effectively.” and “Tourist lifestyle pushing me towards similarity because I try to find common aspects amongst different cultures.” The statements about Magnets were further coded based on their depth and contextual understanding as clear or unclear/ambiguous. A total of 131 instances were coded as Magnets, of which 78 instances suggested a clear understanding and 53 were either inaccurately understood or explained ambiguously.

With regards to clear understanding of Magnets, students’ analysis of their cultural magnets varied in depth. Six ways of engaging with this concept

are detailed in Table (4), presented in a spectrum of depth of engagement (from less to more).

TABLE (4)

EXAMPLES OF CLEAR ENGAGEMENT WITH MAGNETS, ORGANIZED BY DEPTH OF ENGAGEMENT

| Depth of engagement | Example | Analysis |
|---|--|--|
| Named the Magnets and direction of pull | <p>Focus on commonalities: "I definitely believe that moments of connection are my magnet. Once I find something that I have in common with another person it is easy for me to dwell on that connection."</p> <p>Difference pull: "One personal magnet of mine are stressful situations with immigration bureaucracy which tends to shift my focus to differences."</p> | <p>Students' analysis ceased at identifying the Magnets and where their intercultural competence was pulled towards, but offered no further contextual information.</p> |
| Rationalized IC pulled by a particular Magnet | <p>"One focus I share a lot in common here in Italy is that over 90% of the population is catholic. I come from a very catholic family which is a similarity that pulls me very close".</p> <p>"A magnet I have encountered is the difference in how businesses run in Germany; for example stores all close on Sunday, which can be a stressful situation and pull me towards focusing on differences."</p> | <p>Students did not only stop at specifying the pull of the Magnets but also provided more context of the pull, explaining what happened and what cultural similarities ("over 90% of the population is catholic") or differences ("stores all close on Sunday") the external Magnets prompted them to focus on.</p> |
| Associated their magnets with an orientation in the IDC | <p>"I am swinging; my first three weeks in Germany have been very stressful (lost luggage, bureaucratic difficulties, etc.) which definitely acted as a magnet pulling me towards polarization."</p> | <p>Not only identified the Magnets that pulled them to difference, i.e. stressful events with logistic matters in the host culture, but also specified the orientation that the magnet pulled them to, which was polarization. Such use of language in reflection indicates a more nuanced understanding of the concept.</p> |

| | | |
|--|--|---|
| <p>Recalled an event in great detail</p> | <p>“An example of a magnet was an intense experience I had on the metro yesterday. I walked in and saw a man with a large open leg wound. I had to exit the train at the next stop because it was a little traumatic. It reminded me that I was indeed in a large city and just how different from my home that is because I would typically never see something like that. This is an example of a magnet because it was out of my control and really highlighted the difference between here and home for me.”</p> | <p>The student was motivated to describe the situation, name her feelings (“traumatic”), process her impression about the new environment (“just how different from my home that is”), and evaluate her reactions towards difference (“it was out of my control”). In cases like this, Magnets encouraged culture-crossers to scrutinize their intercultural encounters more productively to better process what happened.</p> |
| <p>Connected a Magnet with their self-identification, prior experience, or family background</p> | <p>“One personal magnet for me is being American Indian because I often feel ostracized at Purdue because I don't fit in with the American Indians or the international Indians at times leaving me feeling alone due to loneliness.”</p> <p>“One personal magnet that pulls me toward focusing on differences would be experiencing racism while growing up. I have definitely received a lot of comments and experienced microaggressions that have harshly emphasized how I am different from others.”</p> | <p>In these cases, Magnets enabled students to conduct deeper reflection not on their present study abroad experience but on distant past events. These events usually stuck to students' memories as they conveyed significant messages related to their identities. Thus, Magnets serve as a tool for these individuals to track the origin of uncomfortable past experiences and process them in a more informed and productive fashion.</p> |
| <p>Explained increased awareness of their prevalent orientation toward other cultures</p> | <p>“A personal magnet of mine is my Christian/Catholic background. I feel like it makes me look at people through a very limited lens. Growing up in the church we're always taught that everyone is a child of God no matter our differences. I will have to work to stay conscious of differences.”</p> | <p>The concept of Magnet benefits their IC growth in that it cultivates their habit of thinking about “the other side” of the pendulum and encourages them to create a more “balanced” orientation.</p> |

Beside statements indicating successful engagement with the concept of Magnets, there were students who struggled to perceive this concept successfully or appropriately. We grouped the unsuccessful engagement into the following two categories. Examples and analysis are detailed in Table (5).

TABLE (5)
EXAMPLES OF UNSUCCESSFUL ENGAGEMENT WITH MAGNETS

| Depth of engagement | Example | Analysis |
|--|--|---|
| Named the Magnet without explaining how it serves as a Magnet | <p>"I think that religion is a magnet for me."</p> <p>"Magnets are daily interactions and language barrier."</p> <p>"Magnet for me is interaction with local members of the culture"</p> <p>"Personal interests such as gaming would be a magnet for me."</p> | <p>Reflections did not give us sufficient evidence to assess whether they understood this concept accurately or not</p> <p>No cues for us to examine the depth or accuracy of the writer's perception.</p> |
| Implied rather than explicitly identified direction of the Magnet Pull | <p>"Meeting lots of American friends doing some of the same activities at home tourist lifestyle being extra cautious in a big city"</p> <p>"A personal magnet is my limited Spanish ability because I get really happy when I have a great conversation with someone but sometimes I just forget words and have difficulty connecting which can be intimidating."</p> | <p>It can be inferred that "doing some of the same activities" suggests a Similarity Pull, but it is difficult to determine if the second part of the statement is included to contrast with Difference Pull.</p> |

Finally, in almost 40% of coded instances, students demonstrated an inaccurate understanding of Magnets. The most common example for this category is when students confused Magnets with Anchors: "My magnets are my love of people and determination to maintain neutrality in the pendulum." This respondent used the concept of Magnet as a motivation to stay neutral, forgetting that in the training, students were explained that Magnets are external forces that pull towards similarity or difference. Such a misconception can also be found in the following response: "My similarity anchors include new knowledge and interacting with new people. My difference anchors include religious sexual and gender identifications." In this statement, the student used Anchor instead of Magnet to explain their swing towards similarity and difference.

Based on our analysis we have offered a multiplicity of ways students successfully engaged with the concept. The numerical tally of Magnet examples allowed us to isolate major and minor themes that demonstrates a prevalence of understanding, though we do not suggest that there is a statistically meaningful difference between unclear and clear examples.

Anchors. Similarly to Magnets, students engaged with the concept of Anchors at varying levels of depth and degrees of success. A total of 119 instances were coded as Anchors, of which a small number of 24 were classified as ambiguous or unclear while 95 significantly high instances demonstrated successful engagement.

Successful engagement with the concept indicates students' perception of Anchor as strategies they purposefully adopted to help maintain their intercultural competence and counter the swings. There are four depths of successful engagement with Anchors exemplified in Table 6, presented from less to more deeply engaged.

TABLE (6)

EXAMPLES OF SUCCESSFUL ENGAGEMENT WITH ANCHORS, ORGANIZED BY DEPTH OF ENGAGEMENT

| Depth of engagement | Example | Analysis |
|--|---|--|
| Named the Anchor | "One anchor is my connections to friends that have different experiences and come from different backgrounds than me" | The student only claimed a phenomenon was an Anchor. |
| Described how they used the Anchor in the new environment | "An anchor for me is my social network. I have two well established groups of friends from home and college that I continue to stay close to" | The student provided additional details of what the Anchor entails. |
| Not only identified their Anchor and its utility but also analyzed its effects | "I think an anchor for me is exercising and playing sports with other people. This makes me forget my differences and focus on building a bond with native students and learn about their culture and everyday life." | Their Anchor was the physical activities they took part in with others and they used it to bridge differences. As a result, they were able to learn more about life and bond with native students in the host culture. |

| | | |
|--|---|---|
| Analyzed how an Anchor allowed them to combat a Pull | “Anchors: My willingness to go out there and meet more people for the sake of my career and my future. I know as an engineer I need to be culturally diverse hence this belief is a strong anchor for me towards acceptance.” | Since these students situated their Anchors within a Pull, their reflection was more detailed and indicative of deeper engagement with the concept. |
|--|---|---|

Though a majority of the students demonstrated a clear and successful understanding of Anchors, some provided statements exhibiting ambiguous understanding, making it difficult to determine whether these students had grasped the concept or not. Table (7) provides examples for unclear/ambiguous understanding of Anchors.

TABLE (7)
EXAMPLES OF UNCLEAR ENGAGEMENT WITH ANCHORS

| Depth of engagement | Example | Analysis |
|---|---|--|
| Naming an external factor as an Anchor without explaining how they intentionally employ it as an Anchor | <p>“Anchors: My faith keeps me grounded in what I believe and accepting that what others believe is just as important to them as my faith is to me”</p> <p>One personal anchor would be my two aunts living in Singapore. I know I can always rely on them to explain things that I am not familiar with in Singapore.”</p> | These examples are unclear because they don’t clearly demonstrate student agency in maintaining stability on the Pendulum.. |
| Describing future imagined Anchors, revealing a social desirability for stability | <p>“Since arriving in Bonn I think I was initially shocked by the difference. Having been here now for a while and finally settled in I feel much better about myself. I imagine I am swinging towards similarity and then hopefully will be anchored.”</p> <p>“I really hope to learn a lot from this journey. This motivation I hope acts as an anchor for any backward pull”</p> | The use of “hopefully” suggests a lack of clarity about the role that they need to play in finding stability or becoming anchored, as well as a lack of certainty they will be able to achieve that stability. |

| | | |
|--|--|--|
| Describing it incorrectly as an Anchor | <p>“One anchor is my connections to friends that have different experiences and come from different backgrounds than me.”</p> <p>I believe that a personal anchor is being curious about other students’ experiences which allows me focus on difference.”</p> | <p>Students implied a swing towards difference when describing an Anchor, which is conceptually supposed to indicate stability or balance between similarity and difference.</p> |
|--|--|--|

5. Discussion

This study yielded a number of insights on the relationship between theory and practice with the Intercultural Pendulum. The findings revealed patterns into how students understand themselves, their environments, and their developmental processes during study abroad experiences that have implications for how the Pendulum can be leveraged effectively by educators, trainers, and others responsible for supporting the intercultural development of others.

The Intercultural Pendulum appears to have significant practical applications, as even brief interventions using this model positively impacted students' ability to articulate their experiences and plan their development. The Pendulum's resonance with lived experience and its parsimonious nature make it a powerful tool for intercultural educators and practitioners. However, while the Intercultural Pendulum effectively provides a framework for reflection, additional support and instruction are necessary to ensure deeper understanding and internalization. By refining reflective prompts and incorporating more detailed contextualization, educators can enhance students' engagement with the Pendulum, ultimately fostering a more profound and actionable understanding of their intercultural development. Several specific implications are discussed in further detail below.

Context Inspires Balance. The findings of this study reveal a relative balance between Similarity and Difference Magnets in the intercultural experiences of students. While it was anticipated that students would predominantly focus on similarities, given their tendency towards minimization on the Intercultural Development Inventory (IDI), the distinct context of studying abroad made the differences more salient - as predicted by the Intercultural Pendulum. This provides support for the highly-context dependent nature of intercultural competence development, with emphasis on

the power of an unfamiliar environment abroad to amplify the awareness of differences even among students inclined to minimize them.

Range of Nuance of Similarity Magnets. Interestingly, students did not frequently identify language sharing as a Similarity Magnet; instead, it was framed as part of their national identity, indicating a potential gap in students' recognition of the role of language in fostering intercultural connections. This, along with the vague language used with Similarity Magnets suggests that educators could address magnets in more detail and more explicitly. Without extensive prompting, Similarity Magnets were distinguished between behavioral (e.g., finding common hobbies) and affective (e.g., feeling rapport with others) responses to similarity, therefore suggesting that a wider range of responses is possible and that more intentional support or guidance may result in more nuanced reflections.

Range of Nuance of Difference Magnets. In the context of Difference Magnets, the data revealed a significant disparity in the level of detail provided by students. Whereas narratives describing conflicts were rich and detailed, experiences related to tourism were often described in vague terms. This suggests that on the one hand instances that violate expectations may create a heightened awareness, and those that are "imposed" as categories (i.e., tourism) may only garner surface-level attention. What also emerged as interesting is that students engaged more deeply with Cognitive and Behavioral Pulls toward cultural differences than with Affect. Feelings are described as the result of Magnets often, but very rarely as the causes of the Pull. More attention on the affective domain from educators could amplify awareness within this domain.

The Role of Relational Anchors. The heavy emphasis on Relational Anchors in students' narratives highlights their perception of relationships as crucial stabilizers when experiencing unsettling emotions. This finding underscores the power of relationships to help people feel understood in a context where they might not be getting that need met by others, as well as highlights the importance of fostering strong interpersonal connections within study abroad programs. However, the way students discuss relationships indicates a lack of agency in nurturing these connections -- rather relationships are regarded as a grounding agent that is more of a given than something to maintain, access, leverage, or build. Educators could encourage students to actively engage with and cultivate their relational networks, emphasizing their proactive role in building and sustaining these connections.

Room for Internalization. Instances of students naming phrases like “having stable emotions” or using terms like “diverse social networks” without further elaborations suggest that students may not fully understand or be able to readily apply the concepts. This tendency suggests that some students may be engaging in a superficial or socially desirable manner of application rather than being able to genuinely internalize these concepts. The finding also points to the need for more targeted instruction and support in the form of scaffolding to help students deeply understand, make meaning, and apply the concepts of magnets and anchors. Simple interventions, such as more specific or wide-ranging instruction as well as reflective prompts could empower the students to more fully elaborate and contextualize experience. It may well be that the age and experience level of typical university study abroad participants influence this issue. In reflecting on their interactions mentoring and coaching older expatriate professionals through international sojourning experiences, the authors noted potential capacity differences between them and students when it comes to understanding, applying, and articulating the Intercultural Pendulum.

6. Conclusion

The Intercultural Pendulum framework was explored in this study to capture the nuanced, nonlinear, and complex nature of intercultural competence development among education abroad participants. This model not only enhances conceptual understanding of developmental processes but also lays the foundation for practical applications in educational settings by providing a structured approach for educators, facilitators, trainers, coaches, and mentors to tailor learning experiences that align with students’ developmental stages. The analysis of qualitative data using the Intercultural Pendulum framework revealed a balanced exploration of cultural similarities and differences among participants. Students effectively utilized the Pendulum to articulate their experiences of swings towards both similarities and differences. Key Magnets pulling towards similarities included establishing rapport with others and sharing common hobbies, whereas Magnets towards differences often stemmed from navigating unfamiliar educational systems and encountering contrasting values. Students demonstrated varied levels of engagement with the Intercultural Pendulum framework. While they grasped concepts like swing, similarity, and difference, their understanding of magnets and anchors varied. Many students correctly identified Magnets as external factors influencing their cultural orientation, yet some struggled to apply this

concept accurately. Similarly, while Relational Anchors were prominently acknowledged, their strategic application varied among participants.

The findings underscore the practical utility of the Intercultural Pendulum framework in enhancing students' reflective capacities and intercultural competence. Educators can leverage this framework to guide students in articulating their intercultural experiences more effectively. However, as illustrated in our analysis of results and implications, challenges such as the varying depth of understanding among students highlight the need for tailored interventions that reinforce accurate application of the Pendulum's concepts.

Limitations

One limitation of the intervention approach in this study, comprising a brief explanation of the Intercultural Pendulum followed by a reflective assignment, is that students may be overwhelmed or unprepared in grappling with the broader implications of their intercultural development. Future research should focus on developing tools that offer more guidance, for example by clarifying the analytical aspects of the Intercultural Pendulum and providing personalized advice that meets individual needs effectively. In addition, the limited demographics available for this de-identified dataset constrained the analysis to a group-level approach; in other words, with demographic data stripped from the individual learning artifacts, we were unable to identify any patterns of variation by student identity or experience that may have surfaced with another methodology. In future studies, additional data sources such as focus groups of students who have been exposed to the Intercultural Pendulum may be utilized to provide a more robust understanding of learner experiences with and applications of the model. Future studies are also planned to explore the affective, behavioral, and cognitive dimensions of the Intercultural Pendulum, focusing on intercultural competence across all three domains. Additionally, investigating the longitudinal impact of using the framework on students' post-study abroad experiences and professional trajectories could offer valuable insights into its lasting effects.

On the whole, the Intercultural Pendulum framework offers students a structured language and framework to observe and articulate their non-linear intercultural development during study abroad programs. By normalizing the fluctuating trajectory inherent in adapting to new cultural contexts, this model supports students in making sense of their experiences more effectively as well as empowers them to be more intentional in maintaining a balanced

intercultural competence. The results of this initial study also highlight the need for continued refinement in how it is presented and applied to amplify its effectiveness and utility to participants in educational settings.

Ethical approval

A human subjects board determined that this study was exempt from institutional research ethics review since it analyzed de-identified, pre-existing learner artifacts.

Declaration of competing interest

No conflicts of interest were declared by the authors.

Data availability statement

De-identified qualitative data can be requested from the corresponding author within 3 years of the study publication.

CRedit author statement

Acheson: Conceptualization, Methodology, Formal Analysis, Writing, Project Administration. **Tran:** Conceptualization, Methodology, Formal Analysis, Writing. **Schneider-Bean:** Conceptualization, Formal Analysis, Writing. **Chhikara:** Methodology, Formal Analysis, Writing. **Fulkerson:** Formal Analysis, Writing.

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Appendix A: Coding schema

| | | |
|-------------------------------|-------------------|----------------------|
| Movement | Stability | |
| | Swing | |
| Overall Swing Direction | Balance | |
| | Difference | |
| | Similarity | |
| Magnets | Direction of Pull | Difference Pull |
| | | Similarity Pull |
| | Intensity of Pull | |
| | Magnet Example | |
| Anchors | Anchor Type | Mindfulness Strategy |
| | | Relational Strategy |
| | | Self-care Strategy |
| | Anchor Example | |

Author biography

Kris Acheson earned a PhD in Intercultural Communication from Arizona State University in 2008. After serving as faculty in Applied Linguistics at Georgia State University and U.S. Fulbright Scholar to Honduras, from 2016 to 2025 she directed Purdue's Center for Intercultural Learning, Mentorship, Assessment and Research, home of the Intercultural Learning Hub (hubicl.org). She has published extensively on silence, but is perhaps most well-known for her thought-leadership in the development and assessment of intercultural competence.

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Sundae Schneider-Bean is an intercultural strategist, transformation facilitator, and practitioner working internationally. Her interdisciplinary practice integrates research on intercultural competence, transitions, and adult development with lived experience across global contexts. Committed to evidence-informed and human-centered processes, her work bridges theory and application through coaching, training, and thought leadership. Her insights have appeared in numerous scholarly and professional publications, including *Forbes*, as well as global intercultural forums.

Alankrita Chhikara completed a research postdoc with Purdue's CILMAR, where she taught the Semester Abroad in Intercultural Learning course and conducted research on intercultural competence development. Her doctoral work, completed in the Curriculum and Instruction program in Purdue University's College of Education, focused on South-Asian international students' narratives of global citizenship development analyzed from a non-Western theoretical perspective. Her research can be found in journals such as *International Journal of Qualitative Studies in Education*.

Paige C. Fulkerson graduated in 2024 from Purdue University with an undergraduate degree and teacher certification in Elementary Education. She

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