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Learning from Sensory Experience in Costa Rica

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LEARNING FROM SENSORY EXPERIENCE IN COSTA RICA

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PIM 72 J

A Capstone Paper submitted in partial fulfillment
of the requirements for a Master of Arts in International Education
at SIT Graduate Institute in Brattleboro, Vermont, USA.

December 15, 2014

Advisor: Katie Gilbertson

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ABSTRACT

Utilizing mixed-method phenomenology and case study, this qualitative research study investigates the links between learning and sensory experience for university students studying in the cloud forest of Costa Rica. Three essential themes emerge from the collective data, themes related to learner motivation, cultural awareness, and students' relationship with nature. The findings of this study suggest particular benefits of reflection on sensory experience abroad for both students and educators. An often overlooked educational tool for higher education, sensory learning carries additional significance in the field of study abroad and might be used by international educators to enhance student development.

Key words: senses, sensory learning, higher education, study abroad, intercultural development, embodied learning, place-based education

Introduction

The wind blows with fury on the mountain today, and here we are, above the clouds, among a symphony of bird calls, on dirt roads with incredibly beautiful views. My master's studies in international education have brought me here, to the University of Georgia's satellite campus in the small rural mountain town of San Luis at the foot of the world-renown Monteverde Cloud Forest Reserve. The campus serves as University of Georgia Costa Rica's headquarters for their study abroad programs, research, and international outreach.

I can safely say that I have never lived this closely with nature. The *casita*, where I sweep scorpions from my room before falling asleep in a bunk bed, has a camp-like feel. White-faced monkeys pass through the trees overhead in packs every other day. We named the tarantulas in our shared bathroom, which has somehow endeared them to us.

Walking home at night with my flashlight dying, the night sky is without light pollution, creating an entirely new sensory experience with the multitude of stars and heightened significance of the moon. The light from the moon guides me home, orienting me to time and space. The air I breathe is fresher than I am used to and full of new and interesting sounds, a constant reminder of the biodiversity of this place and a reconnection to the surrounding forest. The trees bend in response to a mighty wind, and I am surprised by the ancient sound of their creaking.

With 90 acres of the 155-acre property officially protected reserve, the campus is a model of sustainable ecotourism (Stallcup, 2013). Visitors eat meals in the onsite dining hall, where 15-20% of the food comes from the campus' organic farm. The campus uses two biodigesters to decompose waste from the pigs and humans to create methane gas to be used for cooking or other needs (UGACR website, n.d.). Resident naturalist interns provide educational hikes, night hikes, lectures, and birding excursions on campus for visitors.

I am working with university students, most of whom are aged 19-21. Some have been abroad, but for many, this is their first experience studying outside of their country. I am curious about the encounters they will have with the local environment, especially the ways in which they may learn through new and different sensory experiences. With all the new sounds, views, smells, touch and tastes, how will students' bodily senses inform the way in which they make meaning of the rural highlands of Costa Rica? What insights might we gain from investigating the links between learning and sensory experience for university students studying in the cloud forest of Costa Rica?

Definition of Key Terms

Sensory Experience	Sensory experience is any encounter with the world that promotes awareness of one or more of the five senses—hearing, sight, smell, touch, and taste.
Embodiment Theory	Embodiment is an existential condition in which the body is the subjective source or intersubjective ground of experience. Studies that approach the world from an embodied perspective are about culture and experience insofar as they can be understood from the standpoint of the bodily being-in-the-world (Csordas, 1999).
Cultural Immersion	The Forum on Education Abroad (2013) defines cultural immersion as “a sojourner’s engagement with and interaction in a host culture, with the goal of extensive involvement with host culture members” (Forum, 2013).
Intercultural Development	In recent years, many educators have used the Development Model of Intercultural Sensitivity (DMIS) as a framework to explain the development of increasing sophistication in our experience and navigation of differences (Bennett, 1993). The model begins with three monoculture stages, in which our own culture is experienced as central to reality in some particular way. Intercultural development increases in the latter three stages of the model, which represent an intercultural mindset, in which our own culture is viewed in the context of other cultures.

Literature Review

Studies abound of the ways in which children learn about the world using their senses, and many early childhood development educators utilize pedagogies based on these studies (Ayres, 1980; Dunn, 1997; Lynch, 2004). However, there has not been as much attention given to the role that the senses play in adult learning and development. Traditional Western schooling for young adults often perpetuates a mind/body dualism, validating mind over body and asking students to learn mostly from textbooks, reading, and writing. The body or body awareness plays a minimal role in the classroom setting. There are pedagogies that are more likely to break with this tradition, such as experiential learning (Kolb, 1984), place-based education (Sobel, 2004), and environmental/outdoor education (Gruenwald, 2004). The field of study abroad could benefit from heightened body awareness. As students abroad encounter a new place and culture different from their own, the world becomes new again, and the sensory experiences renew a childlike sense of wonder.

This study embraces the concept of the embodied mind and takes a phenomenological approach to cognitive science and psychology. According to French phenomenological philosopher Merleau-Ponty (1945), culture resides not only in objects and representations, but also in the body processes of perception by which these representations come into being. Understanding perception as basic bodily experience elevates the senses in their role of generating meaning. This literature review explores

recent texts that address the importance of embodied learning, as well as practitioners' research in the field of international education who have incorporated sensory experience into curriculum.

In his book, *The Spell of the Sensuous: Perception and Language in a More-Than-Human-World*," ecologist and philosopher David Abram (1996) ponders the violent disconnection of people from the natural world. In an attempt to reclaim what has been lost as people disconnect themselves from their bodies and their sensual bearings, Abram explores the character of perception as well as the sensual foundations of language. Drawing on his personal experience working closely with shamans in Indonesia as well as an extensive review of literature, Abram illuminates insights into the links between mind/body dualism and the destruction of the natural environment.

Another popular author who delights in her sensual bearings, Diane Ackerman explores how "sense-luscious" the world is in her book *A Natural History of the Senses*. Ackerman guides the reader into a more sensuous understanding of the world through stories, history, personal experiences, and literary references. Ackerman takes an in-depth look at smell, touch, taste, hearing, and vision, as well as synesthesia, a condition in which one sense stimulates another. For example, a person who experiences synesthesia might perceive a written series of black numbers, not as black, but as a colorful sequence, with each number triggering a certain associated color. By exploring cognitive and perceptual processes of sensory experiences, Ackerman's work reveals

how the senses define the edge of consciousness. She uses cross-cultural references to explore how the evaluation of sensory experience is often determined socially and differs from culture to culture.

Recent academic research explores the relationship between sensory experience and the generation of meaning. In her article “Common Senses: Water, Sensory Experience and the Generation of Meaning,” Veronica Strang (2005) provides an ethnographic analysis on the relationship between sensory experience, material realities, and the creation of cross-cultural meanings. She focuses on the formal qualities of water and human interactions with these to suggest that universalities (those qualities of water with universal comprehensiveness in range) generate cross-cultural themes of meaning that persist over time and space. In their article “Naturalizing the Environment: Perceptual Frames, Senses and Resistance,” Esteban Ruiz-Ballesteros, Jose Maria Valcuende, Victoria Quintero, Jose Antonio Cortes, and Elena Rubio (2009) analyze representations and perceptions of nature in certain areas of Andalusia following the closure of the mines and crisis in agriculture. The authors suggest that landscapes become spaces for resistance and identity through the dual perceptive and discursive dimension of nature (Esteban, Valcuende, Cortes & Rubio, 2009).

This type of academic research explores the relationship between sensory experience and the generation of meaning and brings awareness to a sense of place.

According to Yan Xu (1995), a sense of place is “a sense of the beauty and the wealth of phenomena that comprise a particular place.” Human geographers and social psychologists have studied how a sense of place develops in order to understand how people interact with their environment and to consider how this interaction may become more sustainable.

A sense of place contributes towards shaping peoples’ beliefs, values, and commitments. In their paper “Sense of place as a determinant of people’s attitudes towards the environment: Implications for natural resources management and planning in the Great Barrier Reef, Australia,” Silva Larson, Debora M. De Freitas, and Christina C. Hicks (2013) investigate the relationship between sense of place and people’s attitudes towards their natural environment. The authors suggest that a better understanding of the characteristics that allow sense of place to develop can facilitate a better understanding of people’s perceptions towards environmental and biodiversity issues.

Authors Alex Kudryavtsez, Richard C. Stedman, and Marianne E. Krasny (2012) use an environmental psychology perspective in their article “Sense of Place in Environmental Education.” The authors review the components of sense of place, including place attachment and place meanings, suggesting that general environmental education can influence sense of place through a combination of direct place experiences and instruction.

In their study “Experiencing Beach in Australia: Study Abroad Students’ Perspectives,” Yoshifumi Nakagawa and Philip G. Payne (2011) examine study abroad students’ participation in an undergraduate semester long unit “Experiencing the Australian Landscape.” The authors use a mixed method ethnographic and phenomenological small-scale case study to discover the various social discourses, such as neo-colonialism, individualism and mobility, which participants can use to understand their connection and non-belonging to the beach.

In 2012, Thomas Kristemann and Charis Lengen published “Sense of Place and Place Identity: Review of Neuroscientific Evidence,” bringing together the phenomenological sense of place approach with current results from neuroscience. They identified ten dimensions that were important to a phenomenological sense of place/place identity model: behavior, body, emotion, attention, perception, memory, orientation, spirituality, meaning/value and culture/sociality. They then traced specific parts and functions of the brain to these ten dimensions, concluding that place constitutes a distinct dimension in neuronal processing (Kristemann & Lengen, 2012).

Sense of place is significant to this study because it relates to the ways in which students generate meaning about their new environment. Pondering “how we know what we know” brings us back to the edge of our consciousness and has implications for cross-cultural learning and intercultural development. This sociology of knowledge is strengthened through collaboration with neuroscience.

Neurologist Antonio Damasio corroborated an embodied view of knowledge in his book *Descartes' Error: Emotion, Reason, and the Human Brain*. Damasio argues that Rene Descartes' "error" was the dualist separation of mind and body, rationality and emotion. Damasio presents the "somatic marker hypothesis," a proposed mechanism by which emotions guide behavior and decision-making. Damasio demonstrates the intimate relationship between brain and body and posits that rationality requires emotional input.

In "The Art of Changing the Brain," James E. Zull (2004) examines how the brain changes physically when we learn. Zull highlights the importance of emotion in learning, with implications for student motivation. Zull understands knowledge as consisting of networks of neurons, stating that his students' knowledge was actually physically different from his own. His research resulted in a shift in his own teaching style, as he turned from explanations to demonstrations or asked students to explain acquired learning, thereby initiating the biochemical rewards of learning provided by student ownership (Zull, 2004).

Pedagogies and curriculum that incorporate an embodied view of knowledge capitalize on the learning opportunities described by Zull (2004). For example, place-based education considers how a sense of self is connected to a sense of place. Smith (2002) recognized the following common elements in place-based education:

- 1) Surrounding phenomena are the foundation for curriculum development.

- 2) Emphasis on students becoming creators of knowledge.
- 3) Students' questions and concerns play a central role in determining what is studied.
- 4) Teachers act as co-learners and brokers of community resources.
- 5) Walls between community and school are crossed.
- 6) Student work is assessed based on its contributions to community well-being and sustainability.

In his article "The Best of Both Worlds: A Critical Pedagogy of Place," David A. Gruenewald combines critical pedagogy, which challenges the assumptions, practices and outcomes taken for granted in dominant culture and conventional education, with place-based education, which assumes that education might have some direct bearing in the well-being of the social and ecological places people inhabit. Gruenewald's approach is radical because current educational discourses seek to standardize the experience of students.

There have not been many studies focused solely on sensory experience as a learning tool for students abroad. As one example, Lisa Stowe and Dawn Johnston (2012) used a "Pedagogy of the Senses" to teach culinary art to students abroad in Spain. In their article "Throw Your Napkin on the Floor: Authenticity, Culinary Tourism, and a Pedagogy of the Senses," Stowe and Johnston argue that by the end of a three-week education abroad program in Spain, students understood how sensory experiences can

inspire and motivate both a bodily and an intellectual understanding of food and their relationship to it. The study focuses on learner engagement in higher education and explores links between sensory experience, regional characteristics, value judgment, and cultural awareness.

This study builds on the literature reviewed here, embracing an embodied view of knowledge to explore the links between learning and sensory experience for university students studying in the cloud forest of Costa Rica. As a phenomenology, this study seeks to gain insight into the phenomena of sensory experience and learning. As a case study, this study describes what happened when students were asked to raise their awareness of the role their senses played in their understanding of the world. As such, the study explores the links between sensory experience, learner motivation, sense of place, value judgments, and intercultural development.

Research Design

The qualitative research design used for this study was mixed-method phenomenology and case study. Participants in the study were undergraduate university students studying abroad in Costa Rica. Fifty-six total students participated in the study, with 28 participating in sensory journaling, and seven participating in interviews. The pool of participants was 80% female, 93% US citizens, 93% age 19-21, 57% white, 14% African-American, and 13% Asian-American. (Complete participant demographics and charts are located in Appendix A.)

The data sources included: seven individual semi structured interviews of approximately 30 to 60 minutes each; participant written feedback after a one hour workshop; the researcher's written account of workshop activity and conversation; and students' volunteered sensory journals. Several methods were employed to meet the common standards of quality and verification, including triangulation; structural corroboration; rich, thick description; clarifying researcher bias; and peer review (Creswell, 2007). Triangulation of the multiple sources of data was employed to increase the credibility of the interpretation of the data. Structural corroboration, whereby the researcher relates multiple types of data to support or contradict the interpretation, was used to increase plausibility of the interpretation of data. Rich, thick description allows the reader to make decisions regarding relevance. The results of the study were peer-reviewed by a cohort of master's degree candidates at SIT Graduate Institute as well as by an academic advisor.

Phenomenology was chosen for this study because of the tradition's emphasis on the lived, embodied world. Phenomenology is the study of the world as we immediately experience it rather than as we conceptualize, categorize, or theorize about it (van Manen, 1984). Phenomenology is unique in its attempt to gain insightful descriptions of the way we experience the world. It does not offer explanations, but rather the possibility of plausible insight, which brings us in more direct contact with the world (van Manen, 1984). Case-study design was also employed to develop an in-

depth description and analysis of multiple cases using multiple sources, including interviews, observations, student journals, and student assessments.

This study follows the methodology and common standards of quality and verification for qualitative research. This study is both enriched by and limited by its particular methodology. One limitation of the study is that results are measured as participants' perceptions, not actual behaviors. Another limitation of this study is the researcher's bias, which is addressed with transparency and description of the theoretical framework and ideological assumptions at work. Only subsequent research with other methodologies, instruments, and audiences will help further our understanding of the concepts being measured in this study.

Participants were asked to respond to journal prompts (Appendix B) in their home environment and then to respond to the same journal prompts after spending some time in the host environment. The purpose of the journal prompts was to first raise awareness of the students' sensory experience at home and then again abroad. The prompts and workshop design drew from ecologist and philosopher David Abram's *The Spell of the Sensuous: Perception and Language in a More-Than-Human-World* (1996) as well as from ecologist and environmentalist Aldo Leopold's pedagogy of place, which includes ten ways of knowing nature:

- 1) Wondering and questioning
- 2) Knowing local history

- 3) Observing seasonal changes
- 4) Listening intently
- 5) Counting and measuring
- 6) Empathizing with and personifying nature
- 7) Connecting elements in cycles
- 8) Finding beauty
- 9) Seeking solitude for reflection
- 10) Improving land health

After spending one to four weeks in Costa Rica, participants attended a one-hour workshop (workshop design in Appendix C), in which they were asked to further reflect on their sensory experience and share insights in a group discussion. After the workshop, participants were asked to complete a written feedback form (Appendix D). The researcher summarized all workshops, discussions, and feedback (Appendix E).

Findings

Here, I actually feel like a child again. Everything inspires wonder here. --Participant

Workshops

Fifty-six students participated in workshops. When asked about what insight they had gained from raising their awareness of their sensory experience abroad, 55 participants reported insights. Insights from workshops as well as from interviews are summarized and discussed below.

Participants were asked about the role their senses were playing abroad, compared to at home. All but one student, who was suffering from sickness and allergies, reported a heightened role of their senses. Twenty-two participants reported that their senses were more stimulated. Eighteen reported that their senses were sharper. Ten reported that their senses were overwhelmed. Other similar descriptors were reported 14 additional times, including: heightened, amazed, stronger, more observant, and intense.

Journals

Twenty-eight students participated in sensory journaling. Participants responded to journal prompts aimed at raising their awareness of their sensory experience. Participants responded to the prompts at home, and then again in Costa Rica. 27 out of 28 participants reported something positive from their journaling experience.

According to self-reported data, the use of a journal as a tool to raise awareness of sensory experiences was an overall positive experience for students and one that helped generate insights and promote intercultural learning. These insights and learning are discussed below.

Interviews

Seven students participated in in-depth interviews. These seven students were U.S. citizens enrolled in U.S. universities or colleges. Participants included three

Caucasian females, two African-American females, one African-American male, and one Hispanic male.

The interview process followed common methodology for a phenomenological research study. Phenomenology strives to obtain a description from a participant that is a subject-subject relation and not a subject-object (i.e. physical object or “thing-like”) relation as within the natural sciences. The natural scientific method was developed based on the investigation of a thing, whereas in contrast, phenomenology does not view consciousness or another person as a thing (Englander, 2012). As such, it is not a traditional question that initiates the interview, but the interviewer asks the participant for a description of a situation in which the participant experienced the phenomena. In this case, the main interview question was, “Describe in as much detail as possible a time when you learned something from a sensory experience while abroad.” Subsequent questions were based on the participant’s answer and sought to further clarify or add detail to the given responses with a focus on the phenomenon being researched.

Three essential themes emerged from the collective data (including interviews, workshops, and student journals). These themes represent common social discourses that students used to understand their new environment. The first theme describes the way in which the novelty of the students’ environment is informed by sensory experience and how that relates to their motivation to learn. The second theme makes a

connection between a heightened awareness of sensory experience and a deeper awareness of cultural differences between students' host and home environment. The third theme describes how a heightened awareness of sensory experience led to a re-evaluation of students' relationship with nature. These themes are explored in detail below.

Essential Themes

Learner Motivation.

I just want to say that a lot of the times, if I see something that I haven't seen before, I get this really quick, like, ah! Oh my god! When I saw a sloth and the quetzal bird and the strangler fig, definitely those were moments when I was like, woah. And I think that seeing those types of things in person, you want to learn about it, you know? You really listen to the tour guide, and the person telling you about it because you're standing in front of it, and like, what the hell is that? What's going on there? Instead of in a classroom from a textbook. This is boring; I'm going to shut this. --Participant

The first essential theme explores the way in which students' heightened awareness of their senses led them to talk about the novelty of their environment and their motivation to learn from it. As noted above, almost all participants reported that their senses were sharper or more stimulated in the cloud forest than at home. Some students attributed this to the environment being more interesting and worthy of study,

and others attributed it to their own minds being more open and able to absorb more of the environment. Almost all pointed to novelty as the cause of their heightened senses.

Because the environment was unknown to them, it was unfamiliar and not normalized. Students did not know what animal was making a particular sound, or what plant caused a particular smell, or what a strange new animal might be named. As a result, students' senses played a more critical role in making meaning of the every day. The result of this was curiosity and motivation to learn, to make known what was unknown.

Many students noted the pleasure that they felt as they discovered the newness of the cloud forest. They enjoyed it and were energized by it. Their experiences were exciting and different, and as a result, more memorable. Students described the way in which they were learning from their senses as holistic, personal, and meaningful. This type of embodied learning led students to a more complete picture, better memory-retention, and motivation to learn from and through the surrounding environment.

On the theme of novelty, students often spoke of taking risks, stepping outside of their comfort zones, and overcoming their fears. These experiences were often heightened sensory experiences that changed the way the student viewed him or herself. Raising awareness of sensory experience facilitated discussions such as these, in which students articulated perspective-changing processes and explored their identities in relation to their new environment.

Students reported their tendency to over-rely on sight. In the history of Western societies, sight has long been regarded the noblest of the senses (Urry, 1992). By raising their awareness of the other senses, students were able to become aware of the cultural bias to favor one sense over the others. They were then able to redirect their minds and bodies towards fully utilizing all senses. The result was a fuller, more “relatable or richer” understanding of their host environment.

Cultural Awareness.

I realized how much place affects the senses and how similar or dissimilar a place is to your home determines what you associate with that place, how you reflect on it, and how you compare it to your home/other foreign countries. --Participant

In recent years, many educators have used the Development Model of Intercultural Sensitivity (DMIS) as a framework to explain the development of increasing sophistication in our experience and navigation of differences (Bennett, 1993). The model begins with three monoculture stages, in which our own culture is experienced as central to reality in some particular way. The latter three stages of the model represent an intercultural mindset, in which our own culture is viewed in the context of other cultures (see Appendix E). Someone who is highly interculturally developed could easily move in and out of different cultural worldviews, having already recognized and accepted differences, as well as adapted to new cultures by changing his or her behavior in appreciation of different values. On the contrary,

someone not yet developed interculturally might not recognize differences at all, or if s/he does, might feel threatened, highly critical, or might trivialize or romanticize those differences (Bennett, 1993).

The second theme that emerged from this study makes a connection between a heightened awareness of sensory experience and a deeper awareness of cultural differences between students' host and home environment. As students reflected on their sensory experiences and the novelty of them, they began to also reflect on the differences between the host and home environment. Dialoguing about these differences led to insights about self and others.

When asked to raise their awareness of their senses and then reflect on their experiences, students often spoke of a new or renewed appreciation of both host and home environments. Following the popular culture-learning model "Describe-Interpret-Evaluate," students in the workshops first identified and described differences in sensory experiences. Our senses define the edge of our consciousness (Ackerman, 1990), which means our senses bring us into the world in the immediacy of the moment, before we apply our acquired interpretative frameworks. As such, students were then able to move more deliberately from sensory experiences into their interpretations and evaluations of those experiences. The beauty of the natural landscape, the symphony of bird songs, the surprise encounter with foreign mammals, and the mighty sound of the wind were often at the top of students' minds.

When relating cultural differences, students often referred to their homestay, which was the most culturally immersive experience for them. Students often began with a consumer-culture framework for evaluating their homestay experience, but also strove to find value in the different lifestyle to which they were exposed. For example, a few students began their homestay experience by feeling sorry for their homestay families because of the lack of material wealth. However, by the end of their stay, these students no longer felt sorry for their homestay families, but instead appreciated their simple way of life and their family values. Students began to shift their perspectives and allow the encounter with different cultures and lifestyles to provide a critique of their own, stating that Americans take a lot of things for granted and also waste a lot. At the same time, they were able to affirm positive attributes of their home cultures and lifestyles. These abilities suggest movement along the Developmental Model of Intercultural Sensitivity (DMIS), and a shift from the “defense” or “minimization” stage to the “acceptance” and perhaps “adaptation” stage (Bennett, 1993).

When asked to describe memorable sensory experiences and reflect on why they were memorable, students in the workshops were able to gain insights into subtle differences that were affecting them perhaps on sub-conscious levels. In every workshop, when students were asked for memorable sensory experiences, students responded with comments on the slower pace of life in Costa Rica. Some of these responses were “slower tempo of life,” “more ‘journey-based’ here than ‘destination-

based', "rural vs. urban," and "finite time = making the most of it." Students' perceptions of time in Costa Rica were different from at home for various reasons, including immersion into nature, less reliance on technology, more emphasis on relationships, new schedules, the novelty of environments, and the temporary nature of the visits. Raising awareness of subtle differences allowed students to move away from the minimization stage in the DMIS model, in which one denies differences and seeks only similarities, towards acceptance and adaptation. One student went so far as to say, "Becoming aware and thinking about my senses and feelings helped me overcome my culture shock."

Nature Re-evaluation.

The many bird songs pierce the visibly clean, crisp air. I'm able to see with more clarity, more colors. The air tastes like cool water. The air smells of fresh cut grass, flowers, and other fruiting vegetation. The richness is everywhere, but especially in the mountains, where nature seems to seep into the soul. --Participant

"Sensual bearings bring participation and reciprocity with the more than human world" (Abram, 1996). In his book *The Spell of the Sensuous: Perception and Language in a More-Than-Human-World*, Abram (1996) discusses how human-made technology often reflects ourselves back to ourselves, further separating us from the natural world. This was a theme that surfaced again and again with students. As they raised their awareness of their sensory experience, they became more aware of their reliance on

technology and their separation from nature. Their senses and their environments brought them back in touch with the natural world around them and often renewed their appreciation for it.

A few students had unrealistic expectations of living in a cloud forest. All they knew of Costa Rica before coming was from TV or the internet, which are primarily visual mediums. Students reported their over-reliance on sight alone as well as their dismissal of nature as a backdrop when at home. Living in the cloud forest put students in close proximity with nature in a way they had never experienced before.

For some, immersion into nature shocked their senses. A few students reported their fear of bugs and the anxiety caused by living in close proximity with insects and spiders. Many students spoke of the ways in which raising their awareness of all of their senses gave them a truer, fuller, more complete, or richer experiences in the cloud forest.

Students' dialogue about the richness of their experiences with nature often led them to discuss their over-reliance on technology and their desire to spend less time on laptops and cell phones and more time in the natural world. Many students spoke of a fuller appreciation of nature in all of its complexity and the desire to carry this new perspective home with them.

Summary of Findings

In summary, three themes that surfaced from student dialogue about their sensory experiences in the cloud forest in Costa Rica were learner motivation, cultural awareness, and nature re-evaluation. Learner motivation refers to the way in which students' heightened awareness of their senses led them to talk about the novelties of their environments and their motivation to learn from it. The result of students' encounters with their host environments was broader perspectives of their own senses and sensations, often as a result of a confrontation with the new and unfamiliar. The role of the senses changed in response to the new environment; the senses became more energized. The students' use of their senses changed; students became more observant. Memory-retention was a result of the excitement that came from novelty and of the fullness of experiencing the host environment sensually. The result was a type of embodied learning that led to increased motivation to learn from the surrounding environment.

Cultural awareness refers to the way in which students' heightened awareness of their senses led them to talk about the differences between their host and home environments, from recognizing subtle differences such as perceptions of time to processing major differences such as homestay standard of living. Since the first step in moving towards a more sophisticated navigation of differences is recognizing the

existence and depth of differences among cultures, student dialogue suggests movement along the Developmental Model of Intercultural Sensitivity.

Nature re-evaluation refers to the way in which students' heightened awareness of their senses deepened their participation with the natural world. Students' understanding of nature moved from secondary backdrop to living organism, as their relationships with nature became more reciprocal.

Discussion

The findings of this study suggest particular benefits of the practice of reflection on sensory experience abroad for both students and educators. An often overlooked educational tool for higher education, sensory learning carries additional significance in the field of study abroad for various reasons. One is the childlike sense of wonder that sojourners feel as they encounter new environments. The senses play a heightened role in making meaning of the new environment, and educators have the opportunity to guide students through this interaction in order to make the most of learning opportunities. Asking students to reflect on and share their new and different sensory experiences encourages a type of holistic and personal learning that releases the biochemical rewards of student ownership (Zull, 2004).

Intercultural development is a main goal of study abroad programs, and recent discourse points to the advantages of using intervention techniques to advance

intercultural development for students abroad (Vande Berg, Paige, & Hemming Lou, 2012). In other words, a student could live with a local family in a homestay for a month and acquire little to no intercultural competence. However, if an educator facilitates learning before, during, and after the experience, the student is much more likely to progress from a monoculture mindset to an intercultural mindset. Raising awareness of sensory experience might be used as a tool to facilitate this type of learning.

Because our senses define the edge of our consciousness (Ackerman, 1990), raising awareness of sensory experience abroad opens opportunities for learning about oneself as a cultural being. The senses bring us into a present and immediate interaction with the world around us. Raising awareness of this interaction may help facilitate thoughtful discussions of students' interpretations and evaluations of new experiences. Raising awareness of sensory experience highlights differences between host and home environment; recognizing differences is one of the first steps towards intercultural competency.

Another benefit of reflection on sensory experience abroad is the way in which it brings students into a more participatory relationship with the natural world. This benefit is especially relevant to programs like UGACR, whose mission is "to advance our understanding—through instruction, research and outreach—of the interconnected

nature of human and environmental systems, particularly to concepts of sociocultural, ecological, and economic sustainability” (UGACR Strategic Plan, 2011).

Sensory learning tools, such as the sensory journal and workshops used in this study, could be beneficial for international educators to employ as an intervention technique. Learning tools such as these might be used to advance intercultural development for students abroad, to incorporate into curriculum for the environment and ecology, or to enhance curriculum with an infusion of embodied learning that will increase learner motivation.

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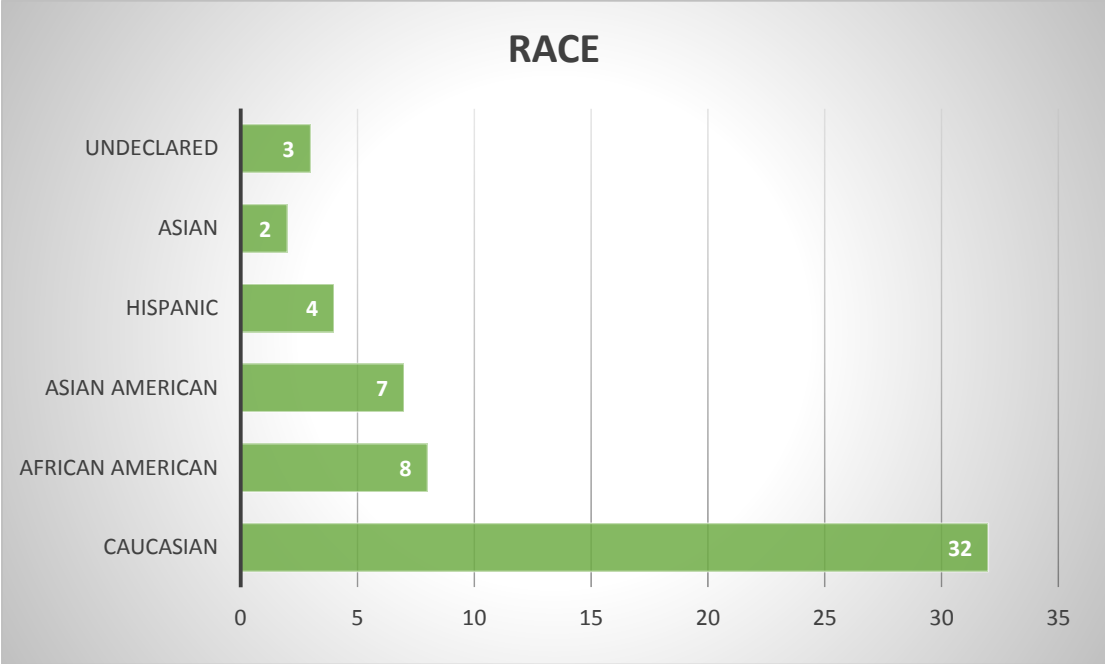
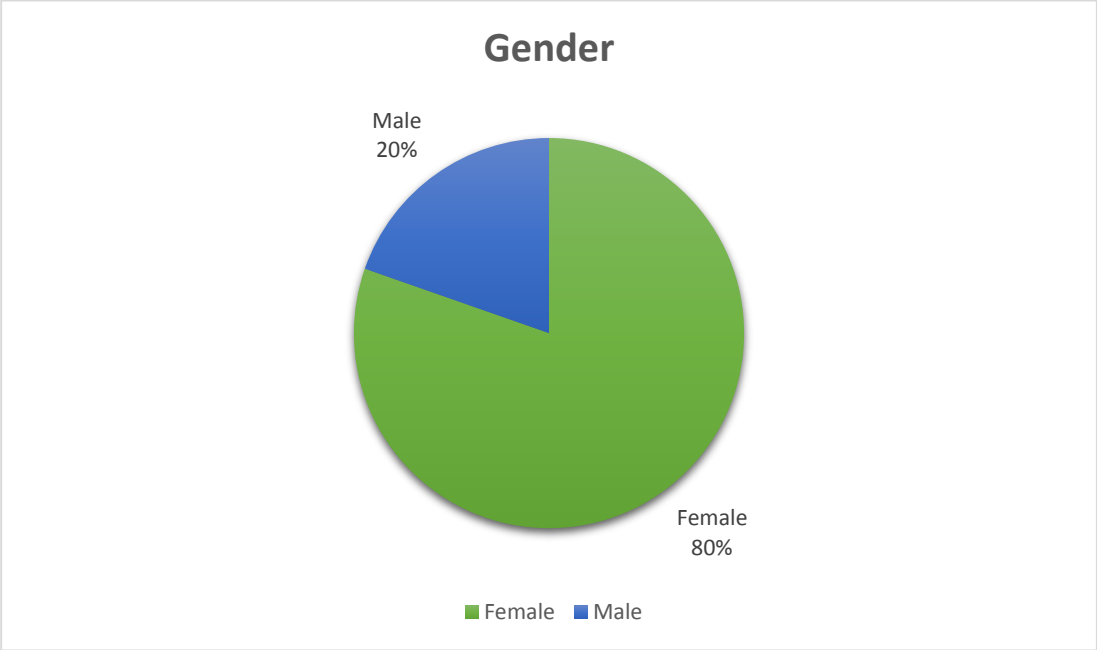
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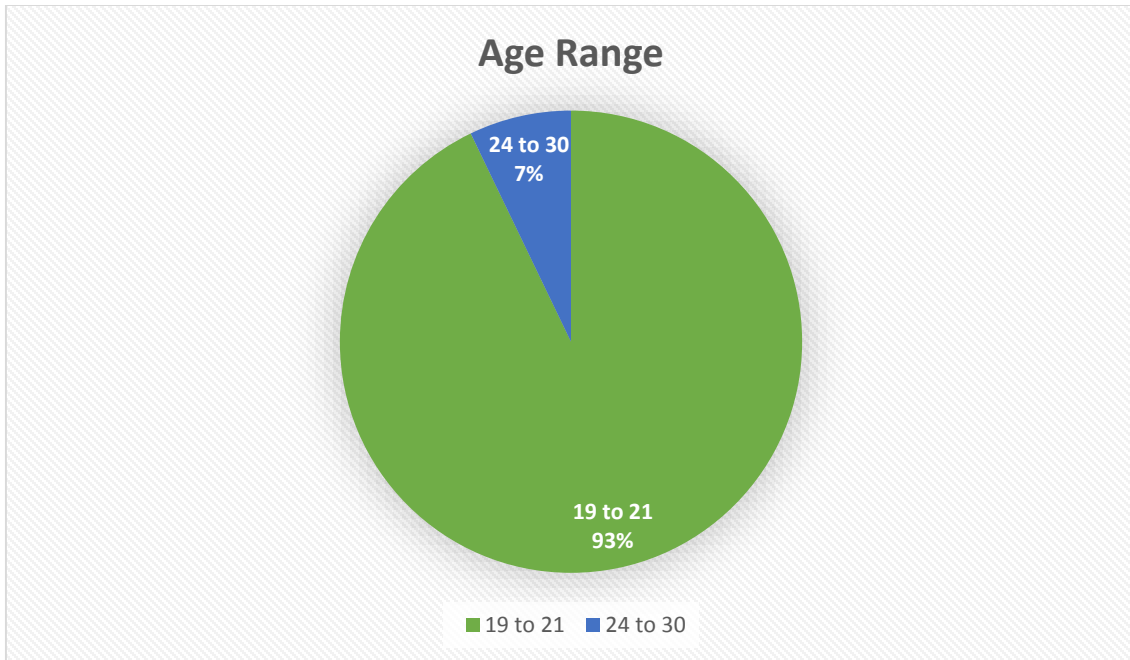
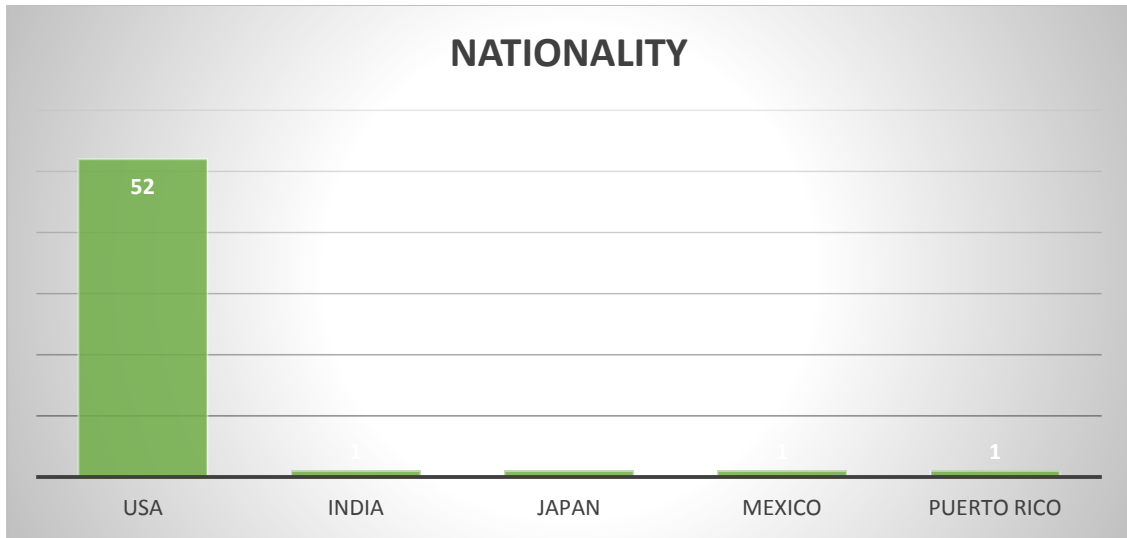
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APPENDICES

Appendix A: Participant Demographics





Gender: 45 Female, 11 Male

Race: 32 Caucasian, 8 African American, 7 Asian American, 4 Hispanic, 2 Asian, 3 Undeclared

Nationality: 52 USA, 1 Japan, 1 India, 1 Puerto Rico, 1 Mexico

Age Range: 52 students age 19-21, 4 students age 24-30

Appendix B: Journaling Prompts

Describe the air outside. Use all of your senses. What “richness” do you find, (however you might define it)?

How much of the world do you think you are perceiving in this moment?

What “others” do you encounter today or any day, human and non-human? How do these “others” communicate to you?

Make a short list of human-made artifacts that you encounter. Make a short list of organic entities that you encounter.

Choose one non-human organic entity. Describe it. How does it gather your senses together in a coherent way; in other words, how do you perceive it? What might you say to it?

What in your natural surroundings is beautiful? Why?

What do you wonder about your natural surroundings?

Just before you go to sleep at night, listen closely. What do you experience?

What insight have you gained from raising your awareness of your sensory experience in this place?

Appendix C: Workshop Design

Purpose

- To raise awareness of sensory experience abroad

Goals

- To use phenomenological interview techniques to facilitate a discussion
- To gather information about students' sensory experiences and how they relate to place attachment or perspective changing
- To pilot this project with a group who may or may not be invested

Objectives

- Unfreeze students
- Uncover degree of commitment to the sensory journal
- Facilitate an in-depth discussion about sensory experience abroad
- Receive written feedback about project

Agenda 3/12/14

Introduction

- About me and my project, why it interests me and what I expect from the group today—this is an exercise to raise awareness of sensory experience and discover insights. I'd like to hear from you all in depth about your sensory experience here and how it relates to your perception of this place.
- Who has been abroad before?
- Go around and tell me your name and why you came to Costa Rica.

Discussion (small group)

- What are some of the different sensory experiences you've had here?

Discussion (large group)

- Tell me your most memorable sensory experiences. (write on board)
- Can someone tell me more about that sensory experience, describe it in detail. Can someone describe the air outside, how it compares to the air at home.
- How much of the world do you think you are perceiving in this moment?
- What in your natural surroundings is beautiful? Why?
- What do you wonder about your natural surroundings?
- Just before you go to sleep at night, what do you experience?
- What insight have you gained from raising your awareness of your sensory experience in this place?

Feedback

- Distribute feedback form. Thank you!

Appendix D: Feedback Form

Did you journal about what you were sensing in your home environment before coming here and then journal again about what you were sensing here? How was the experience for you?

What insight, if any, have you gained by thinking about your sensory experience abroad? What would you like to know more on this topic?

How are your senses different here than at home? Are they more stimulated? Sharper? Overwhelmed, etc.?

Other comments:

Demographics:

Age _____

Gender _____

Race _____

Nationality _____

Appendix E: Workshop Discussion and Student Feedback

3/12/14: UGA Spring Break group

Summary

A group of seven university students, the Dean of the College, the Resident Dean and her husband participated. The discussion was lively. The participants were engaged and thoughtful. I asked them to generate knowledge, which I wrote on the board. If I heard something related to models of intercultural development or perspective-changing, I introduced those models on the board. The female students spoke more than the male students. Some of the things that stick out to me from the discussion: one female student talked about how raising awareness of her sensory experience gave her a more complete picture of her experience, that it wasn't learning that was all in her head, which led me to introduce the concept of mind/body dualism. Another female student stated that having the full sensory experience of, for example, a bird, was preferable to reading about the bird in a book; that she would more easily retain information about the bird because she could recall the sensory experience of it. The Resident Dean and her husband introduced a study that was done where researchers asked adults and children to write down everything they heard, and the children's lists were much longer. We discussed how adults' senses are dulled over time to the ordinary and how travel helps us regain a childhood wonder of the world by introducing our senses to novelty. The discussion lasted approximately 30 minutes.

The sensory experiences reported by students and written on the board were:

Clean air smell that smelled of mountains and trees

Conscious breath

More observant

More "journey-based" here than "destination-based"

Slower tempo of life

So much to see

Surprising—new experiences vs. common & everyday

Wind does not = rain

Constant sound—never quiet—no silence

Wind = pleasant here

Other ideas generated were captured on the board as follows:

Mind/Body Dualism

Assumptions

Sensory Experience— Interpretation— Evaluation = Process of Perception

Texture

Perspective = subjectivity, how you view things, feelings associated based on past experiences

Past experiences = cultural & personal

Students were asked to respond in writing to the following, as well as provide demographic information including gender, age, race, and nationality:

- 1) *Did you journal about what you were sensing in your home environment before coming here and then journal again about what you were sensing here? How was the experience for you?*
- 2) *What insight, if any, have you gained by thinking about your sensory experience abroad? What would you like to know more on this topic?*
- 3) *How are your senses different here than at home? Are they more stimulated? Sharper? Overwhelmed, etc.?*
- 4) *Other comments:*

Student Feedback

Female, 20, Caucasian, USA

I did not journal about what I was sensing at home but I have journaled about my senses here. Everything is so new here, so I feel like I have more to sense in reality. I do not have more to sense, but I am just lulled into a sensory monotony at home because I am used to it.

It (my sensory experience abroad) has given me a great perspective of what I may be missing at home because I am used to it. I want to carry this back to my everyday life.

I have a much greater sense of where I am and what is going on around me here just because it was new. At home, I try to retain a child-like sense of wonder at the world, because I believe it is important to appreciate everything around me. Here, I actually feel like a child again. Everything inspires wonder here, and I do not have to try to retain my amazement because there are so many new things to be amazed by.

Female, 19, Caucasian, USA

I did journal beforehand. I didn't really see the value before traveling, but in comparison to what I've seen and noted while being here, the everyday is more interesting and worth study.

I've focused more on the sights and sounds than anything else while being here. The sounds are ever present and the views, though similar, are breathtaking each time I look into the valley or down a path. It's such a great opportunity to learn more about another way of life and see what others do on a regular basis. I'd like to repeat this experience in different places around the globe.

My senses are most definitely more stimulated and sharper than at home, primarily due to the unfamiliarity of the environment. I would say that some sights are overwhelming especially while doing ziplining. At the end of each day, I think I am more exhausted than at home due to the constant stimulation of my senses.

Thanks very much, and good luck with your research.

Female, 21, Eritrean/African American

I journaled about what I was sensing at home, but I did not when I got to Costa Rica. Well, if I did I didn't do it intentionally. The actual sensory experience was quite different in every aspect. The wind blew all sorts of smells from the rainforest and the food was tangy, new and delicious.

I am now more aware of my environment. If I go back to Athens and I go for a run, I will be looking out for the birds and smelling the air. I wonder what kind of research this topic can include.

My senses are heightened. They are sharper and stronger. I will definitely appreciate my senses more in the future.

Female, 21, White, USA

We only journaled a little about my home environment, but I have been journaling about it here because it is so new and my senses are stimulated. The senses make the experience.

It helps me understand what I enjoy sensing here and how I would like to take that home with me; gives insight to what is different about this environment than at home.

Yes to all of that (my senses are more stimulated and sharper) – I need more time here to allow my senses to experience it all, but they are now child-like because everything is new and amazing and I am consciously taking it all in. I easily notice all of the things I love about this place.

Female, 21, Asian American (Indian), USA

I somewhat did (journal) prior to coming to Costa Rica. I journaled how I felt preparing for the trip. I was concerned about what I needed to pack, how I planned on using the internet and other stuff that I realized when I got here that wasn't even that important. Here I journaled about how I felt experiencing the culture, environment, etc...

I love reflecting on my experience because it helps me get a more complete understanding of what I've been feeling.

Honestly at home, I'm kind of in my own world. I always had a million different thoughts in my mind. However, here – my mind is open. I'm taking everything I can in.

Great topic!

Male, 19, White, USA

At home, the writing wasn't helpful because the experiences weren't new. Here, it's different because the reflection allows one to perhaps experience the memory again.

Given that our senses are active while we live and are awake, every moment could be called a "sensory experience." It's how one categorizes what they see/hear/smell/touch/taste that define the sensory experience. Comparisons of the new and unfamiliar to the mundane and common.

I'm sick with allergies and tired, so I feel like my senses are dulled. I definitely don't smell everything that others have listed, but the details from my ears and vision are there.

Male, 19, Gujram, India

Yes, I did journal about where I currently live, and I find that there is positive stuff in both Athens and Monteverde.

There was very little sensory experience in my case because I am from India and have been to a lot of places that are even more beautiful than Costa Rica, so I was constantly evaluating stuff that was going on around me, (rather) than have a sensory experience.

The only places that I felt sensory experience was while ziplining and at the coffee tour (stuff that I haven't done before.)

I am still kinda learning about American culture; however, when I go back to India, I don't fit right in. In Costa Rica, it's more like a feel that I get when I go my grandparents' farm in India or the Himalayas for a trip. They (my senses) are not overwhelmed, but it's hard to explain.

3/20/14: Kyushu University, Japan

Summary

I facilitated a brief conversation with a group of Japanese students about their sensory journals. The conversation was challenging due to the lack of English speaking skills. I received written feedback from one student.

Student Feedback

Female, 21, Japan

I could sense more in Costa Rica than in Japan. By journaling, I could leave many sense I got here. Also, I thought that the reason why I could not sense many in Japan is just too used the life in Japan.

The insight that I got from my journal is how unconsciously I live every day. I always forget that same day never come. In short, I thought that I must treat a day more precious.

The most impressive difference of my sense is hearing. Without caution, I could hear many sounds here. It was stimulated and sharper in Costa Rica. I will be able to sense more also in Japan.

I want to continue my sensory journal in Japan. Thank you a lot.

5/28/14: UGA Maymester, Advanced Spanish, HACE

Summary

This was the worst workshop yet because of disruptive students, bad behavior, and lack of investment. The advanced Spanish class was the worst behaved. Students didn't know the location and were perhaps also unsure of the time. About a quarter of the students showed up late and missed the introduction. These same students were most disruptive during the workshop, being loud and not taking anything seriously. They also left early during one of the break-out sessions. Many students were making a joke

of everything, which set the tone for the discussion. The environment was not a safe space, and therefore the discussion remained surface level, with these same disruptive students checking their cell phones during class when they were not being loud and disruptive. The students' behavior was rude and off-putting.

Some topics that arose in discussion: more focus on nature, less on technology; the simplicity of life; slower pace of life; changed behavior in response to a heightened awareness of sustainable living and the significance of biodiversity (not killing cockroaches); frustrations over lack of language, inability to express oneself fully, lack of comforts (rain water coming in while sleeping in homestay, ant bites). The following written feedback is from students who remained until the end of the workshop.

Student Feedback

Female, 20, USA

No, I didn't journal, but I definitely thought about it. I think I compared my experience with my home environment and this place once I got here. Living at the homestay has definitely changed my perception of home life. I think I would appreciate things more living in a sustainable environment with few material belongings.

I think I consciously think about my senses either way, regardless of this exercise.

(My senses are) more stimulated because I am not used to the different noises, silence, smells, and other senses.

Female, 19, USA

No, I did not journal about what I was sensing in my home environment. I did journal about my experience in Costa Rica. Journaling has enabled me to keep track of my experiences & what they mean to me.

I have poor senses: bad eyesight, horrible smell, peculiar taste. I was hesitant to journal about my senses because of this. Having to journal made me more aware of sounds I probably would have ignored.

My smell during breakfast when consuming tropical fruit has been heightened. I have difficulty withstanding the smell of watermelons & cucumbers. Over time I have been less affected by them. I am more observant here.

Female, 2, Hispanic, Mexican

I did not physically journal my sensing experience back home but I did notice how little I pay attention to my natural surroundings in the States. I have enjoy my trip here in Monteverde. I love the pace and the environment.

My hearing sensory has increased more. I listen more, especially to the noises at night. I would like to know how I can benefit by sensing my environment?

My senses here in Costa Rica are more sharper than back home. I normally do not take the time to sit and watch the environment or listen to birds sing. I pay more attention to the weather change, the number of animals I see a day, the noises in my surrounding, and the colors.

Female, 20, African/American (black), American

No, I didn't journal before coming to Costa Rica, but I have done so since being here. It's been a great experience for me because it gives me an opportunity to reflect on my surroundings.

Sensory experience gives me an opportunity to be more appreciative of my surroundings.

(My senses) are definitely more heightened. Sometimes it can be a little more overwhelming, but it's a learning experience.

Female, 24, White, American

I did not get a chance to journal beforehand, but journaling about my experience here has really helped me study and examine the environment more.

That people/animals are different everywhere, to keep an open mind, that new isn't a bad thing. I don't know specific thing I'd like to know, just keep experiencing the culture to see what else I come across.

Much more observant here. Mainly because it's a different environment, but also because I need to be more cautious because I'm not familiar with the environment.

Female, 21, White, USA

No ☹ I'm sorry! And I'm also really sorry our class was so rude. It's pretty embarrassing, but they are always like that ☹

I am more conscious of how my experiences inform my perceptions. Maybe I wonder if some senses overpower others in new experiences?

I try harder to notice details because I don't want to miss anything in nature. I'm not sure it's worked though. I definitely have been wearing my glasses more though.

Female, 19, Chinese, American

Yes. Not yet. It is a very different culture & I have learned how living here is different than in the US.

My senses in CR are much more heightened than in the US ~ why they change with the environ.

They are much more heightened. I use them more here than at home where I know what is going on at all times.

CR is a great place to use your senses more.

Male, 20, Indian, American

I did not but the difference was huge. The experience I've had here revolves much more around nature whereas at home its much more about technology.

It has made me actually realize how different this place is than suburban United States.

They are definitely used more, especially outdoors.

Girl, 20, White, Kentucky

No (I did not journal). The experience here is a lot more natural and less muggy than where I live.

It has made me appreciate nature more.

I feel the same there's just more to notice.

Female, 19, White, USA

Not in my home environment, but I've kept a journal here every day.

It's been really cool to actually notice the environment around me. At home, I usually pass over all of the nature & other things around me.

Definitely heightened here. Because there is more space & everything is so open, I'm more inclined to notice nature.

Female, 19, Bengali, USA

A little but I journaled more here. It was nice to write everything down because I appreciated my experiences more.

Not too much because I have traveled a lot.

More sharper because more nature and I want to take everything in.

Male, 28, Caucasian, American

We did not journal in this class. I definitely would like to start.

I love it. I really like eating off the land and everything being a little more slow paced and laid back.

Mine are different be I actually have time to think while I am here. They are definitely more stimulated.

Male, 30, Black, African American

No. But I've really enjoyed my experience here.

I've learned to listen more. I would love to learn more about the tarantulas!

You hear the same thing so you don't bother to go see what it is. But here it's great.

Journal answers: The air outside is very clean. It is very powerful. It pretty much sounds like a thunder storm every morning. I'm perceiving pretty much 60% of the world at the moment because clean air and wind is what we need to survive. I encounter non-human a lot because I've seen and witnessed a lot of wild species, different birds, etc. 1) the bungalows we live in; 2) the floors we walk on; 1) the beans/rice/food we eat. The food we eat it's good but we eat the same thing every day. But it's very healthy and I like it. The birds because they are different colors and make different sounds to what I'm used to. I wonder how all of the environment evolved. I experience very harsh winds blowing against the trees. Gained a lot of info taking hikes.

5/30/14: UGA Maymester, Art & Astronomy

Summary

Instead of doing a physical warm-up game, which riled up the group on Wednesday, I asked students to go around and introduce themselves and say whether or not they had been abroad and why they chose Costa Rica. This introduction better served the

purposes of engaging students' investment in the discussion. One student got up and left after the introduction; he later apologized for his rudeness stating that he had just returned from Santa Elena and was a little bit drunk in class and that he was worried about completing a project and left to work on the project.

The workshop consisted of two small group discussions followed by large group feedback and then filling out the feedback form. The first small group discussion prompts were:

- 1) What are some of the new things you've seen, heard, touched, smelled, or tasted here? Describe the sensory experience.
- 2) Why were these experiences memorable? What did you learn from them?
- 3) Do your senses function differently here than they do at home? How? Why?

The second small group discussion prompts were:

What do the following quotes mean to you?

- 1) "Our senses don't deceive us: our judgment does."
– Johann Wolfgang von Goethe
- 2) "Landscape shapes culture."
– Terry Tempest Williams
- 3) "We don't see things as they are, we see them as we are."
– Anais Nin

After the first small group discussion, I elicited a list of memorable sensory experiences on the board, and they were: wind, forest smell, fresh air, food taste, animals, bugs – feel on skin and sound, morning air – birds' songs, monkeys howling, loud cafeteria, lack of traffic sounds, stars, coffee & chocolate.

I then asked why these experiences were memorable and wrote down the answers on the board: novelty of experience, intensified sensory experience, differences, rural vs. urban, familiarity of sensory experience at home, similarities lead to homesickness, more natural sounds/less technology.

After this I asked students what they have learned from their sensory experiences and wrote main ideas on the board, which were:

- about others – behavior
- about self in a new context
- relationships – experience-based & easier to find things in common here
- new abilities (ability to make new friends)
- facing fears

- pushing out of comfort zone
- different worries (big things are small things)
- finite time = making the most of it, becoming desensitized
- appreciation – here and at home
- wider knowledge of others – smallness of community
- appreciation of relationships at home

After this, I transitioned into talking about culture and perception and students participated in the second small group discussion. I asked groups to tell me one interesting thing that they discussed in their small groups. I introduced the DIE model of perception, describe, interpret, and evaluate. Students introduced the following concepts for what colors perception: personal preference, personal history, culture, assumptions, bias, entitlement, pre-conceived notions.

Student Feedback

Female, 19, African American

No.

I've gained insight on how much more you can get out of an experience not by spending time evaluating things with your sense. Listening closer, tasting slower, and looking longer has definitely heightened my experience here.

My senses are the same, but I've paid far more attention to them here. When I get back home, I'm sure I'll notice more sounds and smells and tastes.

Male, 20, Chinese, USA

Sorry, I didn't do the journals. My sincerest apologies.

I have learned to pay attention to the little things more. I would just like to visit more places and experience more.

My senses are sharper and more stimulated. They are sharper to certain things though. Here in Costa Rica, my vision is sharper to noticing movement such as a monkey in a tree. Whereas at home in Atlanta, everything is more fast-paced and everything is constantly moving so you don't really pay attention to movement. The same goes for sound. In Costa Rica, I'm always paying attention and listening for birds. Whereas at home, I don't even notice it.

Female, 21, African American

Yes. It just made me realize how much I have changed and how different my experiences here are from before I came here. I also realized that my feelings before I left were more tense and were very strong whereas here I feel calmer, more relaxed.

I realized how much place affects the senses and how similar or dissimilar a place is to you home determines what you associate with that place, how you reflect on it, and how you compare it to your home/other foreign countries.

Not as overwhelmed, less stressed, relying more on senses visually.

Very interesting, thought-provoking presentation/questions.

Female, 20, Caucasian, USA

Yes. I did the journal in both my home environment and in Costa Rica. The experience was different in that I became more aware of my surroundings and the environment around me. It was a good experience to be able to compare the two environments.

I have learned to rely less on sight. I used my other senses to truly experience this new place.

My senses are more stimulated in Costa Rica. I hear more – birds, bugs, wind. Additionally, I pay more attention to taste. I am trying new foods for the first time. At times, my senses can become overwhelmed due the intensity of the environment.

Female, 20, Hispanic White, American

No, I actually didn't see the email! I wish I had. By the time it was resent to me here, I was swamped with schoolwork and had started my own journals.

I just love hands-on, active teaching that involves the senses and keeping the blood flowing. My astronomy class was 3 hours in one spot, for example, but the labs were out looking at the stars and applying concepts – a much easier way to learn.

Not much different because I love to touch and smell things all the time but the things I'm touching/feeling, etc. are definitely heightened and different and new and exciting.

Good luck! This is a great research project.

Female, 20, Asian, American

No, I did not see the email about journaling at home. I haven't had time to actually write down answers here, but I've thought about them.

I've definitely thought a lot more about how I perceive things differently here than I do back home.

I feel like my senses are sharper, but I think it's due to the fact that I'm not used to what I hear, see, smell, etc. Everything's new and fascinating.

Female, 19, White, USA

I journaled about what my experiences were in Costa Rica, and it caused me to pay more attention to the details of life here and how it is different from home.

I need to pay more attention to my environment at home.

Overwhelmed. There is a lot going on and I notice every little things here.

Female, 19, White, USA

No, only while I was here in Costa Rica. It was very nice to remind myself to observe and experience all my senses.

I think I will pay closer attention to all my senses back at home and take it all in – to hold memories through them. I would love to know more about memory/memory recall through the different senses.

I am realizing to use them more here – and see the differences from home. Being here makes me think about smells, sounds, textures from that I never really realized.

Female, 21, White/Caucasian, USA

For my art class we were required to create a “pictorial calendar” of our experience studying abroad – we had to include a few days at home in our calendar – the most obvious difference between home and Costa Rica portrayed through my art was the freedom an abstraction as opposed to rigidity and structure.

I've gained the insight of the importance of not restricting/limiting my experiences due to fear or comfort level.

More aware – appreciative

Female, 21, Caucasian, American

No, but I wish I did!! I probably would've written about the food/bugs here the most and how different these things were than from America.

I've gained personally that I need to not worry about the small, trivial things in life and live with my "palms up" = accepting what's placed in my hand.

They're much more overwhelmed, ie—checking for bugs EVERYWHERE, speculating food before consumption

Thank you for this exercise—It really helped me reflect more deeply on my experience here.

Female, 20, White, N. American

I completed the first 7 questions before coming here. I have not journaled explicitly about my sensory experience yet but I have kept a daily journal.

By asking yourself questions about all senses I've become more in tune with those I usually neglect (smell, taste, touch) and feel much more well-rounded.

They do seem more stimulated and sharper which gives me a sense of being complete.

I do yoga a lot at home and have noticed a change in my practice due to opening chakras and being in tune with my senses.

Female, 21, Caucasian, American

I did not, unfortunately.

I think my insight is that although things are different here on the surface, this place shares the same core as home.

I wouldn't say that my senses are any different here. I usually make an effort to constantly evaluate what is around me (part of being an Art major I guess), so I just have new items to evaluate.

Female, 22, Caucasian, USA

No, but I have been journaling here. I did think about the prompts in Athens. It was interesting comparing the two. The most surprising was how many more similarities there were than differences.

Becoming aware and thinking about my senses and feelings helped me overcome my culture shock.

They are more stimulated. The longer I have been here the sharper they have become. I can tune in to my senses better.

Female, 21, White, USA

No, I didn't; however, I did pay attention simply because I wanted to truly experience Costa Rica

How little I appreciate things around me.

I believe they're sharper and more stimulated because I'm actually paying attention to what's around me.

Female, 20, White, American

I did not journal at home, but I did here. Journaling here I mostly realized differences between here and home and the importance of seizing the moment and appreciating this environment while I'm still here.

How great it can be to not tune out the natural sounds around us – they make the place what it is.

More stimulated, more alert, because everything is new and I want to soak it all in.

Sensory experiences shape our perceptions and truly make the place what it is. Stimulating them allows us to appreciate this place as well as home.

Female, 20, White, USA

I started the journal after getting here, so I don't have a before.

How much I pay attention to very tiny inconsistencies—ex, why one leaf is moving when the rest are still.

Maybe slightly more stimulated, but not too much—just stimulated in a different way.

Female, 20, Black, American

Kind of. I looked at the emails before and kept it in mind for the trip. I perceive so much more here just because I have to. There's a lot more to see and hear and my perception has increased because of it.

Maybe more about normalization and desensitization, is it good or bad? What can we learn from it? Should we avoid normalizing things to increase the value of our sensory experience?

Much more stimulated. A lot more for me to take in. Also sharper. I feel like I hear the class, my fellow students, the technology and the outdoors all at the same time. I feel less distracted and more aware here.

I enjoyed your presentation and I appreciated how receptive and responsive you were to all comments! Thanks a lot!

Female, 21, Caucasian, USA

I did not journal at home. When I journaled here, it was strange for me. I don't journal or write about my experiences usually. The questions were hard for me to answer sometimes.

I have learned I need to pay more attention to my natural surroundings. I would like to know if meditation has a large effect on sensory experience.

My senses are more stimulated. The air is fresher here and carries more sound.

Female, 20, African-American, Bahamas/USA

No, I did not.

The importance of life; well this sensory experience has allowed me to recognize that there is so much more to life than success. The simpler things matter more.

Definitely more intense. It reminds me of home though and because of that I miss home. (I do not live in Athens.)

Female, 22, White, American

I kept a journal, although it wasn't specifically about the prompts! I realized early on that I was very lonely without companionship of friends to joke around with and just care if I'm there or not around. The trip got a lot more enjoyable for me once I got to know the people and develop a support system.

It's helped me learn a lot about myself and how others perceive me – it takes me a while to warm up to a group and it also doesn't mean that I'll never get used to a place if I don't like it in the first week.

I'm divorced from TV and movies here, which I miss but am also glad that I've gotten a forced break from – these are hours spent with other people and trying new things instead of glued to a screen.

6/2/14: Theatre & Film Class, UGA

Summary

A small group of six students met for a short workshop. There was a huge thunderstorm that was so loud that it was hard to hear each other speak, and the lights were going off and back on again, so I decided to keep the discussions shorter than usual, but we still made it all the way through, beginning with sensory experiences, why they are memorable, things learned, the process of perception, and adaptation. The following data was elicited from students and written on the board:

Sensory Experiences

- clean air
- rich coffee
- coatis
- guava taste
- birds

Why Memorable

- unfamiliar
- differences in food preparation
- stimulated senses

Learning

- different cultures
- don't NEED internet
- observe/notice more
- slower pace of life
- rural vs. urban
- differences in sensations

Perception

- clouding—culture, personal history

Adaptation

- USA—defensiveness
- outside comfort zone = requirement.

Student Feedback

Male, 21, Asian, USA

The first thing that I sensed that the air is cleaner here than my home environment. I noticed this because back home, I suffered from pollen allergy. However, in Costa Rica, I did not have any problems from my allergy.

I am more observant when I am in a different environment.

My senses are different here than home. I feel like they are more stimulated, mainly because I'm relaxed on this trip. Also, there are amazing things that cannot be seen back home.

Female, 20, Hispanic, Puerto Rico

Yes, I noticed changes but not drastic changes.

It is interesting to notice how different people live and how comfortable people are with living a simpler life. It is interesting to see how people depend so much on their own agriculture as compared to back home where I buy everything at a store. It would be interesting to see how the sensory experience would change if I were to trade roles with a native.

My senses are more stimulated outdoors than at home because of the increase in danger than back at the United States. I am more careful about my surroundings here than at home. I pay attention more to what I hear around me and I can recognize certain animals now.

Female, 20, White, USA

I think I've especially listened more abroad. Everything from the language to the environment sounds very different to me and I've been more aware – also the taste at a lot of restaurants my group decided everything has a “Costa Rican” taste – also the fact that we talk about it is different.

Basically the same as above—sometimes overwhelmed because I don't speak Spanish but I usually take myself out of the situation if I get too overwhelmed, which takes away maybe things I could've picked up.

Male, 21, White, USA

Completely different. A lot had to do with environment but the most interesting was looking at the changes in “types of people.” Americans aren’t as kind, as much as many Costa Ricans I have met here.

I have gained an actual appreciation for nature and how others live in contrast to how I live in America. I want to learn about all cultures and their people, to become closer at understanding so that someday we ALL have true peace.

More stimulated in different ways. I’m on my toes constantly at home so I am aware of surroundings, but by fear. Here my senses are at peace and I truly enjoy what I take in.

Good luck!!

Female, 20, Caucasian, American

I journaled only in Costa Rica however I did not write about sense.

I guess it really makes you pay attention. When I get home I might have to smell the air and see if I can smell a difference.

I would say sharper. There’s a lot of really cool things happening in the trees or the sky and you really have to pay attention. More so, everything is new and different and the unfamiliarity makes it easy to notice new sensory details.

Male, 24, Caucasian, American

It was interesting to see the differences between different locations.

I have become more curious and want to look into information about the area.

In a few cases overwhelmed but mostly stimulated. A more rural area can be pleasing.

6/19/14: UGA Summer Group

Summary

For sensory experience, the group named eating an ant, seeing tarantulas, monkeys, snake, landscapes, sunsets, cows and rainbows. For why those were memorable, the group named new, different, and making the effort to look for them. For learning experiences, the group named appropriate wardrobe, hygiene, everywhere is different, bugs aren’t that scary, response to nature, appreciate home more for hot water and transportation, people are nicer here, and urban vs. rural. The discussion then moved into perception and adaptation. A girl said that she thought many Americans were

stuck in the intercultural development stage of “minimization” where they trivialize or romanticize other cultures, maintaining an ethnocentric worldview by denying differences.

Student Feedback

Female, 19, Caucasian, American

Yes I did. The experience of journaling about my senses at home was an eye-opening experience, because we often fail to notice even our most basic surroundings, because we are comfortable and used to it. Yet, when we do, we can be surprised at the diversity of things surrounding us. What we’re used to is not equated with “boring.”

Female, 19, Caucasian, American

I journaled about my senses at home and I have journaled here but not focusing on senses. I’ve journaled about what I’ve done and included some senses here. I’ve noticed that I’ve been more observant because I want lots to journal about.

I’ve come to realize that every place is different and that in order to get the full experience you need to be more open and observant to your surroundings. This also applies to back home where everything is familiar. You could miss something new because you’re just going with the flow.

Here my senses are more stimulated because I want to see more and experience as much as I can. They are sharper because I’m being intentional about observing and it’s definitely overwhelming because so much is happening so fast all at once.

This activity made me realize all that is happening around me.

Male, 21, Caucasian, U.S.A.

I haven’t written about my experiences here yet, but I will soon. It’s been different here. I originally found the sounds of wind, rain, and birds peaceful, but it’s changed more to noise, like the background noise of cars and airplanes back home.

I’ve learned the importance of paying attention in order to adapt. I’d like to know more about meditation, and its effect on sensory experiences.

At first they were fairly normal, but after my time at my homestay, I was over-stimulated by the immersion into the culture. I had a panic attack. I feel fairly normal again, but there are certainly instances where my senses seem sharper.

Male, 20, Latino/Hispanic, USA

Yes. I wrote my original journal from home in Melbourne Beach, FL. I also wrote another journal entry from here in Costa Rica. This has been a fun experience full of adventure.

Using your senses effectively allows you to gain a broader understanding of the surrounding environment and how it can affect you.

My senses here work the same as at home. However, here there are more new things that I'm adapted to.

Thank you! ☺

Female, 21, African-American, American

I journaled about what I was sensing at home and in Costa Rica. The experience was very different because I paid more attention to my senses abroad than in the United States.

There are a lot of things present in the world (bugs, birds, weather) that I do not notice much at home. I would like to know how your sensory experience affects/correlates with the learning environment.

They (my senses) are more stimulated. When I step outside, I can smell the difference in the air and hear the different animals outside. My senses to food is more sharper as I can identify them from a mile away.

Female, 19, White, American

I did as a part of the sensory journal project and again while in Costa Rica in the form of a personal diary and blogs for class. I have enjoyed the experience because it has allowed me to really reflect on what I am thinking/feeling/hearing, etc. in a new environment.

I have learned that the world is an extremely diverse place and that Costa Rica is different (and beautifully so) from my hometown. I would like to travel to other places abroad to see more differences.

My senses are definitely more stimulated, sharper, and even overwhelmed as I try to take in so many new experiences. Because so many things are different, I intuitively pay closer attention.

Female, 19, White, American

Yes. Journaling in my home environment really opened my eyes and understanding of what's around me. Living in a small town in the same house resulted in me taking for granted my surroundings, and journaling my surroundings allowed me to appreciate and see what I have been taking for granted.

Thinking about my sensory experience abroad showed me that I am really moving away from thinking that my "norms" are not what is only in the world. There is more than just my town and "English."

My senses here I feel are constantly "active" or more stimulated. I am consciously making an effort to see, hear, smell, touch, and taste different things.

Thanks for this eye-opener, and best of luck with your research!

Female, 20, White, American

Yes; at first the questions seemed a little strange to me because I normally don't think about my environment. But when I got here it was easier to answer questions because I was observing more new things.

It's allowed me to be more appreciative of the trip I'm experiencing because I will be able to adapt to different cultures and people more easily than someone who has not traveled.

Sharper; more observant and aware of changes. They aren't overwhelmed but it is certainly an adjustment.

Thanks and good luck!

Female, 20, Caucasian, USA

I did write about my sensory experiences both at home and abroad. This experience heightened my awareness of the outside world.

By thinking about my sensory experience abroad, I have gained a deeper understanding of my surroundings, and an appreciation of the sensory details around me.

My senses here are sharper because I am in a new environment, while at home my senses are dull because I am used to my surroundings.

Thank you!

Appendix F: Developmental Model of Intercultural Sensitivity (DMIS)

Ethnocentric			Ethnorelative		
Denial	Defense	Minimization	Acceptance	Adaptation	Integration
My cultural experience is the only one that is real and valid. There is little to no thought of “other.”	“We” are superior and “they” are inferior. One feels threatened and is highly critical. What is strange may be labeled as stupid.	Other cultures are trivialized or romanticized. One tends to deny differences (e.g., “color blind”) and only seek similarities.	I accept but may not agree with other cultures. Generally, I am curious and respectful.	I “see” the world through different eyes and make intentional changes in my own behavior and values.	I easily move in and out of different cultural worldviews.

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