Providing Access to Residential Environmental Education Programs for Multicultural Urban Youth

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Providing Access to Residential Environmental Education Programs for Multicultural Urban Youth

By

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B.S. The Evergreen State College, 2002

Plan B Project

Submitted in partial fulfillment of the requirements for the degree of Master of Science in Natural Science, Natural Science Education/Environment and Natural Resources (MS - NED/ENR) in the Science and Mathematics Teaching Center of The University of Wyoming, 2013

Laramie, Wyoming

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Abstract

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Current research in the Environmental Education (EE) and science fields, and environmental movement focus on barriers to and strategies for increasing diversity and cultural competency, but none specifically address this topic in Residential Environmental Education (REE) programs. This research aims to address this gap in the literature by answering the following research question: what are the strategies, barriers, vision, and resources needed for providing access to REE programs for multicultural urban youth (MUY)?

This study utilizes a qualitative research approach based on grounded theory methods and analysis. Interviews were conducted with 17 REE interviewees, from executive directors to registrars, representing 16 REE organizations located in 13 different states. Three major categories emerged from the interviews including: 1) the importance of REE programs for MUY; 2) the impacts of REE programs on MUY; and 3) the strategies, barriers, vision, and resources needed for providing access to REE programs for MUY. The main research question was addressed in the third emerging category, in which the following eight themes were identified: a) REE organizations’ mission and vision, b) recruitment and retention of a diverse board and staff, c) funding, d) partnerships and collaboration, e) programming, f) cultural competency, g) marketing, and h) accessibility.

This research provides REE organizations with best practices for providing access to their programs for MUY. By focusing specifically on REE programs, this study adds to the current research in the EE field on increasing diversity, inclusiveness, and cultural competency.
This research is inspired by and dedicated to my multicultural students, Environmental and Multicultural Education professionals, Social Justice practitioners, my supportive teachers, my loving family, friends and partner, and my ultimate guide ~ nature
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To my family, friends, and partner, it is through your unconditional love, belief, and abiding support that I have embarked upon this journey, and the many others that lay ahead. Words can never truly express my deep gratitude for sharing this life with you!

In closing, this research and our existence are not possible without the natural world. May we connect with, value, conserve, and live sustainability with it for future generations.
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Chapter 1

Introduction

I leave you a responsibility to our young people. The world around us really belongs to youth, for youth will take over its future management. Our children must never lose their zeal for building a better world. They must not be discouraged from aspiring toward greatness, for they are to be the leaders of tomorrow. (Stanton, 2002, p. 15)

- Dr. Mary McLeod Bethune

As concerns about worldwide environmental issues grow (Ernst & Theimer, 2011), governmental agencies in the United States demand an increase in environmental and scientific literacy for all students and people (DeBoer, 2000). The Environmental Protection Agency is one strand of the government that is funding projects to provide people from diverse backgrounds and varying ages, opportunities in which to develop knowledge, skills, and attitudes around environmental literacy (EPA, 2012). According to the U.S. Policy Initiative 2016 Project,

When demographic realities, national needs, and democratic values are taken into account, it becomes clear that the nation can no longer ignore the science education of any student. Race, language, sex, or economic circumstances must no longer be permitted to be factors in determining who does and who does not receive a good education in science, mathematics, and technology. (Barton, Ermer, Burkett, & Osborn, 2003, p. 26)

These policies and initiatives are especially significant in light of the achievement gap that exists for women and underrepresented minorities in the Science, Technology, Engineering, and Mathematics (STEM) fields (Tsui, 2007). Decreasing this gap, and increasing environmental and scientific literacy occurs in both formal and informal educational settings. Bourke (2012)
highlights that, “The National Science Teachers’ Association (NSTA) identifies Environmental Education as an essential component of a comprehensive science education program” (p. 12). In addition, Environmental Education (EE) programs are shown to provide students with a deeper understanding of environmental issues through experiences in nature, while enhancing their connection to the natural world (Ernst & Theimer, 2011). The role that EE programs play in connecting people to nature is pertinent in a time where America’s youth are spending more energy on technological activities than in the outdoors (Larkin, 2011; Louv, 2005).

Residential Environmental Education (REE) programs add breadth and depth to traditional EE learning experiences. This is made possible by immersing students in natural settings for durations of time greater than a few hours or a full day. Ernst and Theimer (2011), and Gilbertson (1991) found that the duration of EE programs is critical to enhance scientific literacy, while Kals, Schumacher, and Montada (1999) suggest that the duration of EE programs increase students’ connectedness to nature. These intensive REE programs not only increase civic engagement and scientific/environmental literacy, but also “offer opportunities for personal growth by encouraging teamwork, collaboration, and the development of leadership skills which serve participating students well in their academic and professional futures” (Stern, Powell, & Ardoin, 2008, p. 32).

Statement of the Problem

According to the US Census Bureau in 2000, African Americans, American Indians and Alaskan Natives, Asians, and Hispanics comprised 29% of the U.S. population. By the year 2050, this number will be over 50% (Davis et al., 2002). The American Community Survey 2006-2010 reported that there are 361 non-English languages spoken in the U.S. (Siebens & Julian, 2011). Brault (2012) reported in 2010 that the disability presence and need for assistance
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in children under the age of 15 was 13%. While the United States is becoming more diverse, inequalities are still prevalent among people with diverse backgrounds including race/ethnicity, language, socioeconomics, physical abilities, learning needs, sexual orientation, and gender (Sleeter & Grant, 2007). For example, in 2011 the U.S. poverty rate was at 15.9%, the highest it has been since 1993 (Bishaw, 2012). The National Science Board (2010) noted that 12 of the 50 states do not provide funding for gifted and talented programs. The percentage of a woman’s annual earnings compared to a male counterpart is 78.2% in 2009, which is only 10.3% higher than 30 years ago (Getz, 2010).

These inequalities are also reflected in the effects of environmental degradation on multicultural communities. The Environmental Careers Organization (1992) noted that, “there is an inextricable linkage between economic and environmental issues in communities of color” (p. 36). Although research has been conducted in the EE field to educate students about environmental justice, and providing access for all people, Taylor (1996) notes that, “more often than not, other cultures and perspectives have been excluded, or played marginal or insignificant roles in Environmental Education” (p. 27).

Along with the presence of various cultural, economic, and/or social barriers, approximately 80% of the U.S. population lives in urban areas (U.S. Department of Transportation, 2000). These factors, along with the fact that REE programs are often located away from urban centers, contribute to children not having “the same opportunities to experience wilderness or natural rural environments” (Sikorcin, 2003, p. 20). REE organizations play an important role in eliminating this and other barriers, by providing multicultural urban youth (MUY) access to their programs.
Significance of this Study

Research has identified barriers to, and strategies for enhancing and supporting diversity, inclusiveness, and social justice. This is reflected in a multitude of organizations, movements, and communities in the United States, including the for-profit sector (Thomas & Ely, 1996), the Librarian and Information Science field (Kyung-Sun & Sei-Ching, 2008), and in the Civil Rights (Running-Grass, 1996) and environmental movements (The Environmental Careers Organization, 1992).

Even though the Federal Environmental Act defines EE as, “a study of the factors influencing ecosystems, mental and physical growth, living and working conditions, decaying cities, and population pressures” (Lewis & James, 1995, p. 1), these authors challenge that this focus is not as inclusive as it suggests. According to Taylor (1996), attention and dialogue about social and racial inequalities in the EE field did not occur until scholars, like Lewis and James (1995), and grassroots multicultural activists brought it to the forefront. James (2003), on the other hand, remarks that diversity in outdoor recreation and the development of an environmental ethic through these activities, was a precursor to bringing diversity into the EE field. Today, leaders in the EE field, such as North American Association for Environmental Education (NAAEE), have adopted diversity policies to celebrate and promote diversity and equity within their own organization and the entire EE field (NAAEE, 2007). Organizations, such as The Barr Foundation (2006), have provided cultural competency research and recommendations for EE organizations and practitioners.

Stern, Powell and Ardoin (2011) provide a case study on a REE organization that utilizes a constructivist and culturally responsive approach for MUY. While this research adds valuable insight, this is the only published research noted in the researcher’s extensive literature search.
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pertaining to REE organizations and MUY. Thus, this study will contribute new information on
the strategies, barriers, vision, and resources needed for REE organizations to provide access for
MUY. This scientific study adds to pre-existing research on this topic in the EE field by
focusing specifically on REE programs.

**Purpose of this Study**

The purpose of this research study is to identify factors influencing the access to REE
programs for MUY. This study uses a qualitative research approach to address strategies and
barriers affecting this access, and the vision and resources needed to continue to provide it. The
objectives of this study are to:

1. Identify a pool of REE programs across the United States that provides access to MUY.
2. Identify through semi-structured interviews:
   a. Current strategies used by REE organizations to provide access for MUY.
   b. Existing barriers that limit the access of REE programs for MUY.
   c. Vision and resources needed to overcome constraints, and provide access to REE
      programs for MUY.
3. Provide recommendations on how REE organizations can provide access to MUY.

**Research Questions**

This research is guided by the following questions and sub-questions:

1. What current methods/strategies do REE programs utilize to provide access for MUY,
   and how do REE programs gauge the effectiveness of these strategies?
2. What factors limit or constrain the access to REE programs for MUY?
3. What are the vision and resources needed for REE programs to provide access for MUY?
Assumptions and Limitations of the Researcher

Assumptions of the researcher. This study is based on the premise that REE programs are pertinent in connecting students to the natural world, increasing scientific and environmental literacy, and empowering them to be catalysts for change in their own lives, and local and global communities. Just as scientific and environmental literacy is important for all students, this study suggests that all students should have the opportunity to have access to and participate in REE programs. This study assumes that REE organizations provide access to their programs for all students, but that MUY make up a small percentage of students participating in these programs. This study relies on qualitative data collection (interviews) and analysis, by the researcher, in order to understand how REE programs provide access for MUY.

Limitations of the researcher. Due to the researcher being the instrument of data collection in this qualitative study, it is important to understand her experience in this field. The researcher received academic training on issues around Multicultural Education in a graduate course, Diversity in Education, in the Fall 2012 semester at the University of Wyoming. As reminded by James (2003) when researching diverse populations, the researcher remained aware of her cultural lens. This research came out the researcher’s work with MUY in her graduate studies in the Teton Science Schools (TSS) REE programs.

As multicultural urban youth (MUY) are defined in the context of this study below, the researcher identifies with a few of the groups that this research includes. Agyeman’s (2003) research emphasizes this importance, while Henderson (1998) agrees with the following point James (2003) makes, “restricting research to members of the culture under study also absolves researchers from the dominant culture of responsibility for redressing the status quo” (p. 76). To understand the larger context of MUY and REE, an extensive literature search and review was
written before the researcher conducted the interviews. Lastly, the researcher considered word choice, and avoided or clarified misconceptions in the entire research process, which is noted by Henderson (1998) as important when researching diverse populations. For example, the researcher chose to use the term *urban* rather than *inner city* due to the negative connotations that are associated with that label (Sikorcin, 1993).

The researcher is well versed in quantitative research and is conducting a qualitative study of this depth for the first time. In order to support the researchers understanding of qualitative research, she completed an *Introduction to Qualitative Research* graduate course in the Fall 2012 semester at the University of Wyoming. The researcher received regular feedback on her research design and process from her committee chair, Dr. Kate Welsh.

**Operational Definitions**

This section defines common ambiguous terms that are used in the context of this study.

**Residential Environmental Education (REE).** REE programs are intensive EE programs where students spend at least one overnight on or off the REE campus (Dettmann-Easler & Pease, 1996). The objectives of these programs include: “enhancing environmental attitudes, increasing environmental knowledge and literacy, promoting citizenship skills, and encouraging stewardship behaviors that not only take place on site but also continue once the students return to their home communities” (Stern et al., 2008, p. 32). As noted earlier, REE programs also provide opportunities for students to grow as individuals and collectively through developing leadership and teambuilding skills.

**Multicultural urban youth (MUY).** Sleeter and Grant’s (2007) definition of multicultural in reference to education is applied to defining multicultural youth in the context of this study.
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This encompasses more than race and ethnicity, to include socioeconomics, gender, language, and learning and physical needs.

In the context of this study, urban is defined as areas containing “densely developed residential, commercial, and other nonresidential areas” (U.S. Census Bureau, 2010, p. 1). This includes “urbanized areas of 50,00 or more people, and urban clusters of between 2,500 and 50,000 people” (U.S. Census Bureau, 2010, p. 1).

Cultural Competency. Cultural competency within the context of this study is defined as “an ongoing process of developing awareness, behavior, structures, and practices that allow an organization or program and its members to reach or engage diverse groups and communities in relating to the natural and built environment and in environmental stewardship” (The Barr Foundation, 2006, p. 4).

Inclusiveness. Enderle (2007) defines inclusivity as a “social system where perspectives from people of all backgrounds are equally considered, respected, and incorporated into . . . decision making” (p. 230).

Environmental Literacy. An environmentally literate person is defined by NAAEE (2011) as:

Someone who, both individually and together with others, makes informed decisions concerning the environment; is willing to act on these decisions to improve the well-being of other individuals, societies, and the global environment; and participates in civic life. Those who are environmentally literate possess, to varying degrees: the knowledge and understanding of a wide range of environmental concepts, problems, and issues; a set of cognitive and affective dispositions; a set of cognitive skills and abilities; and the appropriate
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behavioral strategies to apply such knowledge and understanding in order to make sound and
effective decisions in a range of environmental context. (pp. 2-3)

Engaged citizen. An engaged citizen has developed “a personal identity, a sense of
responsibility, caring, feeling of connection, and competence” (Mohamed & Wheeler, 2001, p.
18). Leadership is exercised through addressing and implementing solutions to societal
problems and concerns, and thus creating positive change in local communities. As noted by
Mohamed and Wheeler (2001),

Through civic engagement, young people's ideas and energy can contribute meaningfully as
they participate in community building, work toward social change, and apply their
leadership skills, all the while gaining access to services, supports, and opportunities that
facilitate their own development. (pp. 6-7)
Chapter 2

Literature Review

This review of the literature will cover the following areas that are pertinent to the research and questions being addressed:

1. Historical context of Environmental Education (EE) pertinent to this research
2. Theoretical frameworks of EE pertinent to this research
3. Strategies and barriers for providing access to EE programs for multicultural youth (MY)
4. Effects of EE programs on multicultural urban youth (MUY)
5. Effects of Residential Environmental Education (REE) programs on students

Historical Context of EE Pertinent to this Research

In the late 1960s, the environmental movement, along with the passing of the National Environmental Policy Act of 1969, strongly influenced the inception of EE (McCrea, n.d.). At the 1972 UN Conference on the Human Environment, The United Nations Educational, Scientific, and Cultural Organization (UNESCO) was called to work with agencies and member nations within the UN and other international organizations to develop an international EE framework. EE was defined three years later in The Belgrade Charter, and expanded upon at the UNESCO-UN Environmental Programme Intergovernmental Conference in 1977 at Tbilisi, Georgia. The goal of EE programs is for participants to obtain the following:

1) Awareness: To help social groups and individuals acquire an awareness of, and sensitivity to, the total environment and it’s allied problems; 2) Knowledge: To help social groups and individuals gain a variety of experience in, and acquire basic understanding of the
environment and it’s associate problems; 3) Attitudes: To help social groups and individuals acquire a set of values and feeling of concern for the environment, and the motivation for actively participating in environmental improvement and protection, 4) Skills: To help social groups and individuals acquire the skills for solving environmental problems; and 5) Participation: To provide social groups and individuals with an opportunity to be actively involved at all levels in working toward resolution of environmental problems (UNESCO, 1978, pp. 26-27).

Although EE theory is outlined as a holistic approach, its practice tends to vary (Marouli, 2002). Some practitioners place emphasis on ecology, while others stress responsible environmental behaviors (Taylor, 1996). Cantrill (1992) calls for EE organizations to include social, political, and economic dimensions of education within their programs and entire organization. This includes, as Taylor (1996), and Lewis and James (1995) note, an understanding of who defined environment and thus, set up the environmental agenda. The definition of environment stems from the mid-late 1800s Transcendental and Romantic eras (Taylor, 1996). The dominant culture at the time, white males, such as Ralph Waldo Emerson, Henry David Thoreau, and John Muir, wrote about and influenced the political and cultural experiences that defined environment. Taylor (1996) states “environment and environmentalism was defined as the antithesis to urban life, the answer, the antidote for what was wrong with civilization, industrialization, urbanization, resource exploitation, and environmental degradation” (p. 1).

Due to the absence of other voices, and the lack of education and attempts to discuss race, class, gender, or social inequalities in environmental debates, the environmental movement
agenda was set by the dominant culture (Taylor, 1996). This resulted in a lack of recognizing and addressing the needs of other cultures in the EE agenda (Lewis & James, 1995).

Even though underrepresented populations had long been activists in the environmental fields, historical accounts fail to acknowledge these important contributions. So often environmental writers, such as Rachel Carson, are defined as the key players in the environmental movement. Yet, the dedication of the 9th and 10th units of the United States Cavalry, segregated African American units that protected and managed Yosemite National Park when the National Park Service did not exist, often remain untold (Lewis & James, 1995). Also, there was the unacknowledged story of the Latino farmworkers in California, who three days before the release of Rachel Carson’s book, gathered together to brainstorm ways to fight against the use of dithiothreitol (DTT) in their fields, which had detrimental physical and environmental effects (Taylor, 2011). Di Chiro (1996) calls for the environmental movement to examine and re-envision how environmental history is being told.

Despite the documentation of opposition to environmental inequalities dating back to the late 1700s (Taylor, 2011), environmental racism did not come into national and political light until 1982. Attention was given to activists protested the dumping of 120 million pounds of soil contaminated with polychlorinated biphenyls (PCBs) in Warren County, North Carolina, which at the time had the highest proportion of African Americans (Mohai, Pellow, & Roberts, 2009). Environmental racism led to efforts toward environmental justice, which according to the EPA is:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no population,
due to policy or economic disempowerment, is forced to bear a disproportionate share of the negative human health or environmental impacts of pollution or environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies. (Mohai et al., 2009)

These factors, along with outdated research, play a role in the misconceptions that underrepresented people are uninterested in and less connected to the environment, and display less knowledge, awareness, and concern for environmental issues (Taylor, 2007). Current research reveals data contrary to these commonly held beliefs. The National Survey on Recreation and Environment in 2000 found that participation rates of people with disabilities in nature activities are higher than those without disabilities (Burns & Graefe, 2007). A poll in 2007 indicates that 77% of Latino voters “support a small increase in taxes to protect water quality, natural areas, lakes, rivers or beaches, neighborhood parks, and wildlife habitat” (Bonta & Jordan, 2007, p. 10).

Theoretical Frameworks of EE Pertinent to this Research

The awareness and knowledge of EE history plays a critical role in the theoretical frameworks pertinent to this research. This research is based on Multicultural Environmental Education (MEE), which entered the EE field in 1990s (Marouli, 2002). Running-Grass (1996) attributes the origins of MEE to Multicultural Education (ME), Environmental Education (EE), critical pedagogy, environmental justice, and constructivism. This section examines these theoretical frameworks starting with those that influence Multicultural Education (ME), including critical pedagogy and constructivism, followed by the relationship between EE and ME, and highlighting how EE providers are being called to reshape theory and practice toward a Multicultural Environmental Education (MEE) framework, which includes environmental
In addition, another theoretical framework by Gruenewald (2003), critical pedagogy of place, is suggested to expand the traditional scope of the EE field that includes a more multicultural lens based in place.

**Multicultural Education (ME).** ME is directly linked to scholars, such as W.E.B. DuBois (1935), G.W. Williams (1982-83), and Woodson (1919/1968), who initiated and integrated ethnic studies research into schools and college curriculum (Banks, 1993). This was followed in the 1960s and 1970s by the intercultural education movement, which like the Civil Rights movement, focused on desegregation (Banks, 1993). Although this movement quickly quieted down, the work of the early ethnic scholars continued to challenge the majority’s norms, perspectives, and paradigms (Banks, 1993), which is the basis of critical pedagogy.

Based in Marxist and neo-Marxist critical theory, critical pedagogy aims to question and challenge the dominant norms in culture and education. Critical pedagogy is reflected in what critical theorist, Paulo Freire (1970), calls *conscientizacao*, or “learning to perceive social, political, and economic contradictions, and to take action against the oppressive elements of reality” (p. 17). As Gruenewald (2003) notes, “these two interrelated goals represented by Freire’s notion of *conscientizacao* – becoming more fully human through transforming the oppressive elements of reality - are at the center of critical pedagogical practice” (p. 5).

In order to understand where norms, perspectives, and paradigms are developed, a constructivist lens is critical. Constructivism states that knowledge and meaning is constructed from an individual or groups’ prior experiences (Nieto & Bode, 2012). The first dimension of the ME framework that Banks (2003) provides (Appendix A) includes examining the process in which knowledge is constructed within a field or discipline, and “how it is influenced by the perspectives, biases, and values of those who created it” (p. 15).
The following four additional dimensions of ME provided by Banks (2003) include: examining and deconstructing one’s own assumption’s and prejudicial attitudes; ensuring all students’ learning needs are met through utilizing varying instructional strategies; integrating diverse perspectives into content that are relevant to the lives of students, and ultimately leads to civic engagement (Appendix B); and “restructuring the culture of an educational system so that all students receive educational equity and cultural empowerment” (p. 15).

**Environmental Education (EE) and Multicultural Education (ME).** As defined by UNESCO (1978), EE provides opportunities for individuals or groups to increase their knowledge and awareness of the environment and its’ associated problems. From this, individuals and groups will connect to and develop values for improving and protecting the environment. Through EE, skills can be developed to address these problems, while encouraging active participation in their resolution.

Nordstrom (2008) highlights the parallels between EE and ME in seven categories. Both educational pedagogies value biological and cultural diversity respectively. Patterson (1991) states that, “in any natural environment- forest, desert, grassland, pond, lake, marsh, or ocean – a diversity of plant and animal life helps to create a stable resilient ecosystem” (p. 11). Diversity, biological and human, cannot be seen as separate as Nordstrom (2008) points out, “if we lose cultural diversity, we at the same time lose our means to live in harmony with the natural systems” (p. 136). Environmental and Multicultural Education incorporates a sense of belonging through the understanding that humans are a part of natural communities, and all people are members of society. These two pedagogies share the values of respect and compassion for the environment and one another.
Justice and equality is the basis of both Environmental and Multicultural Education. Some authors (Cole, 2007; Sikorcin, 2003) argue that environmental justice needs to be included more within the EE framework. Through these two frameworks, people are empowered to make changes within their own lives, and their communities to create a better future. Both call for a societal reform, including that of education, as noted by Banks (2003) ME framework. As Nordstrom (2008) notes, “Multicultural Education demands that disadvantaged groups be equally heard, while Environmental Education tries to get the needs of the Earth recognized and the environment included in society” (p. 139). Again, Lewis & James (1995) would question who’s definition of environment is being used. The last commonality Nordstrom (2008) makes between EE and ME is that they both have a strong global perspective.


Multicultural Environmental Education is not merely Environmental Education with multicultural populations or audiences nor is it urban Environmental Education with multicultural populations. It is rather a very new kind of Environmental Education, where content is influenced by and taught from multiple cultural perspectives. It is conscious of its own cultural perspectives and of the function that it has in the world and in the lives of diverse students and communities. (p. 1)

Like EE, Marouli (2002) found that there is no one-way to practice MEE. Marouli (2002) did find that the main theoretical underpinnings of MEE programs are cross-cultural understanding,
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cultural pluralism, and environmental justice. In theory, MEE emphasizes cultural diversity, but in practice the view of cultural diversity is limited. Marouli (2002) found that MEE programs tend to focus on culturally marginalized groups, and agrees with Running-Grass (1996) that MEE programs need to also target the dominant cultural groups. Sonja Nieto reminds MEE practitioners that MEE is important for all students (Peter, 1998).

An example of this is demonstrated in the work of an environmental educator at The University of Vermont. The professor works with predominantly white and wealthy students to raise awareness and understanding of critical issues such as power, dominance, race, discrimination, and inequality. This is done through Gerard Fourez’s four step model, which “assesses dominant social norms and names the promulgating agents; notes how these norms serve those in power; develops the process of conscientization, and finally assists in the articulation of a structural ethics to address (white) privilege” (Agyeman, 2002, p. 10).

Several MEE and ME researchers note that the definition of culture goes beyond race and ethnicity to include gender, age, religion, economic status, primary language, geography, sexual orientation, physical abilities, learning abilities, etc. (Marouli, 2002; Peter, 1998). Agyeman (2002) refers to targeting ethnicity and race over other forms of Otherness as cultural amnesia. Peter (1998) suggests that MEE “is not anti-dominant-culture. Its purpose is not to silence voices, but to give voice to cultures not usually heard; not to ignore ideas or contributions, but to recognize all ideas and contributions” (p. 54).

Agyeman (2002) shares the learnings from an Ojibwe researcher who noted education must not just be culturally appropriate, but that we need to educate in culturally inherent ways. Cole (2007) reminds EE practitioners that it is important to look critically at the culture that shaped environmental literacy, which is a critical objective of EE. “By failing to recognize and
deconstruct the white, western values, and ideologies that dominate the discourse of environmental literacy, Environmental Education explicitly promotes and reproduces hierarchical systems of knowledge, and excludes multiple ways of knowing and living in the world” (Cole, 2007, p. 40).

Additional researchers, such as Haraway (1999), disagree with the understanding of environmental literacy through constructivist knowledge theory, which states that reality is constructed through interactions and dialogues with those who are producing knowledge (Lum, 2011). Haraway suggests that true understanding occurs in “partial perspectives that illuminate connections and unexpected openings in what we know” (Cole, 2007, p. 41). Place-based Education offers another lens in which to explore and understand the natural world through experiential and multidisciplinary learning.

When Place-based Education is combined with critical pedagogy, it expands the scope of EE toward a MEE framework. Gruenewald (2003)/Greenwood (2008) highlight that the key concepts of EE, which focus on the environment and environmental literacy, are not universal ideas but rather culturally specific. With this understanding the EE field opens to more diverse and locally appropriate and inclusive pedagogies. According to Gruenewald (2003), a critical pedagogy of place aims to “a) identify, recover, and create material spaces and places that teach us how to live well in our total environments (rehabilitation); and b) identify and change ways of thinking that injure and exploit other people and places (decolonization)” (p. 9).

Cole (2007) calls for EE researchers and practitioners to step out of the norm, and reconstruct the EE in frameworks that MEE is grounded in, while continuing to expand MEE to include other frameworks, such as critical pedagogy of place. Several authors, Agyeman (2002) and Marouli (2002), debate the inclusiveness of the title, MEE, and propose more appropriate titles,
such as Cross-Cultural Environmental Education. No matter what the title is, Marouli (2002) calls EE practitioners to “move towards Multicultural Environmental Education as the new global reality” (p. 40). Some of the contemporary challenges with this shift in focus require “increased access to and participation in Environmental Education and environmental decision making for all people” (Marouli, 2002, p. 40).

**Strategies and Barriers for Providing Access to EE Programs for MY**

Increasing diversity within EE programs, including outdoor education and the environmental field, has been reflected in the literature over the past few decades. In 2006, The Barr Foundation published the most comprehensive study on cultural competency within experiential Environmental Education programs (Appendix C). Galvan and LaRocque (2010) followed this more recently, in conjunction with the Environmental Education and Training Partnership (EETP), with a resource to promote diversity and inclusiveness for EE organizations (Appendix D). The following section discusses strategies for, and barriers to providing access to EE programs for MY as noted in a review of the literature.

**Priority.** Roberts and Rodriguez (1999) note that it is critical for multiculturalism to be a priority in EE programs, just as safety is a top priority. Davis et al. (2002) echoes this priority for environmental organizations, and the environmental and science fields. Various authors remind organizations to establish secure funds and resources for cultural competency, and understand a long-term commitment is necessary (The Barr Foundation, 2006). Due to the impact that camps and other EE programs have on the lives of students, and local and global communities, Leveron (2004) calls EE organizations to “develop a vision and commitment to reach out to diverse communities, and to provide children of different ethnic, social, and economic backgrounds the opportunity to live the camp experience” (p. 32). Cook (2007) notes
this commitment as the number one recommendation for increasing diversity within the environmental movement.

This commitment needs to come from organizational leadership, as Cook (2007) notes, “diversity is a leadership issue and should be one of the top five issues for the organization” (p. 171). Enderle (2007) echoes this by stating, “the ongoing involvement and preparedness of the core leadership team is the single most important factor in predicting implementation success” (p. 241).

Diversity within EE organizations can also begin by forming a group of people or a committee that is committed to providing inclusiveness within the organization (Galvan & LaRocque, 2010). Bonta and Jordan (2007) highlight the importance of integrating diversity into the physical mission and vision of an organization. A vision, initiative, or strategic plan can be implemented so that inclusiveness and diversity will be integrated in the organization (Galvan & LaRocque, 2010). It is important for organizations to understand their audiences, and the communities in which they partner with and serve (Galvan & LaRocque, 2010). As noted later in this section, organizations, community members, and/or experts in the field can assist organizations with this process (Galvan & LaRocque, 2010).

As noted by Galvan and LaRocque (2010), it is important to understand the culture and the agenda of the organization. As Galvan & LaRocque (2010) note, “becoming inclusive is a paradigm shift. It affects personal and organizational dimensions of planning, programming, relationship building, decision making, and measuring success” (p. 4). Essentially, dismantling oppression and cultivating inclusiveness is a lifelong process that requires long-term training and time (ACCESS, 2005). “Don’t be disillusioned by any quick fixes, it’s a long process. Even to start the process is a step in the right direction” (ACCESS, 2005, p. 16).
Enderle (2007) adds that valuing diversity benefits all of those involved. Henderson (2007) notes that productivity, creativity, and engagement are higher in diverse workforces than non-diverse workforces. This point is highlighted by Cook’s (2007) quote, “diversity is a natural law – monocultures tend not to survive as they are vulnerable to disease, decay and disappearance. Multi-cultures thrive because there is strength in many species that are competitive and compatible with one another” (p. 167). Marcus (2007) discusses the quality of life that diversity supports within an organization.

**Recruitment and retention of a diverse staff and board.** As the demographics of the United States are becoming more diverse, it is imperative that diversity is not only reflected in participant composition (The Barr Foundation, 2006), but in the staff (Aguilera, 2012) and board members (Stanton, 2002). Parker (n.d.) discusses how the science field in general does not represent the American population. Aguilera (2012) agrees, and notes the significant need for scientific and academic institutions to recruit underserved populations in the U.S. Both authors concur that diverse staff members can be positive role models for the diverse students that they serve. Edginton and Martin (1995) note that, “children identify with [camp] counselors from similar cultural backgrounds” (p. 31). More importantly, diverse board and staff members can provide EE organizations and the field with culturally competent programming on all levels (Lewis & James, 1995). The San Francisco *Kids for the Bay* program attributes the diversity in participant composition to its diverse staff.

Roberts and Rodriguez (1999) encourage EE programs to hire members with diverse backgrounds from the communities in which they serve. Having trustworthy members from the local community working within EE organizations, provide “parents with assurance that their children are with people they know and trust” (Leveron, 2004, p. 31).
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Recruiting and retaining a diverse bilingual staff that is fluent in the languages of participants and their families, can be beneficial. Lukanina (2008) found that Latino parents were responsive and comfortable with camps that had a bilingual and ethnically diverse staff. Bilingual staff members provided invaluable assistance to clarify questions and concerns of families who did not speak English (Lukanina, 2008).

In order to recruit diverse staff members, organizations can use the *educational pipeline* model, which provides students with continuous opportunities to engage in the EE and science fields. These continual opportunities ultimately lead students to careers within these fields. Lewis and James (1995) note that until EE is more visible in underrepresented communities, diversity within organizations will be lacking. Partnerships with organizations, such as The Environmental Career Organizations (ECO), can help place MY in internship programs in the environmental field (Davis et al., 2002). Marketing job opportunities in academic institutions and with professionals that specifically serve multicultural populations, such as the Historically Black Colleges and Universities, Hispanic Serving Institution, and the American Indian Science and Engineering Society, may help support the recruitment and retention of a diverse staff (Davis et al., 2002; Summit, 2005). Organizations, such as The Environmental Diversity Working Group, can provide valuable expertise on best practices for recruiting and retaining a diverse staff (Summit, 2005).

Mentorship and internship programs have been utilized in the educational pipeline idea to provide MY opportunities in the science field (Tsui, 2007; The Barr Foundation, 2006). In addition, Davis et al. (2002) recommend that due to time and funding barriers, web-based mentor programs could be useful tools to engage multicultural students in the environmental and science fields. Additional suggested pipeline opportunities include: outreach programs in diverse
Providing access to REE programs for MUY communities, K-12 educational programs to introduce students to EE, and increase awareness of opportunities for diverse youth in the EE field (Stanton, 2002). An example of the latter suggestion would be for EE organizations to host workshops for careers in the environmental field, or provide job-shadowing opportunities for high school or college students (The Barr Foundation, 2006).

Davis et al. (2002) note that recruitment of a diverse staff is not sufficient enough. Organizations must create a culture of change in order to be responsive and sensitive to the needs of a diverse staff. “Organizations must learn how to value, invite, develop, and effectively manage workforce diversity” (Davis et al., 2002, p. 632). Stanton (2002) encourages organizations to identify and eliminate barriers for employment and promotion.

Organizations need to examine their job requirements (The Barr Foundation, 2006), as well as potential employee concerns, such as transportation and child/elder care (Stanton, 2002). “For example, experience working with a specific community is an important qualification that should have similar weight as experience in the environmental field” (The Barr Foundation, 2006, p. 20). This will help eliminate some barriers to recruiting a diverse staff. When advertising job opportunities, it is important to use a variety of communication mediums available at different community spaces. Knowing that this recruitment process may take longer than traditional recruiting strategies, organizations must extend the time frame for their outreach and hiring processes (The Barr Foundation, 2006). Salaries must be attractive (The Barr Foundation, 2006), while job positions and promotions are equitable (Allison, 1999). Cultural competency should be integrated into job performance standards (The Barr Foundation, 2006).

**Internal training.** Brown (2009) discusses the importance of organizations and educators seeking and receiving education and training in cultural competency (The Barr Foundation,
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2006) and Multicultural Education (Roberts & Rodriguez, 1999). It is critical that internal training occur on a personal level so that individuals within organizations understand their own culture, identity, and cultural biases (Brown, 2009). Effective trainings focus on examining and deconstructing one’s own assumptions, and increasing personal awareness of conscious and unconscious prejudices and assumptions (Roberts & Rodriguez, 1999; Lambie, 2005). Self-awareness and recognition of one’s own cultural underpinnings are the premise of cultural reciprocity (Brown, 2009). This includes examining the construction of social, political, and economic factors of race, power, privilege, and prejudice (Summit, 2005).

**Research.** Through engagement in research, whether spearheading projects internally, participating in external research, or becoming familiar with pre-existing and current research, organizations and individuals can learn and implement best practices for providing access for MY (Brown, 2009). On-going assessments, such as measuring progress of recruitment and retention of diverse staff members, (Davis et al., 2002) can help organizations understand best practices. The Barr Foundation (2006) also highlights the importance of asking and implementing feedback from participants, their families, and community members.

**Funding.** REE programs typically involve more costs than other EE programs (Dettmann-Easler & Pease, 1996) due to a variety of factors including longer program length, substituting and other school absence costs, and location of programs. Roberts and Rodriguez (1999) noted that one factor that limits school participation in EE programs, especially REE programs, is program costs.

Lukanina (2008) found that the majority of Latino parents, in a survey of 209 people, would not pay more than $100 for a one-week camp for their child. Latino parents also noted on the survey that the more children they had, the more likely they would send them to camp. Lukanina
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(2008) suggests providing an *attractive discount system* for lower program costs for parents with multiple children. Low-income participants in a study by Agyeman, Newhall-Smith, and Ringelheim (2005) noted that a sliding scale option was important to a family’s participation in a local nature center’s EE program.

Roberts and Rodriguez (1999) highlight the value that EE programs provide students, which are more than monetary, and question why these experiences are not available for all students. Dettmann-Easler and Pease (1996) found that parents understood the value of EE experiences for their children, and were not inhibited by programming costs (all of them paid $10-$100). Fuller (1998) states that some urban residents cannot allocate time or money for EE programs, as it is an added expense. In other countries, such as Japan, EE centers are funded and run by the government (Ebashi, 1986). The Japanese government and public found that through EE programs, conservation of the natural and environmental resources would occur (Ebashi, 1986).

EE organizations can collaborate with other organizations that have funding and resources available to support programs serving diverse populations (Summit, 2005). For example, the National Audubon Society has partnered with the United Negro College Fund and CSX Corporation in order to provide scholarships to multicultural students interested in EE programs (Hudson, 2001).

**Partnerships and collaboration.** Galvan and LaRocque (2010) note that building relationships with community is an important step to being an inclusive organization. Roberts and Rodriguez (1999) theorize that building stronger collaborative relationships with schools and EE researchers will support the participation of MUY in EE programs. Establishing and maintaining trust is critical to the success of partnerships and collaborations (Leveron, 2004).
Organizations and educators can become more culturally competent through outreach efforts to community members (Summit, 2005) and leaders (Galvan & LaRocque, 2010), experts in the field (Lewis & James, 1995), other EE practitioners, and developing stronger family-school partnerships (Brown, 2009). Galvan and LaRocque (2010) highlight the importance of listening to and learning from others in order to understand best practices for becoming an inclusive organization. Summits and conferences, and other networking opportunities, are useful forums for sharing best practices (Summit, 2005).

Connecting with cultural brokers or leaders in the community is critical, as they can act as liaisons between an organization and the community. A cultural broker is an individual who can “translate between different groups of people, and who is able to communicate effectively with different audiences because they are attuned to backgrounds and needs of each audience” (The Barr Foundation, 2006, p. 21). Guion, Chattaraj, and Sullivan-Lytle (2005) state that “careful consideration and dialogue with an individual ensures that the person does not feel as though he or she is a victim of tokenism” (p. 80). In addition, when creating partnerships, it is important to meet people in their communities where they are from (Bonta & Jordan, 2007).

Programming. Edginton and Martin (1998) found that the most important improvement in camping programs resulting from forming partnerships was increased diversity in their programs. Viewing thru different cultural lenses, curriculum changes were implemented to create new songs and games, as well as adjustments were made to the way programs were presented. Edginton and Martin (1995 & 1998) found that the process in its infancy stage can be difficult, but Hudson (2001) agrees with them that in the long run partnerships can support creating more culturally sensitive and relevant programs for the needs of all students.
Lewis and James (1995) also highlight that it is critical to have diverse populations play an important role in the development of EE organizations and their programmatic structures, including curriculum. Internally diverse board and staff members, community members, experts, and organizations in the field, such as the EETP, can provide valuable insight to the development of curriculum and availability of resources.

EE curriculum needs to be designed so that it is relevant to the daily lives of the students these programs serve. Students from urban settings will be more familiar with issues such as water and air pollution, as opposed to forest or lake ecology issues (Lewis & James, 1995). As Macnaghten (2003) states, “for many people concern about environmental problems begins with personal experience “ (p. 80). Addressing environmental inequalities, and issues of social, economic, and political inequality in curriculum is extremely important. “When curricula fail to address these concerns they become part of the problem, not the solution” (Byrant & Weahkie, 1992, p. 165). As Lewis and James (1995) state, “for too long Environmental Education has emphasized the values and lifestyles of white, middle-class students; yet environmental issues impact all races and all socioeconomic groups” (p. 2). These authors argue that a barrier to diversity in the EE field is created if one group determines the EE agenda, values, and curriculum.

EE curriculum needs to be presented in a way that addresses the learning styles of the intended audience (Lewis & James, 1995). As Patterson (1991) notes, “the presentation of information and exploration of ideas, therefore, should take many forms – music, movement, introspection, cooperation, and visually orientated experiences” (pp. 21-22). The Barr Foundation (2006) found that Universal Design Learning principles address barriers to learning needs, such as language, through the use of visual aids.
As the geography of children has shifted to children interacting with nature more through virtual realities, Hudson (2001) argues for the need of EE practitioners to integrate hands-on experiences with current technologies. Technologies, such as online resources, can be used as a tool to enhance and extend programs beyond EE sites. Davis et al. (2002) notes that web-based field trips, or other innovative online education programs can expose students to the environmental and science fields.

Several authors (Jordan, Hungerford, & Tomera, 1986) argue that EE programs need to be integrated into classroom curricula more effectively. Not only will these EE experiences demonstrate effective ways to enhance students’ understanding of scientific and environmental concepts, but will also expose new teachers to EE. From this, more teachers and principals may be more apt to support residential and/or other EE programs. In addition, these EE program extension activities can connect students to their local environment, and thus make their experience more relevant (The Barr Foundation, 2006). Dettmann-Easler and Pease (1996) ponder why more teachers do not make the extra effort for their students to partake in EE, as they found that more teachers are discovering the benefits of REE programs. Professional development (PD) teacher-training programs and workshops can be beneficial for educating teachers about EE programs and their benefits, while bringing together a diverse group of teachers to share their experiences (The Barr Foundation, 2006). In a study by Agyeman et al. (2005), parents noted their appreciation for how the EE program that their children participated in was related to the public school curriculum.

Consideration for the amount of time students are away from home should be accounted for when determining duration of EE programs. Lukanina (2008) found that Latino parents were more comfortable sending their kids to programs that were less than two weeks long. Leveron’s
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(2004) study reflected this same perception, but found that Latino students felt more strongly about time away from home than parents. Roberts and Rodriguez (1999) theorize that traditional schools participation in EE programs, especially REE programs, is an infrequent occurrence due to lack of time and staff/volunteer efforts. Often these programs are placed on the backburner due to these limitations. Teachers confirmed this theory in a study by Dettmann-Easler and Pease (1999), stating that time and money were the most influential barriers to participating in EE programs.

**Values and perceptions.** Roberts and Rodriguez (1999) propose that EE programs need to understand the values and needs of their participants. When staff members acknowledge and understand their students’ cultural background, their experiences can be positively utilized in other settings, such as EE programs (The Barr Foundation, 2006). While the word *environment* encompasses human and natural environments in all settings, research is focusing more on how different people connect to nature and the environment (Clarke & Agyeman, 2011).

While researching how to attract Latinos to camps, Lukanina (2008) noted the importance of understanding the attitudes and perceptions of participants’ families. Lukanina (2008) says, “it is understandable that for Latino parents, who have been accustomed to always being with their children, the prospect of sending them to a totally unknown place called a *summer camp* seems like a scary idea” (p. 56). Presentations for families at schools or in communities can help address any concerns or questions (Lukanina, 2008). Urban multicultural parents, whose children participated in an EE program at differing nature centers, noted that having a safe environment was important (Agyeman et al., 2005). Lukanina (2008) suggests providing parents with information and/or advertisements on how camps maintain safe environments are worth incorporating in marketing materials. Students with limited exposure to the outdoors may go
through cultural shock when participating in EE programs. Thus, connecting with students before their EE experience can help prepare students for the new environment and cultural norms (Fabrizio & Neill, 2005).

Cultural competency can result in attracting more diverse audiences. Lukanina (2008) suggests inviting parents out to camp while their children are in attendance, or sponsoring weekend family programs for parents to visualize what their children will experience. Leveron (2004) notes that transportation costs can be a barrier for parents to physically attend programs. If organizations can provide transportation costs, this may help encourage more parents to attend on-site programing events. Due to schedules and limited free time, programs that involve families need to be fun, and worth their time and effort (Hudson, 2001). Providing opportunities to engage families of MY can help organizations and educators connect with, and understand their students from another perspective (Brown, 2009). EE organizations can provide multiple access points in order to engage diverse audiences and their families. These can include seasonal open houses, day programs, wildlife watching activities, and community activities such as theaters or gardens (The Barr Foundation, 2006).

Dettmann-Easler and Pease (1996) suggest that in addition to being involved in REE programs, parents or guardians need to be more informed while their children are participating in REE programs. Communication with parents during longer programs, such as a printed newsletter, social media, or students emailing or writing letters, may be useful tools to reassure parents that their children are safe and well (Lukanina, 2008). Hudson (2001) reminds us that what constitutes a family looks differently than it did a hundred years ago. EE organizations should be aware of the language in which they use to address families.
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**Marketing.** Roberts and Rodriguez (1999) encourage EE programs to examine the dialects and images that they use in visual and audio marketing. When marketing programs, Clark and Agyeman (2011) found that it is important to use different communication channels, such as ethnic media, or community spaces (i.e. religious centers or public libraries) (Agyeman et al., 2005). Materials should be published and available in languages that are utilized by the organization’s audience (Clark & Agyeman, 2011). For example, the Roots and Shoot program, which is part of the Jane Goodall Institute, publishes bilingual material for organizations in the Los Angeles area that work with culturally diverse students (Hudson, 2001). Lukanina (2008), and The Nature Conservancy (2005) remind organizations not to assume that if someone is from one cultural group that they speak the language of that group. Thus, it is important to provide parents with the option to choose what language they would like to use for printed or web materials. Using featured stories can be great marketing tools for parents and teachers/schools (The Natural Conservancy, 2005). Various marketing strategies can increase participants’ knowledge and awareness of EE programs (Agyeman et al., 2005).

In a survey to Chicago parents about summer camps, researchers found that the main reason parents chose a specific summer camp for their child(ren) was word-of-mouth (Lukanina, 2008) and customer loyalty (The Barr Foundation, 2006). From Leveron’s (2004) experience, “it takes ten satisfied parents to convince one doubtful parent to finally send his/her children to camp. At the same time, it takes one unsatisfied parent to convince ten parents not to send their kids to camp” (p. 31).

**Accessibility.** The Barr Foundation (2006) notes the importance of understanding the resources of participants and their families in order to ensure their participation is successful. For example, transportation is a resource needed to attend programs, and thus for some it may be
a barrier to participation. Organizations can host programs in participants’ schools or communities, in order to defer transportation barriers (Agyeman et al., 2005). The Seattle Aquarium internship program provides free transportation to volunteers (Agyeman et al., 2005), and thus attracts a more diverse volunteer staff. Trail accessibility can be a barrier for some students with physical needs, as it was noted as a barrier for mothers exploring local nature centers with small children in strollers (Agyeman et al., 2005).

**Effects of EE Programs on MUY**

This section discusses how EE programs, including limited research on REE programs, affect MUY. Research shows that EE programs provide MUY with relevant and real world science, promotes careers in science, increases environmental responsibility and action, provides an understanding of equity and environmental justice, and fosters character development.

**Provides relevant and real world science.** Through EE experiences, urban youth understand more effectively how science can be used as a tool to help understand the world around them (Barnett et al., 2006; Rahm & Moore, 2005). This is important in light of Fusco’s (2001) research stating that urban students do not see the relevance of science in their daily lives. Barnett et al. (2006) noted that the Urban Ecology Field-based Studies Program (UEFSP) offers urban youth the experience of doing real world science, not just reading about it. Active teachers in UEFSP remarked how there is a common belief that urban students cannot do science (Barnett et al., 2006). EE programs like UEFSP disprove this misconception.

**Promotes careers in science.** Outreach science and EE programs can spark students’ interest in science, and offer them awareness of careers in science (Rahm & Moore, 2005). After the second year urban youth participated in UEFSP, they scored higher than the control group in wanting to be a scientist (Barnett et al., 2006). Statistical significance was found in increasing
females’ interest in and understanding of science (Barnett et al., 2006). This is significant since research shows that typically during their secondary school years, girls’ interest in science decreases (American Association of University Women, 2004). EE programs also provide urban youth the opportunity of working with scientific instruments, and having lab experiences that they might not necessarily receive due to limited funding (Barnett et al., 2006). Barnett et al. (2006) notes that these both play a critical role in urban youths’ understanding of how they can participate in positively transforming their local environment.

**Increases environmental responsibility and action.** Research conducted by Stern et al. (2011), suggests that MUY obtained a greater sense of environmental responsibility than non-urban students directly and three months after their REE programs. The REE program that Stern et al. (2011) provided a case study of, works to connect MUY with stewardship opportunities in their local environments and communities. Unlike Fusco (2001), these researchers noted that this REE program model maybe the, “most relevant construction of environment for urban minorities” (Stern, et al., 2011, p. 119). Habib’s (1996) study on urban environmental activists found that students’ interest in environmental issues was sparked by activities outside of school rather than those in school. Martil-de Castro (1999) noted that urban students started school-wide recycling programs because of increased environmental awareness of excessive waste in their schools and surrounding areas.

**Provides an understanding of equity and environmental justice.** Through EE programs conducted within the communities of urban youth, students became aware of environmental inequalities (Martil-de Castro, 1999). Teachers and students were able to openly discuss issues of class and race in relation to environmental degradation and health concerns (Martil-de Castro,
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1999). This was one of two articles that discuss EE programs providing an understanding of equity and environmental justice from the researcher’s review of the literature.

**Fosters personal development.** In the case study by Stern et al. (2011), MUY noted an increase in leadership and character development three months after their REE experience. MUY noted that they had more positive attitudes about themselves and their schools, and perceived their lives differently due to their REE experience, compared to the attitudes and perceptions of non-urban students (Stern et al., 2011). Rahm and Moore (2005) found that students developed more confidence in themselves after participating in afterschool science programs. This research is concurrent with other research that suggests, “students with greater senses of ethnic identity exhibit higher achievement, greater self-esteem, more positive attitudes toward education and school, and lower levels of violent behavior” (Stern et al., 2011, p. 19).

**Effects of REE Programs on Students**

Research specific to REE is more limited than research in the overall EE field. Despite the limited amount of research in the REE field, the research does show how these programs effect the lives of the students that participate in them. REE programs have been shown to increase environmental action and stewardship, increase environmental literacy, shift environmental perceptions, meet social and physiological needs, support a sense of responsibility, and provide memorable experiences.

**Increases environmental action and stewardship.** In a study comparing the effects of REE programs on high school students, Jordan et al. (1986), found that students receiving instruction on environmental issues and environmental action strategies showed greater levels of participation in environmental behaviors, verses students who did not receive action strategy instructions. Due to the longer duration of REE programs, instructors can provide students with
opportunities to discuss environmental action strategies, and develop knowledge and skills to carry out these strategies. The first-hand experiences that students receive in REE programs provide them with more skills and motivation to be actively engaged citizens in their own communities (Jordan et al., 1986). Stern et al. (2008) found that three months after an REE experience, students exhibited an increase in their commitment to environmental stewardship.

**Increases environmental literacy.** Gilbertson (1991) found statistical difference between students’ conceptual knowledge of environmental issues when participating in a REE program, verses a day program. Environmental literacy increases with the length of time students participate in EE programs (Gilbertson, 1991). Both Gilbertson (1991), and Dettmann-Easler and Pease (1996) agree that these first-hand experiences in nature provide students with a better understanding of environmental concepts. This may be due to the episodic memory performance, as noted by Knapp and Benton (2006). In their study, Knapp and Benton (2006) found that one year after students’ REE experience, their recollection of program content was related to active experiences in the program.

REE programs and outdoor education settings support different learning styles, as reflected in the following teachers’ comment, “some kids who don’t do well in school succeed in a different setting” (Dettmann-Easler & Pease, 1996, p. 42). Dettmann-Easler and Pease (1996 & 1999) note that all day and evening REE programs allow more time for learning to take place in nature. Obenchain and Smith-Sebasto (2009) note that after six months, students revealed that their most meaningful experiences at the New Jersey School of Conservation (NJSOC) REE program was learning about science and scientific concepts. Three months after students’ participation in REE programs, Stern et al. (2008) found that retention of knowledge was greater in students that attended the five-day program verses the three-day program.
**Shifts environmental perceptions.** Bogner’s (2002) study provides support for REE programs making significant shifts in students’ environmental perception and attitudinal preferences. This occurs with specific structured learning activities, which activate students’ connection and responsibility to nature. Research by Smith-Sebasto and Cavern (2006) showed statistically significant changes in students’ respect for the environment after pre and post REE educational trips. In a study conducted by Dettmann-Easler and Pease (1999), students’ attitudes toward wildlife were more positive after REE programs, verses an in-class wildlife program.

Another study by Bogner (2002) demonstrated statistical difference in the post-assessment of students’ attitudes toward utilitarian preferences of nature in the areas of human dominance and altering nature. Students’ responses in the post-assessment also displayed an increase in environmental sensitivity. This study included students that had limited experience in the outdoors. From the pre and post-tests, it is clear that these types of experiences can play a significant role in connecting students to nature and influencing their environmental ethics (Bogner, 2002). Ferreira (2012) found a similar result in a South African National Park study. This study showed significant positive changes in five of nine categories that were centered around students’ environmental attitudes before and after their REE experience.

**Meets social and physiological needs.** REE programs typically offer students sleeping accommodations, common facilities, regular meals, and a routine schedule. Dettmann-Easler and Pease (1996) point out that these offer students stability that they may not normally experience at home. Meeting the physiological needs of students’, according to Maslow’s Hierarchy of Needs, supports personal and communal growth (Maslow, 1970).

According to Dettmann-Easler and Pease (1996), REE programs provide students with the opportunity to connect with and view their classroom teachers in a different context. Living,
PROVIDING ACCESS TO REE PROGRAMS FOR MUY

studying, and working together, provides students the opportunity to collaborate and bond as a group (Obenchain & Smith-Sebasto, 2009; Dettmann-Easler & Pease, 1996). This is represented in Maslow’s Hierarchy of Needs in the third stage, which is belonging to or identifying with a group (Obenchain & Smith-Sebasto, 2009).

The non-threatening environment created by REE programs allows students to try, fail, and learn from their failures, while maintaining self-esteem (Maslow’s fourth stage) (Dettmann-Easler & Pease, 1996). From this, students are able to reach the final stage of Maslow’s Hierarchy of Needs, self-actualization (Obenchain & Smith-Sebasto, 2009). REE programs support students in gaining a better understanding of who they are (Dettmann-Easler & Pease, 1996).

Supports a sense of responsibility. By partaking in communal chores such as cabin and kitchen cleanup, moving firewood, or hiking with field instruments/books, students gain a sense of responsibility in a communal setting (Dettmann-Easler & Pease, 1996). Two different studies documented students’ gained responsibility in REE programs both during and following the programs (Dettmann-Easler & Pease, 1996).

Provides memorable experiences. From Dettmann-Easler & Pease (1996) studies, teachers expressed how REE programs are lifetime experiences, which students will never forget. Knapp and Benton (2006) found students’ emotional experiences, and program content and activities fundamental to REE programs being memorable experience.
Chapter 3

Methods

A qualitative research approach based on grounded theory methods and analysis was used in this study to determine the strategies, barriers, vision, and resources needed to provide access to Residential Environmental Education (REE) programs for multicultural urban youth (MUY). This research aims to address the following research questions and sub-questions:

1. What current methods/strategies do REE programs utilize to provide access for MUY, and how do REE programs gauge the effectiveness of these strategies?
2. What factors limit or constrain the access to REE programs for MUY?
3. What are the vision and resources needed for REE programs to provide access for MUY?

In order to answer these questions, data were gathered through semi-structured interviews with adult professionals from REE organizations. The researcher’s written request to work with human subjects was presented (Appendix E-I) and approved (Appendix I) by The Institutional Review Board (IRB) at University of Wyoming in the Fall 2012 semester. Inductive and constant comparative analysis, or grounded theory analysis, was utilized to identify core categories and themes that emerged from the interviews. This graduate research study was conducted from 25 October 2012 to 25 January 2013 from the University of Wyoming, Laramie, Wyoming.

**Rationale for Qualitative Research**

Due to the nature of the research questions, qualitative research methods were utilized for this study. Utilizing these methods stem from the following aspects of the research questions: 1) phenomenon is inseparable from the context in which it occurs; 2) clarification of commonly
used terms with ambiguous meanings; 3) limited research on the topic resulting in unavailable, accurate, and exhaustive variables; and 4) the limited time and resources of the researcher (James, 1993).

Merriam (2009) states, “qualitative methodologies are considered the preferred methodology for studying phenomena within context” (p. 10). The phenomenon examined in this study, REE programs providing access for MUY, can only be understood within the context in which it occurs. The context includes: 1) why REE programs believe it is important to provide access for MUY; 2) what impacts these programs have on the lives of MUY; 3) how these programs provide access for MUY and gauge the effectiveness of these strategies; 4) what barriers prevent them from providing this access; and 5) what vision and resources are needed to continue to provide this access for MUY. Using semi-structured interviews allowed the researcher to understand “the impact each level of context has upon the phenomenon” (James, 1993, p. 42).

From a review of the literature, this study is the first of its kind that incorporates REE programs and their access for MUY. In addition, the topic includes several common terms that have multiple meanings, such as *multicultural urban youth*. Using interviews as a qualitative research method, allowed interviewees to understand and interpret the terms more accurately than using other quantitative methods. This ultimately allowed interviewees to answer questions as they were intended to be addressed. As Henderson (1991) states, “determining the various interpretations of these terms provide significant insights relating to the research questions” (p. 27). Interviews helped eliminate the ambiguity of the research language, as they are “a process in which a researcher and participant engage in a conversation focused on questions related to a research study” (Merriam, 2009, p. 87).
Due to limited research in this area of this study, the researcher was unable to obtain an accurate and exhaustive list of variables that are needed when conducting quantitative research. Through this qualitative research design, variables emerged throughout the data collection process. Through semi-structured interviews, the researcher identified as many variables as possible, rather than staying within a set of pre-determined controlled variables. “The need to be able to incorporate emergent variables is tied to the lack of a common vocabulary within the research area” (James, 1993, p. 44).

Interviews were employed as the main research method, due to the limited time and resources the researcher would need to conduct other methods, such as in-depth observations. In-depth observations can be limited, as only behavior can be observed, while interviews provide the researcher with the context and analysis of behavior.

Subject Selection

Criteria. This study used a criterion-based sample with maximum variation, network selection, and snowball sampling (Merriam, 2009). Maximum variation sampling was used to locate REE organizations in different geographic locations throughout the United States. In order to be considered for this study, REE organizations had to meet the following criteria: 1) provide REE programs that include at least one overnight; 2) provide access in some capacity to diverse student populations; 3) facilitate environmental and/or natural science literacy through the context of the outdoors and nature; and 4) be located in the United States.

Initial selection process. Internet searches on the NAAEE website and Google search engines, utilizing terms such as Residential Environmental Education programs or Environmental Education organizations, were conducted. Thirty-one REE organizations that met the above criteria were identified as potential candidates. In addition, the researcher used
network selection with an expert in the Environmental Education (EE) field and snowball sampling to identify: a) specific representatives from the pool of potential REE organizations to contact; b) specific REE representatives that knew other REE organizations and/or representatives to contact; and c) seven additional REE organizations to consider for the study, of which five specific representatives were identified. This process brought the initial pool to 38 potential REE organizations. The researcher used maximum variation selection based on geographical locations to narrow this number to 26 potential REE organizations.

**Final selection process.** Selected representatives and their contact information from the 26 potential REE organizations were identified from experts in the field or from REE organizations’ websites. Selected representatives represented a diverse array of positions within their REE organizations from executive directors to program coordinators. These selected representatives were required to have worked in their respective REE organization for a minimum of two years.

An introductory email was sent to selected representatives that introduced the researcher, her university of study and the research topic, explained how the representative’s information was obtained, and the immediate time frame (that day or the following) in which they would be contacted for a follow-up phone call. Messages for selected representatives who were not available during the follow-up phone call were left with secretaries or in voicemail boxes. These messages re-identified the researcher and the research topic, her university of study, and her contact information. Up to three subsequent phone calls were made to selected representatives who did not return the researcher’s phone call(s) or emails. After three failed contact attempts by the researcher, the selected representatives were determined as unavailable to participate in the study. This could be due to the seasonality of some REE programs and the *off-season* in which the research was conducted.
The initial phone call meeting to selected representatives included introductions, an overview of the study, which included clarified terminology and explanations of the criteria, and requirements for participation in the study. Selected representatives were informed that participation was voluntary, and interviewees would receive an executive summary of the research findings in April 2013. This first follow-up meeting provided the researcher with information on the potential interviewees’ fit and interest in the study.

Half of the selected representatives immediately volunteered to participate, while the other half requested interview times and dates with the researcher. Five selected representatives, either during the follow-up phone call or email, referred the researcher to an alternative representative within their REE organization. One of these alternative representatives did not meet the two-year minimum requirement and referred the researcher to another alternative representative. The alternative representatives were contacted following the same process starting at the introductory email.

All selected and referred representatives that the researcher contacted and met the required qualifications immediately received a follow-up email. The follow-up email included a thank you letter, a reminder of the participation criteria, and an attachment containing a formal overview of the study, an Informed Consent Form (Appendix F), and the sample research questions (Appendix G). Additional emails were used to clarify and determine alternative representatives, additional questions, and interview times and dates. A combination of up to three emails and phone calls were made when selected and referred representatives did not respond to the researchers follow-up email. After three failed contact attempts by the researcher, the selected and referred representatives were determined as unavailable to participate in the study. This included a total of seven out of 26 representatives. Three other REE organizations
did not meet the criteria of the study, which resulted in a total of sixteen REE organizations participating in the study.

**Demographics of final REE interviewees.** Seventeen adult interviewees from 16 different REE organizations were interviewed. One REE organization had two interviewees interviewed simultaneously due to one interviewee not meeting the minimum requirements. The interviewees represented seven different roles within their REE organizations. These included: one Registrar, one Educator, three Program Coordinators, three Educational Directors, two Program Directors, two Directors, of which one was also the Co-Founder, and four Executive Directors (Figure 1). One of the Executive Directors was an Interim, and another Executive Director had left the organization four months prior to the interview.

*Figure 1. Positions of Participants within their REE Organization*

*Figure 1. Represents the positions of the interviewees interviewed within their respected REE organization(s). The numbers indicate how many interviewees held each particular role.*
position within their REE organization. Note that one organization had two interviewees simultaneously interviewed due to one interviewee not meeting the minimum criteria.

**Demographics of final REE organizations.** The following sections outline background information on the final REE organizations that participated in the study. This includes their U.S. regional location, years of operation, number of students served annually, type of schools and student groups served, and typical program length.

**U.S. regional location of REE organizations.** A total of 16 different REE organizations located in 13 different states, participated in this study. Using the U.S. Census-Bureau (2013) regions, a total of nine REE organizations were represented from the West, two from each the Midwest and Northwest, and three from the South (Figure 2).

*Figure 2. U.S. Regions of REE Organizations*

*Figure 2. Shows the four regions, according to the U.S. Census Bureau (2013), where the 16 REE organizations are located. The numbers indicate how many REE organizations are located in each specific region.*
Years of operation. The participating organizations differed in the number of years in operation. Two REE organizations were in operation for less than 10 years, and the others were in operation for 10-20 years, 20-30 years, or 40-50 years. One REE organization was over than 50 years in operation, while seven others did not specify.

Number of students served annually. The following represents the number of students each REE organization serves annually in their programs: two serve less than 1,000 students, three serve between 1,000-3,000 and 3,000-7,000 students, two serve 7,000-11,000 students, one serves 11,000-16,000 students, one serves over 16,000 students, and four did not specify.

Types of schools and student groups served. Fourteen of the REE organizations served various schools and groups including: public, private, parochial, charter, homeschool, church groups, etc., while two did not specify. Of those 14 REE organizations, six stated that they serve mostly public schools, one serves 70% publics schools, one serves 40% public schools, six stated that the percentage of schools and groups varies, and two did not specify. In addition, 12 REE organizations have open enrollment programs where individual students, rather than a group or school, sign up for a specific program offered. One REE organization identified that it did not have open enrollment programs, while three did not specify.

Typical program length. All of the participating REE organizations offer varying program lengths. The following is a list of the typical number of days and nights students stay at each organizations’ REE program (some organizations offer a multitude of typical programming length options): one offers 2 day/1 night programs, five offer 3 day/2 night programs, three each offer 4 day/3 night and 5 day/4 night programs, one offers programs that are over one week in length, and five did not specify.
Demographics of students in REE programs. The following section highlights the demographics of the students that the REE program interviewees serve. This includes the typical grade level, percentage of MUY, ethnicities/race of students, genders of students, percentage of English Language Learners (ELL) students, and students with learning and physical needs.

Typical grade levels served. The typical grade of students served by the various REE programs include (note that some organizations offer programs for a spectrum of grades): seven serve grades 4-6, nine serve grades 6-8, two serve high school students, and three organizations did not specify.

Percentage of MUY served annually. Although no hard data were presented by the REE organizations, five of them reported that less than 25% of their students served were MUY, two noted serving between 25-50% MUY, three reported that over 50% of the students they served were MUY, and six did not specify.

Ethnicities/race of students served. Of the 10 REE organizations that specified the percentage of MUY served, eight ethnicities/race were noted including: Latino, African American, European Descent, Asian, Native American, East Indian, and Armenian. Most interviewees noted that the percentage of students from varying ethnicities was dependent on the demographics of the schools, and districts they served.

Genders and ELL students served. The breakdown of student genders was approximately 50% girls and 50% boys by four REE organizations, while 12 did not specify. In addition, four REE organizations identified that they served ELL students. Of those, one REE organization serves less than 10%, another serves 10-20%, and one more serves over 20% ELL students. Thirteen organizations did not specify the percentage of ELL students they serve.
Students served with learning and physical needs. REE interviewees provided information on serving students with differing learning and physical needs. Five of the 16 REE organizations noted that they adjust their teaching to serve students with varying learning needs, including students with ADHD and Autism. Eleven interviewees stated that their facilities (entrances, buildings, and paths between lodges, dining halls, etc.) were ADA compliant. One noted that it was mostly ADA compliant, while four did not specify. Of the 11 REE interviewees with ADA compliant facilities, three provide assistance devices, such as, all terrain wheelchairs for students with physical needs. Only three REE interviewees noted that their trails and/or adventure equipment such as zip lines, observation decks, etc. were ADA compliant, while others noted their campus was either mainly or moderately ADA compliant. Those REE organizations with one or more campuses noted that it was dependent on the campus. Four REE interviewees noted that their trails were not ADA compliant, while five did not specify.

Data Collection

All interviewees were required to submit a completed Informed Consent Form electronically or physically before being interviewed. Interviewees were interviewed using a semi-structured interview protocol (Merriam, 2009). The sample interview questions were adapted from an initial interview protocol (Appendix J) that was used in small pilot study that consisted of two interviewees not involved in this study. The interview questions revolved around the research question and sub-questions. Semi-structured interviews allowed flexibility in wording and questioning strategies by the researcher (Merriam, 2002). If an interviewee provided a response that answered another interview question, the researcher eliminated asking that question to avoid repetition. Semi-structured interviews provide the researcher the opportunity to use probes to
clarify responses or gain additional information. Due to time constraints, not all of the sample interview questions were covered in each interview.

Interviews did not exceed 90 minutes in length, and ranged from 25 to 75 minutes. Interview lengths varied due to the amount of comments provided by the interviewee. Thirteen of the interviews were conducted over the phone, two in person, and one via email. This was due to the limited resources available for the researcher, and the diverse geographic distribution of the interviewees and their REE organizations.

Interviewees chose whether or not the interview should be audio or video recorded on the Informed Consent Form. All interviewees allowed for the recording of their interview. During the interview, the researcher used the sample interview questions as a guide and a place to record brief notes. Immediately following the interview, the researcher wrote a character card, highlighting points discussed by the interviewee. The recorded interview was then transcribed, verbatim, into a typed Word document for later analysis. The researcher was the only person that transcribed visual and/or audio-recorded data.

From the beginning of the research, subjects were given a random numeric interviewee code in order to protect their privacy and identity. The numeric interviewee code was used in the final paper to identify interviewees while keeping their anonymity. Member checks were completed with subjects by providing them with a copy of the transcribed data to strike anything that was incorrect and/or that they did not want in the final paper. Due to the use of maximum variation sampling techniques, the researcher was able to transfer the findings to a wider audience and/or situations. This transferability is also possible through the use of thick descriptions in the research findings, which included interviewee quotes and detailed data collection notes. The
researcher’s advisor reviewed the categories, themes, and the entire research paper to ensure accuracy of data collection, interpretation, and data analysis.

**Data Analysis**

Data analysis was designed to identify factors that contribute to REE organizations providing access for MUY. This study used inductive and constant comparative qualitative data analysis, which are well-recognized beginning steps of grounded theory (Corbin & Strauss, 1990). Once interviews were transcribed, the researcher highlighted and made notes of key data points that were relevant to the research questions. From this system of open coding, the researcher began to construct categories. This process of axial or “analytical coding goes beyond descriptive coding: it is coding that comes from interpretation and reflection on meaning” (Merriam, 2009, p. 180). A master list of categories and themes was established after reviewing and reflecting upon interview transcripts (Appendix K). As noted by Miles and Huberman (1984), “codes will change and develop as field experience continues” (p. 60). Corresponding data from the interview transcripts were placed in themes under the appropriate category. Category and theme labels were derived from the researcher, interviewees, and the literature review in the context of the purpose of this study.

The criteria that was utilized to determine categories was aligned with what Merriam (2009) suggests, “1) agreeable to the goals of the research, . . . 2) exhaustive, 3) sensitizing, and 4) conceptually congruent” (pp. 185-186). The number of categories will be dependent on two variables: 1) the commonality or repetitiveness of concepts, and/or 2) uniqueness.

Constant comparative analysis was used to consistently compare the interview transcriptions and notes against the initial categories and themes. This resulted in the establishment of three
core categories, and subsequent themes and sub-themes. Glaser and Strauss originally developed this method as part of grounded theory in 1967 (Merriam, 2009).

**Methodological Limitations**

Like any qualitative or quantitative method, this epistemological approach has its limitations. Gathering data through interviews includes the researcher interacting with the interviewees. Qualitative research supports that the researcher is considered the instrument in data collection and analysis (Merriam, 2009). This implies that the researcher is required to apply tact and skills, in order to eliminate any factors that could potentially skew the results of the data collection and analysis. Qualitative researchers must understand that they have an important obligation in constructing the meaning of the data, and that there are limits to their understanding (Merriam, 2002). The researcher utilized a journal during the entire research process, including interview data collection, in order to maintain credibility and validity, and to ensure elimination of biases and subjectivity (Merriam, 2009). This reflective strategy is important in qualitative research, as the researcher is the instrument in which the data are collected. In order to assure validity and credibility of this epistemology, the researcher has employed various techniques stated throughout the previous sections in Chapter 3.
Chapter 4

Results

This chapter discusses the findings of the study. First, the missions of the Residential Environmental Education (REE) organizations interviewed will be presented. This will be followed by the categories and the subsequent themes that emerged from the interviews in the following order:

1. The importance of providing access to REE programs for multicultural urban youth (MUY)

2. The impacts of REE programs on MUY

3. The strategies, barriers, vision, and resources needed to provide access to REE programs for MUY.

To conclude this chapter, specific solutions to providing access to REE programs for MUY that were provided by interviewees will be presented. Please note that direct narratives from the interviews will be used to present the results in this chapter. Random numeric participation codes identify interviewees when quoted in this section.
<table>
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<tr>
<th>Importance of Providing Access to REE Programs for MUY</th>
<th>Impacts of REE Programs on MUY</th>
<th>Strategies, Barriers, Vision, and Resources Needed to Provide Access to REE Programs for MUY</th>
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</thead>
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<tr>
<td>Goal of REE organization’s mission and vision</td>
<td>Lifelong impact</td>
<td>Mission and vision</td>
</tr>
<tr>
<td>To reflect regional and national demographics</td>
<td>Increased citizenship and stewardship</td>
<td>Recruitment and retention of a diverse board and staff</td>
</tr>
<tr>
<td>To get MUY outside</td>
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<td>To provide an experience</td>
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<td>To support a diverse community</td>
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Mission of REE Organizations

The REE interviewees interviewed noted the importance of the following eight concepts in their REE organizations’ mission: nature (n=14), people (n=11), education (n=11), stewardship (n=11), place (n=11), connection (n=6), science (n=3), culture (n=2), and diversity (n=1). The most frequent concept in the mission of the REE organizations, as expressed by the interviewees, was nature. The second most frequently discussed aspects of the REE organizations’ mission included the following four concepts: people, education, stewardship, and place. Although promoting diversity through the REE organizations’ mission and vision is noted as important in the following categories, diversity was only noted by one interviewee and culture noted by two interviewees when discussing the mission of their REE organizations.

Importance of Providing Access to REE Programs for MUY

The significance of providing access to REE programs for MUY according to the interviewees varied. The following themes were identified: goal of REE organization’s mission and vision, to get MUY outside, to reflect regional and national demographics, to provide an experience, and to support a diverse community. Each of these themes will be discussed below.

Goal of REE organization’s mission and vision. As noted in the previous section, culture and diversity were only mentioned in the mission of two REE organizations interviewed. Yet when asked about the importance of providing access to REE programs for MUY, the most frequent response by interviewees was that it is integrated into the organizations’ mission and vision. The following example exemplifies this, “I would say it is one of the missions of the organization to be able to provide that opportunity” (Interviewee 15).
To reflect regional and national demographics. As noted in the sections below, many interviewees highlighted how students participating in REE programs do not reflect either the regional or national demographics of the U.S. Thus, interviewees noted that this is one of the reasons REE programs need to provide access for MUY.

To get MUY outside. Although connecting youth to nature is a goal of 14 REE organizations’ missions, only four interviewees discussed this in terms of a reason why it is important to provide access to REE programs for MUY. As noted by one interviewee, “you know that every kid deserves a chance to go outside and play” (Interviewee 13). There are two main ideas that were presented by several interviewees as to why it is important to get MUY outside, including for youths’ mental and physical health, and for youth to build relationships with nature.

Mental and physical health. One interviewee highlighted the importance of youth being in the outdoors for their mental and physical health. “The importance of exposing children from all kinds of backgrounds to the natural world is important, and the reason we think it is important is for a) their mental health and physical health” (Interviewee 4).

Build a relationship with nature. In addition, this same interviewee’s second rationale was also indicated by two other interviewees, and highlighted in the mission of 14 REE organizations. The second reason presented on why it is important to get MUY outside is for them to build a relationship with nature. Interviewee 4 reflected this in the statement, “b) so that there is some sense of relationship and valuing of the natural world, and certainly our public lands”.

Increased stewardship. Interviewees noted that it is important for MUY to establish a connection with nature as it belongs to everyone. From this connection, a greater appreciation
and sense of stewardship for the environment is created. Stewardship was highlighted in the mission of 11 organizations and reflected in the following response.

We hope . . . to instill . . . a land ethic and an appreciation for the environment, and that all of us need to take care of the environment. It does not matter what color your skin is or where you came from, . . . the environment is for everyone. (Interviewee 3)

*Future career pursuits.* Interviewees suggested that getting outside and making a connection with nature supports MUY in pursuing a career in the environmental, outdoor, and/or science fields. The following interviewee’s statement reflects this idea.

Essentially then leading to the fact that there would hopefully be interest and capability . . . from a variety of . . . racial, ethnic, socio economic, etc. backgrounds that would be interested in pursuing higher education and careers in natural resources, education, and so forth.

(Interviewee 4)

*Understanding of public lands.* Interviewees noted that through their programs, especially those whose facilities or programs occur on public land, students gain an understanding that public lands, such as National and State Parks, are for all people to utilize and enjoy. The following interviewee highlights this point.

Especially in . . . [a densely populated state], I have to say in the surrounding urban areas, . . . [students] . . . do not realize that they still have this place . . . [here]. So . . . for every group that comes in here we do an orientation and summation, and we try to remind them that we are public facility, we are within . . . [a State Forest], which is a public facility here . . . So they are more than welcome to come back and use these facilities, and take advantage of them with their families if they want. (Interviewee 2)
To provide an experience for MUY. According to interviewees, REE programs provide MUY with an opportunity that can be very different from what they experience in their day-to-day lives. Thus, interviewees noted the importance of REE programs providing access for MUY is to provide them with an experience. The following quote from one interviewee highlights this theme. “It is very important for us to get them here. . . . It is an experience these kids do not normally get” (Interviewee 8).

To support a diverse community. One interviewee pointed out how providing access for MUY to REE programs helps support diverse relationships in their community as a whole. The following quote reflects their response:

It is very important [emphasis added] to me . . . because we are seeing a pretty good growth of us forming community here instead of it being kind of something where you have . . . [that town] . . . like the white village, and the nonwhite village [this town] . . . We are here trying to have everyone be part of the region, and they can enjoy the fact that we have some diversity happening out of here. (Interviewee 11)

Impacts of REE Programs on MUY

In the previous section, interviewees shared, from their points of view, the importance of providing access to REE programs for MUY. What about the viewpoints of MUY, what impacts do REE programs have on them and their lives? In this study, interviewees shared testimonies that they received orally or written, and/or first and second hand observations of the impacts that their REE programs have on MUY. The testimonies were directly from MUY, or their teachers/principals. The following themes were highlighted from the examples that interviewees shared: lifelong impact, increased citizenship and stewardship, increased academic
understanding and performance, positive behavior change, change in perception, emotional growth, and therapeutic benefit.

**Lifelong impact.** Interviewees described that MUY have shared with them that their REE programs had a direct effect on who they are and their career paths. One interviewee shared a story from a MUY who explicitly stated how their REE program was instrumental in influencing his/her life path, specifically civic engagement and pursuing a profession in the Environmental Education (EE) field, as noted below.

We have some stories of individuals . . . who come from low-income multicultural urban backgrounds and come to our programs, and have identified our programs as a point of transition in their lives towards greater engagement in their communities, and greater professional involvement in the [EE] field. (Interviewee 7)

**Increased citizenship and stewardship.** As noted in the testimony above, MUY have documented the impact REE programs have on increasing civic engagement in their communities. Stewardship is noted to be a part of 11 REE organizations’ missions. This emphasis of stewardship and civic engagement is reflected in the following testimony by a MUY that was provided by one REE interviewee.

The fact that so many were impacted by our stories the same way we would physically do labor, reminded me that we could *all make* [emphasis added] a huge difference in our community if we really put our heart into it. There are not enough words to express my gratitude and appreciation. It was an honor to attend, and my role in stewardship doesn’t end just here, it is just the beginning. (Interviewee 6)

**Increased academic understanding and performance.** Education was highlighted in the mission of 11 REE organizations. The impact REE programs have on supporting this mission of
increasing academic understanding and performance of MUY is noted in the testimonies provided by four interviewees. Two interviewees’ responses exemplify this. The first is a testimony from a MUY that was provided by one REE interviewee. “Things that I learned in school about producers and consumers, I really didn’t understand until I saw how it worked with my own eyes during the trip” (Interviewee 12). The following testimony is a letter from a principal that a REE interviewee provided.

We got a letter from a principal whose school was not meeting Adequate Yearly Progress (AYP), they were not meeting performance standards for the state . . . In her letter she says, we are now meeting AYP because of [emphasis added] the five day trip to [our REE program]. (Interviewee 13)

Interviewee 13 noted that the above testimony is anecdotal and only was reflected by this one individual. The interviewee commented that they do not take “credit when those things [performance on standardized tests, truancy, school violence] move to the positive, because we are only a five-day program, we know that, but we also know that we play a role in that” (Interviewee 13).

**Positive behavior change.** Through participation in REE programs, MUY have demonstrated positive behavior change. In addition, positive behavior change can have lifelong impacts, which is reflected in the following testimony provided by one interviewee.

And everyone, [along] with the schools, were all concerned about them [kids] becoming part of some of the gangs we have in their area. And we got them some scholarships to come out to camp, and now several of those are becoming our summer camp assistants for kids in their communities, and they’re helping promote . . . the summer programs. (Interviewee 11)
Change in perception. From partaking in REE programs, interviewees noted that MUY have shared how these experiences showed them how to see things differently during and after the REE program. The following testimony from a MUY demonstrates the change in perception that occurred for them while participating in a REE program.

For example, I was in a group who I had doubts about, . . . but the trip taught me a lesson on how I shouldn’t really be quick to judge anything or anyone. The people I was with I thought wasn’t [sic] fun or cool people, but when we hiked up . . . [a mountain] these people showed me a wonderful [emphasis added] time by teaching me things I did not know about nature.

We have learned to care [emphasis added] for everyone there. People that I knew, but didn’t talk to helps [sic] me. We had worked as a community and most of our friendship [sic] had grown. (Interviewee 12)

Emotional growth. One interviewee shared a testimony that describes how a REE experience allowed a MUY to open up emotionally, and how this benefited those around them. The noted impact REE programs can have on emotional growth is represented in the following testimony of a MUY from one REE interviewee.

In our second to our last day [of the 15 day REE program], we teamed up with the Forest Service . . . [a neighborhood program] for a big cleanup day, and to share our stories with all the people there. This was one of the first [emphasis added] times that I have ever [emphasis added] opened up about my life with others other than my family and shared how my circumstances motivated me to do the things I do today. (Interviewee 6)

Therapeutic benefit. A different interviewee highlighted how a REE program experience was directly therapeutic for one MUY. This is reflected in the quote below.
A student, came up to . . . [our director], that was residing there for his field trip, and he started talking to the director about all of these plants and . . . animals . . . The father that was with him was in awe because the child is autistic and he never talks to anybody he said . . . All of the sudden there is this . . . incredible moment for the father and us really [emphasis added] that this child actually spoke, and was brought to life in a way just by being outside, and how therapeutic nature can be in a way. (Interviewee 2)

Strategies, Barriers, Vision, and Resources Needed to Provide Access to REE Programs for MUY

This section highlights the crosscutting themes that interviewees noted as strategies, barriers, vision, and/or resources needed (or a combination) for providing access to REE programs for MUY. The eight themes are: mission and vision, recruitment and retention of a diverse board and staff, funding, partnerships and collaboration, programming, cultural competency, marketing, and accessibility.
Table 2

Category 3: Themes and Subsequent Sub-themes

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Note: Italicized words represent concepts under the subthemes
Mission and vision. As noted in the first and second sections of this chapter, interviewees noted that the importance of providing access to REE programs for MUY is embedded in the mission of their organizations. When discussing strategies, barriers, vision, and resources needed for providing access to their programs for MUY, interviewees noted that it was a part of their organizations’ mission and vision. This first theme, mission and vision, is reflected in the long-term commitment REE organizations have to becoming culturally competent practitioners.

Long-term commitment. Long-term commitment is considered a strategy or vision for providing access to REE programs for MUY. This includes a long-term commitment that may be reflected in internal diversity initiatives or committees. Diversity needs to occur throughout the organization, most importantly from the leadership, and can shift due to a change in organizational leadership. In addition, long-term-commitment takes time and resources, such as internal training and research.

Diversity initiatives and committees. Several interviewees noted that their commitment to diversity is reflected in internal diversity initiatives and committees within their REE organizations. One interviewee, as noted below, discusses how important this is for their vision, and is a resource needed for providing access to their REE programs for MUY.

[Our organization] has a lot of stuff going on, but diversity is . . . part of all of our goals for the future. . . . Our HRD [Human Resource Department] person has it as part of her goals to work and increase the staff multicultural face so to speak. . . . One of the other pillars is a broaden diverse membership [in our organization]. . . . There is definitely a vision.

(Interviewee 12)
Organizational leadership. One interviewee, an executive director, discussed how the importance of providing access to MUY within their REE organization was not a priority until he/she came on board and made it one. This is reflected in this interviewee’s response below.

Well that is actually a big part of one of our things [providing access to MUY]. Before I was at [our REE organization] it was probably not even a fact. When I came on, I set up program sin [this section of our region] with the Migrant Education. . . . that serves a large Latino population. (Interviewee 11)

Time. Several interviewees noted that along with this long-term commitment, time is a resource that is needed to provide access to REE programs for MUY. Interviewees reflected on how oppression of underrepresented people has been occurring for centuries, and that it is going to take time for the diverse regional and national demographics to be reflected in REE organizations’ board and staff. It is up to REE organizations to assist in moving this process along more quickly than it would naturally occur, as noted in the following response:

This is something with which the entire field of Environmental Education has struggled and hopefully it will not continue to struggle in perpetuity, but it will be a long slow road to seeing balance in the community of Environmental Education providers and to have providers really emulate, model, and mirror the communities they hope to serve. It is going to be a while, but we are trying to figure out how we can help expedite that process and be instruments in the change. (Interviewee 14)

Internal training. Another strategy and resource needed to support this long-term commitment to modeling and emulating the populations in which REE organizations are serving is effective board and staff training. One interviewee noted that although they work to provide training for their staff to work with MUY, it still presents as a barrier due to the lack of resources
in which to effectively carry out training. The following quote discusses how staff training is a resource needed for the future of organizations.

Staff training because I have been lucky where I haven’t had to spend a lot of extra effort/energies into staff training to [work] with our multinational populations . . . Most of the people we fortunately have been able to hire have either come from other cultures or they have been doing it for a while and they a lot of good basic work, but I know . . . as we expand programs even more I am not going to have that same number or high percentage, so staff training is going to be good. (Interviewee 11)

Research. Continual research is one of the strategies suggested and resources needed to help create more efficient and effective change in this field. As one interviewee stated about this particular research, “I am excited to glean the fruits of your labor and learn from others of my peers” (Interviewee 14). Research needs to be conducted not only outside of REE organizations, but internally as well. The latter is exemplified in the following response.

We are learning as we are going, constantly [emphasis added] learning. We do not know . . . what we are doing . . . so we are constantly in research, we are constantly evaluating our ourselves, . . . our program, we are seeing how kids and schools respond, and changing the program to make it as strong as we can possibly make it. (Interviewee 13)

Recruitment and retention of a diverse board and staff. Every interviewee, except one, mentioned the second theme of recruiting and retaining a diverse board and staff. For some REE organizations, it is a strategy that they use, but for the majority, it is a vision and resource needed to continue to provide access for MUY. Several of the interviewees noted that the reason this was important is because MUY will be more willing to participate in REE programs that reflect diversity, and thus encourage MUY to pursue careers in EE and environment/natural resources
fields. In addition, having a diverse board and staff will help REE organizations understand how to better serve MUY in their programs. Also, it is important that REE programs reflect the regional and national demographics as noted earlier. In order to recruit and retain a diverse board and staff, interviewees noted that MUY need to be provided with continual opportunities to engage in the EE field through mentorship programs, professional training experiences, and an overall awareness of potential opportunities.

**Reflect regional and national demographics.** Another reason interviewees noted it was important to recruit and retain a diverse board and staff is to reflect the changing regional and national demographics of the U.S. The following quote by one interviewee highlights this importance.

What we want, probably what a lot of organizations are trying to strive for is, we want our staff and our board and our participants to look overall a little bit more like the general US population. . . . The hope is that as our staff and . . . our board look more diverse, that . . . that experience and . . . diversity will help us to understand how to attract participants that are more diverse. (Interviewee 1)

**Educational pipeline.** Interviewees highlighted that the way in which they recruit and retain diverse board and staff members is through the educational pipeline. REE organizations noted that not only do they need to provide REE programs for MUY, but continuing opportunities in which MUY can engage in EE. This can result in MUY working in the EE (including REE), and/or other environmental and natural resource fields. There are a variety of educational pipeline opportunities suggested by interviewees that are used as strategies to foster MUY participation in the REE field including mentorships, professional development experiences, and
increased awareness of opportunities. The following interviewee discusses the educational pipeline idea.

We have had students come to our program as students in their own schools . . . Maybe they have done a summer [camp program], where they have participated in a week of . . . camp . . . Then they come back as . . . [mentors]. Then they graduate . . . from high school and they’re capable of being a . . . camp counselor. Then they might go on to become an educator. . . . So they might have joined us in fifth or sixth grade and they are now with us as field science educators as a result of that pipeline. And that is how we are endeavoring also to build a more diverse staff. (Interviewee 14)

*Mentorships.* Three REE organizations mentioned mentorship programs as a strategy, while two others noted that having a mentorship program is a vision for continuing to provide access for MUY. The following interviewee highlights how these mentorship opportunities supported MUY in continuing to work with their REE programs.

Let’s say that we had 36 [MUY] kids go through the program [an REE immersion program] last year. Ten of them may apply to be mentors, which means they want to stay with the program another year. Then they come [up to our REE center] . . . and they help the new group of students. (Interviewee 8)

*Professional development experiences.* Providing professional development (PD) experiences, such as trainings or internship opportunities, for MUY is a strategy used by a few REE organizations to increase diversity within their staff and board. For example, PD training were used for students who had little background in teaching, but have a strong foundation in science or vice versa. Interviewees noted that professional development experiences for MUY
have led to work opportunities in the EE field. As noted below, these can be more useful marketing tools than other traditional marketing models.

Students that go through a . . . [several month] training program over the summer and then are eligible to be hired [by our REE organization]. We have actually had wild success from that. We have been able to recruit amazingly diverse staff that have qualities that we can tap, that we would not have ever realized through more traditional recruitment practices or just kind of job posting practices. (Interviewee 14)

**Awareness of opportunities.** Two interviewees noted that the general lack of awareness of opportunities in EE is a barrier for recruiting MUY in REE programs, and ultimately a diverse board and staff. Interviewees discussed that if MUY are not aware of REE opportunities, then the likelihood of them getting involved with these types of programs in the future is limited. As noted below, one interviewee discussed their strategy for increasing awareness of opportunities in the EE, natural/environmental science, and outdoor recreation fields.

Part of what we do at our . . . conference [for youth leadership] we invite all these different organizations that have next step opportunities for these . . . students [mainly MUY that have participated in a few specific REE programs] jobs, internships, programs, . . . to come up and recruit them during an opportunity fair. (Interviewee 6)

**Funding.** The third theme, funding, was brought up by every interviewee as a strategy, barrier, vision, or resource needed to provide access to REE programs for MUY. In order to overcome funding as a barrier, REE organizations noted that they provide low program costs, which are supported through scholarships, and other internal and external funding strategies. Interviewees noted that a sustainable source of funding is needed when discussing barriers to external funding sources. In addition, strategies and barriers to schools/districts funding sources
were highlighted. Overall, interviewees discussed using a service model to provide all students the opportunity to participate in their programs, regardless of financial ability.

**Low program costs.** One strategy, that several interviewees noted was as effective, is keeping their program fees low. In one interviewee’s opinion, keeping program costs low is the best strategy that can be used to provide access to REE programs for MUY. Interviewees offered specific strategies in how they accomplish this, including sliding scales for fees or using the marking strategy supply and demand, of which the latter is noted in the following quote.

We have structured everything based on time of year, supply and demand. So the *really* . . . high demand [emphasis added] times of year are *more expensive* [emphasis added] and the . . . *really low demand* [emphasis added] times of the year are *drastically less expensive* [emphasis added]. What that does, it gives schools that do not have as much money, they can say, oh I will come up at this time of year because it is cheaper . . . that might not be the best time of the year for them, but it is cheap. (Interviewee 5)

**Scholarships.** Providing scholarships for teachers or schools was another strategy frequently noted by interviewees to keep program costs low and MUY participating in their programs. One interviewee noted, “I think the main one [method for providing access to MUY] is our scholarship program. That's it, people and schools need help financially” (Interviewee 9).

**Internal funding strategies.** Other internal funding strategies provided by interviewees included fundraising, and using revenue generated from other programs within the same organization. For example, two organizations discussed renting out their facilities as a way to support low cost fees in their REE programs. Interviewees from larger REE organizations that have many programs under one umbrella, noted that they use strategic planning to subsidize programs for MUY, such as generating funding from other programs within their organization.
Two interviewees noted that a majority of their revenue is based on program fees, but did not determine if that was a barrier to participants.

*External funding strategies.* Interviewees noted that external funding sources help support their REE programs for MUY. Interviewees discussed using a variety of funding techniques within their organization including grants, donors, partnerships, and endowments. The following organization relies on connecting with partners who have funding, but do not necessarily have the staffing or time to conduct programs.

> Well I mean general funding . . . we will tie into existing programs through like the Educational Service District . . . who has like with the Migrant Education Department or . . . the Latino Outreach, or . . . the 4H . . . who has programs for specific populations. . . . I would say that it is just *partnerships* [emphasis added], it is really the key cause there are a lot of agencies that have funding who want to do stuff or they even have the project set up, but they’re not doing it because they do not have the people to actually run it. (Interviewee 11)

*External funding barriers.* Two organizations noted specifically that grant funding can be a barrier, as they are often unreliable year to year, can be cost/time prohibitive, or are targeted for new short term ideas. One interviewee discussed how this can be a tipping point for some programs, or a small issue with large implications, especially if organizations rely heavily on grant-funded support for their programs. What interviewees identified as a need is not just funding, but a long-term sustainable funding source. Interviewee 4 discussed this by stating:

> Finding a sustainable source of funding that would sponsor those students, and not just a one-time deal . . . That is a problem, . . . granters are interested in new and different, and start-up . . . ok that is great, but what about next year. (Interviewee 4)
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**Schools/districts funding sources.** Interviewees noted that schools that are not fully funded through scholarships or grants use various mechanisms to produce adequate funds for REE programs. Some schools, like the REE organizations, use yearlong fundraising techniques. As noted below, the ability to fundraise in advance is due to the fact that, for some schools, their yearly trip to a REE program is a part of their school’s culture.

Most times they are pretty successful [fundraising] because the . . . programs are grandfathered in [the schools] where it is a rite of passage. You come in sixth grade, all of the students look forward to it, and the parents start saving up years in advance. (Interviewee 5)

In addition, some districts or schools will set aside money for their REE program. Lastly several interviewees noted that sometimes parents are expected to accrue all or a portion of the participation fees. In some cases, interviewees noted that this was a barrier if the parent was unable to afford the costs. If teachers or schools do not support these students or neglect to inform the REE organization, then often interviewees noted that these students would unlikely attend their program. One interviewee reflects this in the following statement.

Some schools just pass the cost onto the kids. . . . We do not condone that . . . way. We want the kids to pay something because there is ownership with that, but we do not want the cost of what we do to be prohibitive so that kids are not able to afford to come. (Interviewee 13)

**Service model.** The service model focuses on providing students with the ability to attend REE programs regardless of their socioeconomic ability. Interviewees noted that this service model is a part of the EE field, and that they work with students or schools who cannot financially meet their specific programming fees. Most interviewees stated that they have never turned down a student or school that could not afford the program, as noted by the following
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Interviewee. “We have an unwritten rule with schools that we will never ever turn a student down” (Interviewee 5). The following interviewee elaborates on the service model idea below.

Sometimes we hear [from schools] that, oh yeah we left 50% of our kids at home because they could not afford it. It is like, . . . why did you do that? We could have worked with you [the schools], . . . we could have reduced the amount of money. (Interviewee 13)

**Partnerships and collaboration.** The fourth emerging theme from category three was the importance of collaborating and building partnerships with various entities. These partners can include: teachers, schools and school districts, parents, cultural brokers, experts, other EE organizations, and local, regional and national organizations. Interviewees mainly saw partnerships and collaboration efforts as a strategy, vision, or resource needed to provide access to REE programs for MUY. Interviewees highlighted that these partnerships assist MUY in becoming aware of, understanding, and participating in their programs. As one interviewee noted, it is like the African proverb, *it takes a village to raise a child.* This interviewee discusses below the idea of partnerships in the context of their organization’s vision to continue to provide access for MUY.

Continue our work, . . . the heart of what we do, . . . in terms of these kids, *we cannot do it alone* [emphasis added], we need to work with other people and other organizations . . . But what we do, we should do really well. Like do less better, so to speak, that philosophy of . . . go really deep with this experience . . . Maybe we do not need to be the ones that mentor them in their schools. We are not living in their home communities to all these kids and we are not in their schools, but we can connect them with people that are. . . . It is sort of that philosophy that it takes a village, . . . for all to be committed to this. (Interviewee 6)
**Teachers.** Interviewees highlighted that whether they are working directly with individual teachers, schools, or school districts, building and maintaining positive partnerships is critical. Several interviewees noted that a strong relationship is needed with teachers, schools, or school districts that serve MUY in order to ensure their annual participation. The marketing section expands on this idea further, and is supported by the following interviewee:

It is a little bit of a challenge because what we have realized over time is that happy [emphasis added] kids do not necessarily mean happy [emphasis added] teachers. So if the kids have an absolutely fantastic time and they learn an incredible amount, but the teachers did not have a good time, well then the school might not come back. So we have to balance keeping our students happy, which is our primary focus, and we have to keep the teachers happy, which is a central requirement for the business. (Interviewee 5)

**Parents.** Interviewees discussed the importance of establishing relationships with parents of MUY, especially when cultural barriers were present, as discussed in the cultural competency section.

**Cultural brokers.** Establishing a strong rapport with leaders in multicultural communities, or cultural brokers, was noted as a strategy, vision, and resource needed to provide access to REE programs for MUY. Interviewees discussed how working with one or more cultural brokers in multicultural communities has connected their organizations with MUY. As noted by several interviewees, without a connection to someone in the community or school, it can be difficult to access MUY for an organizations’ REE program. The following quote highlights cultural brokers. “We started to find . . . what do you call, the powerhouse parents, or we would find like the . . . [Ms. Kay] who is like the aunt to all of the Rodriguez’s and Ramones, basically she is the king pin for the whole [community]” (Interviewee 11).
Experts in the field. Interviewees discussed collaborating with experts in the field as a strategy and resource needed for increasing the reach of their programs for MUY. Interviewees highlighted that experts’ mentorship and resources provide organizations with guidelines and recommendations for continually improving cultural competency and diversity in their organizations, such as programming, staff and board, curriculum and facilities, in order to reflect and meet the needs of all those they serve. The need for experts is demonstrated in the following quote: “I think resources that help interpret what we do, . . . what we [REE organizations] do a lot of times is . . . nature interpretation, but I think what we need is someone to help interpret what we do to . . . other cultures” (Interviewee 1).

Suggested experts in the field may include multicultural organizations and/or other EE programs working on increasing diversity within their organization. Multicultural and EE conferences/events were forums used by interviewees to further this discussion and find practical solutions to cultural competency within their organization.

Organizations. In general, partnering with local, regional and national non-profit, for profit, and governmental organizations and agencies was noted as a strategy for providing accessing to REE programs for MUY. This strategy has been used successfully used by six participating organizations in this study. More specifically, partnering with organizations that already work with diverse youth has noted as an effective strategy. Interviewees also discussed the benefits of working with organizations that have financial support for MUY to participate in their REE programs. The following interviewee discusses this importance:

What we have found is that partnerships are the key for us for increasing access [to our programs] for MUY . . . those partnerships include . . . [Summer Search, Challenge Foundation, National Park Service] which helps connect us to MUY . . . and increase the
access for these types of students. . . . Some of the program partners that I have mentioned [also] have specific support structures in place to support partial scholarship or travel for their kids. (Interviewee 7)

When partnering with other organizations, another strategy discussed was having REE organization representatives meet MUY and their leaders in the communities in which they live, prior to the students attending an on-site REE program. These initial meetings have helped organizations connect with MUY and their leaders. In addition, they provided interviewees with an understanding of the students’ community culture in order to better serve them, and resolve any potential hesitations, misunderstandings, or concerns. This is reflected in the following response:

So what we did, we kind of honed this strategy over the last couple of years. . . . we knew it would be important to reach out to them first and to go meet them where they came from, not try to bring them straight to [our campus] where they are out of their element. . . . The next year we realized that the leaders were critical too, and we needed to have them on board, and we needed them to feel comfortable in what they were getting into. So we did a little bit more in addition to meeting the kids in their kind of home turf, we met with the . . . adult leaders and . . . high school age leaders. (Interviewee 1)

Partnering with organizations that serve MUY has helped REE organizations eliminate any trust or fear issues from students or families who are unaware of REE programs. The following interviewee discusses the importance of these partnerships in accessing MUY for their REE programs.

They [Boys and Girls Club] have a club in the school, partnering with them allows us to get into the schools, which allows us to use their facility, as well as our educators and create a
program that *makes* [emphasis added] those youth feel more comfortable. Because they *trust* [emphasis added] the clubs, they *know* [emphasis added] the clubs, and if we partner with the clubs then we, in their eyes, gain trust from them. (Interviewee 8)

**Programming.** The fifth emerging theme in category three was programming. All of the interviewees interviewed discussed how various aspects of programming are methods, barriers, visions, or resources needed to provide access for MUY. Programming was mentioned by seven interviewees as one of the attracting components to their REE programs. The seven sub-themes presented under programming were: curriculum, relevance, gender-specific, quality, availability, outreach, and linking internal programs.

**Curriculum.** Interviewees noted that their curriculum was one aspect that attracted interviewees to their organizations. Curriculum that is aligned with state standards was also noted as a strategy for providing access to REE programs for MUY. In addition, interviewees discussed the need for and ways in which their curriculum is multicultural.

**State standards.** REE organizations’ whose curriculum meets state standards was considered an asset to providing access for MUY. Meeting science, or other state and/or national standards support teachers or schools in justifying the resources needed for attending REE programs, as highlighted by interviewees. The interviewee quoted below reflects this strategy.

I think that we work with the school pretty intensely so that the teachers can go back to the administration or parents and explain the costs. So ... that is part of the reason we focus so strongly on being able to meet standards in that way if ... there is some sort of push back from administrators or parents, they [teachers] are armed with the ability to say, oh we are meeting the state standard on [a specific science subject or concept]. (Interviewee 15)
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As noted in the mission of REE organizations, education was identified as equally important to people, stewardship, and place. Several interviewees noted that even though their programs met state standards, they found that students, classes, and teachers left with much more than an academic understanding. The following quote embodies this idea.

By the end of the trip, they [the school] realized that . . . the academics are really here, but what keeps them coming back interestingly enough is the effect that we have on their community. . . . We get those kids to come together as a group. . . . The comments we get . . . [from teachers] are usually centered around the affect we had on the kids interpersonally and personally. (Interviewee 13)

_Multicultural Education._ Several interviewees brought up the need for multicultural curriculum for accessing MUY for REE programs. Three interviewees noted that they work with cultural brokers or multiracial organizations to integrate multicultural lenses into their curriculum. At the same time, other interviewees noted that they were unsure how to make their curriculum multicultural. Although there is this need for multicultural curriculum, interviewees noted that overall they adjust their programming for each individual group and/or student, in order to make it applicable and transferable. This is reflected in the quote below.

I think training is important. I think that the model of education that . . . is core to our mission tends to be transferable to . . . a variety of socioeconomic, ethnic, geographic backgrounds. So I think generally the way we program can be successful for any type of student. . . . With that said, . . . what we have found is that the better training that we do with our staff around Multicultural Education, the better we can make our programming, and the easier the transition for students who are coming from urban multicultural backgrounds. (Interviewee 7)
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Relevance. Interviewees discussed the importance of making their REE programs relevant to the lives of MUY and the teachers, as highlighted below.

MUY. Five interviewees mentioned the importance of REE programs being relevant to the lives of MUY as a strategy to providing access. Interviewees noted using a variety of methods to assist students in transferring what they learned in the REE program to their personal lives and communities. The strategies discussed where the use of nature as a metaphor, developing leadership and community building skills, implementing citizen science projects or other stewardship plans in their home communities, and empowering students with judgment and decision making skills. The idea of REE programs being relevant to MUY is outlined in the following quote.

You try the hardest. It is one of the biggest things at the end of all of our lessons that our instructors have to try to bring it back. They have to say, well this is all great, but how do we bring this back to our daily lives? One of the biggest things we have done is focus on team building and communication because those kinds of things are going to be huge in their life and where they are at. We also have focused a lot on just using nature as a metaphor for their lives. . . . For the most part, these kids have never been up to the woods before and a lot of them will never again, and we have to give it more than just, hey this is a trip. (Interviewee 5)

Teachers. Interviewees discussed the need for their programs to be relevant for teachers as well. Transference was noted as being more effective when teachers were engaged. Several interviewees’ organizations provide teachers with professional development (PD) trainings that highlight ways in which teachers can extend what they learned in the REE program to their classroom and community. Interviewees noted that these PD trainings then help eliminate the feeling that REE programs are an island experience. Due to the fact that most often REE
programs are not in the communities of MUY, these REE experiences can be isolating, like an island is isolated from the mainland. This was identified as a barrier for attracting MUY and making their experiences in REE programs transferable.

**Gender-specific.** Some REE organizations noted that they offer female-specific programs, or will split their visiting groups by gender during the majority of the students’ REE program. Interviewee 13 discusses the reasoning behind these programming strategies. They have found that focusing on female-specific middle school science programs or having female only learning groups, gives females the inclusive experience to expand their scientific knowledge and potentially influence their future career pursuits. Additionally, one REE organization, that is trying to implement an all-girls program, wanted to ensure that there is an equivalent program available for boys. According to this interviewee there seemed to be quite a few more REE programs offered for girls than boys. Other additional benefits of gender-specific programs are also described below.

For a couple of reasons, primarily to reduce really low-level behavior issues, just the silliness between boys and girls, eliminate that completely. The other piece is we have a pretty heavy science curriculum and there is quite a bit of data that educates when you got the dominate male in that class, the females take a back seat. . . We do not want that, we want females to be engaged in science. So by doing gender separated [programs], that helps alleviate that problem. The third thing is we want to present a safe place for kids to be kids and not have to try and impress the opposite sex. So we have female educators that are teaching females, we have male educators that are teaching males, and it is a safe place for kids to be kids, . . . ask questions, . . . and they do not have to worry about looking foolish in front of the opposite sex. (Interviewee 13)
Availability. One barrier to programming that was presented by interviewees, is the lack of availability of schools or families to participate in REE programs. Teachers and schools have very busy schedules, which creates time constraints. The time devoted to standardized testing and school holidays, along with preferences in seasons and days of the week that teachers want to attend REE programs, was noted as a barrier to providing MUY access to these programs. In addition, time has also been a constraint for REE programs or day programs offered by REE organizations that encourage the participation of families. As noted in a few interviews, some of the parents of MUY that REE organizations serve, work more than one job or seven days a week. Interviewees noted that finding ways to include parent participation under these circumstances was a challenge. The interviewee below discussed the various ways time is a barrier.

Also timeframe. . . . Especially in our public schools, we have a lot of testing and that state testing . . . actually takes three huge [emphasis added] weeks in the springtime out, depending on the age group, . . . where they can’t schedule field trips. That is kind of huge for us, when . . . you consider all of the holidays, and . . . some schools do not want to come in the winter time, and that can be a huge inhibitor to our urban school groups actually . . . For example [one school district], . . . they want to avoid coming in the winter whenever possible because their students just do not have the [appropriate] dressing . . . to be outside in the winter necessarily . . . As much as we try to collect clothing and things like that, but a lot of times they do not have what . . . they need to have an enjoyable experience . . . Not only do we want them to come up here, but we want them to have a good experience because otherwise . . . it is a moot point. (Interviewee 2)

Quality. Interviewees acknowledged that the quality of programming is one of reasons people are attracted to their REE programs, and a vision for providing access to their programs
for MUY. Organizations highlighted that their programs and facilities have a certain capacity, and that it is important to ensure program quality is not compromised with increasing quantity of students served. At the same time, some REE organizations discussed how they are reaching their capacity and want to expand their programs in order to reach more students, including MUY. In addition, some interviewees pointed out that quality programming involves keeping curriculum and instruction tools new and up-to-date, so that students and teachers are continually engaged. Program size and quality are highlighted in the following response.

However, we also do not want to make our school so big and have so many clients that we sacrifice the quality of our programing. If we spread ourselves too thin, if we do not have the staffing that is required in order to educate these students then . . . that does a disservice to everyone involved. So we also try and keep that balance. (Interviewee 2)

**Outreach.** A variety of interviewees use or envision outreach programs in order to increase the exposure MUY students and teachers have to EE, and thus the potential to partake in their REE programs. As noted by one interviewee, “I think . . . probably doing a little bit more outreach . . . personally as opposed to necessarily getting them in here” (Interviewee 2).

Some interviewees host pre and post REE program trips at students’ schools. Other interviewees are working with schools to provide more localized half or full day trips in the communities of MUY. The latter helps eliminate REE program, substitute teacher, and transportation costs for the schools.

**Linking internal programs.** Lastly, interviewees discussed how access for MUY is enhanced by linking students that participate in other programs within their organization, to their REE programs. This provides MUY several possible engagement points and opportunities in the EE field. The following interviewee discussed this strategy:
We try to link our programs. [Our organization] . . . has a large program, which is a . . . youth at risk/urban program, it is for urban populations, it also serves youth at risk . . . Those folks who end up in that program have access, hopefully [emphasis added], to other programs from [our organization]. . . . So we kind of make bridges [emphasis added] between our different programs. (Interviewee 12)

**Cultural competency.** The importance of REE organizations being culturally competent was the sixth theme that emerged from the interviews. Several cultural barriers, such as language, and beliefs, values, and perceptions, were highlighted in addition to some specific strategies REE organizations use to be culturally competent.

**Language.** One cultural barrier that several interviewees identified was language. More specifically, language was a barrier with parents, even more so than with students. Some organizations have parent meetings where over five different languages are spoken.

**Bilingual materials and interpreters.** The strategy that several REE organizations utilize to overcome this barrier is to provide bilingual literature in print or on their website, and/or interpreters at parent meetings. Using bilingual literature was considered a barrier for some interviewees due to the following reasons: costs of translating materials such as medical forms, and risk and release forms, the fact that forms often change from year to year, and the number of forms needed for the multitude of languages spoken in the communities REE programs serve. Some REE organizations rely on internal staff or community members to translate materials, but as noted by several REE organizations, this can become a liability issue. Other REE organizations have left it up to the schools or school districts to provide translations of materials, as they often have the means in which to do so. This potential barrier is highlighted in the following response:
It is really expensive [emphasis added], so we are trying to figure out how to manage [it] because our forms change every year. If there is like one little box that is not translated right we cannot use the same form because of liability [emphasis added] reasons ... I am trying to budget for it next year for maybe three translations ... so that we can get it through a professional organization. But then if you do it through a volunteer then you are relying on them, they do not have liability insurance ... you just never know. So we are trying to figure out how to get around this ... Maybe work with the schools a little bit more to say, so maybe we do not translate it, and maybe they do ... It is always that balance. (Interviewee 9)

Interpretation. In addition to language being a barrier, what may be discussed or asked in marketing materials and/or interviewee requirement forms may make sense to the REE organizations writing and presenting them, but may be difficult to understand or misinterpreted by others. The following narrative from one interviewee provides an example of this:

Or culturally the questions that are asked [on required participant forms] do not make any sense. ... Part of our internship, we would recruit students from Cameroon, Africa and they would come. It was great, ... but ... as part of them coming over they had to have health insurance. They had to have the policy and accident policy. The way we operated that system is they actually had to purchase the health insurance. They had no clue [emphasis added] what health insurance is. What do you mean by health insurance [emphasis added]? ... Not that other countries don’t have health insurance, but certainly not in Cameroon that is not a common thing. So you are trying to explain what health insurance [emphasis added] is. (Interviewee 10)
ELL students. Organizations that work with ELL students noted that they adjust their instructional strategies in order to meet the needs of their students. For example, one interviewee noted that more visual aids were used when working with ELL interviewees.

Beliefs, values, and perceptions. Over half of the interviewees stated that some of the beliefs, values, and perceptions of MUY and their families could initially be a barrier for the access of REE programs for MUY. For example, interviewees reported that parents of differing cultures might not want their children to leave home, and thus may be afraid to let their kids attend a REE program. In addition, interviewees noted that families and students from different cultural backgrounds may have different ways in which they connect with or perceive nature that can contribute to them not understanding or wanting to participate in a REE program. The former idea is highlighted by the interviewees’ response below.

We have a lot of lower type schools where we will have 10 or 15 students not come up . . . We will talk to the teacher and we will say, is it money [emphasis added], you know we got more scholarships . . . They will say it has nothing to do with money, it has to do with parents [emphasis added]. The parents do want the kids to go to . . . because their immediate [reaction] is that they are afraid . . . They are just afraid of sending them away, they do not want them to leave home. I do not want my kid to go away . . . to a strange place, it does not matter if it is in the city or in the woods. (Interviewee 5)

At the same time, many REE organizations discussed the importance of understanding how differing cultures connect with the environment in order to adjust their programming and provide easier access for participants from varying backgrounds. The following example exemplifies this importance of understanding that all people connect with the environment, and that we may connect with it differently.
Don’t assume that this group is not connecting with the environment because they don’t go hiking at . . . [a National Park], or they do not do this or they do not do that. They might not have the same kind of access or what have you, but they are probably connecting in other ways, or ways that we just have not even thought about. (Interviewee 10)

One REE organization embraces the diversity of their students by identifying and utilizing their differing values as strengths. REE programs can provide MUY the opportunity to explore their personal values, which may differ from those who are serving them. One interviewee, as noted below, provides an in-depth example of this.

But that it is one way that they might learn something, that they [our instructors] need to take into account about a multicultural group, their preexisting knowledge, . . . assumptions maybe about certain things . . . We try to help . . . our staff understand about sensitivity, as much as because kids are parts of families . . . and families are different, they have different values then many of our staff have, and the understanding that they need to think about those values and need to work kind of within them and let kids [emphasis added] question those values, not be offensive. . . . To help kids learn and question their own [emphasis added] things they’re seeing in the world in regard to how they are valuing the environment . . . Just because their mother or father says they never go out [emphasis added] and do something in the outdoors, and this kid comes to us and they have a great experience they can kind of feel . . . comfortable in that, and presenting that with who they are within their family structure.

(Interviewee 12)

In addition, how some parents, communities, and formal educators perceive EE and REE programs was noted as a barrier for some organizations. For example, one interviewee discussed how they have responded to the negative perceptions of EE in their rural communities by using
use the term *Outdoor Education* instead. Several interviewees noted that certain families or cultures do not relate to concept of REE or *nature camps*. Another interviewee, as recorded below, discussed the cultural perception of EE programs and providers by some formal educators as being unprofessional or not academic (i.e. just a camp). Several other interviewees agreed that the latter idea is a barrier and that there is a lack of understanding of REE programs.

So the perception that a lot of those principles held, that there is no point to outdoor education, that it’s just play time, largely prevails in formal education, not just in inner city, but I think across the board to any demographic . . . Non-formal educators I think are still viewed as not professionals, camp counselors, . . . not trained and it is just not accurate . . . The outdoor educators that I have worked for, regardless of program and demographics served, were highly professional educators, we just happen to teach in the outdoors.

(Interviewee 13)

Many REE interviewees highlighted strategies for overcoming differences in beliefs, values, and perceptions. These included hosting parent meetings and presentations before their students attend their REE programs, providing videos and bilingual materials online, hosting EE events in the communities of MUY to support family involvement, and inviting the families to REE programs to help them understand what their children might experience at the program.

**Marketing.** The seventh theme that emerged from the interviews to providing access to REE programs for MUY was marketing. The marketing sub-themes include: customer service and loyalty, word-of-mouth, one-on-one contact, teacher-training programs, and advertisements.

**Customer service and loyalty.** REE organizations utilize a variety of marketing techniques in order to recruit and retain MUY in their programs. The most frequent method used is customer service and loyalty, which several REE organizations considered as a main reason for why
people are attracted to their REE programs. By providing quality customer service, individuals, groups, teachers, schools, and districts come back to the same REE program over and over again. In several instances, interviewees noted that teachers transferring to another school continued their involvement in the REE program in their new educational environment. The REE experience becomes a part of the schools’ or teachers’ culture, as noted by many interviewees. A couple of REE organizations support teachers by having staff stay in dorms with students, while providing teachers their own accommodations. This is the philosophy of one organization as discussed below.

So our primary customer, once they show up, is the schoolteacher. It is a little different because it is the schoolteacher that is giving up five days of their lives. Instead of sitting at home and going to school from their house, they are going to be in the middle of the woods with their students, which is a big commitment for them. What we try to do is treat them as good as possible. We give them really good teacher lodges, they do not stay with the kids, . . . we serve them really good food, and we treat them like rock stars. If they have fun, then they are going to want to come back. (Interviewee 5)

*Word-of-mouth.* When interviewees’ experiences are positive, whether it is the visiting teachers, the participants, or the parents of the participants, REE organizations have found that they will spread the word. Word-of-mouth was one of the most frequently used sources of marketing as noted by interviewees. This not only provides access for more MUY, but also saves money in marketing costs, as noted by the following interviewee. “I hope . . . the long-term . . . marketing plan for our organization, is the kids [in our REE programs] just by telling their friends. Then we do not have to waste money on newspaper ads and things like that” (Interviewee 11).
**One-on-one contact.** Word-of-mouth marketing does not directly involve the REE organization after the initial quality care of their clients. Thus, when REE organizations are looking to recruit MUY, many have found that one-on-one direct contact and relationships are key. Interviewees discussed the many ways in which one-on-one contact can be beneficial, including reaching out to cultural brokers, or giving presentations to teachers, administrators or classes. The following interviewee’s response reflects the importance of one-on-one contact.

I guess we have learned that we need to really make personal connections and try to talk to people one-on-one, and really follow up with them to make sure . . . we are really serious we want you to get us some kids to apply. . . . Just keep on them to let them know that is what we are looking for. (Interviewee 1)

**Teacher-training programs.** Offering teacher-training programs for pre-service and in-service teachers was another strategy presented to recruit teachers or schools that serve MUY to REE programs. For example, one interviewee stated, “There is a constant effort to recruit teachers from in-service and pre-service teacher education programs, and to work with districts and with other partners to reach teacher communities, and thus market to those teachers” (Interviewee 14). Interviewees noted that teachers are often not aware of REE programs and the possibilities that they have to offer. Interviewees have found that working with pre-service and in-service teachers, exposes the current and next generation of teachers to how their programs can benefit students and classroom community.

**Advertisements.** Only a few interviewees mentioned the use of printed materials and Internet as a platform for advertising. Interviewees emphasized that when printed advertising materials are used to access MUY, it is important to publish them in community spaces of the targeted audience. The following interviewee highlights how they learned this valuable lesson.
Specific communities need specific ways to communicate with them. Like kids from [specific location serving a specific ethnic group], . . . a lot of the community there reads one publication that they put out called the . . . [Tribute]. . . We did not know about that until months into this process [of filling a specific program for multicultural youth]. And somebody said oh you need to put an ad in the . . . [Tribute], and we were like oh we did not even know that the . . . [Tribute] existed. So we put an ad in . . . [Tribute] and . . . within another few weeks we had some applicants. . . I think learning what those modes of communication are with different populations is critical, and we are not great at that. It has been a very trial and error. (Interviewee 1)

In addition, interviewees noted that it is important for marketing materials to visually, editorially, and linguistically reflect the diversity of students served by REE organizations.

**Accessibility.** The last emerging theme presented in the third category was accessibility. Interviewees noted that the ability to provide access to REE programs for MUY may be limited depending on the REE location, campus and facilities, and participant requirements.

**Location.** Eight interviewees noted that location is one of the main attractants of their REE programs. While several organizations pointed out that their wilderness setting is an asset to attracting participants, the isolation of their campus and facilities can be a barrier for some MUY. It can also be a limitation when schools, teachers, or parents have to consider transportation fees in addition to programming costs, as several interviewees discussed. The cost of busing as a barrier is noted by the following interviewee, “we have worked hard . . . [our organization] . . . to keep the programing fees, even for anybody, very reasonable, and the bus will cost as much as the program. . . . Buses are so expensive [emphasis added]” (Interviewee 12).
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Campus and facilities. Interviewees also noted that one attraction to their REE programs is their campus and/or facilities. They found that there was a barrier to providing access for MUY if their facilities did not accommodate all students, specifically those with physical needs. As noted previously, 11 interviewees noted that their facilities were ADA compliant, but only four responded that their trails were mostly or entirely ADA compliant.

Participation requirements. Lastly, interviewees brought forward the idea that certain program participation requirements could be a barrier for some MUY. If programs require health insurance or health examinations, how do they support MUY families from lower socioeconomic levels that cannot afford healthcare? Several interviewees discussed challenges for parents or students accessing various program forms or information via email due to technology accessibility. Two other interviewees noted that they experienced difficulty distributing and receiving important program participation forms from families with unstable housing situations.

Specific Solutions for Providing Access to REE Programs for MUY

Embedded in the previous section were strategies and potential solutions to providing access to REE programs for MUY. This section outlines specific solutions that participating REE organizations utilize for providing access for MUY. All solutions represent one interviewee’s idea.

Mission and vision.

- Expand on an REE organizations’ mission and vision statements to include diversity.
- When establishing or expanding new REE programs, identify roadblocks to providing access to MUY in order to create facilities and programs that eliminate those barriers.

For example, one organization found that finding substitute teachers was a roadblock
when establishing their REE program. Thus, they created enough beds to house the entire 6th grade middle school from one school district.

- Conduct internal quantitative or qualitative research, such as measuring the impact REE programs have on MUY, in order to utilize the research results to create selling points for teachers, administrators, and schools districts.

**Recruitment and retention of a diverse board and staff.**

- Create educational pipeline opportunities such as:
  - Partnering with organizations like Foundation for Youth Investment and its Outdoor Educators Institute Initiative.
  - Partnering with organizations like the Forest Service and their Urban Connections Program, or National Park Service (NPS) and their NPS Academy program or Student Conservation Association, that provide MUY with future career opportunities.
  - Working with schools to create new programs at REE sites for grade levels higher than what a REE program currently serves. One organization mainly serves 6th grade in their REE program and is creating an 8th grade follow-up program focused on leadership skills.
  - Hosting or participating in regional or state job fairs (i.e. MN Minority Education Partnership - Program Fair) where participants can interact with representatives from organizations in the EE, science, and/or outdoor recreation fields.
  - Creating alumni networks or opportunities, such as REE counselor training programs, for MUY to learn about new opportunities and stay connected in the field
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- Provide year round or consecutive year mentorship programs for MUY in order to provide multiple access points.

**Funding.**

- Sponsor annual fundraising events that increase the community’s awareness of your organization.
- Create a video specific for each group that participates in a REE program that teachers or schools can reproduce and use as a fundraiser for the following year.
- Connect with Foundations such as the Gordon and Betty Moore Foundation, GD Bechtel Junior Foundation, Pisces Foundation, and Basis Foundation for financial contributions.
- Contact state agencies regarding financial support and reimbursement for serving free and reduced lunches, especially for visiting Title 1 schools.

**Partnerships and collaboration.**

- Reach out to organizations like the Center for Diversity and the Environment for guidance in providing access to REE programs for MUY.
- Establish Teacher Advisory Committees to learn from teachers’ additional ways to access MUY.
- Work with local, regional and national organizations, such as the following, to increase access for MUY:
  - Multicultural centers or centers for specific multicultural groups
  - Local churches serving multicultural families and groups
  - Community youth centers
  - Local Parks and Recreation
  - Challenge Foundation
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- Summer Search
- State Department of Education
- Get-Ready (part of GEAR UP)
- Boys & Girls Clubs of America
- Girl Scouts
- Public Participation for Scientific Research (PPSR)

- Locate or establish a local EE Collaborative, like the Bay Area EE Collaborative, to connect and work with other EE providers. Through these partnerships, EE providers can learn best practices from one another, and connect teachers and schools with local ongoing EE opportunities that support their REE experience.

**Programming.**

- Keep programming relevant by:
  - Facilitating citizen science or stewardship projects within the REE program that teachers can conduct or continue in their local school or community.
  - Providing culturally relevant programming for urban youth, such as live night shows with comedians, bands, and videos, or portable welcoming sound stations with current appropriate music.
  - Reviewing updated state standards to ensure that REE curriculum uses the same language, and thus avoiding conflicting understandings.
- Provide teachers with professional development (PD) opportunities while participating in REE programs, or during weekends or summers when teachers are typically not working.
- Invite teachers to be more proactive in their REE experience by having them teach sections of the REE program. One organization offers teachers PD weekend training.
several times a year to assist them with teaching during their REE program. They have found that teachers are more invested in the REE program experience, and that this enthusiasm is transferred to their classrooms and communities.

- Provide curriculum and materials to teachers electronically, or create a digital database where they can access materials to use in their classrooms, as extensions or previews to their REE experience.

**Cultural competency.**

- Keep an updated website with bilingual materials, testimonies, and articles with interviews of MUY, and/or provide an online video that shows parents what to expect when their children participate in a REE program and other pertinent information, such as packing lists, facilities, and staff. Social media, such as Facebook, can also be used for this reason.

- Host weekend programs in local communities of MUY that involve families. This can help REE organizations connect to families and students.

**Marketing.**

- Partner with local colleges and universities, or organizations such as National Geographic Institute and Smithsonian Institute, in order to increase the marketing pool size of potential REE clients.

- REE organizations can attend and market their programs at teacher conferences, such as:
  - National Science Teachers Association NSTA
  - Gifted and Talented Educators

- Give presentations about REE program opportunities to Advancement Via Individual Determination (AVID), science, or ELL classes
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- Invite and host potential teachers, administrators, and superintendents to REE centers so they can experience first-hand various opportunities REE programs offer.

- Create Teacher Ambassador programs for teachers to share their experiences in REE programs with other professionals.

- If marketing in newspapers, magazines, or other print and online arenas, tell stories of participants or have them tell their story about their REE experience. One organization, whose executive director has a background in marketing, noted that stories sell better than flashy ads.

- Utilize social media, such as Facebook, for advertising.

Accessibility.

- The Center for Accessibility may be useful for providing ideas for making REE programs and facilities available for students with physical needs.

- If reaching families of MUY for completion of registration and medical forms is a challenge, use one-time program meetings in their local communities, where all forms and program details will be discussed and completed at that time.
Chapter 5

Discussion

The results of this study have implications on the theoretical framework addressing diversity within Residential Environmental Education (REE) organizations, the importance of REE programs for multicultural urban youth (MUY), the impacts of REE programs on MUY, and the strategies and barriers for providing access of REE programs for MUY. These implications will be discussed in the first part of this chapter. This chapter will conclude with limitations of the study, recommendations for further research and discussion, and final conclusions.

Implications

Theoretical implications. As noted in the literature review, Environmental Education (EE) providers recommend that the EE field, including REE organizations, be more inclusive in practice, not just theory. The theoretical frameworks of Multicultural Education (ME), critical pedagogy, constructivism, Multicultural Environmental Education (MEE), and critical pedagogy of place provide a platform that supports this important shift. This research suggests that these multidisciplinary lenses support REE programs in providing access for MUY.

This research also suggests that REE organizations provide access for MUY through the theoretical framework of critical hope. West (2004) states, “critical hope rejects the despair of hopelessness and the false hopes of cheap American optimism…(it) demands a commitment and active struggle against the evidence in order to change the deadly tides of wealth inequality, group xenophobia, and personal despair” (p. 296-297).

This holistic approach incorporates three elements of hope: material hope, Socratic hope, and audacious hope. Material hope comes from a place when students are provided with resources to
“deal with the forces that affect their lives” (Syme, 2004, p. 3). Through making REE programs relevant to the lives of MUY, these programs can provide students with the tools to be leaders within their own lives and communities.

Socratic hope “requires that both teachers and students painfully examine their lives and actions within an unjust society, and share the sensibility that pain may pave the path to justice” (Duncan-Andrade, 2009). Through REE organizations’ commitment to diversity and culturally competency, REE educators can become more aware of the bases of social, political, and economic injustices, and their own biases and assumptions. This continual reflective practice lends itself to REE educators establishing deeper relationships with MUY, which supports the comfortable sharing of personal narratives. This results in a humanizing pedagogy, which encourages student empowerment. Socratic hope calls for REE organizations to lead by example in being more inclusive and culturally competent. As Socrates said, “all great undertakings are risky, as they say, what is worthwhile is always difficult” (Lee, 2003, p. 220).

Audacious hope calls for REE organizations to work collectively with all learners to share in their struggles and victories (Duncan-Andrade, 2009). Audacious hope expects REE organizations to treat all children as their own. From this place of critical hope, REE programs become micro-ecosystems where students experience social justice and democracy, deep caring relationships, and are truly celebrated.

**Implications on the importance of REE programs for MUY.** This study indicates that providing access to REE programs for MUY is important to REE organizations for the following specified reasons: it is a goal of the REE organization’s mission and vision, to reflect regional and national demographics, to get MUY outside, to provide an experience, and to support a diverse community.
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Serving MUY is a part of REE organization’s mission and vision, even though diversity and culture was only mentioned by a few organizations as part of their mission. Bonita and Jordan (2007) suggest incorporating this diversity and cultural language into an organizations’ mission and vision statements. As noted in the science (Parker, n.d.) and EE fields (Hudson, 2001), and the environmental movement (Bonita & Jordan, 2007), the results from this study highlight the importance of REE organizations reflecting the increasingly diverse demographics in the United States.

This study shows that providing access to REE programs for MUY is important, in general, to get MUY outside. The results of this study indicate experiences in nature and the outdoors support students’ physical and mental health, which is congruent to the work of Louv (2005). By being outside, students begin to build a relationship with nature, which is reflected in the previous research conducted in the 1970s (Hendee, 1972). From this connection with the natural world, this study finds that students’ stewardship and civic engagement increases. This outcome is also supported by Stern’s et al. (2011) research, which showed urban students exhibiting significant gains in environmental stewardship three months after participating in three to five day REE programs. This current study notes that these connections with nature enhance MUY’s exposure and interest in the environment, sciences, and/or (R)EE fields. Other previous research is in alignment with these findings, including that of Barnett et al. (2006), who found urban youth scoring higher than a controlled group on wanting to be a scientist at the end of a two-year EE program.

The results of this study show that REE experiences are important for MUY, as they provide opportunities in nature that MUY might not normally receive. Martil de Castro (1999) states that due to the location and costs of traveling to wilderness settings, where REE programs are
generally located, many of these experiences are mere fantasies for urban youth. Lastly, this study suggests that through diversifying the students involved in REE programs, diversity within communities can be enriched.

**Implications on the impacts of REE programs on MUY.** This study provides an understanding of how REE programs impact the lives of MUY from the viewpoint of REE organizations. According to REE providers, REE experiences can have the following impacts on MUY: lifelong impact, increased citizenship and stewardship, increased academic understanding and performance, positive behavior change, change in perception, emotional growth, and therapeutic benefit. Further research from the viewpoint of MUY will provide more first-hand understanding of this important discussion.

Results from this study indicate that REE programs can have lifelong impacts on MUY that affect their career choices, and increase their stewardship and civic engagement as indicated above. In addition, REE programs can increase academic understanding and performance. This is supported by Stern’s et al. (2008) research, which found statistical significance in students’ knowledge of biological diversity, and the National Park in which the REE program took place.

REE programs can result in positive behavior change, change in perception, emotional growth, and therapeutic benefit for MUY, as noted in this study. Bogner (2002) found that students’ environmental and attitudinal perceptions significantly shifted after participating in an REE program. Sackett (2010) provides a case study of a student displaying emotional growth after REE program experience, which included an increase in self-confidence. Also, Sackett (2010) examines the concept of Ecotherapy, or how nature experiences support physical and mental health. Another study found that 75% of participants walking in a park noted a decrease
in depression, while 22% of participants walking in a mall noted an increase in depression (Mind, 2007).

Implications on strategies and barriers for providing access to REE programs for MUY.

Most importantly, the results of this study provide strategies for REE organizations to provide access for MUY. The implications found in this study provide REE organizations with recommendations on how to provide access for MUY. The reviewed literature provides supporting evidence from EE, the environmental movement, and science fields. These significant findings are important to the EE field, as the literature review showed limited research on MUY and REE programs.

The sections that follow highlight this accumulated knowledge, following the order in which the themes were presented in the results section. A figure accompanies each theme and denotes one or more of the following: findings from this research that were not noted in the literature review; findings from the literature review that were not noted in this research; and crossover findings from this research and the literature review.

Mission and vision (Figure 3). This research supports the conclusion that diversity, reflected in REE organizations’ mission, vision, and actions, needs to be a top priority in order to provide access for MUY. This includes having diversity integrated into the physical mission and vision of REE organizations, as suggested by this research and Bonta and Jordan (2007).

This study and previous research indicates that diversity initiatives and committees can support REE organizations’ diversity commitment and actions. Cook (2007), and Galvan and LaRocque (2010) note that articulating a clear, strategic plan with attainable objectives that can be measured, is critical to a successful diversity plan. In addition, Galvan and LaRocque (2010), remind organizations to start small and grow incrementally.
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Leveron (2004) notes that diversity needs to be a priority from the top (leadership) and all the way down to all members of an organization. This research adds that an organization’s commitment to diversity can change due to the organizational structure of those leading the organization.

This research and that of others (ACCESS, 2005), reminds REE organizations that this long-term commitment will take time. By implementing the above noted recommendations, REE organizations can help expedite the process of increasing cultural competency, and thus provide equal access to their programs.

As highlighted in the literature review, this study shows that internal REE diversity training can provide organizations’ staff/board, both collectively and individually, with the opportunity to improve their cultural competency. REE organizations can increase their limited internal cultural competency resources, as indicated in this study, by gaining guidance from experts in the field, community members, or other R(EE) practitioners (Appendix L). Experts in the field enhance this research by highlighting the need for organizations to examine and deconstruct the social, political, and economic factors of inequality on an individual, organizational, and communal level (The Barr Foundation, 2006) (Appendix C). Inclusiveness within an REE organization requires an examination of the organization’s culture and agenda (Galvan & LaRocque, 2010) (Appendix D).

Internal and external research can provide REE organizations with solutions to barriers and strategies for providing access for MUY. Through on-going reflection and assessment, REE organizations can continue to penetrate deeper inclusiveness within their organization. In addition, research conducted internally, such as measuring the effect of REE programs on MUY, can be an useful marketing tool for accessing a diverse audience. Feedback from participants
can be a valuable asset for improving cultural competency within REE organizations (The Barr Foundation, 2006).

In essence, in order for REE organizations to truly reflect the increasingly diverse regional and national demographics of the students they serve, REE organizations need to have a long-term commitment of being a multicultural organization. Organizations must understand that this transition will take time, and that both their short and long-term actions must coincide with this long-term commitment. The literature adds the importance of understanding that diversity is reciprocal and benefits all. As Taylor (2007) notes, “environmental educators and organizations wanting to undertake diversity initiatives should be aware that it can be both challenging and rewarding” (p. 41).
Figure 3. Mission and Vision Strategies and/or Barriers

Figure 3. Depicts mission and vision strategies, and the potential barriers, in reference to REE programs providing access for MUY. The blue box indicates the main theme; a green box indicates conclusions drawn from this study; a purple box indicates conclusions drawn from the literature review; and a red box indicates conclusions drawn from this study that are supported by the literature review.

Recruitment and retention of a diverse board and staff (Figure 4). In order to provide access to REE programs for MUY, REE organizations need to recruit, hire, and retain a diverse board and staff that reflects the increasingly diverse regional and national demographics. Strategies for increasing board and staff diversity, from the corporate world (Thomas & Ely, 1996) to the STEM fields (Tsui, 2007), all support this important point. This research indicates that hiring policies must reflect a REE organization’s commitment to a diverse board and staff. The literature adds to this research by highlighting that recruitment efforts must be broader,
longer, and advertised in variety of mediums and community spaces (Agyeman et al., 2005). In addition, job requirements must be flexible (The Nature Conservancy, 2005), salaries attractive (The Barr Foundation, 2006), job positions and promotions equitable (Allison, 1999), and job performance standards should include cultural competency (The Barr Foundation, 2006).

Additional recommendations for recruiting and retaining a diverse board and staff from the literature include, recruiting diverse representative from local communities (Roberts & Rodriguez, 1999) and having a bilingual staff (Lukanina, 2008). These studies show that this can help parents and students who are unfamiliar with REE programs feel more comfortable. The San Francisco Kids for the Bay program attributes the diversity in participation composition to their diverse staff (Agyeman et al., 2005).

The results of this study suggest that providing opportunities along the educational pipeline for MUY to participate in the (R)EE field, can support diversifying REE organizations’ board and staff composition. Educational pipeline opportunities include mentorship programs, professional development (PD) experiences, such as internships, and creating awareness of opportunities within the (R)EE field. These programs can be internally supported and/or provided through partnering with other organizations, institutes, and/or schools (Appendix L & M). The pipeline model has been used in fields, such as the Health Profession (Davis et al., 2002), and the Library and Information Sciences (Kyung-Sun & Sei-Ching, 2008) to increase recruitment and retention of a diverse staff.

Specific educational pipeline opportunities indicated from this study include: creating networks or new programs for alumni, hosting or connecting with regional/state job fairs (Appendix M), and providing yearlong mentorships programs. The literature suggests additional educational pipeline opportunities such as: web-based mentor programs, outreach programs to
diverse communities, K-12 educational programs, and career workshops or job shadowing opportunities.

Bonta and Jordan (2007) highlight that a cultural change is one of the most important components to diversifying environmental institutes. This can be implemented in REE organizations by providing a work environment that supports the strengths of each individual; becoming, communicating and acting culturally competent; and continually addressing diversity issues and progress through on-going discussions, open forums, and plans (Bonta & Jordan, 2007).

**Figure 4.** Recruitment and Retention of a Diverse Board and Staff Strategies and/or Barriers

*Figure 4.* Depicts recruitment and retention of a diverse board and staff strategies and the potential barriers, in reference to REE programs providing access for MUY. The blue box indicates the main theme; a purple box indicates conclusions drawn from the literature review; and a red box indicates conclusions drawn from this study that are supported by the literature review.
**Funding (Figure 5).** In order to serve students from all socio-economic backgrounds, this study indicates that REE organizations need to maintain low program costs. Roberts and Rodriguez (1999) show that program costs are a barrier to class or school participation in REE programs, while Dettmann-Easler and Pease (1996) found the opposite. This research provides solutions for low program costs including: providing sliding scale opportunities based on a schools’ percentage of free and reduced lunches; providing multiple day/night options; using the supply and demand model, where high demand times can result in higher fees while low demand times are accompanied by lower fees; and offering scholarships to individual students, teachers, or schools/districts.

Other internal funding strategies indicated in this study include annual fundraisers, and offsetting costs with additional funding sources from within the REE organization. The latter could include using the campus/facilities for rentals, or hosting other programs within the REE organization that generate larger revenue. External funding sources discussed in this study include: grants, donors (Appendix M), partnerships with other organizations, and endowments. These funding strategies can help lower participation costs, and/or provide funding for specific programs related to MUY. Overall, this study highlights that funding sources need to be long-term and sustainable in order for REE programs to provide and increase access to MUY.

The results of this study show that teachers and schools/districts utilize a variety of methods to cover costs for their students to participate in REE programs. Some teachers or schools/districts cover partial or all costs, while other schools fundraise throughout the year(s) as REE programs can become part of the school culture. Creating videotapes of participants that can be reproduced by teachers or schools can provide these participants with fundraising
opportunities. These schools/districts efforts can reduce parents’ financial contribution for their children’s participation in a REE program.

Overall, REE organizations indicated in this study that they utilize a service model, and offer creative financial solutions for students or schools that cannot afford program costs. Most REE organizations make efforts to not turn away a student or school from attending their program. Additional discussion will offer culturally appropriate solutions for communicating funding alternatives to the parents of MUY. By understanding how schools and districts that serve MUY fund their REE experience, REE organizations can be part of the solution to ensure that all students and schools/districts can participate in their programs.

**Figure 5. Funding Strategies and/or Barriers**

*Figure 5.* Depicts funding strategies and the potential barriers, in reference to REE programs providing access for MUY. The blue box indicates the main theme; a green box indicates conclusions drawn only from this study; and a red box indicates conclusions drawn from this study and is supported by the literature review.
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Partnerships and Collaboration (Figure 6). As supported by research (Edginton & Martin, 1998), this study found that partnerships and collaborations are critical in providing access to REE programs for Muy. The main idea is to build and sustain relationships with a variety of entities, including teachers, schools and school districts, cultural brokers, experts in the field, other EE organizations, and local, regional and national organizations (Appendix L & M).

Positive relationships with teachers, schools, and/or school districts support their annual return to REE programs. Establishing Teacher Advisory Committees, which will allow teachers to share ways of accessing Muy for REE programs, is one specific solution offered from this study. Cultural brokers are an important resource for connecting Muy and their families to REE programs. Researchers, such as Guion et al. (2005), remind organizations to be cautious when identifying a cultural broker, as some members of a community may not want to be seen as the voice of the community.

Cook (2007) reminds REE organizations about the importance of asking and listening to others. Experts in the field, such as multicultural organizations, can provide guidance to improving diversity and cultural competency within all aspects of REE organizations. This study notes that EE and other local, regional and national organizations, networks, collectives, and events can be effective platforms to exchange best practices for providing access to REE programs for Muy (Appendix M & L). As Bonta and Jordan (2007) remind organizations, “diversifying on your own is extremely difficult . . . working together will . . . provide more lasting results” (p. 24). The results of this research highlight the similar idea that partnerships are key to the success of REE programs, which is supported by the famous African proverb, it takes a village to raise a child.
Partnerships with organizations or clubs that already work with MUY are an effective diversification strategy as suggested in this study, due to the familiarity and trust students and parents have with them. Leveron (2004) exemplifies this point by stating that trustworthiness is the second most important step when outreaching to diverse communities.

Beneficial partnerships also include external organizations that have funding and/or access to MUY. The literature (Bonta & Jordan, 2007) supports the findings of this research and suggests it is important to meet MUY in their home communities when partnering with these other organizations. This practice can help REE organizations gain the trust of students, their families and their leaders, eliminating any cultural barriers or misconceptions, and clarifying questions about REE programs.

**Figure 6.** Partnerships and Collaboration Strategies and/or Barriers

*Figure 6. Depicts partnerships and collaboration strategies and the potential barriers, in reference to REE programs providing access for MUY. The blue box indicates the main theme; and a red box indicates conclusions drawn from this study that are supported by the literature review.*
Providing Access to REE Programs for MUY

Programming (Figure 7). Various aspects of programming that provide access for MUY to REE programs, were highlighted in this study and the literature. This study suggests that REE curricula that meet state standards can be a marketing tool for teachers and schools. In addition, curricula that meet state and/or national science standards can be influential in decreasing the achievement gap in the sciences of underserved populations. REE organizations can expand their EE overall programming, including curriculum, to a MEE framework for more inclusiveness. This study and the literature (Running-Grass, 1996) remind REE organizations that a MEE framework is needed for all students. Utilizing experts in the field may support a more fluid transition. Gender-specific programs for middle school females can support their interest in the sciences at an age when it has been shown to decrease (American Association of University Women, 2004). Additionally, this research discusses how gender-specific or split REE programs can reduce behavior and gender issues, such as the desire to impress the opposite sex.

Relevant programs for MUY and teachers are another programming factor, which provides access to REE programs for MUY, as noted in this study and the literature (Lewis & James, 1995). What MUY students learn in their REE experience must be applicable and transferable to their lives. This study provides tangible strategies for accomplishing program transferability, including using nature as a metaphor, providing leadership and community building experiences, empowering students with judgment and decision making skills, and implementing citizen science projects or other stewardship activates in their home communities. Culturally relevant engagers were ideas presented in this research for specifically working with MUY, such as live night shows, bands, music, and/or videos, can also be useful tools.
This study suggests that providing professional development (PD) trainings for teachers will enhance the transferability of their REE experiences to their classrooms and their students’ lives. These PD trainings can occur during their REE experience, in their schools or communities, and/or at a REE campus at a time other than the REE experience. Due to the lack of free time in teachers’ schedules, these programs can be more successful if they are conducted over a weekend or during the summer. Teachers may also be more invested in the REE experience if they take part in teaching portions of the REE program. Providing digital resources for teachers can be useful in extending or previewing REE experiences. Conducting transferable citizen science projects with teachers and their students during a REE program, can provide teachers with hands-on experiences to continue in their schools and/or communities.

Time constraints for teachers, schools, and families can be a barrier to providing access for MUY to REE programs, as indicated in this study. Time constraints, such as time devoted to standardized testing, observing holidays, and time of year or week that teachers prefer to attend REE programs, are some of the barriers faced by teachers and schools. Creating early/advanced scheduling opportunities and varied program lengths, could allow more flexibility for teachers and schools to overcome this barrier. Obtaining and providing additional gear for winter seasons can help eliminate seasonal barriers where the ability for kids to dress appropriately for the weather is difficult due to financial constraints.

In order to continue to provide access for MUY, REE programs need to be continually updated so they remains fresh, current, and of high quality. This study notes the importance of not compromising the quality of programming when increasing the quantity of students served. A balance must be maintained.
This study highlights that providing access for MUY to REE organizations can be benefited through outreach programs. Hour-long to full day programs can expose MUY and teachers to REE programs. In addition, outreach programs can help eliminate some of the barriers to REE programs, such as transportation, substitute teacher, and REE program costs. Some REE programs support the REE experience by providing pre and post trip outreach programs. This can also eliminate any cultural barriers and clarify questions about the REE experience before hand, while at the same time, providing extensions to the REE experience so that it is not an island experience for the students. REE organizations can provide digital databases for teachers to access and utilize pre and post REE trips.

Lastly, linking internal programs within an REE organization can help provide access to REE programs for MUY. This can provide MUY with several engagement points and opportunities in the EE and REE fields.
**Figure 7. Programming Strategies and/or Barriers**

*Figure 7. Depicts programming strategies and the potential barriers, in reference to REE programs providing access for MUY. The blue box indicates the main theme; a green box indicates conclusions drawn only from this study; and a red box indicates conclusions drawn from this study that are supported by the literature review.*

**Cultural competency (Figure 8).** This research, supported by the literature (The Barr Foundation, 2006), concludes that in order to provide access to REE organizations for MUY, cultural competency is critical. Also suggested in the literature (Lukanina, 2008), this study found that in order to overcome any language barriers with parents and/or students, REE organizations should provide bilingual materials in print and on the web, and interpreters at parent meetings. This research suggests that depending on the structure of the REE organization, materials such as medical forms, and risk and release forms could be translated internally or
through the use of other organizations. This can present liability issues and thoughtful consideration is advised. Additionally, some schools or school districts have the resources to provide translation of materials. When working with ELL students, REE organizations can adjust their teaching strategies, for example, using more visual aids. REE organizations should review their materials to ensure that the wording they use is culturally relevant and appropriate to all students that they serve. Other specific examples of ideas to address cultural perceptions of REE programs indicated from this study include: updating websites with bilingual materials, testimonies, and articles with interviews from MUY, or providing an online video that depicts what a student can expect at a REE program (campus maps, pictures of facilities, packing lists, etc.).

Understanding the beliefs, values, and perceptions of MUY can help tailor appropriate materials, including those for marketing purposes and/or presentations. This can help eliminate some of the cultural differences that may be a barrier to providing access for MUY to REE programs. Lukanina (2004) suggests that REE programs should communicate with parents while their children are participating in REE programs through newsletters, social media such as Facebook, or student letters/emails.

Along with the literature (Roberts & Rodriguez, 1999), this study indicates that understanding the ways in which different cultures connect with nature in the environment can help in developing culturally relevant programs. It is important to utilize cultural differences as strengths in culturally relevant pedagogy, as reflected in this study and The Barr Foundation’s research (2006). Increased awareness of the perceptions of (R)EE by communities in which REE organizations serve, can help the organizations understand how best to explain and market their programs. Providing multiple access points within REE organizations, such as outreach
Providing access to REE programs for MUY

Programs for families, inviting families out to visit REE campuses, or conducting pre trip programs, can eliminate misconceptions, concerns, or misunderstandings that students and families may have, while connecting them to EE. This study and Leveron (2004) point out that REE programs need to find solutions that address transportation costs and time barrier for these events.

**Figure 8. Cultural Competency Strategies and/or Barriers**

![Diagram showing Cultural Competency Strategies and/or Barriers]

*Figure 8. Depicts cultural competency strategies and the potential barriers, in reference to REE programs providing access for MUY. The blue box indicates the main theme; a green box indicates conclusions drawn only from this study; and a red box indicates conclusions drawn from this study that are supported by the literature review.*

**Marketing (Figure 9).** Various ways to provide access to REE programs for MUY can be related to marketing strategies, as seen from this study and the literature. Providing quality customer service to teachers and schools creates customer loyalty, in which clients return to the same REE program annually. As noted in this study, providing teachers with separate living
accommodations other than with their students, while participating in an REE program is one way to ensure that teachers have quality experiences. These positive experiences can translate into word-of-mouth advertising for the programs. As indicated in this study and reflected by Lukanina (2008), word-of-mouth is an extremely effective and important marketing tool.

Creating Teacher Ambassador Programs is one specific example from this study that can assist in attracting new audiences to REE programs. Results of this study also show that one-on-one contact with customers is key to providing access to REE programs for MUY. Examples from this study include: inviting participants, parents, teachers, or school administrators to visit REE campuses, reaching out to cultural brokers, or giving parent or class presentations (Appendix M). Guion et al. (2005) concurs that personal marketing strategies are more meaningful.

This study shows that in order to recruit teachers or schools/districts that serve MUY, REE organizations can provide teacher-training that informs teachers what REE programs offer them and their students. Highlighting REE curriculum that meets state and/or national science standards, can persuade teachers and administrators to take time out of their busy schedules to participate in REE programs, as well as justifying the costs of REE programs. Partnering with colleges, universities, and other organizations can provide REE organizations with access to a larger pool of pre and in-service teachers, while exposing the next generation of teachers to their programs (Appendix M). Attending teacher conferences is another way in which REE programs can connect with teachers (Appendix M).

When using traditional advertising markets to provide access to REE programs for MUY, it is important that materials visually and auditorally represent the diverse populations of students in which the organization serves. Publishing and providing options for bilingual materials is important for culturally competent marketing, as the literature reminds organizations to not
assume that someone from a specific cultural group speaks the language of that group. When marketing REE programs to MUY, utilizing community spaces (i.e.: religious and community centers) and community-based publications or media, are effective tools. The use of stories is noted to be a more effective advertising strategy compared to typical advertisements. The literature supports the entire research finding related to advertising in the context of this study. In addition, this study notes that social media, such as Facebook, can be useful for accessing diverse student populations.

**Figure 9. Marketing Strategies and/or Barriers**

*Figure 9. Depicts marketing strategies and the potential barriers, in reference to REE programs providing access for MUY. The blue box indicates the main theme; a green box indicates conclusions drawn only from this study; and a red box indicates conclusions drawn from this study that are supported by the literature review.*

**Accessibility.** The accessibility of outdoor programs for MUY is highlighted in the literature, mainly in reference to students with disabilities (Dillenschneider, 2007; Wilmshurst, n.d.). This...
study briefly touches upon this concept, while addressing other issues of accessibility, including location and participant requirements. REE organizations indicated in this study that their location is an attraction, but that it can be a limitation as well, due to transportation costs. These findings are consistent with research conducted in the EE field (Agyeman et al., 2005). REE programs must consider transportation costs when working with schools, classes, or open enrollment programs that serve MUY from low socioeconomic backgrounds.

As noted by the results of this study, REE programs can ensure supporting all students, including those with physical needs, by having ADA compliant facilities and campuses. Due to the location of some REE programs, this can be challenging. Experts in the field (Appendix L & M) can be resources for REE organizations whose facilities and campuses are not ADA compliant. In addition, experts may provide ideas/suggestions on how to further engage students with physical needs at sites with limited facilities/campuses. Agyeman et al. (2005), notes how trails at a nature center were inaccessible to mothers with strollers. This study notes that an all-terrain wheelchair can overcome some trail inaccessibility issues. Wilmshurst (n.d.) reminds organizations that accessibility for students with disabilities is more than physical access, and includes: resource access, support access, social access, and philosophical access.

This study notes that legal participation requirements may present barriers for participation of MUY in REE programs. These complexities may include required documentation of health insurance and/or health exams prior to participation in an REE program. REE organization can review their participant requirements in order to understand and be aware of these potential barriers for MUY. Working within its own structure, each organization can begin to find solutions to these barriers and/or ways to eliminate these barriers. If submission of completed participant requirement forms is a barrier, REE organizations can work with teachers or cultural
brokers, or hold parent meetings to ensure that all participant requirement forms are completed before students arrive at REE program sites.

**Figure 10.** Accessibility Strategies and/or Barriers

*Figure 10. Depicts the accessibility strategies and potential barriers, in reference to REE programs providing access for MUY. The blue box indicates the main theme; a green box indicates conclusions drawn only from this study; and a red box indicates conclusions drawn from this study that are supported by the literature review.*

**Limitations of the Study**

The sample size of this study was restricted by the limited time available for the researcher to collect data. The researcher attempted to include a variety of REE programs from across the United States. Limited sample size could affect this study’s ability to represent REE organizations providing access for MUY. In addition, this study included a variety of
representatives from various REE organizations. Interviewing other representatives from the same organization may provide differing opinions and viewpoints.

Typically Master’s students have two years to complete their research. Due to the nature of the researcher’s Master’s program, only a time frame of six months was provided to design and implement the study, and analyze the results. This was completed on top of full-time academic graduate coursework and graduate assistantship not related to the study. No external funding was available to complete this research. With more time and funding, it would be possible to interview more REE organizations, and obtain a more exhaustible list.

**Recommendations for Further Research and Discussion**

As suggested by the literature review, this study is the first of its kind for REE programs. This results in recommendations for further research and discussion. Broadening this topic to include all multicultural youth (MUY) will ensure gathering information from REE organizations that serve rural, suburban, and/or urban multicultural students. Conducting specific research regarding how REE programs provide access to different multicultural students, such as those with learning or physical abilities, gender, etc., will help provide a more inclusive exhaustible list of strategies. Focusing on certain aspects of providing access of REE programs to MUY, such as curriculum, strategic plans, hiring and recruitment strategies, will also help provide more in-depth strategies. Interviewing more REE organizations can also ensure that an exhaustible list of variables is obtained. Additional research can address the reciprocal nature of REE organizations working with MUY. Further research can examine the lack of commitment to diversity through understanding the reasons why REE leaders are not committed to diversity.

Utilizing differing qualitative methods, such as an in-depth case study of a REE organization that is a model for cultural competency and diversity in the REE field, could offer another
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Perspective to this important topic. Including expertise from multicultural organizations, in addition to REE organizations, would provide valuable insight for REE providers. In addition, interviews with MY and their parents, teachers, principals, and superintendents will provide further information on strategies and barriers to providing access of REE programs for MY. Perspectives on the short and long-term effects of REE programs on MY, can be gained by conducting interviews with MY. As noted by a few studies, this research can be extended to the entire EE field.

Conclusions

Residential Environmental Education (REE) programs can have short and long-term positive effects on the lives of multicultural urban youth (MUY). As the demographics of the United States continue to become more diverse, and the importance of science/environmental literacy for all students increases, REE organizations are called to respond to these shifts. Through internal and external examination, REE organizations can identify the strategies, barriers, vision, and resources needed to provide access for MUY. This study highlights the importance of providing access to REE programs for MUY, while investigating the strategies, barriers, vision, and resources needed to ensure all students have the opportunity to participate in REE programs. From the findings of this study and supporting evidence from the literature, this study provides the groundwork for continued research in understanding how REE organizations can provide access for all multicultural youth.
References


Providing Access to REE Programs for Muy


PROVIDING ACCESS TO REE PROGRAMS FOR MUY


http://cms.etap.org/repository/moderncms_documents/LessonsLearnedfromtheInclusiveOrganizationsInitiative.1.1.1.pdf


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PROVIDING ACCESS TO REE PROGRAMS FOR MUY


Appendix A

The Dimensions of Multicultural Education

(Banks, 2003)
Appendix B

Banks Approach to Curriculum Reform

(Banks, 2003)
Appendix C

Cultural Competency Metrics

This research was conducted by the The Barr Foundation (2006) on how experiential Environmental Education (E3) programs promote cultural competency within: 1) individuals in the E3 organizations, 2) the E3 programs, 3) the E3 organization, and 4) the E3 organizations relationship to the community.


<table>
<thead>
<tr>
<th>Individual</th>
<th>Domain of Cultural Impact</th>
<th>Description and Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self awareness in Cultural Concept</td>
<td>E3 staff demonstrate understanding of cultures they are working with and can recognize and manage their own biases.</td>
</tr>
<tr>
<td></td>
<td>Awareness of Power and Privilege</td>
<td>E3 staff are aware of their own power and privilege as represented by their rank, social status, and other dimensions of diversity or cultural capital.</td>
</tr>
<tr>
<td></td>
<td>Reflective Practice</td>
<td>E3 staff demonstrate ability to reflect in public and private on issues of cultural competency (race, ethnicity, culture etc.)</td>
</tr>
<tr>
<td></td>
<td>Respectful and Inclusive Interactions</td>
<td>E3 staff interactions with organizational members (teachers, students, staff) demonstrate respect and appreciation of cultural differences and worldviews; and an understanding of their power and privilege is used to support inclusion in day-to-day interactions</td>
</tr>
<tr>
<td></td>
<td>Teacher Relations</td>
<td>E3 staff interactions acknowledge and integrate the diversity of teachers’ background, role, knowledge, choices and experience</td>
</tr>
<tr>
<td></td>
<td>Race Talk/Cultural Brokers</td>
<td>E3 staff can communicate about difficult issues related to race, ethnicity and other dimensions of diversity with different audiences, and translate between groups</td>
</tr>
<tr>
<td></td>
<td>Community Relating</td>
<td>E3 staff with community responsibilities reach out and build relations with parents and diverse members of the community</td>
</tr>
</tbody>
</table>
### Program

<table>
<thead>
<tr>
<th>Domain of Cultural Impact</th>
<th>Description and Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant composition</td>
<td>Program participants proportionally reflect the diversity of community</td>
</tr>
<tr>
<td>Professional Development</td>
<td>Professional development of teachers supports their teaching in a culturally competent manner</td>
</tr>
<tr>
<td>Project Design</td>
<td>Social justice focus is integrated into place-based education school projects</td>
</tr>
<tr>
<td>Participant Loyalty</td>
<td>Participants return for additional E3 experiences</td>
</tr>
<tr>
<td>School Culture</td>
<td>E3 staff take into account the diverse dimensions of the school culture when designing and implementing key program activities</td>
</tr>
<tr>
<td>Inclusive Design</td>
<td>Design and concepts of program curriculum, content, activities reflect commitment to inclusion</td>
</tr>
<tr>
<td></td>
<td>• Program considers implications of different attitudes and beliefs about nature</td>
</tr>
<tr>
<td></td>
<td>• Program has multiple access points</td>
</tr>
<tr>
<td></td>
<td>• Instruction and assessment practices build on student’s prior knowledge</td>
</tr>
<tr>
<td>Teaching Practice</td>
<td>E3 staff teaching practices provide multiple access: multiple learning styles, multicultural approaches, individual experiences. Assessments measure for a student’s progress against self</td>
</tr>
</tbody>
</table>

### Organization

<table>
<thead>
<tr>
<th>Domain of Cultural Impact</th>
<th>Description and Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Commitment to Cultural Competency</td>
<td>Organization has created and adopted a definition of cultural competency. This definition is included in key documents such as vision statements, mission, logic models, strategic plans, multi-year plans, program plans</td>
</tr>
<tr>
<td>Inclusive Climate and Behavior</td>
<td>Organization creates a welcoming environment to diverse employees and groups</td>
</tr>
<tr>
<td>Inclusive Decision-making</td>
<td>Organization has equitable and fair participation of diverse employees in decision-making processes and activities</td>
</tr>
<tr>
<td>Resource Commitment</td>
<td>Organization allots specific funds and other resources to cultural competency</td>
</tr>
<tr>
<td>Hiring Policy and Practice</td>
<td>Organization has a hiring policy to increase the diversity of its staff. Staffing reflects the</td>
</tr>
<tr>
<td>Diversity of the Program Participants</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Required job qualifications are written to allow flexibility around environmental expertise and value community expertise</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization offers competitive salary to attract diverse candidates</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recruitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment activities broadly reach constituent groups (churches, non-profit groups, citizens groups etc) in the community</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Staff Retention</th>
</tr>
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<tbody>
<tr>
<td>Organization retains staff that reflect the diversity of the people served</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Job Performance</th>
</tr>
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<tbody>
<tr>
<td>Criteria for job performance establishes expectations and standards for culturally sensitive and respectful interactions with students, teachers and others</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leadership Staffing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership positions reflect the diversity of the people served</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff Development/Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff and volunteers have the understanding and skills to deal with diverse groups</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Board Development/Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board has the understanding and skills to deal with diverse populations</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Responsiveness to Cultural Incompetence/Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational system is able to recognize and respond to situations of cultural incompetence or conflict in a timely fashion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program and Service Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization assesses consumer cultural needs, experiences and viewpoints in making decisions and planning educational programs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cultural Competency Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization annually evaluates progress in cultural competency</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program evaluation includes a component on assessing cultural competency. Program evaluation demonstrates improvement on cultural competency.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluation Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization continually researches and tests links between cultural competency, environmental stewardship and achievement</td>
</tr>
<tr>
<td>Domain of Cultural Impact</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Community Involvement</td>
</tr>
<tr>
<td>Communication/Cultural Brokering</td>
</tr>
<tr>
<td>Cross Organizational Learning</td>
</tr>
<tr>
<td>Influencing System</td>
</tr>
<tr>
<td>Diversifying field</td>
</tr>
<tr>
<td>Influencing Funders</td>
</tr>
</tbody>
</table>
Appendix D

Lessons Learned from the Inclusiveness Initiative

This is a resource from Galvan & LaRocque (2010) that is a result of a six-year study that researched strategies for EE educators and organizations to be more inclusive and relevant to diverse audience.

This study is a part of the Environmental Education and Training Partnership (EETP) which is funded by the U.S. Environmental Protection Agency’s Office of Environmental Education through a Cooperative Agreement with the University of Wisconsin – Steven’s Point.


GETTING STARTED:
1. FORM A TEAM
Get a group of people who are ready, reflective, and committed to being part of an inclusiveness team. Such an effort must have the support of the organization’s leaders to succeed.

2. CHECK YOUR ASSUMPTIONS
Create a norm where the team continually checks assumptions about what is driving organizational decisions throughout the inclusiveness process.

3. ARTICULATE A VISION, CREATE A PLAN
Develop a common vocabulary that describes how you envision inclusiveness and how your organization and community relationship will change as you become more inclusive.

4. EXPLORE YOUR COMMUNITY’S VALUES AND CIRCUMSTANCES
Increase your understanding of the community through research and other traditional methods. Know that direct contact with the community is an essential step.

GETTING FOCUSED:
1. EXAMINE YOUR ORGANIZATIONAL CULTURE AND AGENDA
Purposely examine your organization’s relationship with individuals and groups outside your organization as well as the unstated motivations that are driving your organizational decisions and goals. Once you have begun to understand your organizational culture, you may realize how, at times, your motivation might work against your inclusiveness goals. It might be time to let go of your agenda.

2. FOCUS ON THE PROCESS OF BUILDING RELATIONSHIPS
Inclusiveness is about building relationships. Give yourself permission to invest time in the communities you want to work with. Get to know community leaders and members. Let go of your traditional indicators of success; build process indicators that reflect your
inclusiveness practices.

3. CREATE WIN-WIN OPPORTUNITIES
   In a healthy relationship, everyone’s needs are considered. Use collective creativity to develop new strategies to achieve mutual goals.

4. ADJUST YOUR SCOPE
   Start small, practice, and reflect. Grow incrementally. Adjust deadlines so they won’t interfere with your progress.

GETTING GOING:
1. TAKE A RISK
   *Jump off the cliff.* Go into the community and talk with the people who live and work there. Direct experience and immersion are the best teachers.

2. FIND THE BRIDGE
   There is always someone in the community who has the cultural sensitivity to see everyone’s perspective and is willing to share it. This person serves as the ambassador between the community and your organization.

3. BE PREPARED FOR PERSONAL CHANGE
   Let go of your initial expectations about what the community needs or should do. This process is about checking your assumptions, respecting local perspectives, and valuing processes over outcomes. Only by letting go of your agenda will you actually be able to hear what is important to the community.

4. BECOMING INCLUSIVE IS A PERVERSIVE, LIFELONG PROCESS
   Becoming inclusive is a paradigm shift. It affects personal and organizational dimensions of planning, programming, relationship building, decision-making, and measuring success. It creates a new way of doing business.

5. CREATE CYCLES OF REFLECTION AND CONCRETE, INTENTIONAL CHANGE
   Avoid falling back into old habits and ways of doing business. Build into your process a deliberative mechanism of reflection; an exploration of lessons learned and best practices, adjusting goals, indicators, and timelines; and a celebration of the small successes that contribute to becoming more
Appendix E

IRB Application

Institutional Review Board
Room 308, Old Main
1000 East University Avenue, Dept. 3355
Laramie, WY 82071

Phone: 307-766-5320
Fax: 307-766-2608
email: irb@uwyo.edu

(Electronic submission via email is encouraged.)

Application for Review of Research Involving Human Subjects

1. Responsible Project Investigator (RPI), Co-Investigators (CI), & Faculty Supervisor (FS)

**RPI:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kate Bodey</td>
<td>Graduate Student Master’s of Science</td>
</tr>
<tr>
<td><strong>Department:</strong></td>
<td>Science and Mathematics Teaching Center</td>
</tr>
<tr>
<td><strong>Office Address:</strong></td>
<td>1000 E. University Avenue, Dept. 3992 Laramie, WY 82071</td>
</tr>
<tr>
<td><strong>Phone number:</strong></td>
<td>503-781-9601</td>
</tr>
<tr>
<td><strong>Fax number:</strong></td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Email address:</strong></td>
<td><a href="mailto:kbodey@uwyo.edu">kbodey@uwyo.edu</a></td>
</tr>
<tr>
<td><strong>UW Status:</strong></td>
<td>Graduate Student</td>
</tr>
</tbody>
</table>

**FS:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Kate Welsh</td>
<td>Associate Professor</td>
</tr>
<tr>
<td><strong>Department:</strong></td>
<td>College of Education – Elementary and Early Childhood Education</td>
</tr>
<tr>
<td><strong>Office Address:</strong></td>
<td>1000 E. University Avenue, Dept. 3992 Wyoming Hall 449, Laramie, WY 82071</td>
</tr>
<tr>
<td><strong>Phone number:</strong></td>
<td>307-766-2013</td>
</tr>
<tr>
<td><strong>Fax number:</strong></td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Email address:</strong></td>
<td><a href="mailto:KMuir@uwyo.edu">KMuir@uwyo.edu</a></td>
</tr>
<tr>
<td><strong>UW Status:</strong></td>
<td>Faculty</td>
</tr>
</tbody>
</table>

2. Title of Study:

Increasing Access to Residential Environmental Education Programs for Multicultural Urban Youth

3. Anticipated Project Duration:

This research project will be conducted from November 2012 to April 2013, with the targeted graduation date of May 2013. Interviews with Residential Environmental Education programs’ staff will be conducted from November 2012 to January 2013.

4. Purpose of Research Project:

In LAY LANGUAGE, summarize the objectives and significance of the research:

The purpose of this Plan B non-thesis project is to research how Residential
Environmental Education programs can increase access of their programs to multicultural urban youth. Fifteen interviewees from various Residential Environmental Education programs in the United States will be conducted in order to obtain descriptive data on some of the best practices that these Residential Environmental Education programs are doing to provide access for the participation of multicultural urban youth. The information gained from these interviews will be complimented by that found in an extensive literature review in order to provide Environmental Education organizations with ways in which their residential programs can increase access for multicultural urban youth. There is very limited information and research conducted on this specific subject. The significance of this research is to add further to the body of knowledge about Environmental Education, most specifically Residential Environmental Education and their access for multicultural urban youth. This research aims to address the question, How can Residential Environmental Education programs increase access for multicultural urban youth?

Summarize the literature related to this study in two paragraphs:

Environmental Education programs have been shown to provide students with a deeper understanding of science and ecological issues through experiences in nature, and enhance their connection to the natural world (Ernst & Theimer, 2011). As the dominant majority in the United States is being challenged (Matthews, 1992), Environmental Education is called to re-examine who they serve and how. Marouli (2002) reiterates this by stating, “more often than not, other cultures and perspectives have been excluded or played marginal or insignificant roles in Environmental Education” (p. 27).

During the 1990s Multicultural Environmental Education was formed in North America with the purpose of providing diverse groups of people with access to Environmental Education (Marouli, 2002). The emphasis is similar to Environmental Education in empowering students to become engaged citizens in contributing to their own, local and global communities in relation to interconnected social-ecological issues (Marouli, 2002). Ernst and Theimer (2011) found that duration of Environmental Education programs is critical to enhance scientific literacy, while the scientific literature supports that duration of programs increases students’ connectedness to nature. Most previous research has focused on the under-participation of minorities in outdoor programs (Agyeman, 2003). While outdoor and Environmental Education programs differ, few studies have focused on the under-participation of multicultural urban youth in Residential Environmental Education programs. This research aims to add further to the body of knowledge about Environmental Education, most specifically Residential Environmental Education and their access for multicultural urban youth.

5. Description of Human Subject Participants:

A. Age-range and gender: Males and females ranging in age from 22 to 70 years.

B. Describe how the participants will be selected: Potential Residential Environmental Education program candidates will be based on the following criteria: 1) have residential environmental programs that include at least 1 overnight, 2) provide access in some capacity to diverse student populations, 3) facilitate environmental and/or natural science
literacy through the context of the outdoors and nature, and 4) are located in the United States. Interviews will be conducted with the organization directors, program coordinators, and/or administrative staff that have a minimum of two years working in their respected Residential Environmental Education program selected for this research. The sample size will include a minimum of 15 interviewees from 15 different Residential Environmental Education programs.

### C. Describe how the participants will be recruited:

Internet searches for Residential Environmental Education programs will be conducted to identify potential candidate programs for this research. Both the potential candidate programs and interviewees will be recruited based on the criteria noted above. The researcher will contact potential interviewees initially via phone. If the potential candidate is unavailable upon initial contact, the researcher will leave her contact information via the potential candidate’s voicemail or the organizations receptionist. Once the potential contact is available, the researcher will provide them with a brief introduction, and information on how the researcher gained access to their organization and their contact information. Together the researcher and potential interviewees will designate a time to meet in person, or via phone or Skype to discuss the study more in-depth. The first follow-up meetings with potential interviewees will include information about the context, purpose and importance of the study. Potential interviewees will be informed in detail about their role in accepting the invitation to be apart of this study. This will include an overview of the informed consent form (see appendix 1). This first follow-up meeting will provide the researcher with information on the potential interviewees’ fit and interest in this study. All recruited potential interviewees, will receive in writing a thank you letter, and for those who are selected to participate, an interview schedule will be included.

### D. Describe the number and type of participants expected:

A minimum of 15 interviewees from 15 different Residential Environmental Education programs will be apart of this study. Interviewees will range in professional positions from organization directors, to program coordinators, and administrative staff. Interviewees included in this study will be male or female between the ages of 22-70.

### E. Incentive to be provided for participation:

Interviewees will receive an executive summary document of the research finding for their participation in this study.

### F. Description of special classes:

N/A

### G. Criteria for inclusion/exclusion from participant pool:

Residential Environmental Education program candidates that do not meet the following criteria will not be eligible to participate: 1) have residential environmental programs that include at least 1 overnight, 2) provide access in some capacity to diverse student populations, 3) facilitate environmental and/or natural science literacy through the context of the outdoors and nature, and 4) are located in the United States. Interviewees with less than two years working in their respected Residential Environmental Education program selected for this research will not be eligible to participate.

### 6. Procedure:

**A. Description of subjects’ participation:** Once confirmed to participate, interviewees will establish a time, date and location to conduct one interview with the researcher that will not exceed 90 minutes. Immediately after, the interviewees will receive an email confirmation along with an attached overview of the study, interview questions (see appendix 2), and
informed consent form (see appendix 1). Interviews will be conducted in person, via phone or Skype after the researcher has received the informed consent form in person or by mail. During the interview, interviewees will be asked to answer six to twelve semi-structured and open-ended questions that will provide the researcher with descriptive data. Questions will be based on the core research question and sub-questions:

1. How can Residential Environmental Educational programs increase access for multicultural urban youth?
   a. What current methods/strategies does your Residential Environmental Education programs utilize to provide access for multicultural urban youth?
      i. How do you gauge the effectiveness of these strategies?
   b. What limits or constraints the access of multicultural urban youth to participate in your Residential Environmental Educational programs?

B. What will non-participants do while subjects participate? N/A

C. What will subjects be told about the research project?
   During the first follow-up meeting, participations will be provided orally with the purpose, context, and importance of this study and their participation in it (including the informed consent form). They will receive copies of the informed consent form (see appendix 1). Selected candidates will receive interview questions prior to the scheduled interview. See the informed consent form (see appendix 1), for detailed information that will be share with interviewees about their role in the study including risks, benefits, and protection of privacy and confidentiality.

D. Description of deception: N/A

E. Subject time involved: Once confirmed to participate, each interviewee will participate in one interview that will not exceed 90 minutes.

F. Where will research take place? Interviews will be conducted in person, via telephone or Skype.

G. Method of data collection? Data will be collected through semi-structured interviews that contain six to twelve open-ended questions. The researcher will document the interviewees’ answers manually in an electronic document. Video and/or audio recordings will be conducted for those interviewees who agreed to it on the informed consent form (see appendix 1). Immediately following the interview, the researcher will transcribe visual and/or audio-recorded data. General ideas and themes will be highlighted, and placed in common categories. Member checks will be completed with interviewees by providing them with a copy of the transcribed data to strike anything that is incorrect and/or that they do not want in the final copy. The researcher will utilize a journal for the entire research process, including during interview data collection, in order to maintain credibility and validity, as well as to check in about one’s biases.

H. When and how may subjects terminate participation? Subjects may request to opt-out of the study at anytime without any penalty as noted in the informed consent form. If a subject terminates their participation, all original data in physical form including the informed consent form and any printed materials associated to the subject will be shredded. Any other original data in the electronic form including the subjects’ numerically coded information, interview notes, and information integrated into the research findings will be deleted. If the subject allowed for the use of visual and auditory recordings, these will be destroyed.

I. Description of biological samples? N/A

J. Description of equipment to be used on or by subjects: N/A
K. Where is data collected in classroom setting? N/A

7. Confidentiality Procedures:

<table>
<thead>
<tr>
<th>A. Explain whether or not subjects be identified by name, appearance, or nature of data?</th>
<th>From the beginning of the research, all subjects will be given a numerical code in order to protect their identity. One master list with subjects’ names and/or pseudonyms, and corresponding number will be kept in a digital format on a protected hard drive that only the researcher, Kate Bodey, and her adviser, Dr. Kate Welsh, can access.</th>
</tr>
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<tbody>
<tr>
<td>B. Explain the procedure that will be used to protect privacy and confidentiality?</td>
<td>The informed consent form (see appendix 1) states that only the researcher will be transcribing visual and/or audio recordings if the subject approves of these data collection methods. The researcher will only use a subjects’ numerical code when collecting and transcribing the data. Subjects choosing to use pseudonyms will be referred to as only these in the research findings. Only non-identifying background information will be included for these subjects in the research findings. Subjects that do not choose to use pseudonyms will be referred to by their name in the research findings. The professional title and background experience of these subjects will be included in the research findings. The researcher will not discuss the subjects’ names, titles, organizations, and/or background with anyone other than her adviser.</td>
</tr>
<tr>
<td>C. How and where will data be stored?</td>
<td>All original data, including contact information forms, the master list with the subjects’ names and/or pseudonyms and corresponding number, and interview notes will be stored in digital format on a password protected hard drive that only the researcher, Kate Bodey, and her adviser, Dr. Kate Welsh, can access. The informed consent forms, and audio and visual recordings will be stored in a locked safety deposit box that only the researcher has a key to.</td>
</tr>
<tr>
<td>D. How long will it be stored?</td>
<td>Data will store for at least three years after completion of the research (which includes data analysis) in accordance with OHRP regulations and destroyed in May 2015.</td>
</tr>
<tr>
<td>E. Who will have access to the data?</td>
<td>The researcher, Kate Bodey, and her adviser, Dr. Kate Welsh, will have access to the password and key for all of the data. No other person will have access to the data in its raw form. The results from this data will be written in the Plan B non-thesis research paper and presented during the defense.</td>
</tr>
<tr>
<td>F. Other confidentiality issues?</td>
<td>None</td>
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8. Benefits to Subjects:

| A. Describe the indirect research benefits for the participants: | This study will ask thought provoking questions that will offer interviewees the opportunity to think critically about how their Residential Environmental Education programs provide access to multicultural urban youth. |
| B. Describe the direct research benefits or state there are no direct benefits to the subjects: | Interviewees will be provided with an electronic version of the researchers final Plan B non-thesis research paper that will highlight ways in which similar programs are increasing access for multicultural urban youth to their programs. In addition the researcher will provide an executive summary document of the findings to interviewees. This information may provide interviewees with valuable ways in which they can increase access
to their Residential Environmental Education programs for multicultural urban youth.

9. Risks to Subjects:

**Describe the risks to subjects:** Due to the focus and methodology of this research, there is minimal risk involved in this proposed research. This research involves little risk to the human subjects. The minimal risk of this research includes the possibility that some interviewees may be uncomfortable with the topic of the research. Some interviewees may become embarrassed or uncomfortable with the amount of access their programs provide for multicultural urban youth. It is possible a subject may become embarrassed or uncomfortable about not knowing enough or wanting to provide more knowledge to an interview question. The above noted risks are minimal due to the probability and magnitude of the harm or discomfort that this research entails is not greater than that of ordinarily encounters in daily life.

10. Description of procedure to obtain informed consent or other information to be provided to participants:

**How, when and by whom will the subjects be approached to obtain consent?** Subjects will be approached to participate in the research study via phone from November to December 2012. Informed consent forms (see appendix 1) for all selected interviewees will be emailed after subjects agree to participate in the research study. Subjects may return signed consent forms in person, via email, or mailed directly to the researchers office. Interviews will not be conducted until the researcher has received the subjects’ informed consent form.

**How will information be relayed to subject (read to, allowed to read, audio-recorded, video-recorded)?**

Interview questions will be read orally in person, via telephone or Skype. All interviewees will receive a printed copy of the interview questions prior to their interview via email (see appendix 2). During the interview, if provided with consent from the interviewee via the informed consent form (see appendix 1), the researcher will audio and/or video-record the conversation. If interviews are audio or video recorded, the following information must be included in the proposal and the informed consent form:

1. Once the recorder is turned off, both parties have joint ownership of the recording.
2. Only the researcher, Kate Bodey, and her adviser, Dr. Kate Welsh, have access to the recordings.
3. The recordings will be stored in locked safety deposit box that only the researcher, Kate Bodey, will have a key to.
4. The recordings will be destroyed at least three years after completion of the research (which includes data analysis) in accordance with OHRP regulations (May 2015).
5. The recordings can only be used in other studies and/or future research that the researcher, Kate Bodey, and/or her adviser, Dr. Kate Welsh, conduct if the interviewee agrees.

At the bottom of the informed consent form (see appendix 1) there will be two separate signature lines for the interviewee to give consent for the interview to be audio and/or video recorded, and for the agreement that these can be used in other studies and/or future research by the researcher and/or her adviser. These will be on separate lines from the signature line for the consent to participate.
Provide a description of feedback, debriefing, or counseling referral that will be provided. The researcher will provide feedback and/or debrief with interviewees when requested and/or necessary.

Explain the procedure that will be used to obtain assent of children of an age and mental capacity deemed capable of providing such. N/A

11A. Description of Instruments

<table>
<thead>
<tr>
<th>Instrument Name</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument 1:</td>
<td>Informed Consent Form</td>
<td>Researcher</td>
</tr>
<tr>
<td>Instrument 2:</td>
<td>Sample Research Questions</td>
<td>Researcher</td>
</tr>
</tbody>
</table>

11B. Other Documents used to conduct the research

<table>
<thead>
<tr>
<th>Document Name</th>
<th>Description (e.g.) letters, fliers, or advertisements used to solicit participation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document 1:</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Appendix F

Informed Consent Form

DESCRIPTION OF THE RESEARCH
I, Kate Bodey, am a graduate student at the University of Wyoming completing a Master’s in Science, Natural Science Education and Environment & Natural Resources. By conducting this research study, I hope to gain insight into some of the best practices that Residential Environmental Education programs are doing to provide access for the participation of multicultural urban youth. I am interested in providing your organizations and other organizations similar to yours with ways in which Residential Environmental Education programs can increase access to multicultural urban youth. My graduate work is being conducted under the supervision of Dr. Kate Welsh. I would like to invite you to participate in this research study. You have been selected due to your organization’s qualifications related to my topic and your two years plus experience with your organization.

WHAT YOU WILL BE ASKED TO DO
If you decide to participate, you will be asked to schedule and conduct an interview that will not exceed 90 minutes either in person, via phone or Skype with the researcher. Before the interview you will receive an overview of the research, and the six to twelve open-ended interview questions that will be asked orally. The researcher will document the interview manually using an electronic document. You have the right to or not to allow the researcher to video or audio record the interview (see Privacy and Confidentiality). The interview questions will be structured around obtaining descriptive data pertinent to the following research questions.

1. How can Residential Environmental Education programs increase access for multicultural urban youth?
   a. What current methods/strategies does your organization utilize to provide access for multicultural urban youth?
      i. How do you gauge the effectiveness of these strategies?
   b. What limits or constrains the access of multicultural urban youth to participation in your Residential Environmental Education programs?

RISKS AND POSSIBLE BENEFITS
Due to the focus and methodology of this research, there is minimal risk involved in this proposed research. This research involves little risk to the human subjects. The minimal risk of this research includes the possibility that some interviewees may be uncomfortable with the topic of the research. Some interviewees may become embarrassed or uncomfortable with the amount of access their programs provide for multicultural urban youth. It is possible a subject may become embarrassed or uncomfortable about not knowing enough or wanting to provide more knowledge to an interview question. The above noted risks are minimal due to the probability and magnitude of the harm or discomfort that this research entails is not greater than that of ordinarily encounters in daily life. If you feel uncomfortable in any way, you may ask at any time to withdraw from the research study. If opting out of the study, please send to the researcher in writing, via email or mail, a letter requesting to terminate your participation from the study. Upon receiving this letter, the researcher will immediately follow the protocols outlined in the protection of privacy and confidentiality section. There is no cost for participating in this

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research study. The researcher has not received funding for this study, as it is not being sponsored by any governmental and/or private organizations.

This research study is intended to further knowledge in the field of Residential Environmental Education as it pertains to the access multicultural urban youth have to it. It may provide you with the opportunity to think critically about how your Residential Environmental Education programs provide access to multicultural urban youth. For participating in this research study, you will be provided with an electronic version of the final research paper that will highlight ways in which similar programs are increasing access for multicultural urban youth in their programs. This information may provide you and your organization with valuable ways in which you can increase access to your Residential Environmental Education programs for multicultural urban youth. In addition the researcher will provide an executive summary document of the findings to all interviewees.

PROTECTION OF PRIVACY AND CONFIDENTIALITY
It is optional to use a pseudonym if you prefer to remain anonymous. If you choose to use a pseudonym, then that will be used along with non-identifying background information in the research findings. If you choose not use pseudonym, your name, professional title and background experience will be included in the research findings. I will not discuss the subjects’ names, titles, organizations, and/or background with anyone other than my adviser.

From the beginning of the research, you will be given a numerical code in order to protect your identity. One master list with your name or pseudonym and corresponding number will be kept in a digital format on my protected hard drive that only I or my adviser, Dr. Kate Welsh, have access to. I will only use your numerical code when collecting and transcribing the data. I will provide you with a copy of the transcribed data in order for you to strike anything that is incorrect and/or that you do not want in the final copy. You have the right to review your interview material before it is published. At anytime, you may request your interview material to be withheld from the study. Only I will be transcribing visual and/or audio recordings if you approve of these data collection methods on the bottom of this form.

You have the right to or not to allow me to video or audio record the interview. If you choose to allow all the interview to be recorded, both you and I have joint ownership of the recording once the recorder is turned off. Only I, and my adviser, Dr. Kate Welsh, have access to the recordings. The recordings will be stored in locked safety deposit box. I will have the key. The recordings will be destroyed at least three years after completion of the research (which includes data analysis) in accordance with OHRP regulations (May 2015). The recordings can only be used in other studies and/or future research if you agree.

If you opt-out-of the study at any time and terminate your participation, all original data in physical form including the informed consent form and any printed materials associated to you will be shredded. Any other original data in the electronic form including the your numerically coded information, interview notes, and information integrated into the research findings will be deleted. If you allowed for the use of visual and auditory recordings on this form, these will be destroyed.
CHOOSING TO BE IN THE STUDY
Your participation in this research study is voluntary. Your decision to or not to participate in this study will not affect any of your personal or professional relationships. If you decided to participate, you are free to withdraw your consent and terminate your participation at any time without any repercussions.

CONTACT INFORMATION
If you have any questions about the study or this form at this time or anytime during or after the interview, please feel free to contact me at (503) 781-9601 or kbodey@uwyo.edu, or my University of Wyoming adviser, Dr. Kate Welsh, at (307) 766-2013 or KMuir@uwyo.edu. If you have questions regarding your rights as a research subject, please contact the University of Wyoming IRB Administrator at 307-766-5320. You will be offered a copy of this form to keep for your own records.

CONSENT
Your signature indicates that you have read and understand the information provided above, and that you willingly agree to participate. In addition, you agree that you will not waive any legal claims. You may withdraw your consent at any time and discontinue participation without penalty. A copy of this form will be available for you to keep. Interviews will not be conducted until the researcher has received a copy of this form in person or by mail to the researchers office at: Kate Bodey c/o SMTC 1000 E. University Avenue Dept. 3992, Laramie, WY 82071

If you wish to remain anonymous, please write below ANONYMOUS.

________________________________________________________________________
Consent/assent to participate:

________________________________________________________________________
Printed name of interviewee

________________________________________________________________________
Interviewee signature

________________________________________________________________________
Date
Consent/assent to have your interview audio or visually recorded:

Interviewee signature

____________________________________________

Date

____________________

Consent/assent to use your recordings in other studies and/or future research that the researcher, Kate Bodey, and/or her adviser, Dr. Kate Welsh, conduct:

Interviewee signature

____________________________________________

Date

____________________
Appendix G

Sample Interview Questions

**Interviewee Information:**

1. Could you please spell your full name?
2. What is your professional title?
3. Please explain your role with your organization.

**Research Questions:**

1. Please explain your role with your organization.
2. Please describe the mission and vision of your organization.
3. What attracts participants to your program over other Residential Environmental Educational programs?
4. How many students do you serve annually?
   a. What is the typical age of the students you serve?
   b. What is the typical length of residential program you offer?
   c. What types of schools do you serve (public, private) and do you have open enrollment programs?
5. What are the demographics of your participants in terms of:
   a. race/ethnicity
   b. gender
   c. social economic class
   d. physical and learning needs
   e. ELL
6. Please tell me about the importance of providing access of multicultural urban youth to your programs?
   a. What benefits or impacts have you seen in the lives of multicultural urban youth that have participated in your programs?
      i. Please, if you can, provide me with an example or testimony that exemplifies this?
7. What methods/strategies does your organization utilize to promote access for multicultural urban youth in your programs?
   a. What systems are the most and least successful?
      i. How do you gauge the effectiveness of these strategies?
      ii. What factors may contribute to these?
8. What limits or constrains the access of multicultural urban youth to participate in your Residential Environmental Education programs?
9. What is the vision for your organization in increasing the access of your programs to multicultural urban youth?
   a. What resources do you need to make this feasible?
Appendix H

CITI Collaborative Institutional Training Initiative

Basic/Refresher Course - Human Subjects Research Curriculum Completion Report

Learner: Kate Bodey
Institution: University of Wyoming

Contact Information
SMTC Dept 3992
1000 E University Ave
Laramie, WY 82071 USA
Department: SMTC
Phone: 503-781-9601
Email: kbodey@uwyo.edu

IRB Member:
Stage 1. Basic Course Passed on 10/13/12 (Ref # 8896876)

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<td>4/5 (80%)</td>
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<tr>
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<td>5/5 (100%)</td>
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Appendix I

IRB Letter of Approval

November 14, 2012

Kate Bodey
Graduate Student
Science and Mathematics Teaching Center
University of Wyoming


Dear Kate:

The proposal referenced above (proposal received October 25, 2012) qualifies for expedited review and is approved as one that would not involve more than minimal risk to participants. Our expedited review and approval will be reported to the IRB at their next convened meeting December 20, 2012.

IRB approval for the project/research is for one-year period. If this research project extends beyond November 12, 2013, a request to extend the approval accompanied by a report on the status of the project (Annual Review Form) must be submitted to the IRB at least one month prior to the expiration date. Any significant change(s) in the research/project protocol(s) from what was approved should be submitted to the IRB (Protocol Update Form) for review and approval prior to initiating any change. Per recent policy and compliance requirements, any investigator with an active research protocol may be contacted by the recently convened Data Safety Monitoring Board (DSMB) for periodic review. The DSMB’s charge (sections 7.3 and 7.4 of the IRB Policy and Procedures Manual) is to review active human subject(s) projects to assure that the procedures, data management, and protection of human participants follow approved protocols. Further information and the forms referenced above may be accessed at the “Human Subjects” link on the Office of Research and Economic Development website: http://www.uwyo.edu/research/human-subjects/index.html.

You may proceed with the project/research and we wish you luck in the endeavor. Please feel free to call me if you have any questions.

Sincerely,

Colette Kuhfuss
IRB Coordinator
On behalf of the Chairman,
Institutional Review Board

Cc: Kate Welsh
Appendix J

Initial Interview Protocol

1. Please explain your involvement with your organization

2. Please describe the mission and vision of your organization
   a. How do these impact the experience of your participants?

3. What attracts participants to your program over other Environmental Educational programs?

4. What are the demographics of your participants in terms of
   a. race
   b. gender
   c. age
   d. learning abilities
   e. social economic class
   f. and physical proximity to your organization?

5. Please tell me about the importance of increasing participation of MY, in general and more specifically from InterCitys, in your programs?
   a. What benefits or impacts have you seen in the lives of MY, in general and from InterCitys, that have participated in your programs?
      i. Please, if you can, provide me with an example or testimony that exemplifies this?

6. What methods does your organization utilize to promote participation of MY, in general and from InterCitys?
   a. What systems are the most and least successful?
      i. What factors may contribute to these?

7. What inhibits your organizations’ abilities to increase participation of MY, in general and those from InterCitys, in your programs?

8. What is the vision for your organization in incorporating more participation of MY, in general and from InterCitys, into your programs?
   a. What resources do you need to make this feasible?
Appendix K

Master List of Categories and Themes

The following is a master list of the categories and themes from the qualitative data collection and analysis

1. Importance of REE organization’s mission and vision
   a. To reflect regional and national demographics
   b. To get MUY outside
   c. To provide an experience
   d. To support a diverse community

2. Impacts of REE programs on MUY
   a. Lifelong impact
   b. Increased citizenship and stewardship
   c. Increased academic understanding and performance
   d. Change in perception
   e. Emotional growth
   f. Therapeutic benefit

3. Strategies, Barriers, Vision and Resources to Provide Access to REE Programs for MUY
   a. Mission and vision
   b. Recruitment and retention of a diverse board and staff
   c. Funding
   d. Partnerships and collaboration
   e. Programming
   f. Cultural competency
   g. Marketing
   h. Accessibility
Appendix L

Organizational Resources

Boys & Girls Club of America
http://www.bgca.org/Pages/index.aspx

Center for Diversity & the Environment
http://www.eco.org/

Center for the Advancement of Informal Education
http://caise.insci.org/

Colorado Alliance for Environmental Education (Diversity and Inclusiveness in EE)
http://www.caee.org/diversity-inclusiveness-initiative

Center for Whole Communities
http://www.wholecommunities.org/

Diversity Matters
http://www.diversity-matters.org/

Environmental Leadership Program
http://www.elpnet.org/index.php

Environmental Education & Training Partnership
http://eetap.org/

Green for All
http://greenforall.org/

Forest Service (Urban Connections Program)
http://www.fs.usda.gov/wps/portal/fsinternet/?t=p/c4/04_SB8K8xLLM9MSSzPy8xBz9CP0os3g jAwhwtDDw9_A18zPyhQoY6BdkOyoCAGixyPg!/?ss=1109&navtype=BROWSEBYSUBJECT &cid=stelprdb5207958&navid=2400000000000000000000&pnavid=null&position=Not%20Yet%20Det ermined.Html&ttype=detail&pname=Region%209-%20Working%20Together

Foundation for Youth Investment (Outdoor Educators Initiative)
http://www.fyifoundation.org/programs/outdoor-educators-institute

National Center for Cultural Competency
http://nccc.georgetown.edu/

National Center on Accessibility
http://www.ncaonline.org/
National Hispanic Environmental Council  
http://nheec1.org/

North American Association for Environmental Education  
http://www.naaee.net/

Student Conservation Association (National Park Service Academy)  
http://www.thesca.org/serve/internships/special-programs/national-park-service-academy

Summer Search  
http://www.summersearch.org/

The Barr Foundation (Cultural Competency Report)  
http://www.barrfoundation.org/news?topic=cultural+competency

The Challenge Foundation  
http://thechallengefoundation.org/

The Environmental Careers Organization (ECO)  
http://www.eco.org/

The Green Lining Institute  
http://greenlining.org/
Appendix M

Specific Solutions for Providing Access to REE Programs for MUY

Mission and vision.

- Expand on an REE organizations’ mission and vision statements to include diversity.
- When establishing or expanding new REE programs, identify roadblocks to providing access to MUY in order to create facilities and programs that eliminate those barriers.
  
  For example, one organization found that finding substitute teachers was a roadblock when establishing their REE program. Thus, they created enough beds to house the entire 6th grade middle school from one school district.
- Conduct internal quantitative or qualitative research, such as measuring the impact REE programs have on MUY, in order to utilize the research results to create selling points for teachers, administrators, and schools districts.

Recruitment and retention of a diverse board and staff.

- Create educational pipeline opportunities such as:
  - Partnering with organizations like Foundation for Youth Investment and its Outdoor Educators Institute Initiative.
  - Partnering with organizations like the Forest Service and their Urban Connections Program, or National Park Service (NPS) and their NPS Academy program or Student Conservation Association, that provide MUY with future career opportunities.
  - Working with schools to create new programs at REE sites for grade levels higher than what a REE program currently serves. One organization mainly serves 6th
grade in their REE program and is creating an 8th grade follow-up program focused on leadership skills.

- Hosting or participating in regional or state job fairs (i.e. MN Minority Education Partnership - Program Fair) where participants can interact with representatives from organizations in the EE, science, and/or outdoor recreation fields.
- Creating alumni networks or opportunities, such as REE counselor training programs, for MUY to learn about new opportunities and stay connected in the field
- Provide year round or consecutive year mentorship programs for MUY in order to provide multiple access points.

**Funding.**

- Sponsor annual fundraising events that increase the community’s awareness of your organization.
- Create a video specific for each group that participates in a REE program that teachers or schools can reproduce and use as a fundraiser for the following year.
- Connect with Foundations such as the Gordon and Betty Moore Foundation, GD Bechtel Junior Foundation, Pisces Foundation, and Basis Foundation for financial contributions.
- Contact state agencies regarding financial support and reimbursement for serving free and reduced lunches, especially for visiting Title 1 schools.

**Partnerships and collaboration.**

- Reach out to organizations like the Center for Diversity and the Environment for guidance in providing access to REE programs for MUY.
• Establish Teacher Advisory Committees to learn from teachers additional ways to access MUY.

• Work with local, regional and national organizations, such as the following, to increase access for MUY:
  o Multicultural centers or centers for specific multicultural groups
  o Local churches serving multicultural families and groups
  o Community youth centers
  o Local Parks and Recreation
  o Challenge Foundation
  o Summer Search
  o State Department of Education
  o Get-Ready (part of GEAR UP)
  o Boys & Girls Clubs of America
  o Girl Scouts
  o Public Participation for Scientific Research (PPSR)

• Locate or establish a local EE Collaborative, like the Bay Area EE Collaborative, to connect and work with other EE providers. Through these partnerships, EE providers can learn best practices from one another, and connect teachers and schools with local ongoing EE opportunities that support their REE experience.

**Programming.**

• Keep programing relevant by:
  o Facilitating citizen science or stewardship projects within the REE program that teachers can conduct or continue in their local school or community.
o Providing culturally relevant programming for urban youth, such as live night shows with comedians, bands, and videos, or portable welcoming sound stations with current appropriate music.

o Reviewing updated state standards to ensure that REE curriculum uses the same language, and thus avoiding conflicting understandings.

- Provide teachers with professional development (PD) opportunities while participating in REE programs, or during weekends or summers when teachers are typically not working.

- Invite teachers to be more proactive in their REE experience by having them teach sections of the REE program. One organization offers teachers PD weekend training several times a year to assist them with teaching during their REE program. They have found that teachers are more invested in the REE program experience, and that this enthusiasm is transferred to their classrooms and communities.

- Provide curriculum and materials to teachers electronically, or create a digital database where they can access materials to use in their classrooms, as extensions or previews to their REE experience.

**Cultural competency.**

- Keep an updated website with bilingual materials, testimonies, and articles with interviews of MUY, and/or provide an online video that shows parents what to expect when their children participate in a REE program and other pertinent information, such as packing lists, facilities, and staff. Social media, such as Facebook, can also be used for this reason.

- Host weekend programs in local communities of MUY that involve families. This can help REE organizations connect to families and students.
Marketing.

- Partner with local colleges and universities, or organizations such as National Geographic Institute and Smithsonian Institute, in order to increase the marketing pool size of potential REE clients.
- REE organizations can attend and market their programs at teacher conferences, such as:
  - National Science Teachers Association NSTA
  - Gifted and Talented Educators
- Give presentations about REE program opportunities to Advancement Via Individual Determination (AVID), science, or ELL classes
- Invite and host potential teachers, administrators, and superintendents to REE centers so they can experience first-hand various opportunities REE programs offer.
- Create Teacher Ambassador programs for teachers to share their experiences in REE programs with other professionals.
- If marketing in newspapers, magazines, or other print and online arenas, tell stories of participants or have them tell their story about their REE experience. One organization, whose executive director has a background in marketing, noted that stories sell better than flashy ads.
- Utilize social media, such as Facebook, for advertising.

Accessibility.

- The Center for Accessibility may be useful for providing ideas for making REE programs and facilities available for students with physical needs.
• If reaching families of MUY for completion of registration and medical forms is a challenge, use one-time program meetings in their local communities, where all forms and program details will be discussed and completed at that time.