

Proceedings  
*of the*  
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Education Research



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AEE Conference**



*Denise Mitten, Editor and Co-Chair*  
*Brad Daniel, Editor and Co-Chair*  
*Andrew J. Bobilya, Editor and Co-Chair*  
*Brad Faircloth, Editor and Co-Chair*  
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## Welcome to SEER

Welcome to the 17<sup>th</sup> Annual Symposium on Experiential Education Research (SEER). The purpose of this symposium is to provide a formal setting for the reporting of research in the broad areas of experiential education. Toward that end, all the research presentations submitted to SEER were blind reviewed by a panel of referees, and the scores tabulated by the SEER co-chairs before final decisions were made and themed sessions assembled. Whether accepted or not, the authors who submitted material should be congratulated for their efforts.

As in past years, we are pleased to host oral presentations and poster sessions both providing venues to hear about the many quality papers accepted this year. SEER oral presentations are offered at the AEE annual International Conference during two blocks of time comprised of sessions that include several papers. We also continue to include a summary and discussion of key points by an invited discussant for each of the SEER sessions. The poster presenters briefly describe their work during the first session in advance of three designated poster viewing times. We are delighted to open the 17<sup>th</sup> SEER with a short message from one of the two Recipients of the Distinguished Researcher in Experiential Education award, with the other Distinguished Researcher in Experiential Education opening the Friday morning SEER session.

Along with the researchers who submitted their work for review, we also wish to recognize other people for their efforts in making the symposium a reality. First, we would like to thank the AEE staff members, including Devon Binder, Dan Miller, and the 2017 Conference host team for their support and coordination of SEER, as well as the JEE editorial team for their ongoing support of SEER. We owe a great deal of gratitude to Lisa Brennan for editorial work with the abstracts. The scholars who graciously served as reviewers of the submitted abstracts are Drew Baily, Deb Bialeschki, Andrew Bobilya, Clare Dallat, Brad Daniel, Briget Eastep, Brad Faircloth, Ryan Gagnon, Jocelyn Glazier, Marni Goldenberg, Tonia Gray, Marna Hauk, Karla Henderson, Jude Hirsh, Susanna Ho, Garrett Hutson, Katherine Anne Jordan, Pat Maher, Christine Norton, Rowena Passy, Keith Russell, Donna San Antonia, Jim Sibthorp, Anita Tucker, Frank Vernon, and Tiffany Wynn.

We would like to especially thank all of you, attendees of this year's Symposium and those reading these timely abstracts online. It is your interest that ultimately drives the research and practice efforts in the AEE. We prepare and host SEER because of the continued need for us to understand how and why experiential educational practices work to make a positive difference in people's lives.

Thanks to all of you for being a part of this year's SEER.

Denise Mitten, Brad Daniel, Andrew J. Bobilya, and Brad Faircloth: Co-Chairs

## **A Brief History of the SEER**

The Symposium on Experiential Education Research (SEER) provides an outlet and venue for researchers in fields that use experiential education to present, share, dialogue, and further develop their research ideas.

The first SEER took place at the Association for Experiential Education's (AEE) 2001 International Conference in Charleston, West Virginia. Fittingly, it was Dr. Alan Ewert of Indiana University who conceived of and led the effort to establish that first SEER. A widely published researcher and author in the field of adventure-based education, Dr. Ewert is also known for his distinguished career in academia, three decades as an Outward Bound instructor, the Patricia and Joel Meier endowed Outdoor Leadership Chair, past editor of the *Journal of Experiential Education* (JEE), and as fellow and past president of the prestigious Academy of Leisure Sciences. In providing the leadership to launch SEER, Dr. Ewert gave back to an area of research he helped develop throughout his academic and professional career.

The symposium occurs concurrently with the International AEE Conference each year and involves the presentation of research papers from international scholars who use and research experiential education practices. The process by which papers are selected for SEER begins in the spring, when a call for papers is released by AEE in the *JEE*, on listservs, and other outlets, asking researchers, graduate students, and research/practitioners to submit abstracts to a blind, peer-reviewed process facilitated by the co-chairs of SEER. Abstracts are sent out for blind review to a panel of scholars/researchers. Abstracts are reviewed for relevance to experiential education theory and practice, research methodology, and logic and clarity in writing. The papers are ranked, and the top abstracts are selected for oral or poster presentations at the annual International AEE Conference. In addition to the presentations, the abstracts are published as a proceedings booklet, which is distributed at the conference (since 2013 via electronic media). Currently, AEE publishes the abstracts online. For about 10 years, the spring edition of the *Journal of Experiential Education* published these abstracts as a way to make them available to a wider readership. Reading these abstracts is a great way to get a glimpse of current research interests and innovative research methodologies used for experiential education research.

In Little Rock, Arkansas (2007), the SEER program was modified to 90-minute, theme-based sessions. Papers were grouped by topic in order to better promote SEER to practitioners and other conference attendees so they could attend sessions of interest. Each presenter was, and continues to be, allotted 20 minutes to present her/his/their research, which typically includes an introduction, a description of the methods employed, and the results and conclusions developed from the research. In addition to the papers presented, discussant remarks have been offered each year by leading scholars and practitioners in experiential education theory and practice. This has provided an opportunity for the initiation of substantive dialogue around current research. Beginning in 2008, SEER partnered with the Council on Research and Evaluation (CORE) to explore ways to support the needs of AEE members and expand research about experiential education. As the use of experiential education philosophy and methodologies continues to grow and evolve in social, political, and economic contexts, research can play a vital role in helping maintain and further the mission of experiential education in helping children, youth, families, and communities. To this end, research in educational, therapeutic, recreational, and other experiential learning settings are all welcome in SEER.

In 2011, SEER Co-chairs Jayson Seaman and Alan Ewert initiated a research poster session for those important research studies that needed to be disseminated, but could not fit into the oral presentation schedule of SEER.

At the 12<sup>th</sup> Annual SEER held in Madison, WI, Co-chairs Alan Ewert and Stacy Taniguchi replaced the summary discussant at the end of each session with an open discussion concerning the relative nature of the studies presented and questions for further research. Graduate students were invited to lead these discussions. In 2012, SEER welcomed Dr. Denise Mitten as a Co-chair with Dr. Taniguchi. Dr. Mitten's long dedicated service to AEE and experiential education research was a valuable asset to increasing the visibility of the SEER call for proposals and the number of submissions.

At the 13<sup>th</sup> and 14<sup>th</sup> SEER, Co-chairs Dr. Mitten and Dr. Taniguchi continued with the SEER format of previous year and re-introduced the SEER poster session. They decided to go totally digital for the *Proceedings of the Symposium of Experiential Education Research* for the SEER and to make past abstracts available online through AEE's website. Attendees now access the SEER Abstract Booklet only on line.

At the 15<sup>th</sup> Annual SEER, Dr. Mitten worked with Dr. Taniguchi to create a method to review proposals that addressed conceptual topics, in order to complement empirical submissions.

Beginning in 2010 the AEE Award Committee named an annual Distinguished Researcher Awardee. The recipient of the Distinguished Researcher Award offers an opening address before the first SEER session. Awardees include Keith Russell (2010), Mike Gass (2011), Lee Gillis (2012), Alan Ewert (2013), Denise Mitten (2015), Anita Tucker (2016) and in 2017 both Christine Norton and Jim Sibthorp. It is our hope that SEER continues to be one of the many mechanisms to help further AEE's mission in the years to come.

In the continuation of furthering our understanding of the positive impact of engaging the philosophy of experiential education and many methods that use this philosophy, this year's 17<sup>th</sup> SEER should be engaging and inspiring for researchers and practitioners alike.

*Keith Russell (SEER Co-Chair 2006-2008) is an Associate Professor at Western Washington University, Bellingham, Washington, USA. Email: [keith.russell@wwu.edu](mailto:keith.russell@wwu.edu)*

*Stacy Taniguchi (SEER Co-Chair 2011-2014) is an Associate Professor at Brigham Young University, Provo, Utah, USA. Email: [stacy\\_taniguchi@byu.edu](mailto:stacy_taniguchi@byu.edu)*

*Denise Mitten (SEER Co-Chair 2012-Present) is a Professor at Prescott College, Prescott, AZ, USA. Email: [dmitten@prescott.edu](mailto:dmitten@prescott.edu)*

## TABLE OF CONTENTS

Welcome Letter _____	2
A Brief History of SEER _____	3-4
Table of Contents _____	5-6
Schedule of SEER Sessions _____	7-8
Abstracts by SEER Session _____	9-72
Session 1    Anita Tucker, Maggie Karoff & Michael Gass, <i>Gender Oppression and Liberation Experienced by Women Field Guides in Outdoor Behavioral Healthcare</i>	9-11
Jennifer Randall Reyes, <i>The Lived Experience of Mental Health Providers in Adventure Therapy Programs</i>	12-15
Session 2    Gretchen Newhouse, <i>Outdoor Recreation for “Every body”? An Examination of Constraints According to Outdoor Professionals for Individuals who are Significantly Overweight</i>	16-18
Linda Paquette, Julie Fortin, Alexandre Crête, Danielle Maltais, & Audrey Brassard, <i>Effect of an Outdoor Developmental Adventure Program on the Psychosocial Adjustment of Adolescents Journeying with Cancer</i>	19-22
Jayson Seaman, Erin Hiley Sharp, Eleanor Kane, Corinna Jenkins Tucker, Karen T. Van Gundy, & Cesar J. Rebellon, <i>Outdoor Activity Involvement in Adolescence as a Predictor of Postsecondary Educational Status Among Rural Youth: Results from a Longitudinal Study.</i>	23-26
Wally Rude, Andrew J. Bobilya & Brent Bell, <i>Outdoor Adventure Education and Diverse Citizenship: Diversifying Outdoor Orientation Programs.</i>	27-29
Session 3    Nevin Harper, <i>Place, Self, and the Study Abroad Experience: A Bolivian Adventure</i>	30-33
Danny Frank, <i>Socioecological Education: Faculty Knowledge, Beliefs, and Practice in Post-Secondary Outdoor Education</i>	34-37
Cheryl Bolick & Jocelyn Glazier, <i>Taking Off the Harness: Transference of Experiential Education to the Classroom</i>	38-40
Anna Czarnik-Neimeyer, <i>Enriching Brave Space: Interdisciplinary Theory for an Emerging Justice Education Framework</i>	41-44
Session 4    Curt Davidson, <i>A Return to Character Education: Grit and Resilience in Outward Bound Students</i>	45-48
Jihan Boughman, Cass Morgan, Melissa Masters, Tim Ruden, Shannon Rochelle, & Michael Pagliassotti, <i>Assessing the Reliability of Bioelectrical Impedance and Skinfold Calipers for Measuring Body Composition in</i>	49-52

*NOLS Backcountry Hikers*

	Andrew Bailey, <i>Brainwave Analysis of Experiential Learning in Action</i>	53-56
Poster Session	John Bennion, Brian Cannon, Brian Hill, Meagan Ricks, & Riley Nelson, <i>Asking the Right Questions: Using Open-ended Essay Responses to Evaluate Student Apprehension of Threshold Concepts</i>	57-59
	Shelby Deibert, Stephen Ritchie, Ginette Michel, Bruce Oddson, & Emily Terzlaff, <i>Health Promotion Without Borders: An Autoethnography of an International Service Learning Experience in Mongolia</i>	60-63
	Camille Girard, <i>Off the Beaten Path: Adventure Therapy as a Potential Catalytic Adjunct to Early Intervention with Psychotic Clients</i>	64-66
	Aleta Meyer, Tonia Gray, & Son Truong, <i>Experiential Approaches to Creating a New Narrative on Research and Evaluation with Indigenous People</i>	67-70
	Glenn Middleton & Amanda McGowan, <i>The Mentor/Mentee Relationship in Experiential Education: A Systematic Literature Review</i>	71-74
	Catherine Séguin-Green, <i>Adventure Therapy as an Adjunct Treatment for Psychotic Clients: Therapists' Views on its Impacts during the Recovery Process</i>	74-78
	Jim Sibthorp, Aaron Funnell, Mike Riley, Bacon Chan, & Lisa Meerts-Brandsma, <i>Outdoor Experiential Education in Asia: Examining Outward Bound Hong Kong</i>	79-83
	Barri Tinkler Alan Tinkler, Jennifer Prue, & Lia Cravedi, <i>Experiencing the Community through Service-Learning: Expanding Conceptions of Experiential Education in Teacher Education</i>	84-88
	SEER Through the Years	86

## **SCHEDULE OF SEER SESSIONS**

### **SESSION 1: Thursday, November 9, 2017 (1:15 PM – 2:45 PM)**

1:15P-1:20P - Welcome to the Symposium on Experiential Education Research (SEER)

1:20P-1:30P - Dr. Christine Norton, Recipient of the Distinguished Researcher in Experiential Education Award, *How Experiential Education Helped Me Develop a Research Identity*

#### **SEER Session 1 Speakers**

1:30P - Session Introductions

- 1:35P-1:55P - Anita Tucker, Maggie Karoff & Michael Gass, *Gender Oppression and Liberation Experienced by Women Field Guides in Outdoor Behavioral Healthcare.*
- 1:55P-2:15P - Jennifer Randall Reyes, *The Lived Experience of Mental Health Providers in Adventure Therapy Programs.*

2:15 P-2:25P - Key Points and Research/Practice Implications, Chaired by Bobbi Beale

2:25P-2:45P - Introduction of Poster Presenters

- John Bennion Brian Cannon, Brian Hill, Meagan Ricks, & Riley Nelson, *Asking the Right Questions: Using Open-ended Essay Responses to Evaluate Student Apprehension of Threshold Concepts.*
- Shelby Deibert, Stephen Ritchie, Ginette Michel, Bruce Oddson, & Emily Terzlaff, *Health Promotion Without Borders: An Autoethnography of an International Service Learning Experience in Mongolia.*
- Camille Girard, *Off the Beaten Path: Adventure Therapy as a Potential Catalytic Adjunct to Early Intervention with Psychotic Clients.*
- Aleta Meyer, Tonia Gray, & Son Truong, *Experiential Approaches to Creating a New Narrative on Research and Evaluation with Indigenous People.*
- Glenn Middleton & Amanda McGowan, *The Mentor/Mentee Relationship in Experiential Education: A Systematic Literature Review.*
- Catherine Séguin-Green, *Adventure Therapy as an Adjunct Treatment for Psychotic Clients: Therapists' Views on its Impacts during the Recovery Process.*
- Jim Sibthorp, Aaron Funnell, Mike Riley, Bacon Chan, & Lisa Meerts-Brandsma, *Outdoor Experiential Education in Asia: Examining Outward Bound Hong Kong.*
- Barri Tinkler Alan Tinkler, Jennifer Prue, & Lia Cravedi, *Experiencing the Community through Service-Learning: Expanding Conceptions of Experiential Education in Teacher Education.*

2:45P-3:00P - 15-minute intermission and poster viewing

### **SESSION 2: Thursday, November 9, 2017 (3:00 PM – 4:30 PM)**

3:00P - Session Introductions

#### **SEER Session 2 Speakers**

- 3:00P-3:20P - Gretchen Newhouse, *Outdoor Recreation for "Every body"? An Examination of Constraints According to Outdoor Professionals for Individuals who are Significantly Overweight.*
- 3:20P-3:40P - Linda Paquette, Julie Fortin, Alexandre Crête, Danielle Maltais, & Audrey Brassard, *Effect of an Outdoor Developmental Adventure Program on the Psychosocial Adjustment of Adolescents Journeying with Cancer.*

- 3:40P-4:00P - Jayson Seaman, Erin Hiley Sharp, Eleanor Kane, Corinna Jenkins Tucker, Karen T. Van Gundy, & Cesar J. Rebellon, *Outdoor Activity Involvement in Adolescence as a Predictor of Postsecondary Educational Status Among Rural Youth: Results from a Longitudinal Study*.
- 4:00P-4:20P - Wally Rude, Andrew J. Bobilya & Brent Bell, *Outdoor Adventure Education and Diverse Citizenship: Diversifying Outdoor Orientation Programs*.

4:20P-4:30P - Key Points and Research/Practice Implications, Chaired by Karen Warren

**SESSION 3: Friday, November 10, 2017 (8:00 AM – 9:30 AM)**

8:00A - Welcome to Day 2 of the Symposium on Experiential Education Research (SEER)

8:00A-8:10A - Dr. Jim Sibthorp, Recipient of the Distinguished Researcher in Experiential Education Award, *Useable Research and Increasing the Odds of Experiential Learning*

**SEER Session 3 Speakers**

8:10A - Session Introductions

- 8:10A-8:30A - Nevin Harper, *Place, Self, and the Study Abroad Experience: A Bolivian Adventure*.
- 8:30A-8:50A - Danny Frank, *Socioecological Education: Faculty Knowledge, Beliefs, and Practice in Post-Secondary Outdoor Education*.
- 8:50A-9:10A - Cheryl Bolick & Jocelyn Glazier, *Taking Off the Harness: Transference of Experiential Education to the Classroom*.
- 9:10A-9:30A - Anna Czarnik-Neimeyer, *Enriching Brave Space: Interdisciplinary Theory for an Emerging Justice Education Framework*.

9:30A-9:40A - Key Points and Research/Practice Implications, Chaired by Jayson Seaman

9:40A-9:55A - 15-minute intermission and poster viewing

**SESSION 4: Friday, November 10, 2017 (9:55 AM – 11:20 AM)**

9:55A - Session Introductions

**SEER Session 4 Speakers:**

- 9:55A-10:15A - Curt Davidson, *A Return to Character Education: Grit and Resilience in Outward Bound Students*.
- 10:15A-10:35A - Jihan Boughman, Cass Morgan, Melissa Masters, Tim Ruden, Shannon Rochelle, & Michael Pagliassotti, *Assessing the Reliability of Bioelectrical Impedance and Skinfold Calipers for Measuring Body Composition in NOLS Backcountry Hikers*.
- 10:40A-11:00A - Andrew Bailey, *Brainwave Analysis of Experiential Learning in Action*.

11:00A-11:10A - Key Points and Research/Practice Implications, Chaired by Paul Shirilla

11:10A-11:20A - SEER Closing Comments

**AEE RESEARCH RECEPTION AND POSTER SESSION: Friday, November 10, 2017 (1:00 PM – 2:00 PM)**

**ON THE NEXT PAGES, ABSTRACTS IN THE ORDER PRESENTED WITH ORAL PRESENTATIONS FIRST FOLLOWED BY POSTERS PRESENTATIONS**



## **Gender Oppression and Liberation Experienced by Women Field Guides in Outdoor Behavioral Healthcare**

*Maggie Karoff, University of New Hampshire*

*Anita R. Tucker, University of New Hampshire*

*Christine Lynn Norton, Texas State University*

*Michael Gass, University of New Hampshire*

### **Introduction and Literature Review**

In the 1980s, a surge in demand for outdoor education and adventure programming for women and girls only was followed in the late 1980s and 1990s by a substantial wave of theoretical work that addressed outdoor programming from a feminist perspective (Bell, 1996; Henderson, 1996; Mitten, 1994) as well as a number of studies that addressed the experiences of women working in outdoor leadership (Jordan, 1990; Loeffler, 1996, McClintock, 1996). Prior research and theory shed light on the ways in which the field of outdoor adventure education is conceptualized through program structure, language, and societal expectations of gender roles that follow program staff into the wilderness (Warren, Roberts, Breunig, & Alvarez, 2014). For example, Jordan (1990) noted the way in which the use of the terms "hard skills" and "soft skills" to refer to technical and interpersonal skills has disadvantaged women by devaluing women's strengths. The wealth of research at the end of the twentieth century illuminated some of the challenges experienced by women working in outdoor programming, and thus indicated the importance of ensuring that female voices are heard as the field continued to develop and shift. In the two decades since then, however, the research on women's experiences working in the outdoors has been quite limited.

Wilderness therapy, also referred to as outdoor behavioral healthcare (OBH), emerged out of models of experiential education and outdoor education such as Outward Bound, and shares with such programs many common structural and theoretical elements (Russell & Phillips-Miller, 2002). Wilderness therapy field guides are the direct care staff who work in the backcountry with youth admitted to wilderness therapy programs. To date, a few studies have addressed the unique experience of wilderness therapy field guides (Bunce, 1998; Marchand, Russell, & Cross, 2009) and none have addressed gender. To address this gap in the literature, this study qualitatively explored the ways in which gender influences the experiences of women working as field guides in wilderness therapy programs.

### **Methodology**

Individuals who at the time of the research currently worked as a field guide in a wilderness therapy program and identified as a woman were eligible to participate. They were recruited via emails sent out to them by field directors of member programs of the OBH Council (obhcouncil.org). Institutional Review Board approval was gained at the authors' university.

Between April and November of 2016 four focus groups were conducted with a total of 21 participants representing 14 OBH programs across the United States. Participants had a mean of 16 months experience working as a field guide, ranging from three months to five years. Each focus group lasted approximately one hour. During the focus groups a series of open-ended questions were asked on the following topics: gender and gender dynamics in relation to perceptions from clients, co-staff, and program leadership; professional development potential for women in the field; and program values and culture in relation to gender.

Each focus group was video and audio-recorded and transcribed verbatim. Data were analyzed using a technique based on the constant comparison method (Maykut & Morehouse, 1994). The focus group transcripts were independently analyzed by the three authors and two

social work graduate students. After individual analysis, the five coders came together to review the consistency of themes. Transcript texts were divided into "units" that were grouped into thematic categories. Categories were developed through a process of constant comparison between emerging themes until the themes represented by the data were identified. Member checking was utilized to ensure that the themes were representative of participants' experiences; none of the participants responded asking for changes or offering different conclusions.

### **Findings**

The themes that emerged fell into three categories: intrapersonal, interpersonal, and programmatic. At the intrapersonal level, participants described experiencing both internalized sexism as well as the intentional transcendence of gender norms. Six of the 21 participants described experiencing internalized gender bias, particularly in the form of a lack of confidence in relation to progressing into leadership roles. Five participants described intentionally taking on non-traditional gender roles as a field guide and finding power in doing so; one participant noted, "I was very conscious sometimes of taking roles that were sort of stereotypically male."

At the interpersonal level, participants described confronting clients' sexism or internalized sexism as well as male co-staff's lack of awareness of gender dynamics. More than half of participants ( $n = 11$ ) reported experiencing less initial respect than their male co-staff from male clients, greater resistance from male clients when holding boundaries, and looked to the male staff as the authority figure, regardless of experience or skill. Over half of the participants ( $n = 11$ ) described the experience of being put in the mother role, generally by clients but occasionally by co-staff. Several women identified this dynamic as quite difficult and "pretty taxing" and limiting their role in ways that left them feeling "stuck" in that role, regardless of whether they wanted the role or even acted like a mother figure. Thirteen of the participants described being a role model for clients as a way to confront clients' more traditional gender role expectations. In addition, as a role model female staff became a medium through which they overcame limiting gender role expectations and stereotypes through demonstrating "what a powerful strong female looks like". Finally, on an interpersonal level, seven participants discussed the perceived lack of awareness of gender dynamics among male field guides in general.

At the programmatic level, 18 participants noted one and for some, multiple ways that gender impacted their experience as a field guide. These included a lack of external recognition and promotion for women in guide roles ( $n = 5$ ); particularly masculine, authoritative leadership styles valued more highly by the organization ( $n = 7$ ); gender as a rigid binary in staffing and staff development ( $n = 13$ ); and the importance of women in leadership roles, which were often lacking ( $n = 15$ ).

### **Implications for Practice**

The findings from this study highlight the importance of training for all staff on gender, gender socialization, and gender dynamics. This training can support staff in developing the capacity to both identify and process gender dynamics with each other and with clients while increasing men's capacity to act as effective and empowering allies. Programs need to provide field staff with female role models by recruiting and promoting women to leadership roles and should take a critical look at field guide development and promotion practices as well as retention rates to detect for discrepancies by gender. It seems critical for anyone in a position of training or supervising field staff, men and women alike, to obtain education and training in relation to gender. It is important to understand how to get beyond limiting gender roles either for oneself or with staff and clients to avoid burnout and encourage longevity and leadership for

women. Finally, the authors believe that men must play a central role in the dialogue, education, and training of staff and in the critical assessment of program practices that disadvantage women.

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# THE LIVED EXPERIENCE OF MENTAL HEALTH PROVIDERS IN ADVENTURE THERAPY PROGRAMS

*Jennifer E. Randall Reyes, PhD, LPC, ALPS, West Virginia University (jenerandall@gmail.com)*

*David M. Savinsky, PhD, Regent University*

*Lee A. Underwood, PsyD, Regent University*

*Jasmine Knight, PhD, Regent University*

## Introduction & Literature Review

Out-of-home placement is a reality for approximately 300,000 adolescents in the United States (The Annie E. Casey Foundation, 2015). A small subset of these out-of-home placements are adventure therapy (AT) programs such as outdoor behavioral healthcare (OBH) programs. To date, relatively little research has been able to link specific program components to the successful client outcomes being reported in OBH programs (Behrens & Satterfield, 2011; Roberts, Stroud, Hoag, & Massey, 2017; Russell, 2003, 2005; Tucker & Rheingold, 2010; Tucker, Smith, & Gass, 2014). Since many OBH programs identify as wilderness therapy programs, a closer evaluation of wilderness therapists using the conceptual mapping task (CMT) (Impellizzeri, Savinsky, King, Leitch-Alford, 2017) could provide a mechanism for therapists to voice their unique understanding of what they do in practice. While authors have discussed the need to explore the unique role of mental health providers working in these out-of-home placement options (Bunce, 1998; Itin, 1998), research to date has focused on field staff or instructors rather than therapists (Marchand, 2008; Marchand, Russell, & Cross, 2009; Marchand & Russell, 2013). In contrast, there is a multitude of outcome studies asking whether publicly funded (Curry, 1991, 2004; Lipsey & Wilson, 1993), or privately funded residential treatment centers (Behrens & Satterfield, 2011; Tucker & Rheingold, 2010) are effectively addressing the needs of adolescents in these settings. McKenzie (2000) suggested that future AT research efforts use a qualitative methodology to understand the role that being an AT therapist plays into outcomes, as well as using that qualitative data in identifying what program characteristics are tied to positive outcomes. While the experience of professional mental health providers implementing specific AT interventions has been explored (Demery, 2006; Tucker & Norton, 2010), the focus was on the job specific considerations and concerns related to being an AT therapist (Marchand, Russell, & Cross, 2009; Marchand & Russell, 2013; Mitten 1994). Several authors have even requested future research into the unique experience of being an AT therapist working in private AT programs (Norton et al., 2015; Revell, Duncan, & Cooper, 2014; Tucker & Rheingold, 2010). However, a study has not been conducted with a primary focus on the lived experience of those providing AT in the private field as licensed mental health professionals.

## Method

The phenomenological design for this study used a four-phase CMT (Impellizzeri et al., 2017). Impellizzeri et al. (2017) discussed the efficacy of using the CMT to elicit four distinct member checking phases within a single interview; a) information gathering and rapport building, b) participant storying, c) creating the conceptual map, and d) reflecting on the conceptual map. All interviews were one-on-one with participants in either their offices or a conference room that allowed for privacy and confidentiality, and the interviews averaged 45 minutes. The first phase of the CMT included the informed consent process and establishing rapport. In the second phase, all participants had the same verbal prompt read aloud to them, which was also given in written form for their reference, that they then responded to for

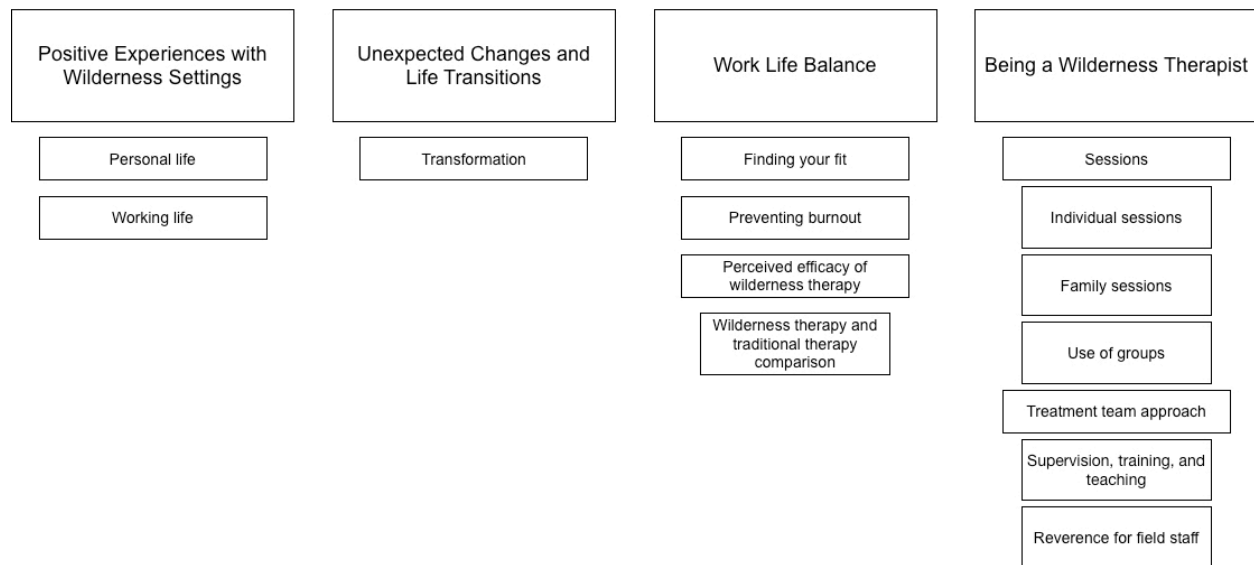
approximately 10 minutes while the principal investigator (PI) recorded their statements on Post-it® Notes. The third phase entailed participants first having the opportunity to clarify or correct the written statements the PI had recorded in the timed free-association from phase two being asked, and then creating their map. The final and fourth phase was a processing phase for participants to reflect on their experience of having created their map, the themes or concepts that they saw as connected, and what the experience meant for them. The ability to ask the research questions in a one-on-one interview format, while simultaneously moving into data analysis using the CMT gave the PI an ability to accomplish a series of qualitative steps in one sitting, such as data collection, member checking, and data analysis (Impellizzeri et al., 2017; Hays & Singh, 2012; Moustakas, 1994). The intent was to study the lived experience of mental health providers working in adventure therapy settings, and the additional aspect of introducing this CMT research tool into the field of adventure therapy. Nine participants were interviewed from two different program sites; one in the Northeastern and one in the Southwestern United States; with four interviewed at the Northeastern site and five interviewed at the Southwestern site. Participants were asked to tell the story of their journey to become an adventure therapist; how they conduct their sessions and coordinate with their treatment teams. The research questions were as follows:

1. What is the lived experience of professional mental health providers in private AT programs?
2. What characteristics (personal, therapeutic, environmental) make AT distinct from other forms of experiential therapies?
3. How is the therapeutic process, and more specifically the therapeutic relationship, distinct in AT programs versus more traditional mental health settings?

## **Results**

Four primary themes emerged as the pillars of being a mental health provider in private adventure therapy settings. It became increasingly clear through the PI's analysis of the participants' interviews and their conceptual maps that a shift in language to the lived experience of wilderness therapists more accurately reflected how these professionals identify themselves. Therefore, the term wilderness therapy and wilderness therapist was used in outlining the four primary themes and secondary themes below. In six out of nine interviews, participants shared that they had been wilderness instructors, guides, or field staff themselves at some point in their career working in wilderness therapy programs. Wilderness therapists differentiated their therapeutic work with clients and families in three key ways from more traditional settings: a) the positive use of challenging the client coupled with metaphorical learning through experiential interventions; b) the dynamic role of all members of the treatment team being equals, and field staff specifically as driving components of the therapeutic process; and c) the explicit use of movement. The first theme entailed positive experiences with wilderness settings and includes personal life and working life as secondary themes. A second theme was the unexpected changes and life transitions, which included a secondary theme of transformation. The third theme was work life balance and included three secondary categories: a) finding your fit; b) preventing burnout; and c) perceived efficacy of wilderness therapy that included a tertiary theme of wilderness therapy and traditional therapy comparison. The final theme summarized the details of what it entails being a wilderness therapist. There were two secondary categories for this theme: sessions and the treatment team approach. The secondary category of sessions contained individual sessions, family sessions, and the use of groups as tertiary categories; while the treatment team approach also had two tertiary categories; supervision, training, and teaching, as

well as reverence for field staff. A chart of primary themes, with their corresponding secondary and tertiary categories is included in *Figure 1*.



*Figure 1.* The lived experience of mental health providers in adventure therapy programs.

### Discussion

Clear themes emerged that demonstrated the lived experience of wilderness therapists. Participants placed value in working in an environment that allowed for the continuation of previous personal or work experiences that were positive in wilderness settings. This component was also clear in the way that participants found work-life balance. They suggested that they were more capable of preventing burnout based on working in settings that were conducive to their personal pursuits where they enjoy being in the outdoors. Participants also cited their treatment team members as components that they appreciated and found their therapeutic work with clients and families supported, especially by their guides and field staff. Participants perceived that their therapeutic work using experiential interventions in wilderness settings was more effective than they could have been in traditional mental health settings. While there remains a lack of evidence-based protocol in the current wilderness therapy research that can support how treatment gains are achieved and what program model characteristics, or wilderness therapy components specifically correlate to those reported gains (Roberts et al., 2017; Tucker & Rheingold, 2010), this study provides therapeutic characteristics of both wilderness therapy providers and the factors they perceive as vital to the client and families. The underlying hope of this dissertation was to address the gap in the current literature to clearly define what is and is not wilderness therapy in practice. An opportunity exists amongst institutions of higher education to use this knowledge to expand upon our existing disciplines to create programs that can train and facilitate objective program evaluations for a future generation of wilderness therapists to practice, supervise, and research the connection between wilderness settings and human growth.

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# **OUTDOOR RECREATION FOR “EVERY BODY”? AN EXAMINATION OF CONSTRAINTS ACCORDING TO OUTDOOR PROFESSIONALS FOR INDIVIDUALS WHO ARE SIGNIFICANTLY OVERWEIGHT**

*Gretchen Newhouse, Ph.D. University of Wisconsin-La Crosse (gnewhouse@uwlax.edu)*

## **Review of Literature**

While some research illustrates the general constraints to physical activity and leisure pursuits, there is no published literature specifically targeting the constraints to participation in outdoor recreation for people who are significantly overweight. This focus group research of outdoor professionals contributes to an unpublished manuscript in progress of individuals who are significantly overweight (Newhouse, 2018). This research examined the structural, intrapersonal, and interpersonal constraints to outdoor recreation for individuals who are significantly overweight from outdoor professionals' personal leadership experiences and provides valuable information to guide the next steps needed to adequately understand and address these issues.

Physical inactivity is a central component in the ongoing global narrative surrounding obesity and health. Together, inactivity and obesity are linked with chronic health problems, impairments in physical functioning, and a decrease in overall quality of life, as well as an estimated 300,000 premature deaths annually on a global scale (Manson, Skerrett, Greenland, & VanItallie, 2004). The majority of Americans are classified as overweight, and one-third of the population qualifies as 'obese' with a body mass index (BMI) greater than or equal to 30 (Flegal, Carroll, Ogden, & Curtin, 2010). This should not come as a surprise since 75% of Americans engage in less than the recommended 30 minutes a day of leisure-time physical activity (LTPA) (U.S. Department of Health and Human Services, 2000). However, the introduction (or reintroduction) of regular physical activity can buffer, prevent, and/or reverse many of the above consequences.

A routine of regular physical activity can greatly reduce chronic diseases and the risk of premature death (Warburton, Nicol, & Bredin, 2006), and people who were previously sedentary and are overweight may reap many health benefits from becoming active even if they do not lose weight (Duncan et al., 2003). These facts position active outdoor recreation (OR) (i.e. kayaking, canoeing, rock climbing, bicycling, backpacking, hiking, cross country skiing, snow shoeing, etc.) as a potential component in a person's leisure lifestyle that may naturally lend itself in the promotion of physical activity, health, and overall quality of life. OR is a viable intervention to increase LTPA, as consumers of public outdoor spaces are three times more likely to meet or exceed recommended LTPA levels (Giles-Corti et al., 2005). and the creation of new local OR resources such as non-motorized trails were found to significantly promote LTPA among people who were previously inactive (Gordon, Zizzi, & Pauline, 2004).

Past LTPA research is related specifically to the identification and management of leisure constraints as they reduce or preclude leisure participation, leisure satisfaction and/or general achievement of other desired leisure benefits. Crawford, Jackson, and Godbey (1991) presented a hierarchical model of leisure constraint negotiation, which categorized leisure constraints into three distinct barriers: structural, intrapersonal, and interpersonal.

## **Methods**



To examine these three constraints to OR for individuals who are significantly overweight, two focus group sessions were facilitated. The focus group opportunity was communicated in the local newspaper, university faculty newsletter, signs posted around university campus and community, and Facebook. Those outdoor professionals who could attend a focus group session were selected. Participants received refreshments during the focus group sessions and \$50 after attending all three sessions.

Focus group discussion concentrated on constraints to OR and strategies to overcome constraints with specific examples. Topics for future research were also discussed with the participants. Information was gathered during the sessions by writing participants' verbal responses on large sticky notes on the wall, from recorded audio that was professionally transcribed, and notepads provided to participants.

### **Results**

Focus group participants consisted of ten men (ages 21-55) and six women (ages 25-53) who lead in a variety of OR settings. Information recalled from outdoor leadership experiences during the sessions by writing participants' verbal responses on large sticky notes on the wall was later categorized into leisure constraints of three distinct barriers: structural, intrapersonal, and interpersonal. These were previously identified categories by Crawford et al. (1991) in leisure. Participants discussed structural constraints of equipment and clothing to successfully participate in OR (i.e. appropriate size and safety). Intrapersonal constraints focused internally on the individual who is significantly overweight (i.e. fear). Interpersonal constraints examined the relationships with others (i.e. lack of instruction/knowledge, ridicule of peers). After listing all the constraints, the participants voted on the top four constraints of all those listed. The voting on constraints followed with a further focus on highest voted items by providing strategies to overcome the constraint and specific examples. Those constraints with the highest votes from focus group one were "outdoor gear fitting appropriately, fear, lack of instruction/knowledge, pain levels when doing strenuous outdoor recreation/not physically strong enough". Those constraints with the highest votes from focus group two were "fatigue or low energy, finding gear/clothes that are comfortable and functional, fear of ridicule from peers, terrain/route is too difficult for the program and not explained". Utilizing a constant comparison analysis for the qualitative data from recorded audio that was professionally transcribed, the researchers then analyzed the themes for any commonalities between the focus groups. During the focus group, some topics for future research mentioned by the participants were accessibility of OR programs and equipment, cost of outdoor programs and equipment, training of outdoor professionals, safety of outdoor equipment, and support system for OR.

### **Discussion**

With this research and potential topics for future research, the OR field has an exciting opportunity to position ourselves as leaders in improving the health and wellness of the general population in response to this current health crisis. Leisure contexts provide non-pharmacological opportunities for promotion of physical, psychological, and emotional health and wellness. For example, an article presented recreation professionals as potential contributors to active living research (Godbey, Caldwell, Floyd, & Payne, 2005). However, although general mentions were made to goals of addressing health and wellness needs of the public, including those with disabilities, there was no information of how we address the special needs of people who are significantly overweight within the context of OR. This focus group research study not only identified the structural, intrapersonal, and interpersonal constraints to OR for individuals who are significantly overweight, but, most importantly, delivered valuable strategies for outdoor

professionals to provide appropriate and safe outdoor clothing and gear, knowledgeable instruction specific to this population, and the creation of an inclusive and supportive outdoor environment without the fear of ridicule from others, to buffer, prevent, and/or reverse the physical, social, and psychological consequences of obesity.

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# EFFECT OF AN OUTDOOR DEVELOPMENTAL ADVENTURE PROGRAM ON THE PSYCHOSOCIAL ADJUSTMENT OF ADOLESCENTS JOURNEYING WITH CANCER

Linda Paquette, Ph.D., Université du Québec à Chicoutimi ([linda.paquette@uqac.ca](mailto:linda.paquette@uqac.ca))

Julie Fortin, Bac., Université du Québec à Chicoutimi

Alexandre Crête, D.Ps., Université du Québec à Chicoutimi

Danielle Maltais, Ph.D., Université du Québec à Chicoutimi

Audrey Brassard, Ph.D., Université de Sherbrooke

With the collaboration of Mario Bilodeau, Ph.D., Université du Québec à Chicoutimi

## Literature review

The number of adolescents and young adults with cancer who attain the 5 year survival rate has consistently increased over the last decades, reaching 85% (De et al, 2011). This rise in the survival rate justifies the implementation and scientific validation of innovative programs aiming at the psychosocial rehabilitation of young cancer survivors (SCC, 2009). Beyond the fact that cancer is a painful threat to life itself, the treatments impact physical appearance (loss of hair, acne, radical gain or loss of weight), as well as changes in hormonal development (alteration of puberty, reproduction issues) and reduction of energy levels, making it particularly challenging for adolescents (Eiser & Kuperberg, 2007). Compared to other age groups, adolescents journeying with cancer are subject to unique challenges because of their developmental needs (Abrams, Hazen & Penson, 2007). Being the age of risk-taking, socialization outside the family, appropriation of self, identity and personal values, autonomy and exploration of the first romances, adolescence does not travel easily with the multiple threats of cancer (Zebrack, 2011). Adolescent cancer survivors are often more dependent on their family and parents (Eiser & Kuperberg, 2007) and may have issues with self-esteem and psychological distress (von Essen, Enskär, Kreuger, Larsson, & Sjöden, 2000). The fact that they represent less than 2% of the cancer population also reduces the possibility of relating to similar ones, making it difficult to develop their social skills (Freyer, 2004). Among the psychosocial intervention programs available for adolescents with cancer, outdoor developmental adventure presents the advantage of meeting their developmental needs by engaging them in an experience outside of their family through a 10-day long experience where they can challenge themselves physically and socially in a natural setting. However, there has been very little validation of this intervention model with this population (Stevens et al., 2004). Grounded on the self-determination theory (Ryan & Deci, 2017), a study conducted among adolescents struggling with dysphasia indicates that psychosocial interventions based on nature and adventure could and should aim at fulfilling the psychological needs of participants, including relatedness, competence and autonomy, leading them to a better overall psychosocial adjustment (Bergeron, Lheureux, Bergeron, Fournier-Chouinard & Rojo, 2017). The aim of this study is to evaluate the impact of an outdoor developmental adventure program on the psychosocial adjustment of adolescent cancer survivors.

## Method

The study was conducted with 52 cancer survivors (30 boys, 22 girls) aged from 14 to 20 years old ( $M = 16,56$  years) and their parents (51 mothers, 44 fathers) from 7 different expedition cohorts who engaged in a 10-day expedition in one of the following outdoor activities: kayaking, snowmobiling, hiking, sailing, dogsledding, canoeing and snowshoeing. The data was collected from 2011 to 2015 in Quebec, Canada. The program was developed by *The tip of the toes*

*Foundation.* A mixed method design (Creswell, 2015) using qualitative interviews and quantitative validated questionnaires was conducted during a one year follow-up at 4 different measurement moments: T1) 2 weeks before the expedition, T2) 2 weeks after the expedition, to avoid the “return-euphoria” effect, T3) 4 months after the expedition and T4) one year after the expedition. It was not possible to gather a comparison group. Multiple respondents (adolescents and their parents) participated in the qualitative interviews. The adolescents were also asked to complete the following self-report validated questionnaires measuring: 1) Self-esteem (Rosenberg self-esteem questionnaire; Rosenberg, 1965), 2) Psychological distress (Psychiatric Symptoms Index; Ilfeld, 1976), 3) Quality of the relationship with parents and peers (Inventory of Parent and Peer attachment; Armsden & Greenberg, 1987) and 4) Social desirability (Crowne & Marlowe, 1960). Those questionnaires were chosen because of their good psychometric properties and the possibility of comparing the results to normative samples. Control variables were introduced in the analysis: 1) language of the interview (French or English), 2) sex, 3) expedition cohort and 3) social desirability. The study was approved by the Université du Québec à Chicoutimi ethical board.

## Results

The participation rate was 74.3 % and the attrition rate was 26.9 % after one year. These rates are better than those occurring in other studies conducted with pediatric populations affected by a chronic disease (Karlson & Rapoff, 2009). A univariate analysis of variance (ANOVA) indicates that the participants who removed themselves from the study had a significantly lower self-esteem at T1  $F(1,50) = 7,394$   $p = 0.009$ ,  $\eta^2 = 0.13$  (observed power = 76%). No other difference was noted at T1 in relation to attrition. Since the participants who dropped out during the study could have done so because of issues linked to cancer recurrence, making them very different from those who stayed in the study, only the participants with complete data were considered for further analysis. No effect was measured in relation to the language of the interview or the expedition cohort. For adolescent self-reports, ANCOVAs for repeated measures indicate a significant improvement of self-esteem  $F(3,34) = 6,675$   $p = 0.001$ ,  $\eta^2 = 0.37$  (observed power = 84.8%) at T2, maintained after 1 year post-program. A significant interaction effect between social desirability and time was measured for psychological distress  $F(3,34) = 3,106$   $p = 0.039$ ,  $\eta^2 = 0.22$  (observed power = 62.7%), indicating a better improvement among adolescents with low social desirability, who had higher psychological distress scores at T1. For the quality of the relationship with parents, the results indicate a significant improvement concerning trust with the mother  $F(3,33) = 4,204$   $p = 0.013$ ,  $\eta^2 = 0.28$  (observed power = 81.2%), maintained after 1 year, and of the overall quality of the relationship with the father  $F(3,34) = 3,878$   $p = 0.018$ ,  $\eta^2 = 0.25$  (observed power = 77.6%), maintained after 4 months but not after 1 year. A significant interaction effect was measured between social desirability and time regarding trust with the father  $F(3,34) = 3,671$   $p = 0.005$ ,  $\eta^2 = 0.25$  (observed power = 75.2%), indicating a better improvement for adolescents with low social desirability who have a lower score regarding trust at T1 than those with high social desirability. This effect is not maintained after 4 months or 1 year. For the quality of the relationship with peers, the results indicate an interaction effect between gender and time for the overall quality of the relationship with peers  $F(3,32) = 4,888$   $p = 0.007$ ,  $\eta^2 = 0.31$  (observed power = 66.8%) and the communication with peers  $F(3,32) = 5,860$   $p = 0.003$ ,  $\eta^2 = 0.36$  (observed power = 92.7%) indicating an improvement only for girls, maintained after 1 year. A significant improvement was also measured for the feeling of isolation from peers (alienation)  $F(3,32) = 4,603$   $p = 0.009$ ,  $\eta^2 = 0.30$  (observed power = 84.7%), maintained after 1 year. Principal thematic content analysis

was realized on the verbatim transcription of interviews, using NVivo 10. The results indicate 4 principal categories of impacts reported by the adolescents and their parents and an evaluation dimension: 1) Ludic, pleasure and amazement linked to the contact with nature, 2) Personal growth linked to an improvement of self-confidence, autonomy and a feeling of achievement, 3) Relational, social growth linked to a lesser feeling of isolation, a better capacity to express emotions and connect with others, 4) Physical, corporal challenges and growth linked to physical activity, weather conditions (discomfort) and a motivation to engage in further activities and 5) Program evaluation, linked to a generally positive appreciation, with anecdotic comments about the presence of media (1 cohort) and the language understanding for Anglophone participants only.

### **Discussion**

Quantitative analysis conducted on the adolescent self-reported measures shows a significant improvement of self-esteem and perceived quality of the relationship with parents and peers with small to moderate effects, indicating that the program improved psychosocial adjustment of adolescent cancer survivors. Improvement was maintained after a one year follow-up for self-esteem and quality of the relationship with peers for girls only, but not for the quality of the relationship with the mother and father, which came back to the initial level after one year. However, initial scores on all the quantitative scales, except for the quality of the relationship with peers among girls, indicate that the psychosocial adjustment of participants was already similar and even better than general populations of adolescents before program participation (Bagley et al., 1997; Picard, Claes, Melançon et Miranda, 2007; Pace, Martini et Zavattini, 2011). There was also a possible social desirability bias for the psychological distress scale, the participants with lower social desirability showing a better improvement on this dimension. The same social desirability bias was observed for the trust with the father. The quality of the relationship with peers shows a better improvement for girls, who had a lower initial level compared to a general population of girls, suggesting that cancer might be a bigger threat to friendship for girls than for boys. The qualitative results based on the adolescents' and parents' interviews indicate that the participation to an outdoor developmental adventure is favorable to the development of self-determination, with principal categories of impact similar to the psychological needs of relatedness, competence and autonomy, possibly linked to the contact with nature, the "awe" and the positive group dynamics. Based on the comments about the language issues and the media presence, recommendations include the addition of translation facilitation during the expeditions, as well as a very cautious inclusion of mass media. Despite generalizability issues due to the absence of a comparison group and a possible social desirability bias for the self-reported measures, this study shows promising results for this program who is significantly improving the psychosocial adjustment of adolescents journeying with cancer.

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# OUTDOOR ACTIVITY INVOLVEMENT IN ADOLESCENCE AS A PREDICTOR OF POSTSECONDARY EDUCATIONAL STATUS AMONG RURAL YOUTH: RESULTS FROM A LONGITUDINAL STUDY

Jayson Seaman, University of New Hampshire ([Jayson.Seaman@unh.edu](mailto:Jayson.Seaman@unh.edu))

Erin Hiley Sharp, University of New Hampshire

Eleanor Kane, University of New Hampshire

Corinna Jenkins Tucker, University of New Hampshire

Karen T. Van Gundy, University of New Hampshire

Cesar J. Rebellon, University of New Hampshire

## Introduction

Out-of-school activity involvement is associated with a range of developmental benefits. Outdoor activities in particular have been promoted as especially promising developmental environments (Mainella, Agate, & Clark, 2011; Sibthorp & Morgan, 2011), with research showing they foster positive connections to nature (Chawla, 2015) and increased educational outcomes (Skaugen & Fiskum, 2015; Widmer, Duerden, & Taniguchi, 2014). They also play an important role in rural communities, establishing social bonds, connections to place, and lifelong affinities for natural settings and nature-based recreation (McLaughlin, Schoff, & Demi, 2014).

For highly involved rural youth, the positive dimensions of outdoor activities shape developmental processes that are central to their life choices, including forming educational aspirations that establish a trajectory toward postsecondary education (Seaman et al., 2014). This beneficial feature, however, may also enhance rather than mitigate the conflict youth face between pursuing postsecondary education elsewhere or remaining in communities to which they have become attached. This double bind is compounded by diminishing opportunities for gainful, local employment, which young adults evaluate as they make plans for the future (McLaughlin et al., 2014; Petrin, Schafft, & Meece, 2014). Despite these individual- and community- level impacts, outdoor activities as a developmental context for rural youth have received limited research attention, particularly involving studies that trace effects over time.

## Theoretical Framework and Research Methodology

Contemporary perspectives on youth development increasingly view it a function of interactions between person and context (Vandell, Pierce, & Dadisman, 2005). Developmental contexts cannot be understood independently from one another but rather have effects that compound over time and across settings; understanding “outcomes” therefore requires research on the mutual interactions of persons, settings, and domains of interest. Furthermore, as contexts for development, out-of-school activities require differentiation to understand their contributions – are outcomes attributable to *breadth* or *depth* of involvement, *duration* of participation over time, or through certain *types of activities* (Agans et al., 2014; Fredericks & Eccles, 2006)? And finally, while organized, youth-focused activities have an independent impact, school and family characteristics continue to figure prominently in educational attainment (Morris, 2015).

The present research addressed questions regarding activity *type* and *duration* in relation to two well-known predictors of postsecondary educational attainment – parents’ educational level and degree of belonging in school (Irvin, Meece, Byun, Farmer, & Hutchins, 2011). We analyzed longitudinal data collected from 2008-2014 among youth growing up in rural Northeast communities that have endured substantial changes in recent decades including shifts from resource extraction to an outdoor tourism-based economy, coupled with significant outmigration. Our analysis focused on youth participating to varying degrees in organized and unstructured outdoor activities throughout adolescence. Five waves of data were analyzed to address the question: *Does participation in outdoor activities throughout adolescence contribute to*

*postsecondary educational attainment?* Here we extend earlier research that found associations between outdoor activity involvement and educational expectations at 12<sup>th</sup> grade (Seaman et al., 2014); in this abstract we report actual postsecondary outcomes two years after graduation.

As in the original study, a person-centered approach was used to analyze data (Magnusson, 2003). Two-step cluster analysis in SPSS was used to create groups based on patterns of outdoor activity involvement in adolescence. To be included in the sample, youth must have responded to the survey in either 7<sup>th</sup> or 8<sup>th</sup> grade, as well as in 10<sup>th</sup> grade, 12<sup>th</sup> grade, and two years post-graduation. Profile groups were created by comparing responses to questions at each wave about participation in organized (e.g., Scouts, 4-H) and unstructured (e.g., hiking, skiing, 4-wheeling) outdoor activities. Postsecondary education status (continuously not enrolled; enrolled part time or intermittently; continuously enrolled full time) was computed using items indicating enrollment in 2015-16 and expected enrollment in 2016-17.

## Results

The final sample consisted of 114 respondents with a mean age of 20.35 at the time of the final survey wave (60% female, 40% male; 96% white). Three groups emerged: (1) those with little or no involvement in outdoor activities, (2) high involvement in unstructured activities only, and (3) high involvement in both types of activities. Group comparisons of relevant variables are shown in Table 1. Chi square analyses revealed no significant group differences in the areas of gender ( $\chi^2 = 1.28, p = .527$ ), having graduated or earned a GED ( $\chi^2 = 1.009, p = .604$ ), or parents' marital status throughout adolescence ( $\chi^2 = 5.049, p = .080$ ). Differences in geographical location approached significance ( $\chi^2 = 5.741, p = .057$ ); being enrolled in school full-time was significantly related to living outside the area ( $\chi^2 = 15.905, p = .000$ ). Groups differed significantly in postsecondary status ( $\chi^2 = 10.025, p = .04$ ), but not on perceptions of job ( $M=1.7, SD=.6; p=.674$ ) or educational ( $M=2.06, SD=.66; p=.782$ ) opportunities in the area, which all groups agreed were "worse" or "about the same" rather than "better" (scale = 1-3).

Table 1: Profile group composition, postsecondary educational status, and parents' educ. across groups

Group	Gender		Mean years*		Continuously not enrolled	Intermittent or part-time enrollment	Continuously enrolled full-time	Parents' educ level
	F	M	Org	Unst				
1 (N=31)	21	10	.10	1.52	14 (47%)	7 (23%)	9 (30%)	3.1 (SD .93)
2 (N=57)	33	24	0	3	12 (22%)	11 (20%)	32 (58%)	3.5 (SD 1.12)
3 (N=26)	14	12	1.81	3.15	5 (19%)	9 (37%)	12 (46%)	3.0 (SD 1.07)
Live in area					19 (63%)	14 (54%)	11 (22%)	
Live outside area					11 (37%)	12 (46%)	40 (78%)	

\*Mean years of involvement throughout adolescence; Org=Organized outdoor activities, Unst=Unstructured outdoor activities. Between group differences in: Years of involvement - Org: 3>2, 1 ( $p=.000$ ); Unst: 1<2,3 ( $p=.000$ ); Parents' educ. scale: 1=less than HS; 2=HS; 3=some college; 3=assoc. deg.; 4=BS/BA deg.; 5=grad or prof. deg.

Multinomial logistic regression was then used to determine the effects of the following variables on postsecondary status (variables were omitted that violate assumptions of multicollinearity): *Factor*: Outdoor activity profile group; *Covariates*: Parents' educational level, school belonging in high school, and importance of leaving the area (see Byun, Meece, Irvin, & Hutchins, 2012; Seaman et al., 2014). The fit of the final model was statistically significant ( $\chi^2 = 28.435, p = .002$ ) and accurately estimated 65.1% of overall cases.

As shown in Table 2, the odds of being continuously enrolled in school decreases by 89% [(0.11-1)\*100] if one moves from Group 3 (high involvement in organized and unstructured activities) to Group 1 (low involvement). For every one-unit increase in parents' educational level, the odds of being continually enrolled in school full-time increases by a factor of 2.9 (290%) versus being continuously unenrolled. Neither school belonging nor the importance of



leaving the area (as reported in HS) had an independent effect on postsecondary enrollment status. No variables significantly predicted the status *enrolled intermittently or part time*.

Table 2: Variables affecting odds of continuous postsecondary school enrollment

Variable	B	Odds ratio (95% Confidence interval)	Standard error
Parents' education level	1.070	2.915 (1.492 – 5.693)**	.342
Outdoor activity profile group			
Group 1: Low involvement	-2.204	.110 (.018 - .659)*	.912

Only significant variables included. Reference category: Continuously unenrolled. \* $p = .016$ ; \*\* $p = .002$ .

### Discussion

In rural contexts, youth are faced with the dilemma of staying in their communities, where future opportunities are often limited, or leaving to pursue educational goals elsewhere and then deciding whether to return. Coupled with family supports, outdoor activities figure into this landscape by contributing to the formation of educational aspirations and establishing trajectories toward postsecondary education. They also foster an appreciation for nature and an affinity for nature-based recreation, which can influence later residential selection (Seaman et al., 2014; McLaughlin et al., 2014). Better understanding their effects is therefore a matter of considerable importance for youth professionals and community leaders in rural contexts.

Results also underscore the importance of striving to understand the complex relationship of specific activities to outcomes of interest in different ecological niches. In this study, not only did typical antecedent factors (e.g., parents' educational level) emerge as important predictors of educational outcomes, findings also provide insights into persistent developmental challenges unique to rural environments. For instance, the most highly involved youth reported the strongest connection to nature in high school, yet were also the most likely to pursue full-time postsecondary education and thus relocate away from their hometowns. Conversely, the least involved youth placed greatest importance on leaving and had the lowest connection to nature in high school, but were least likely to be enrolled in higher education and thus were the most likely to remain in the area. Moreover, groups equally perceived educational and occupational opportunities to be the same or getting worse, which will likely influence decisions to stay or return as emerging adults. In addition, our analysis points to future questions regarding how developmental processes are navigated; what influences youths' choices to pursue outdoor activities, and which activities contain features that most contribute to socially valued goals? Are outdoor activities – like other activities – part of a growing “engagement gap” that contributes to educational inequality (Snellman, Silva, Frederick, & Putnam, 2015) or are they a form of “resource compensation” (Morris, 2015) that affords pathways ahead for disadvantaged youth? In any case, outdoor activities should be seen –and studied – as part of a complex social ecology that exerts a powerful influence on youth development, with repercussions over the life course.

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## **OUTDOOR ADVENTURE EDUCATION AND DIVERSE CITIZENSHIP: DIVERSIFYING OUTDOOR ORIENTATION**

*Wally J. Rude, Ph.D., Ambrose University, Calgary, AB, Canada ([wrude@ambrose.edu](mailto:wrude@ambrose.edu))*

*Andrew J. Bobilya, Ph.D., Western Carolina University*

*Brent J. Bell, Ph.D., University of New Hampshire*

### **Background/Review of Literature**

Some research suggests that college outdoor adventure experiences can cultivate the conditions in which interdependent relationships with diverse others can flourish (Wolfe & Kay, 2011). Because outdoor orientation programs are robustly designed to promote high quality, real, and trusting interpersonal interaction (Bell & Holmes, 2011), they are well positioned to contribute to social justice and diversity goals in higher education. There is a growing body of scholarship focused on diversity in higher education that argues for the development of healthy learning communities through quality interaction across different groups (Chang, Denson, Sáenz, & Misa, 2006; Denson & Chang, 2015; Smith, 2009), a significant step beyond just achieving compositional diversity. However, the outdoor orientation literature is deficient in exploring and understanding: (a) the participation rates of underrepresented groups in outdoor orientation experiences, even though this has been identified as a major concern in broader outdoor programs (Schwartz & Corkery, 2011), (b) barriers to participation, and (c) diversity related student learning outcomes. As such, this study makes a contribution to the diversity and outdoor orientation bodies of literature by exploring the connection between an outdoor orientation experience and diverse citizenship.

This study was informed by the theoretical framework of student thriving which is conceptualized as a state of optimal college-student functioning in the academic, social, and psychological domains (Schreiner, 2013). Although thriving consists of the following five scales: (a) Academic Determination, (b) Engaged Learning, (c) Positive Perspective, (d) Diverse Citizenship, and (e) Social Connectedness, this study focuses on the notion of diverse citizenship. Diverse Citizenship is characterized by the ability for students to believe that change is possible if effort is made and where students contribute in meaningful ways to the world, interact with others with diverse backgrounds, and are open to and demonstrate appreciation for the differences in others (Schreiner, 2010). Students who embody the qualities of diverse citizenship attempt to make a difference in the communities in which they live by working with diverse others toward a common goal of social justice.

Outdoor orientation is “defined as orientation or pre-orientation experiences for small groups (15 or fewer) of first-year students that use adventure experiences and include at least one overnight in a wilderness setting” (Bell, Holmes, & Williams, 2010, p. 3). According to recent estimates 191 institutions across the United States and Canada offer outdoor orientation programs which serve 25,000 participants (Bell, Gass, Nafziger, & Starbuck, 2014). Most of the research on outdoor orientation has focused on the social and relational benefits of these programs (Bell & Holmes, 2011), with more limited research on outcomes such as persistence rates (Bell & Chang, 2017), spiritual growth (Bobilya, Akey, & Mitchell, 2011), adaptation to college (Ribbe, Cyrus, & Langan, 2016), grade-point average (Gass, 1987), and self-efficacy (Viti, 2014). No study to date has investigated the effectiveness of an outdoor orientation program on diverse citizenship. Therefore, the purpose of this study was to investigate the contribution of participation in an outdoor orientation program to diverse citizenship among first-year undergraduate college students.

### **Methods**

Data were collected from three institutions offering outdoor orientation programs: (a) a research institution in western Canada, (c) a faith-based private college from the Midwestern United States, and (c) a private college from Midwestern United States. The three participating institutions offered outdoor orientation programs that ranged from a three-day camp-based experience to an 18-day Outward Bound-style program. Participants included 295 students. The Thriving Quotient (TQ; Schreiner, 2014), a valid and reliable instrument, was administered to first-year college students in the fall of 2014. To explore the direct, indirect, and total effects of the variables proposed in the hypothesized models of this study, structural equation modeling (SEM) was utilized, and was a helpful methodology because it allows researchers to explore several regression equations simultaneously (Byrne, 2010). This study is also unique in that it is the first identified outdoor orientation research project utilizing SEM.

### **Results**

The Diverse Citizenship model was tested using SEM and indicated an initial poor fit; therefore, an alternative model was created that evidenced a very good fit: [ $\chi^2 = 135.373$  ( $df = 76$ ,  $p < .006$ ), CFI = .921, RMSEA = .052]. Although an outdoor orientation experience did not directly predict diverse citizenship, as hypothesized, it did have a statistically significant and positive indirect effect ( $\beta = 0.077$ ) on diverse citizenship. Multiple pathways between outdoor orientation and diverse citizenship were identified. First, outdoor orientation predicted campus involvement ( $\beta = .246$ ), and campus involvement predicted diverse citizenship ( $\beta = .201$ ). Second, outdoor orientation predicted campus involvement ( $\beta = .246$ ), and campus involvement predicted student-faculty interaction ( $\beta = .408$ ) and student-faculty interaction predicted diverse citizenship ( $\beta = .173$ ). Third, outdoor orientation predicted campus involvement ( $\beta = .246$ ), and campus involvement predicted spirituality ( $\beta = .270$ ), and spirituality predicted diverse citizenship ( $\beta = .147$ ). Fourth, outdoor orientation predicted campus involvement ( $\beta = .246$ ), and campus involvement predicted psychological sense of community ( $\beta = .241$ ), and psychological sense of community predicted diverse citizenship ( $\beta = .386$ ).

### **Discussion**

Student participation in an outdoor orientation program appears to set in motion a propensity for students to become more involved in campus life (Astin, 1999), which cultivates greater sense of community (McMillan & Chavis, 1986), student faculty-interaction, or spirituality, which then culminates in diverse citizenship. This relationship, as elucidated in this study, is corroborated by few outdoor orientation studies (Gass, Garvey, & Sugerman, 2003; Wolfe & Kay, 2011). Based on the findings of this study, recommendations for practice include: (a) increase access and accessibility in outdoor orientation programs to account for the socialization/subculture, economic/access, and discrimination barriers that may exist for underrepresented groups (Schwartz & Corkery, 2011), (b) cultivate cross-racial interaction as means of enhancing the quality of interaction among diverse college students (Chang, Denson, Sáenz, & Misa, 2006; Denson & Chang, 2015) and (c) include the collection of racial, socio-economic, and other key diversity demographic metrics in future outdoor orientation census assessments and in outdoor orientation college program applications and assessment. There are only three participating institutions in the study with noticeable differences in the programming methodologies among these outdoor orientation programs; this limits the generalizability of the results to other outdoor orientation programs. Future research should utilize qualitative methods to more fully explore the barriers for participating in outdoor orientation program among typically underrepresented groups in outdoor pursuits and the student development gains when outdoor orientation programs include a greater diversity of participants.

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## **PLACE, SELF AND THE STUDY ABROAD EXPERIENCE: A BOLIVIAN ADVENTURE**

*Nevin J. Harper, Ph.D., Associate Professor, University of Victoria, [njharper@uvic.ca](mailto:njharper@uvic.ca)*

### **Literature Review**

College student worldviews can be enhanced through study abroad experiences (SAE, Engberg, 2013; Harper & Webster, 2016). Students have identified increased awareness of social privilege, new ways of reflecting upon experiences, cultural sensitivity, connectedness with the world and a shifting sense of purpose following SAE (Chieffo & Griffiths 2003; Jones et al., 2012). SAE generally occur at a time of identity and value development for college students in their late teens and early twenties (Arnett, 2000; Ravert et al., 2013) and are often described by institutions as a priority for student growth. Therefore, maximizing student experience should be of the utmost priority (Benham Rennick, 2015). What is less apparent is how to best design and deliver meaningful SAE during this important time of development in early adulthood.

This study was designed upon a theoretical argument; that through intentional experiences of place, one's sense of place will become more integrated with one's sense of self (Harper, Carpenter, & Segal, 2012; Knez, 2014; Kyle & Chick, 2007; Wattchow & Brown, 2014). The present SAE was comprised of adventure activities and travel including trekking and mountaineering. The curriculum included place-based learning, natural and cultural history and immersion, personal explorations of communities, and focused meaning-making activities connecting participants to the stories, landscapes and cultural and political understandings of place (e.g., reflective journal assignments). Recognizing impacts of personal experience and memory on one's sense on self-identity (Knez, 2014) the present SAE was designed to examine the relationship between, and integration of, self and place (Baker, 2006). The primary research question was: What meaning do participants construct about place(s) and how does this meaning relate to their sense of self? Participant thoughts, feelings and behaviors relative to place, self and others were recorded and observed in effort to better understand how students locate and identify themselves while adjusting to new and challenging environments during this SAE.

### **Methods**

Ethics approval was gained along with informed consent for inclusion in the research with the nine participants (8 students, age M=23; 1 adult, age 57). The study occurred during a three-week SAE in May 2016. The SAE occurred primarily in rural and wilderness regions of Bolivia SA with occasional visits to the city of La Paz (pop. ~1.5 M). The physical, cultural and social environments were chosen for the intensity of these experiences (e.g., physiological adaptation to altitudes between 11,000 to 17,500 ft. above sea level).

Qualitative data were collected via written assignments, researcher observations and reflective field notes thereby ensuring triangulation (Gray, 2004). Participants submitted essay responses to a series of reflective questions prior to the SAE, after the first week, after the second week, and again one-month post-SAE. A three-stage data-reduction process outlined by Patton (2002) was followed: (1) the condensing of data to codes and categories, (2) finding and declaring commonalities (themes) between codes, and (3) revisiting the data to further illuminate themes, find further support, and increase intricate understandings or new patterns.

## Findings

Participants suggest place is personally and socially constructed, but also malleable and can adapt over time, across contexts, and through experience. Initials are used in examples to protect participant identity. Five emergent themes were identified:

*Multiplicity of meaning.* The notion of place carried with it almost as many definitions as participants involved. Place was described relative to memories, family experiences, and often the home and community one grew up in. Participants suggest place is personally and socially constructed but that it is also malleable and can adapt over time, across contexts, and through experience. While responses were framed by research questions, meaning of place emerged as personalized interpretations and as an amorphous conceptual ideal.

- *“Place is about being in the moment and fully involved in what it is you are doing”* (MD, male participant)
- *“I think your “home place” is built by yourself and you can add others to secure and define this place so it can be anywhere in the world”* (SP, male participant)

*Personal growth and development:* As a common outcome identified in SAE research, this finding was not surprising. Students provided many examples of how they personally benefited from the experience on a social and emotional level. Insights and articulation of inter- and intra-personal learning. This theme emerged in the context of the social group for its closeness, inherent intensity of experiences, and heightened need for care between participants for group success.

- *“I am way more comfortable talking to strangers...I’ve learned how to listen to advice better and trust my instincts”* (GB, female participant)
- *“I’ve learned to remain calm and try to figure things out”* (KJ, male participant)

*Gratitude and global perspective:* Participants identified an increased appreciation for their day-to-day lives and home place, generally through direct comparison with places visited. With this change came increased awareness of local living conditions and a common comparison to the lives they experience at home. They cited a recognition of overabundance, unsustainable lifestyles and significant lack of awareness and empathy for living conditions of others and the environment internationally.

- *“I was looking up at the same moon my family and friends were but at the same time completely different stars in the Southern Hemisphere, and it sank in that my sense of place was extremely limited”* (CH, male participant)
- *“My sense of home has changed a bit, because I believe I value it more than I did before”* (GB, female participant)

*Urban chaos—nature calm:* Participants in the present study experienced greater anxiety and dissonance in urban areas than during time spent in rural or wilder places. Dichotomy between participant experiences of place in cities versus rural and wilderness areas was consistently observed and expressed. A comparison of dissonance versus stability suggested strong emotional and cognitive shifts between environments.

- *“Once I could see the lake, my mind felt more peaceful”* (TT, female participant)
- *“I felt alarmed by the density of the city, an overwhelming sensation took over...”* (KJ, male participant)

*A taste for more:* Participants expressed an appetite for sensation-seeking and exploration, identifying international travel and adventure as ideal to fulfill these desires. A broad range of benefits from the SAE were also desired (e.g., language acquisition, cultural understanding...).

- *“I feel a pressing need to see more of the wilder places..more of the world’s edges”* (PH, female participant)
- *“[The experience] made me realize how much I want to travel more and experience new cultures and places”* (CH, male participant)

## **Conclusions**

Findings from this study suggest that college student development includes personal and socially constructed experiences of self, relative to place. Leaders of SAE should recognize the wide range of participant needs, potential learning opportunities, and levels of openness to diverse experiences. Place-based learning should be central to SAE design and leader training (Harper & Webster, 2017). Findings also supported the premise that place-based learning can increase participant knowledge of, and empathy toward, local cultures, landscapes, as well as draw linkages to the influences of place(s) in their lives now and in the future (Wattchow & Brown, 2011). Further research is warranted to better understand and maximize participant affective and cognitive experiences of place(s) relative to curriculum, leadership and opportunities for personal growth and development.



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# **SOCIOECOLOGICAL EDUCATION: FACULTY KNOWLEDGE, BELIEFS, AND PRACTICE IN POST-SECONDARY OUTDOOR EDUCATION**

*Danny Frank, Ed.D., Northland College (dfrank@northland.edu)*

## **Background**

Historically, Outdoor Education (OE) has maintained a predominant focus on physical skills development, individual psychosocial development, interpersonal skills development, and environmental awareness (Gilbertson, Bates, Mclaughlin, & Ewert, 2006). In contrast, scholars have recently promoted a paradigm shift in OE to a more comprehensive and integrated approach that incorporates social and ecological justice, and accounts for the inextricable links between individuals, society, and ecology (Furman, & Gruenewald, 2004; Wattchow & Brown, 2011; Wattchow, et. al, 2014). This study sought to explore the current state of practitioners' attention to these ideas, and specifically examined the extent of post-secondary OE faculty's knowledge, beliefs, values, and practice related to socioecological education.

## **Literature Review**

Outdoor Education (OE) is experiential, interdisciplinary, and multi-sensory, and targets psychosocial development, physical skills development, and environmental awareness in an outdoor context (Priest, 1986; Neill, 2008; Neill & Richards, 1998). It is broadly recognized that the aforementioned aims, while central to the field, emerge from a hegemonic Eurocentric paradigm, which tends to overemphasize individual accomplishment, commodify nature, and minimize cultural differences (Wattchow & Brown, 2011). Furthermore, historically absent from the predominant aims of OE is attention to social justice, and development of deep, place-based ecological connectedness. In response, many scholars assert that social justice is not only important to address, but should be afforded a central focus in OE (Breunig, 2005; Frazer, 2009; Warren, 1998, 2002, 2005; and Warren, Roberts, Breunig, & Alvarez, 2014;), as should the development of curriculum and pedagogy that prioritize deep, place-based socioecological connectedness (Bowers, 2002; Gruenewald, 2003b; Wattchow & Brown, 2011).

Literature regarding social justice in OE is plentiful, particularly addressing participant cultural identity, access, participation, leadership, and curriculum and program design, although more research and development is needed (Warren, et. al, 2014). Notably, Bowers (2002), identifies that educators most often theorize social justice as a distributive industrialist phenomenon, in which issues such as access and participation are approached as finite and predefined commodities. Instead, Bowers (2002), Furman & Gruenewald (2004) & Gruenewald (2003a) suggest re-examining social justice as a critical socioecological phenomenon, which acknowledges the inextricable relationship between humans and nature, and recognizes parallels between social and ecological injustices that influence learning environments.

Wattchow, et. al (2014) provide a framework for socioecological education, which is defined as "an interdisciplinary philosophy and pedagogical approach [...] embracing a broad array of social, cultural, environmental, and geographical influences that shape individuals, identities, family, policies, and the environment" (p. 23). Specifically, the authors contextualize socioecological education in environmental and outdoor education, outdoor recreation, and physical education, providing a directly relatable framework for scholarly investigation and programmatic development in a number of experiential education settings.

In particular, this study utilized the emergent theoretical framework of socioecological education (Wattchow, et. al, 2014) to examine faculty's perceived knowledge, espoused beliefs, and reported priorities and practice of socioecological principles in curriculum and pedagogy.

Knowledge, beliefs, and practice were specifically investigated because while there is a substantial theoretical basis for, and belief in the importance of social justice in the broader field of experiential education, there is proportionally less evidence of social justice being enacted by practitioners (Warren, et. al, 2014). Furthermore, Anderson, Bloom, and Krathwohl (2009) explain that knowledge serves as a precursor to practice; and Borg (2001) suggests that one's belief in a given idea or principle may directly influence one's thoughts and behaviors related to that idea or principle. Therefore, the study sought to illuminate potential correlations between faculty's knowledge, beliefs, values, and practice related to social justice and socioecological education. This study integrated Wattoo, et. al's (2014) four key principles of socioecological education (*place-based, experiential pedagogies, agency and participation, and lived experience*), with a critical, relational, and ecologically grounded theory of social justice derived from Bowers (2002), North (2006), and Young (2011).

### **Method**

This exploratory survey research sought to answer the following primary research questions: 1) What is the extent of post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about Outdoor Education in relation to the underlying principles of socioecological education? 2) What is the relationship between post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about the principles of socioecological education and their reported pedagogical application of those principles? 38 six-point Likert scale items measured faculty's perceived knowledge (*1 = I have no knowledge of this concept to 6 = I consider myself an expert in this concept*); espoused curricular beliefs (*1 = strongly disagree to 6 = strongly agree*); and reported pedagogical practice (*1 = almost never to 6 = almost always*). Eight rank order items measured the priority faculty place on curricular aims of social justice in comparison to predominant curricular aims of OE (*personal growth and development, social skills development, physical skills development, and environmental awareness*). Internal consistency reliability, test retest reliability, and face validity were verified through a field test administered to Masters of Environmental Education graduate students and faculty at a mid-sized regional public university in the Midwestern United States. Content validity was verified by a content expert who served in an advisory role to the researcher.

Invitations to participate in the study were sent via email to all identifiable faculty teaching at least half time in post-secondary programs in the United States, which offer four-year Bachelor's Degrees in Outdoor Education or a directly related field. Potential respondents were identified using an exhaustive internet search, a pre-existing list of programs provided by a colleague, and by word of mouth. 113 surveys were distributed with three follow-up emails. The survey was potentially shared by recipients with additional faculty not on the original respondent list. 68 surveys responses were collected, with 58 valid responses used in data analysis.

### **Results**

Percentages of faculty reporting a perceived level of applied knowledge socioecological concepts were as follows: 43.1% (*social justice*), 81.1% (*experiential pedagogies*), 60.4% (*lived experience*), 56.9% (*place-based*), and 58.6% (*agency and participation*). Meanwhile, faculty reported a moderate to strong belief that the socioecological aims of OE are important, as well as a moderate to strong belief that the predominant aims of OE are important. Comparatively, mean scores (with standard deviation in parentheses) indicated only a marginal difference between faculty's beliefs in the predominant aims of OE over socioecological aims of OE. Data yielded mean scores of 5.18(.91) for faculty's belief in predominant aims of OE, and 5.07(.51) for faculty's belief in socioecological aims of OE. Notably, 92% of faculty prioritized one or more

predominant curricular aims over social justice aims.

Also of note, three items which faculty reported practicing between infrequently and frequently were *I incorporate a variety of cultural perspectives when exploring local landscapes*, *I identify dynamics of cultural privileges and disadvantages present in the learning environment*, and *I actively enlist participation of people from historically marginalized groups*, with means of 3.94 (1.00), 3.72 (1.27), and 3.76 (1.35), respectively. Although these practices stem from two socioecological principles, they all involve cultural identities, dynamics of privilege and marginalization, and inclusion of diverse perspectives.

Finally, a statistically significant positive correlation was determined between perceived knowledge of socioecological education and reported practice of social justice,  $r(54) = .532, p < .01$ . Likewise, a positive statistically significant correlation was determined between reported priority of social justice and reported practice of social justice,  $r(54) = -.378, p < .01$  (negative  $p$ -value represents a positive correlation, as Likert scores were reversed for priority items).

### Discussion

The marginal difference between faculty's espoused beliefs in predominant aims over socioecological aims of OE is noteworthy, as the discreet principles of socioecological education predate the model itself, and faculty may have long understood their importance, or perhaps enact socioecological education under a different moniker. Therefore, a paradigm shift toward socioecological praxis may be a matter of re-framing and integrating existing knowledge, beliefs, and practices, rather than replacing them with wholly new concepts and/or practices.

However, in light of the call for increased attention to social justice in OE, it is concerning that fewer than half of respondents perceived themselves as having an applied knowledge of social justice, since data show a strong correlation between perceived knowledge and reported practice. Likewise, the high percentage of responses prioritizing predominant curricular aims of OE over social justice curricular aims may be problematic in light of Borg's (2011) assertion that value is a precursor to behavior. These data support the notion that further pre-service preparation and professional development around issues of social justice is warranted (Frazer, 2009; Warren, 1998 2002, 2005; Warren, et. al, 2014). Furthermore, faculty's reported infrequency practicing items related to varying cultural identities and issues of privilege and marginalization speaks to Mitten, Warren, Lotz, and d'Amore's (2012) assertion that OE maintains a strong hidden curriculum favoring dominant culture values and ideals, and continues to alienate participants and practitioners from historically marginalized identity groups.

Finally, further replicating this study with different OE practitioner groups is warranted. The survey instrument may be replicated (with the author's permission) in different experiential education contexts to more broadly examine practitioner knowledge, belief, and practice of socioecological education. As well, since this study utilized self-reported data, an extension of the present study might include observation of teaching practices, content analysis of curricular artifacts, student focus group discussions, and other avenues of data collection in order to be able to richly assesses and describe faculty practice. Overall, the data contribute to the advancement of socially and ecologically grounded and integrated practice in Outdoor Education.

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# **TAKING OFF THE HARNESS: TRANSFERENCE OF EXPERIENTIAL EDUCATION TO THE CLASSROOM**

*Cheryl Mason Bolick, University of North Carolina at Chapel Hill, [cbolick@unc.edu](mailto:cbolick@unc.edu)  
Jocelyn Glazier, University of North Carolina at Chapel Hill, [jocelyng@email.unc.edu](mailto:jocelyng@email.unc.edu)*

## **Introduction**

Teacher attrition rates are alarmingly high (Gra & Taie, 2015). Frustrated by static and scripted curriculum, many choose to leave the school rather than change the system. Recognizing the need to support practicing teachers to teach in new ways, we designed an experiential education component for our Masters of Education for Experienced Teachers. Teachers select one of two weeklong residency programs as part of a graduate course: they either spend a week engaged on a local environmental Hub Farm or on a North Carolina Outward Bound course. Our previous research has documented the outcome of the teachers' experience *during* the week of the field-based experiential education. The teachers often finish the course with high expectations of ways they plan to transfer experiential education back to their own classrooms. This study investigates what happens when they figuratively and literally come down from the mountain or step off the farm. The questions that guide this study are: How do teachers transfer their experiential education experiences to their professional practice? What are the support structures and barriers to transferring experiential education to the K-12 classroom?

## **Review of Literature**

Dewey (1938) suggested first and foremost that, "genuine education comes through experience" (p. 25). Dewey (1938) ultimately believed that learning was cyclical--present experiences build from past experiences and inform future experiences-- and should follow an inquiry process: "...education must be conceived as a continuing reconstruction of experience" (p. 13). Kolb's (2015) model of learning builds upon Dewey's conceptualization of experience and emphasizes the importance of 'abstract conceptualization and active experimentation' to scaffold new experiences. These new experiences ultimately result in the transference of knowledge between and across experiences. An essential component of the experiential cycle is transference of the experience to another context.

The impact that experience has on future knowledge is known as the "transfer" phenomenon (Bruner, 1960; Gass, 1985). Gass (1985) supports that transfer is 'critical' to the field, yet often 'misunderstood' and underexamined (Sibthorp et al., 2011). It is essential for experiential education programs to provide the bridges or links for students when they 'take off the harness'. Metaphors are often used during an experiential education initiative to help participants reflect upon the transference beyond the experience. Bacon (1983) suggests the quintessential moment of experiential education is when participants consider the transference of the experience from one context to another. The literature echoes the call to assist students of experiential education to transfer their new understandings to their lives "after" the experience. Yet, just as experiential education is complex and messy work, the transfer phenomena is also complex and messy. This study seeks to inquire into the transference of experience into our students' professional lives as teachers.

## **Methods**

*Participants* in the study are K-12 teachers enrolled in a part-time master's degree program. Over the past four years, 128 teachers have engaged in these experiences. In the first summer of their program of study, teachers take a course that is designed to help the them to examine and critique their teaching practices, learn about alternative teaching practices, and consider how strategies can offer transformative learning experiences for the students in their classrooms. A central component of the course is a weeklong residency program in which teachers select to engage in experiential education on an environmental Hub Farm or with North Carolina Outward Bound. The focus of this study will be on the students who participated on the Outward Bound experience.

*Data* that informed this qualitative study come from a number of sources including student reflections, interviews, and assignments that are collected during the summer course. One particular assignment prompts students to reflect on their experiential residency and how they would like to see these experiences impacting their future professional practice. Participant interviews have been conducted at incremental times post-course to explore participants' classroom practice to better understand transference of experiential education. The constant comparative method (Glaser & Strauss, 1970) was used to identify themes from the data collected during the summer and the interview protocol was developed based on these initial themes. Our analysis then includes close comparisons between narratives shared in the summer with narratives of classroom practice to determine transference of experiential education into professional practice. In addition, we coded the data to identify challenges and supports to transference.

### **Findings**

A continuum of experiences emerged from this case study research. Teachers ranged from those that demonstrate transference of experiential education into the classroom and those that do not. Other teachers were scattered across this continuum. Of particular interest to us were those teachers who left the summer experiential residency having been transformed by their participation in experiential education. In this presentation, we present these cases wherein participants transfer their experiential education experiences to their professional practice. We also discuss the support structures and barriers that impact transference.

The teachers 'took off their harnesses' and left the course inspired at the end of the week-long residency. One teacher reflected that she wanted to return to the classroom and be more "of a good leader who talks little so that my students will be able to say, 'we did this ourselves' at the end of a time of exploration with immense pride in their voices". She reports six months later that *because* of her intense experience *reflecting* during her residency that she has been able to transfer the cyclical nature of learning in a "maker space" environment that she designed this year for her young learners.

Eighteen months later, she refers to her students 'holding the compass'. An excerpt from a poem she penned reflecting on the impact of her experiences lift up the impact of the Outward Bound experience

Something strange has happened in my classroom,  
The space is hardly recognizable at all.  
The buffed floors are now meandering paths  
And great pines grow where once there were walls.....

Each one of us has a fire inside,  
Experience fans the growing glow.

One step past our comfort zone we learn  
*There is more in us than we know.*

### Discussion

In this study, we illuminate the transference of experiential education from the mountain-top back to the K-12 classroom. As one might expect, the teachers were energized and motivated at the end of their experience either on the Hub Farm or Outward Bound. This “mountain top” experience feeling inspired the teachers to seek to transfer their experiences to their own teaching practice. The full paper will report in detail how these teachers transfer their experiences to their practices. An analysis of these case studies revealed support structures and barriers to transference. The full paper will tease out how school context supports or inhibits the transference of the lessons learned from experiential education. Implications for the fields of teacher education and experiential education will be discussed to expand possibilities for transference.

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# **ENRICHING BRAVE SPACE: INTERDISCIPLINARY THEORY FOR AN EMERGING JUSTICE FRAMEWORK**

*Anna Czarnik-Neimeyer, M.A., Bridgebuilder Consulting (ACN@bridgebuilderconsulting.com)*

## **Introduction**

In the face of political and ideological division, effective social justice training is urgent. In higher education, content experts like identity studies professors have theoretical knowledge but may lack tools for effective facilitation. Likewise, facilitators, such as student affairs professionals, may be skilled trainers but lack sufficient knowledge of social justice concepts. As a new tool for social justice dialogue, Arao and Clemens (2013) proposed “brave space” as a facilitation framework, and this theory can serve as an effective bridge to serve both content experts and facilitators. The writers offer a preliminary framework according to a paradigm of bravery: “We argue that authentic learning about social justice often requires the very qualities of risk, difficulty, and controversy that are defined as incompatible with safety” (as cited in Landreman, 2013, p. 139). Their piece provides a description of safe space, and it rewrites facilitation ground rules to create a more dynamic brave space learning environment conducive to challenging and provocative learning around power, privilege, identity, and inclusion. Arao and Clemens conclude their research with a call for further philosophical and theoretical analysis. The purpose of this paper, then, is to begin to answer this call to enrich brave space as a potentially powerful educational tool. The paper provides pedagogical and socio-political context through the lens of feminist pedagogy, experiential education, and legislation. It then applies interdisciplinary theory, mining the work of critical philosophers Martha Nussbaum and George Yancy, to undergird the brave space framework. Finally, this conceptual paper provides application throughout, to bridge the gap between theory and praxis, towards effective trainings for positive change.

## **Context and Brave Space**

On March 7, 2013, President Barack Obama signed the Campus SaVE Act as part of an update to the 1994 Violence Against Women Act, revamped as the Violence Against Women Reauthorization Act of 2013 (VAWA 2013). This new legislation introduced clearer, more stringent Title IX policy into law, requiring increased vigilance related to discrimination and violence based on gender and sexuality in education environments receiving Title IV Higher Education Act funding (Minnesota Coalition, 2014). A key update was the proactive education requirement, mandating bystander intervention and assault prevention trainings. Importantly, VAWA 2013 also included a monumental nondiscrimination provision: it was the first federal funding statute to acknowledge protections for gender and sexual minorities (GSM) like Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ) individuals, concurrently barring discrimination based on race, color, religion, national origin, sex, or disability (VAWA 2013, 2014). This historic VAWA 2013 update combining Campus SaVE and the nondiscrimination provision means that colleges and universities across the country, in some cases for the first time ever, are increasingly taking up formal conversations about identity and inclusion: trainings on gender and identity or sexual harassment prevention, workshops on LGBTQ allyship, and task forces on discrimination, often led by newly-hired diversity and Title IX coordinators now mandated by VAWA 2013 (New, 2015).

The same year VAWA 2013 was signed, Student Affairs administrators and scholars Brian Arao and Kristi Clemens published the foundational piece “From Safe Space to Brave Spaces: A New Way to Frame Dialogue Around Diversity and Social Justice” as part of an anthology from the

American College Personnel Association (Landreman, 2013). They provided a critique of conventional wisdom on social justice facilitation and training rules, interrogating the typical pedagogical framework of cultivating safe space, an environment considered “comfortable” and “secure” for justice conversations.

### **Identity, Safety, and Challenge in Feminist Pedagogy and Experiential Education**

Combining feminist pedagogy with experiential education reveals that social justice training participants like those described by Arao & Clemens enter the learning environment from myriad experiences of privilege and oppression, and varied concepts of risk and safety. This paper describes tenants from feminist pedagogy, including trigger warnings, the personal as political, and intersectionality, as well as concepts from experiential education, such as Challenge by Choice, risk management, and the Kolb Cycle of Experiential Learning.

The Association for Experiential Education (AEE) describes experiential education as “a philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities” (n.d.). Like experiential education, feminist pedagogy puts an emphasis on epistemology, that is, how knowledge is formed and deemed legitimate. Feminist pedagogy stems from feminist theory, and is an offshoot of critical pedagogy, which, according to theorist Katharine Weiler, “posits that knowledge is not static and unitary but rather results from an open-ended process of negotiation and interaction between teacher and student” (as cited in McClure, 2000, p. 53). Weiler (1991) notes that feminist pedagogy questions the “role and authority of the teacher,” recognizes the “importance of personal experience as a source of knowledge,” and explores the perspectives of those on the margins, “of various races, classes, and cultures.” Thus, both educational philosophies focus on decentering instructor power, transitioning the instructor from a “top down” hierarchical role to a more egalitarian facilitator role.

### **Interdisciplinary Theory: George Yancy and Martha Nussbaum**

The paper focuses on two contemporary theorists, George Yancy and Martha Nussbaum, whose respective works offer rich interdisciplinary insight. Critical race philosopher George Yancy’s central contribution to brave space is analyzing difficulty and pain in ongoing justice efforts and prioritizing “process” work rather than “completion” work, using examples from his own education praxis as well as critical activism. His extensive writing on examining whiteness in the classroom uncovers three important tenets essential when constructing brave space: experience as epistemologically valid, white self-criticality, and tarrying together while unsutured. Yancy explains that “...being un-sutured involves a continuous process of renewal and commitment” (2015, p. xvi). He continues:

The call to tarry... demands that white people dwell with the emotional and cognitive dissonance that will be inevitably experienced as they become more and more attentive to the ways in which they are entangled in the social and psychic web of white racism...The process of tarrying encourages forms of courageous listening, humility, and the capacity to be touched, to be shaken... (2015, p. 26)

Martha Nussbaum introduces tools for learners to engage in the type of hard work Yancy proposes. In experiential education, practitioners are encouraged to view learning as a connection between both the mind and the soul- the head and the heart. In order for deep learning to take place, learners must be given the opportunity to have an emotional, personal connection to the material and consider how the content can speak directly or be rooted in their own life. A

feminist scholar and philosopher, Nussbaum discusses the use of Narrative Imagination, also described as “radical empathy,” in service of this priority. She says, “This means the ability to think what it might be like to be in the shoes of a person different from oneself, to be an intelligent reader of that person’s story, and to understand the motions and wishes and desire that someone so placed might have” (1997, p. 11). Narrative Imagination, a fecund soil of emotional connection and empathy, brings forth stronger proficiency in sitting with discomfort, Socratic reasoning, and seeing a global connection to all, because learners have an emotional reason- a “why”- to improve these skills. Establishing why participants should care and learn lays the epistemological groundwork for *how* they must learn (Socratic method, self-criticality), and *what* they should learn about (world citizenship, systems of oppression, intersectionality).

### **Implications for Experiential Education**

This analysis is important for Experiential Education research both because of its critique as well as its innovative application of interdisciplinary theory. This paper questions conventional wisdom often applied in experiential education, such as attempting to build a misguided “safe” space for learning or assuming that “Challenge by Choice” is an adequate methodology in justice trainings. The paper also folds in critical identity studies to emphasize how the traditional Kolb Cycle of Experiential Learning can and ought to be supplemented with interdisciplinary theory. Critical identity studies is a fertile field for experiential learning, because it examines how the personal is related to the political, that is, how our individual experiences contribute to and are also symptoms of larger systems of power.

Yancy’s theory on process-based self-criticality related to systems of oppression like white supremacy emphasizes that learning about and addressing injustice involves often uncomfortable self-examination as well as sustained attention (tarrying, remaining unsutured) to the uncovered painful truths about ourselves and our world. Nussbaum’s theory of Narrative Imagination (radical empathy building) then provides tools and incentive for such learning and skill development, to recognize abstract concepts like invisible systems of structural injustice.

The paper provides practical examples of how the above concepts can be utilized in particular lessons, bringing theory into praxis. Strong theory to undergird justice-centered experiential pedagogy can help guide future research into the efficacy of various general methodologies as well as specific programs or trainings employing brave space.

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# **A RETURN TO CHARACTER EDUCATION: GRIT AND RESILIENCE IN OUTWARD BOUND STUDENTS**

*Curt Davidson, Ph.D. California State University (curt.davidson@csulb.edu)*

## **Review of Literature**

This study examines perceived levels of grit and resilience before and after students participated in the Outward Bound (OB) Adventure Education (AE) program over the summers of 2015 and 2016. AE programs were founded upon the idea that various aspects of character could be taught through the adventure experience (Ewert & Garvey, 2008; Sheard & Golby, 2006). This study emphasizes grit and resilience as variables in relation to AE program research, a focus that is particularly relevant as the AE field seeks to find its place in increasingly complex contemporary societies. With shifts in experiential education that highlight character education, outdoor adventure, and personal growth and development, it's imperative that AE develops to meet the changing needs, environments, and demographics of modern society while maintaining its traditional relevancy and purpose (Freeman, 2010; Hattie, Marsh, Neill, & Richards, 2014). The character traits of grit and resilience are thought to be a critical part of an individual's ability to overcome obstacles and succeed in life. Grit is defined as "a person's interest and effort to complete a project lasting a month or more" (Duckworth, Peterson, Matthews, & Kelly, 2007), while resilience is a person's ability to overcome hardships and setbacks in life (Brooks, 2006). These personal qualities have been directly linked to academic, career, and life accomplishments, which as key facets of an individual's personality and psychology (Tough, 2013) are of particular interest to AE programs such as OB, which seek to enhance character outcomes (Crane et al., 2009).

Grit as a key character trait is relatively new in the literature, and now has a growing body of research (Duckworth & Gross, 2014; Von Culin, Tsukayama, & Duckworth, 2014). The concept of grit moves beyond mere perseverance to encompass both resolution and energy to accomplish longitudinal projects, with an emphasis on goal attainment (Robertson-Kraft & Duckworth, 2014). Grit can lead to the accomplishment of goals, an important aspect of character education in relation to how individuals make achievements, and an outcome of many AE programs (Hattie et al., 1997; Tough, 2013). Although the definition of grit specifies dedication to a project lasting "a month or more," this study, as well as one other (Duckworth et al., 2007) have shown that a shorter treatment (e.g. 5-21 days) can impact this construct (Gamel, 2014). Resilience has long been a variable suspected to be enhanced by AE programming, of particular significance to researchers and practitioners in related fields (Fredrickson, Tugade, Waugh, & Larkin, 2003; Neill & Dias, 2001). Through AE experiences designed to increase a student's level of resilience, the field of AE may be able to make a contribution to the overall understanding and promotion of resilience in society, and the ability of participants to deal with traumatic events such as loss of a family member or adverse conditions in the home or at school.

## **Methods**

The goal of this study was to determine if participants who participate in the OB programming will experience changes to their perceived levels of grit and resilience. Data collection occurred over the summers of 2015 and 2016 and included all participants enrolled in a wilderness-based course lasting five to 21 days. The subjects ranged in age from 12 to 22

(N=592). This study utilized a pre/post design to capture levels of grit and resilience before and after a student participated in an OB course. To measure grit, the short Grit Inventory was utilized (Duckworth & Quinn, 2009). This instrument consists of a two-factor structure: interest and perseverance of effort. For the purposes of this study, resiliency was comprised of three variables: sense of mastery, sense of relatedness, and emotional reactivity. The Resiliency Scale for Children and Adolescents was utilized to measure this construct (Prince-Embury, 2008). Reliability scores for these instruments are in Table 1:

Table 1  
*Reliability Scores*

<u>Subscale</u>	<u>Reliability score</u>
Grit	.824
Sense of Mastery	.918
Sense of Relatedness	.946
Emotional Reactivity	.933

Students' pre/post instruments were then matched, allowing for analysis via a paired sample *t*-test, and factorial repeated measures ANOVA.

## Results

Surveys were administered on the first and last days of participating students' OB experience. Paired sample *t*-tests were initially utilized to determine significant differences pre and post treatment. The sample consists of 592 responses (N=592). Of the 592 students, a total of 314 surveys were returned completed and utilized for data analysis (53%). The usable sample includes 190 males and 118 females, while 6 others self-identified as "other" or chose not to identify their gender.

To test the hypothesis that levels of grit will increase in young people who choose to participate in an OB program, a paired sample *t*-test was used to compare before (M = 3.4, SD .56) and after (M = 3.48, SD .56) mean scores. The post-course means for grit were found to be significantly higher than the pre-course ( $t(149) = 2.597, p < .05$ ). Cohen's *d* was calculated to be at 0.187, which is a small effect based on Cohen's (1992) guidelines. Additionally, there was generally a significant increase in participants' sense of mastery mean scores after their AE experience ( $t(132) = 2.774, p < .001$ ). An effect size score of  $d=2.62$  was found, which indicates a large effect size. Sense of relatedness was also found to be significantly higher post course ( $t(287) = 10.4, p < .001$ ) with a small effect of  $d = .07$ . Finally, the null hypothesis for emotional reactivity subscale was accepted because  $p > .05$ .

Congruent with Girden (1992), a factorial repeated measures analysis of variance was performed to explore differences across independent variables including age group, gender, scholarship received, ethnic group, and course type, which is a common practice among social science and educational research. The results showed only one significant difference between dependent variables and groups, that of ethnicity for the subscale that measured sense of mastery. Further exploration of the data utilizing a factorial repeated measures analysis of variance reveals significant differences between African American participants with regard to sense of mastery. Data in this study thus reveal statistically significant differences in levels of grit pre and post OB programming, and two of the three subscales for resilience: sense of mastery and sense of

relatedness. In addition to a significant difference, a small effect size was found for grit, sense of relatedness, and sense of mastery.

### **Discussion**

The findings of this study suggest that AE programming can enhance a student's level of grit and certain aspects of their resiliency. This is highly relevant to the AE field, as character education is the mission of OB, the host program, and many other programs are modeled off of OB and operate similarly. The findings hold implications for the field of AE as a whole, particularly for those interested in impacting students' values or ethics through character education and development. While study outcomes show that grit was enhanced through the AE process, the specific course components that led to this outcome are unclear. It appears that merely completing the AE experience and persevering through physical hardships translates to increases in grit after the AE experience. One reason for the enhancement in sense of mastery after the OB program may be that the new skills students learn via the AE experience (e.g. cooking in the backcountry) led to increases in resiliency through a new sense of mastery. Additionally, the tightknit bonds that form between participants during courses likely contribute to increases in resiliency through an enhanced sense of group purpose and required skill mastery (Sibthorp & Jostad, 2014).

Analysis of these study data also reveal that African American students have differences in the way they experience resilience through sense of mastery. The data shows two important points relative to this outcome. First, the African American students included in this study had a much higher starting level of sense of mastery than their Asian and Caucasian counterparts (Vale, 2005). Second, they were the only group that experienced decreases in resiliency mean scores throughout their OB experience. One possible explanation for this is that African American students may have different expectations or reactions than the other students to the physicality or requisite skills that will aide them in the AE experience. Further data collection is needed to better understand why this phenomenon is occurring.

### **Conclusion**

This study validates the mission and function of OB programs around the globe who seek to instill traits like resilience, compassion, grit, and integrity in the young people that participate. Future studies should expand the list of character traits that are shown to be enhanced through these types of programs. Relatedly, more inquiry into the mechanisms by which these changes occur should be made. These findings suggest that AE programs can be viable supplements to traditional education and other co-curricular programs with regards to enhancing character traits in young people. Finally, this study affirms the character education concept upon which AE programs were founded, and can thus provide insight into one possible role AE programming can play in our developing society.

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# **ASSESSING THE RELIABILITY OF BIOELECTRICAL IMPEDANCE AND SKINFOLD CALIPERS FOR MEASURING BODY COMPOSITION IN NOLS BACKCOUNTRY HIKERS**

*Jihan Boughman, M.S., Colorado State University ([jboughma@colostate.edu](mailto:jboughma@colostate.edu))*

*Melissa Masters, Ph.D. RDN, Metropolitan State University of Denver*

*Cass Morgan, Ph.D., Weber State University*

*Tim Ruden, M.S., Weber State University*

*Shannon Rochelle, M.S., The National Outdoor Leadership School*

## **Introduction**

Since founded in 1965, The National Outdoor Leadership School (NOLS) has been taking students from all over the world into the backcountry to teach technical outdoor skills, leadership, and environmental ethics (NOLS, n.d.). Participants in NOLS expeditions typically engage in a high level of physical activity throughout the expedition, including hiking, climbing, and swimming. For many participants, these activities are novel and represent a substantial energy expenditure increase over their usual lifestyle (Masters et al., 2015). Typical expeditions last anywhere from ten days to a full academic year, during which time students rely on the food provided by NOLS and the cooking and preparation skills of themselves and their ‘cook mates’. Providing NOLS participants with accurate energy amounts and sufficient nutrients plays an essential role in maintaining the health and safety of all expeditioners. As part of a risk management initiative, NOLS implemented a nutrition education program stating, “NOLS prides itself on providing an ample amount and variety of nutritious, high-energy foods to courses as well as on teaching students the skill and science of maintaining nutrition on extended expeditions” (National Outdoor Leadership School, 2015).

NOLS actively conducts backcountry nutrition research in an effort to provide the best and most up-to-date support to its students. Past research efforts (Masters et al., 2015; Pohja, Ocobock & Gookin, 2014) have used a variety of body composition measurement tools including bioelectrical impedance (BIA), skinfold calipers, and air displacement plethysmography (Bod Pod), but as has been stated in several previous studies, these tools are not interchangeable, resulting in a fragmented body of research (Dixon, 2005; Hetzler, 2006; Parker, 2003). Body composition measurement tools vary in cost, feasibility of use in a field setting, and skill required to obtain accurate measurements. Skinfold calipers and the Tanita Scale provide for a more cost-effective means of assessing body composition compared to a Bod Pod, skinfold calipers require adequate training to ensure accuracy of measurements, and a Bod Pod lacks feasibility of use in a field setting. Few studies have compared the accuracy and feasibility of various body composition measurement tools in backcountry participants. In order to have a more comprehensive body of research concerning the most effective and efficient means of assessing body composition in backcountry participants, NOLS has requested information regarding the feasibility and accuracy of both the Harpenden skinfold calipers and the Tanita Scale.

## **Methods**

Twenty-two NOLS participants from two different backpacking expeditions completed a 23-day backpacking trip into the Wind River Range in Wyoming during the summer of 2016. Data collection took place before and after the expedition between 0600 and 0900 hours. Pre and post trip anthropometric measures were collected from each participant using three different

body composition measurement tools - 1) Tanita BC-558 IRONMAN® Segmental Body Composition Monitor 2) Harpenden skin fold calipers 3) Bod Pod. For the purposes of this study, the Bod Pod was used as a standard to compare against the skinfold calipers and Tanita scale. Research suggests that the Bod Pod provides reliable and valid estimates of body composition when compared to other body composition reference methods (Heyward, 2001). The Tanita BC-558 IRONMAN® Segmental Body Composition Monitor uses single-frequency segmental bioelectrical impedance analysis to calculate body composition. This model uses retractable hand grip and feet electrodes to predict weight, body fat, muscle mass, body water %, basal metabolic rate (BMR), bone mass, and visceral fat. Skinfold thickness was measured to the nearest 0.1 mm at three sites: the triceps, supra-iliac, and thigh on females and the pectoral, abdomen, and thigh on males in accordance with The American College of Sports Medicine's (ACSM) 3-site formula (American College of Sports Medicine, 2013). All measurements were collected on the right side of subject's bodies. Body fat was calculated using The ACSM 3-site formula (American College of Sports Medicine, 2013). Changes in body composition were determined for all participants using paired two sample t tests. Intraclass correlation coefficients (ICC) were calculated to assess the degree of reliability between different measurement tools and a paired t test was used to determine the measurement bias. All analyses were conducted with significance at  $\alpha < 0.05$ .

## Results

Participants lost a significant amount of weight during the expedition. Fat mass significantly decreased an average of 2% (SD = 10.17,  $P = 0.001$ ). Lean mass increased an average of 0.85lbs., but did not reach significance (SD = 4.14,  $P = 0.91$ ). The Tanita scale, Harpenden skinfold calipers, and Bod Pod recorded average pre-expedition body fat percent as 18.90%, 20.08%, and 21.01%, respectively and average post-expedition body fat percent as 16.87%, 18.67%, and 19.01%, respectively.

We compared the three body composition measurement methods with pre and post data. A high degree of reliability was found between skinfold calipers and the Bod Pod and between BIA and the Bod Pod. The average ICC between skinfolds and the Bod Pod pre-expedition was .948 with a 95% confidence interval from .874 to .978 and post-expedition was .948 with a 95% confidence interval from .874 to .978. The average ICC between BIA and the Bod Pod pre-expedition was .953 with a 95% confidence interval from .887 to .981 and post-expedition was .954 with a 95% confidence interval from .888 to .981. The BIA measurements significantly under-reported body fat % when compared to the Bod Pod (Pre- $M_{\text{difference}} = -2.12\%$ ,  $P = 0.01$ , Post- $M_{\text{difference}} = -2.14\%$ ,  $P = 0.01$ ), whereas the skinfold measurements were not significantly different than the Bod Pod (Pre- $M_{\text{difference}} = 0.93\%$ ,  $P = 0.3$ , Post- $M_{\text{difference}} = -0.34\%$ ,  $P = 0.7$ ).

## Discussion

This study bolsters our ability to accurately assess body composition changes that occur in the backcountry which will ultimately assist in maintaining the health and safety of NOLS' participants. Our findings indicate that although there was a high correlation between skinfold calipers and the Bod Pod and the Tanita scale and the Bod Pod, the Tanita scale consistently and significantly underreported body fat percentage by greater than 2%. While this would indicate that the Tanita scale could still be of use in this population, we recommend adjustments be made to account for the 2% bias. The skinfold calipers however, offered more variability in the measurement, suggesting that they may average a more precise, yet less consistent measurement. Given that NOLS research most often focuses on *changes* in body composition, the Tanita scale may be the preferred tool to use. The 2% bias is unlikely to have a large impact on the ability to

track relative changes in body composition, whereas the greater variability in the skin fold measurements may skew these results.

The limitations of both the Tanita Scale and Harpenden skinfold calipers should be considered by NOLS. Both are popular tools to use to measure body composition as they are quick, safe, inexpensive, and portable, but they are not without limitations. The accuracy of the skinfold measurement depends on fat content in adipose tissue, fat patterning, and compressibility of skinfolds (Dixon, 2005). Variability can also be found between anthropometrist's measurements, as administration of the test requires proper training (Lohman & Pollock, 1981). The Tanita scale's accuracy is affected by a number of factors including hydration status and extremely high or low body mass index (Kylea, 2004). Hydration status is of particular concern in this population. Ultimately, both measurement tools were closely correlated with the Bod Pod and therefore would be appropriate to use for this population. We reiterate that a single measurement tool should be used. The Tanita Scale and skinfold calipers should not be used interchangeably.

Secondarily, we examined pre-expedition to post-expedition changes in body weight, fat, and lean mass in the backcountry hikers. Body weight and body fat decreased significantly during the expedition and while lean mass increased, the difference did not reach significance.

NOLS currently uses a bulk rationing system based on how many pounds of food each person will eat each day (pounds per person per day or PPPPD) (Pearson, 2003). The total amount of food carried is determined by the intensity and duration of the trip as well as the sizes and ages of participants (typically 0.7 kg per person per day for climbing to 0.8 kg for whitewater, backpacking and canyoneering to 1.0 kg for winter trips) (Pearson, 2003). It is estimated that a kilogram of food equates to approximately 3750 calories (Ryan, 2008). However, due to the fat and water content of various foods, the amount of calories in one kilogram of food may vary considerably. Some research indicates that outdoor athletes may only satisfy 31% of their daily energy needs which may possibly lead to unintended weight loss (Bourrilhon et al., 2009). While weight loss may be viewed as a health benefit for overweight participants, it poses a risk. Energy deficit while in the backcountry is dangerous and could result in a myriad of health and safety risks such as loss of coordination, collapse, and dehydration. Average weight loss in this group was 3.9 lbs. over the course of the 23-day expedition, which is equivalent to  $\pm 1$  lb./week. We do not believe this weight loss poses a significant risk to NOLS participants and therefore do not recommend any alterations to NOLS' current rationing system.

To conclude, this study shows that NOLS' current rationing system is adequate and appropriate. Moreover, it shows that the skinfold caliper and the Tanita Scale will give comparable measurements to the less readily available and more costly lab based Bod Pod measurement in backcountry expedition participants.

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# BRAINWAVE ANALYSIS OF EXPERIENTIAL LEARNING IN ACTION

*Andrew W. Bailey, Ph.D.*

*Associate Professor, University of TN, Chattanooga (Andrew-Bailey@utc.edu)*

## **Introduction and Literature Review**

Experiential education is founded upon the notion that active learning benefits the student more than passive, or rote learning. Interest, according to Dewey (1998), is a fundamental aspect of education. Experiential processes strive to capitalize on interest using games, initiatives, outdoor education, service or other means of facilitating growth through experience. The benefits may be evidenced by improved academic performance or through developmental or therapeutic outcomes (Gillis & Speelman, 2008; Neill, 2003). Much research has been done to document these outcomes, and qualitative studies add value through an understanding of the learning process. Survey and interview research show that experiential education improves motivation and enhances participant engagement. However, a detailed first-hand account of the entire experience is still lacking (Ewert & Sibthorp, 2009). Modern technology provides researchers with the opportunity to understand a participant's experience through brainwave analysis, enabling a direct, first-hand account of the experience as it unfolds. The purpose of this study was to explore the differences in participant engagement and interest during a traditional lecture and common challenge course activities.

Electroencephalography (EEG) research has been conducted for decades in laboratory settings (Purves, 2012). New portable EEG devices now enable researchers to collect data in the field during active experiences. These devices collect brainwave frequency data from five cortical locations, providing insight into mental and emotional states in real time. High frequency (beta and gamma wave) frontal lobe activity, for example, indicates higher levels of focus and concentration (Coelli et al., 2015). Observations of the *Mean* differences and trajectories of a participant's level of concentration during an experience would illustrate the overall attention level, as well as the path it takes over time. Similar brainwave formulas can be used to assess meditative state (zoning out) and approach motivation (i.e., interest).

## **Method**

Twenty-three college students enrolled in an outdoor leadership class at a state university agreed to participate in this study. The activities occurred during regular class time toward the end of the Spring semester, 2017. Participants had engaged in many experiential tasks as a group at this point in the semester, and were familiar with an active learning process. Given a physical limitation of 12 EEG headsets, participants were randomly selected to participate in one of two consecutive sessions. Both sessions included a 10-minute interactive lecture and a 10-minute experiential activity. The first session began with a frontloaded lecture about various methods of group facilitation, then moved to a group initiative whereby they tied a figure 8 knot as a group while maintaining a stationary position on the rope. The second session began with a group initiative (Nitro Crossing) and then moved into an interactive lecture about methods of facilitation. All experiences occurred in the same room indoors, to isolate the differences that may be caused by moving to an outdoor environment. All sessions were video recorded for post-hoc screening, in order to connect brainwave activity with real time experience.

The Emotiv Insight headset collects electrical signals at 128MHz from five cortical locations. EEG data were transformed into five discrete brainwave frequencies (Delta, Theta,

Alpha, Beta, Gamma) with Fast Fourier Transformation (FFT), creating 25 measurements (5 frequencies x 5 sensor locations) at a rate of two times per second. Data were smoothed with a moving average of 10 data points then divided into 5-second epochs for curve fitting.

Individual EEG frequencies were transformed into established mental states based on previous research (Coellie et al., 2015; Lagopoulos et al., 2009). High frequency waves across the frontal lobe were indicative of high levels of focus, while theta-dominant states indicated a more meditative disposition. Frontal asymmetry was associated with an approach-oriented motivation, indicating interest or enjoyment of the activity (Oathes et al., 2008). Comparisons were analyzed using a MANOVA with group and activity type as independent variables, and with mental states (focus, meditative state, and approach motivation) as dependent variables. This provided a measure of overall mental state for all participants during each portion of the learning session. To understand the trajectory of each mental state, the individual trajectories were averaged into one group trajectory for each mental state. The trajectories were then fitted with a regression curve to assess overall mental progress for the lecture and activity over time.

## Results

Findings included significant differences for group ( $F = 36.241, p < .001$ ), activity ( $F = 40.412, p < .001$ ), and the group\*activity interaction ( $F = 17.571, p < .001$ ) for all mental states. Focus was higher in both cases for the lecture, as students strived to pay attention. Approach motivation was higher for the initiatives than for the lectures, indicating a level of interest and enjoyment of the method. Meditative state was also higher for the initiatives than for the lecture, a paradoxical result not entirely anticipated. All regression curves were polynomial, with a cubic or higher order shape providing the best fit ( $R^2 = 0.15$  to  $0.54$ ). This emphasizes the dynamic nature of learning in a varied environment. Meditative state trended positive during the first lecture and initiative, while focus trended down over time. The second initiative induced a drop in meditative state, while approach motivation and focus remained steady. The final lecture reflected trends similar to the first lecture, with subtler variation.

## Conclusions

Experiential education occurs in a complex milieu. There are many factors that may influence the process and outcomes of a learning experience, many of which cannot be held constant when conducting research. However, an understanding of the group's mental progression, on average, can prove instructive for program design. It is clear from these results that the students did make the effort to pay attention through the lectures, but their attempts were soon thwarted by average attention spans (McSpadden, 2015). The same trend appeared to be true with the first initiative, with the addition of an increase in meditative state.

The initiatives at hand may have caused some lack of focus, as the challenges were ill-defined. Unlike a lecture, which provides direct, rational material to be processed and retained, there was no clear direction provided to resolve the challenge at hand. An increase in Theta wave activity is indicative of reluctance or inability to focus, perhaps a result of not clearly understanding how to proceed. This EEG reading is identical to that recorded during non-concentrative (e.g. mindfulness) meditation, and has a theoretical connection to creativity. A non-concentrative meditative state indicates a level of relaxation and even daydreaming that allows thoughts to freely flow through the mind without attachment (Teper & Inzlicht, 2013). While a meditative state was not initially expected during an initiative, it may be indicative of the struggle, or cognitive dissonance, so fundamental to adventure programming (Walsh &

Golins, 1976). Practitioners will recall the blank stares on participants' faces while attempting to resolve the problem as proposed. These moments are often followed by creative attempts at problem-solving, if time and space allow for the process to unfold.

A higher level of focus during the lectures may reflect an effort to comprehend the material at hand. Given the physiological limitations of attention spans in general, a brief time in a meditative state may be restorative of mental attention. This could enhance learning when returning to a structured lecture or debriefing session. Future research may help elucidate the inverse process of focus and meditative state in a learning environment and its association with learning outcomes.

Finally, approach motivation was higher during the initiatives, supporting the assertion that interest is higher in an experiential learning environment, regardless of frontal lobe engagement. Although participants demonstrated higher focus on the lecture, they weren't particularly interested in the material. If interest is a key ingredient in deep learning (Dewey, 1998), perhaps an approach motivation would be more salient than levels of concentration for learning outcomes. Future research will need to include an objective learning assessment to verify this conjecture.

This study provides an initial look into the neurological response to various learning environments. Though instructive, there are limitations to consider, including small sample size, lack of identical lesson delivery between groups, and minimal predictor variables. EEG research produces high-dimensional data that requires a much lower sample size than survey research (Sands, 2009). Though each individual research session had an adequate sample size to observe medium effect sizes, both were included in this study as a measure of replication. Future research may help us better identify the "shape" of the experiential learning process and how to maximize growth through the optimal program design. Is consistent focus better for retention of material or is it strengthened with routine meditative oscillations? Do interest and enjoyment enhance group development, program outcomes, and material retention? Understanding how the brain reacts to various learning milieus can provide evidence to support experiential methods and enhance program design.

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## **ASKING THE RIGHT QUESTIONS: USING OPEN-ENDED ESSAY RESPONSES TO EVALUATE STUDENT APPREHENSION OF THRESHOLD CONCEPTS**

*John Bennion, Department of English, Brigham Young University ([john\\_bennion@byu.edu](mailto:john_bennion@byu.edu))*

*Brian Cannon, Department of History, Brigham Young University*

*Brian Hill, Department of Recreation Management, Brigham Young University*

*Meagan Ricks, Department of English, Brigham Young University*

*Riley Nelson, Department of Biology, Brigham Young University*

### **Introduction**

Teachers generally give tests that are keyed to concepts in the discipline, not to concepts students have learned (Fink, 2003; Leamson, 2003). Even with experiential courses, there are gaps between what the teacher wanted the students to learn and what the students learned. Also, many teachers present content that requires foundational learning, but these threshold concepts are often assumed to be intuitive and are not articulated for beginning students (Adler-Kassner, Majewski, & Koshnick, 2012; Adler-Kassner & Wardle, 2015; Cronin, 2014; Meyer & Land, 2012; Ross, et al., 2010; Sendziuk, 2014). A valuable assessment tool might be one which helps students articulate threshold concepts. At the end of Integrated Natural History-Utah, an interdisciplinary, seven-week, field study program, rather than test the students on facts, we asked the students to write open-ended essays about what they learned about biology, history, writing, and recreation management. Instead of having notes from lectures regurgitated back to us, the students' answers regularly articulated complex abstract understanding of the disciplines. These were concepts that we hadn't rigorously taught and hadn't described specifically in our learning outcomes. In this preliminary, qualitative study, we compared our students' descriptions of their core learning with published threshold concepts in our four disciplines.

### **Literature Review**

Meyer and Land (2005) described threshold concepts as "critical moments of irreversible conceptual transformation in the educational experiences of learners" (p. 373). They further describe these as "'conceptual gateways' or 'portals' that lead to a previously inaccessible, and initially perhaps 'troublesome', way of thinking about something" (p. 373). These concepts are characterized by being transformative, irreversible, and integrative, and are tied to language particular to each discipline. As they learn threshold concepts, students find the discipline opening to them and they undergo a transformation of identity. This is a liminal state, where ideas become fuzzy or troublesome and then clear. These concepts both impede and invite the students, so the job for teachers is to recognize and articulate these "epistemological obstacles" and try to help students get past them. In the introduction to *Naming What We Know* (2015), Kathleen Yancey writes that threshold concepts are valuable to the teacher in creating curriculum and to students as they begin to navigate the discipline. They aid exploration, analysis, inquiry. They function as both "propositional statement and heuristic for inquiry" (p. xxvii). So, these concepts need to be explicitly articulated, but they also need to be continuously rearticulated.

### **Methods**

At the end of the Integrated Natural History program we asked the 17 students to write a four-part essay answering the following question: "What have you learned about biology, Utah history, writing, and recreation management?" For this study, we revisited those essays and asked ourselves, "What themes and language in the students' synthesis of concepts learned are similar to the themes and language in published threshold concepts for each discipline?" A

secondary question became, “What was the incidence of threshold concepts in their essays?” We transcribed the essay finals and extracted statements of concepts learned. As common themes emerged, we combined or divided concepts to show distinctions and commonalities. We ended up with 18 student-generated concepts spread across the four disciplines and 17 concepts gleaned from professional literature. We compared these two columns for each discipline, and finally, we tallied the number of times students described core concepts in their essays.

### Results

When we compared the concepts, our students learned with those published in each field we found overlap about half the time. For example, the following table shows results for biology:

Concepts articulated in student essays	Published threshold concepts for each discipline
1. Experimental design is a powerful and self-correcting tool. 2. A community includes all the organisms inside a given ecosystem. 3. A healthy community has a diversity of organisms. 4. Humans are part of the ecosystem. 5. Naming enables seeing.	1. Hypothesis creation 2. Linkage of the submicroscopic with the macroscopic 3. Variability, randomness, and probability. 4. Integration of concepts across scales

Number 1 and 2 on each side are a close match; student concept number 3 is similar to its professional counterpart, but it includes only one aspect of the three, not discussing randomness or probability. Student number 4 could be understood to be an aspect of number 2, but it identifies human inclusion in the ecosystem, which our students considered an important discovery. Student number 5 and professional number 4 have no match. We also charted the students’ and the professionals’ statements in the other three disciplines, but there is not room in this abstract to show the concept comparisons for them. Our second question asked about incidence, and all of the 17 students described core concepts in their essays. Of 18 concepts, the average was 8.1, with 12 of the 17 students listing that number of concepts or higher. The range was 2 to 13. Four of the students listed 8 and four listed 9.

### Discussion

While there are correlations in the example above, such as between the statements “Experimental design is a powerful and self-correcting tool,” and “Hypothesis creation,” the most significant similarity between the two columns is in the kind of statements made. The statements are general guiding principles as opposed to lists of facts learned. Meyer and Land (2005) and Yancey (2015) stress that threshold concepts are attitudinal, discursive, contingent, flexible, transformative, irreversible, and integrative. Our students clearly identified threshold concepts more often than they identified specific content knowledge. Our study of incidence showed that they identified the same concepts as their peers slightly more than half the time.

The essay assignment prompted them to answer with descriptions of foundational concepts, rather than in lists of facts, what else in the program enabled them to think of their learning in terms of threshold concepts? While that question is beyond the scope of this preliminary study, we can theorize that some of the causes were the mentored and project-driven learning and the curriculum which was interdisciplinary, integrative, and experiential. Specifically, we plan to study how well conventional content tests versus open-ended essay tests help students articulate threshold concepts and how student apprehension of threshold concepts in conventional university courses compares with that in outdoor, experiential programs.

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# HEALTH PROMOTION WITHOUT BORDERS: AN AUTOETHNOGRAPHY OF AN INTERNATIONAL SERVICE LEARNING EXPERIENCE IN MONGOLIA

*Shelby Deibert, Laurentian University (sdeibert@laurentian.ca)*

*Stephen D. Ritchie, Laurentian University*

*Ginette Michel, Laurentian University*

*Bruce Oddson, Laurentian University*

*Emily Tetzlaff, Laurentian University*

## Introduction

There are a growing number of opportunities available to students seeking to help others, gain an understanding of global health, and experience different cultures while travelling. International service learning (ISL) experiences are a popular option for post-secondary students (Fechter, 2014), especially as a component of nursing, medical, and physical therapy curricula (Pechak & Thompson, 2009). While evidence suggests that many students in the health field are undertaking these trips (Byrne, Collins, & Martelly, 2014; Martiniuk, Manouchehrian, Negin, & Zwi, 2012; Pechak and Thompson, 2009), “research about the variety of international service immersion experiences and the experiences of students as they move through these important co-curricular experiences is lacking.” (Fechter, 2014, p.6) Thus, there is a gap in the ISL research related to understanding the nature of the ISL experience, especially from a participant perspective. Furthermore, in a review of short-term medical mission studies, Martiniuk, Manouchehrian, Negin, & Zwi (2012) found that these trips often lack preventative education and focus more on treating illnesses. This may not be as effective at meeting the needs of a particular community and reducing illness prevalence. Thus, it is not surprising that in a recent paper exploring global service learning projects, more “collaborative efforts to promote health” were recommended (Dalmida et al., 2016, p.524). There is the need for: (1) ISL programs that provide health promotion, and (2) research to recognize and understand the nature of the ISL experience.

## Health Promotion Without Borders

The Health Promotion Without Borders (HPWB) Program is an ISL opportunity coordinated by faculty, staff, and graduate students in a northern Canadian university. It is designed to address the need for health promotion efforts in developing countries. From a pedagogical perspective, the HPWB experience also allows students to complete an internship and supplement their theoretical knowledge with practical community service and reflection (Pechak & Thompson, 2009; Seifer, 1998). Each year, several students are selected through an application process to travel with a leader (university representative) to a developing country for two to four weeks to teach health-related topics in community centres or schools, and/or assist in clinics. During their stay, the HPWB participants are immersed in the culture of their host country and sleep, eat, and live according to local customs and practices. The program has been active for 17 years, and has enabled approximately 80 students to travel internationally to complete medical, health promotion, and/or humanitarian work. This year, one leader and four students partook in an HPWB trip to Mongolia in May and June 2017. I (SD) participated in this experience as both a participant and researcher.

Presently, no formal research or evaluation has been conducted with respect to the HPWB Program or the experiences of the participants while completing their ISL internship. My study was the first step to address this need by using autoethnography to explore my own

experience as a participant. My guiding research question was: *What is the nature of my personal immersive experience as a participant in the HPWB program to Mongolia?*

### Method

Autoethnography aims to, “unite ethnographic (looking outward at a world beyond one’s own) and autobiographical (gazing inward for a story of one’s self) intentions.” (Schwandt, 2007, p.16) In other words, it involves using personal experiences as data to search for an understanding of others (Chang, 2008). Autoethnography was selected as an appropriate method since it allows me to critically reflect on my experience and share the lessons I learned firsthand as an ISL participant in a beneficial way for both the HPWB Program and myself.

I travelled to western Mongolia with the HPWB Program to provide health education to communities during the months of May and June 2017. I kept journals throughout each phase of my experience; I documented my observations about the group, the HPWB Program, and myself. The journals also included personal reflections, reflections on group activities, and reflections on the cultures of our Mongolian host communities. After returning to Canada, I transcribed, coded, and thematically analyzed my journals. Several meetings with co-authors deepened my reflective analytic journey. Together, these steps helped me understand the nature of my HPWB experience.

### Results and Discussion

The process of balancing different aspects of the immersive trip shaped my overall experience as an HPWB participant. Pechak & Thompson (2009) stated that meeting the needs of both “the server and those being served” is an important characteristic of ISL (p.71). This was reflective of the initial goal I set for my ISL experience: to grow as a person while making a difference in the lives of others. With an objective that aimed to serve both myself and the larger community, it was not surprising that throughout the course of my trip I encountered many situations in which I struggled to balance my needs and experiences with those of the other.

### My Mongolian Experience

In Table 1, I summarize this balance into eight themes that capture the nature of my experience as a process of negotiating the tensions between two contrasting characteristics of the experience.

Table 1

*My Mongolian Experience: The Eight Key Themes of my Immersive Trip*

<b>The Balance Between:</b>	
<b>Teaching in my host communities...</b>	vs. ...learning from my host communities
<b>Taking time to reflect on my experiences...</b>	vs. ...being busy with new cultural activities and interactions
<b>Maintaining some aspects of my western knowledge and lifestyle...</b>	vs. ...developing an understanding of, and immersing myself in, the cultures of my host communities
<b>Documenting the experience; wanting to remember it later...</b>	vs. ...living the experience; being present in each new moment
<b>Adhering to my own values and beliefs...</b>	vs. ...respecting the traditions and culture of my host communities
<b>My personal experience; focusing on my own experience...</b>	vs. ...focusing on our collective group experiences

<b>Managing my personal health...</b>	vs.	...promoting health for others
<b>The knowledge that being disconnected allows me to focus on my work here...</b>	vs.	...the desire to be connected to, and share this experience with my loved ones back home

The process of balancing different contrasting characteristics of an ISL experience is supported in the literature. In an autoethnography on Peace Corp Service in Tanzania, the lead author discusses her struggle to balance “effectiveness and cultural appropriateness” throughout her international volunteer experience (Darling, Kerr, Thorp, & Chung, 2014). Similar to my experience, her story describes the tension she faced between her values and the values of her host culture, and she hints at the themes of: teaching vs. learning from community members and connecting to home vs. connecting to the community. In her dissertation, Fechter (2014) reports the connection between exploring poverty in the community and exploring one’s own privilege across ISL participants. This relates to my experience of trying to understand the culture of my host community and its relationship with my western lifestyle. The effects of having different goals than one’s group is discussed by Abedini, Gruppen, Kolars, & Kumagai, (2012). This connects to my own struggle between creating my own experience and building a shared experience with my group.

In exploring my own themes of balancing reflective time vs. cultural activities, and documenting the experience vs. living the experience; I believe they stem primarily from my dual role as a researcher and participant. Before and during my trip, I was worried that both being a researcher and planning to use an autoethnographic approach would negatively impact my duties as a participant and diminish the quality of both my experience and research. I realize now that instead of hindering my trip, balancing the dual roles actually forced me to think more critically about my thoughts and actions, and to develop a greater sense of self-understanding and awareness. Like Darling, Kerr, Thorp, & Chung (2014), my experience shows how research and autoethnography can be used to enhance the reflective process (p.33). While this does not directly translate to every ISL participant, the benefits of reflecting/journaling both intentionally and diligently could be attained by many students engaged in an ISL trip.

### **Conclusion**

Overall, finding a balance between myself and the “bigger-picture” is how I comprehend the nature of my personal immersive experience as a participant in the HPWB program to Mongolia. Through journaling, analyzing iteratively, and reflecting on my experience, I found that eight themes (Table 1) encapsulate this balance as tensions between two contrasting aspects of the characteristics of my ISL experience.

Although the eight aforementioned themes are unique to my experience, the discussion above shows that there are aspects of my trip that are similar to those of previous ISL experiences. This suggests that future ISL students may share the same, or at least some of the same tensions during their immersive experiences. Future research can build on this work to better understand the nature of the ISL experience in other cultures and contexts, particularly for those students participating in trips through the HPWB Program and for students not engaged in a research process. This study contributes to the scientific community by adding to the sparse literature available on the nature of ISL experiences that focus on health promotion in host countries and communities.

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# **OFF THE BEATEN PATH: ADVENTURE THERAPY AS A POTENTIAL CATALYTIC ADJUNCT TO EARLY INTERVENTION WITH PSYCHOTIC CLIENTS**

*Camille Girard, Université du Québec à Montréal (girard.camille@courrier.uqam.ca)*

*J. Éric Dubé, Université du Québec à Montréal*

*Amal Abdel-Baki, Faculté de médecine de l'Université de Montréal (département de psychiatrie), Centre de recherche du Centre Hospitalier de l'Université de Montréal, Centre Hospitalier de l'Université de Montréal*

*Clairéline Ouellet-Plamondon, Faculté de médecine de l'Université de Montréal (département de psychiatrie), Centre de recherche du Centre Hospitalier de l'Université de Montréal, Centre Hospitalier de l'Université de Montréal*

## **Literature Review**

Psychosis is a complex mental health disorder that can lead to serious consequences and distress for the person who suffers from it. Many efforts in the field of its management and treatment focus on early intervention to allow the person to engage quickly in a recovery process and to prevent relapse (Ehmann, Gilbert & Hanson, 2004). Because of the symptoms and the difficulties associated with psychosis, the recovery process is often complex, and some persons who suffer from it respond only partially to the usual treatment strategies (Voruganti et al., 2006). Indeed, a significant proportion of youth suffering from psychosis hardly adhere to treatment while others, despite symptomatic improvements, remain isolated or experience difficulties getting involved in a vocational project (Ouellet-Plamondon & Abdel-Baki, 2011). A gap between functional capacity and real functioning is sometimes observable. Researchers have shown that this gap can be moderated by motivational factors such as self-efficacy (Cardenas et al., 2013). The use of adjunct interventions to treatment has been advocated by many in order to address this gap and to support the person in their recovery process. Among those, Adventure Therapy (AT)—an intervention modality which uses adventure activities carried out in nature (Gass, Gillis, & Russell, 2012)—has shown promising potential in patients who have experienced a psychotic episode. For example, some studies in the general field of mental health have shown that AT has, among other things, a positive effect on self-efficacy, self-esteem and emotional well-being (Bryson, Feinstein, Spavor & Kidd, 2013; Kelley, Coursey & Selby, 1997). However, few studies have focused on AT's impact for young adults with early psychosis and their recovery process.

## **Methods**

Our study aimed first at evaluating the impact of AT on the perception of self-efficacy in young adults with early psychosis. We also aimed at gaining insight into the participants' subjective experience of AT with regard to other factors potentially associated with their recovery process. The participants were 5 women and 10 men aged between 19 and 30 years old, treated at the early intervention for psychosis service "Clinique JAP", CHUM, Montreal (Canada). Admission criteria to the clinic are: having received a primary diagnosis of first-episode psychosis; being aged between 18-30 years old; suffering from an untreated psychosis or, if previous treatment was received, it was for less than one year prior to admission. The program offers individualized and intensive care for persons with first-episode psychosis based on illness stage and severity. The treatment plan can include therapeutic groups up to four sessions per week (occupational therapy, psychoeducation, sport and motivational therapy for concurrent substance use disorder), individual meetings with a case manager and with a



psychiatrist, family interventions, behavioural therapy, and outreach interventions. The goal of treatment is functional and symptomatic remission.

Individual semi-structured interviews, focusing on the participants' subjective experience of AT and of their recovery process, were conducted with the participants before, immediately following, and six months after a program of AT (4 weeks of bi-weekly preparation in a group format followed by a 4-day expedition). Self-report questionnaires (on self-efficacy and recovery) were also filled out at each measurement time. The first author performed a thematic analysis on all verbatim post-expedition transcripts, using the QSR-Nvivo software version 11. This first step of theme selection was then followed by discussions with colleagues in order to refine the initial theme selection, and to better convey its organization and description.

### **Results**

The results from our qualitative analysis at this stage center on the interviews post-adventure. They suggest positive impacts immediately following the adventure experience such as an increase in motivation and self-efficacy. Indeed, some participants mentioned an increase in their feeling of 'being able to,' emerging from their experience of AT, which boosted their confidence in their capacity to now meet challenges in their everyday life. Other significant themes that emerged from their experience of AT are the new perceptions that some participants gained regarding their personal abilities, qualities or interests (such as discovering courage in themselves, interests in outdoor activities, etc.), as well as a newfound ability to create new relationships with others. It also appears that some therapeutic ingredients specific to AT, such as the program structure and the fact that AT is carried out in nature, contributed to a global positive experience in participants.

### **Discussion**

Our qualitative results shed some light on the way AT seems to influence factors related to the recovery process in early psychosis. Some of these factors have already been mentioned in the AT literature, as is the case of motivation and of self-efficacy. However, some are seldom referred to in past studies on AT, as is the case of some patients' perceived changes in their relationship with oneself and others, yet they appeared central in many of the interviews we conducted. Since the recovery process has been conceived of as resting in part on readjusting one's relation with oneself, others and the world, as well as on an increase in the agentic power to act related to self-efficacy (Provencher, 2007), it would appear that Adventure Therapy, from the participants' perspective, combines specifically those factors related to recovery. Therefore, it suggests that the use of AT as an adjunct treatment in early intervention could be effective in supporting an activation of the recovery process. Our results also support viewpoints advocating for treatment of psychotic patients that use intervention modalities involving movement and the body. These generally mediate the therapeutic relationship, which can be challenging for such patients. Clinical and theoretical work by a group of psychoanalysts in France (Brun, 2011), for example, support the idea of using therapeutic mediations with patients having severe mental issues. The approach of embodiment and embodied therapies, such as Dance and Movement Therapy (Martin, Koch, Hirjak, & Fuchs, 2016), also supports the use of intervention modalities that imply the body and movement in the treatment of psychosis.

One of the limitations of our study at this stage remains that our results are indicative only of short-term gains. Quantitative analyses of the self-report questionnaires and qualitative analyses of the interviews six months post-AT follow-up are still ongoing. We hope that further analyses of these interviews will help determine whether those influences on recovery are stable, leading to further improvements, or whether they disappear over time.

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## **EXPERIENTIAL APPROACHES TO CREATING A NEW NARRATIVE ON RESEARCH AND EVALUATION WITH INDIGENOUS PEOPLE**

*Aleta L. Meyer, Ph.D., Administration for Children and Families ([aleta.meyer@acf.hhs.gov](mailto:aleta.meyer@acf.hhs.gov))*

*Tonia Gray, Ph.D., Western Sydney University*

*Son Truong, Ph.D., Western Sydney University*

### **Overview**

In this poster, non-Indigenous researchers working with Indigenous people from two countries reflect upon their respective orientations towards knowledge development to help shift the narrative on research and evaluation with Indigenous communities. Research is not culturally neutral and program evaluation can be steeped in colonial and postcolonial histories. Western knowledge conceptions can be misaligned with Indigenous values and worldviews; therefore, academic research practices need to be expanded to address these inadequacies (LaFrance & Crazy Bull, 2009; Singh & Major, 2017; Smith, 1999). First, an example from Australia describes a strengths-based program evaluation to understand the benefit of Acceptance Commitment Therapy (ACT) with Indigenous youth attending a specialist behavioral school. Second, an example from a United States agency illustrates a vision-driven set of evaluation activities and reflective conversations to transform practitioner and policy views of research and evaluation in American Indian/Alaska Native (AI/AN) communities. These two examples provide compelling evidence regarding how an experiential orientation toward evaluation that emphasizes shared action, reflection, and application might facilitate the meaningful use of data by Indigenous communities to inform their local decision-making.

### **Example from Australia - Building on the Success of an Experiential Education Program for Schools with a High Indigenous Student Demographic**

#### **Background**

An Australian behavioral school successfully devised and implemented an outdoor learning approach to engage at-risk students. This research project examined the impact of ACT when integrated to complement this approach. Studies have demonstrated the benefits of ACT to support behavioral change for managing a range of issues from depression to risk of dropping out of school (Murrell & Scherbarth, 2006; Ruiz, 2010), and that ACT can support positive long-term effects 2-years following completion (Livheim et al., 2015). ACT is founded on the principles of positive psychology and Eastern philosophies where the goal is to catalyze change through six core principles: acceptance, defusion, being present, self as context, valued living and commitment to action (Bach & Moran, 2008; Hayes et al., 1999).

#### **Experiential Orientation toward Program Evaluation**

This project was specifically designed and delivered to enhance the emotional, social and behavioral wellbeing of eleven students aged 10-12 years. Students participated in an eight-week 60-minute group session guided by the intervention model pioneered by Kirk Strosahl (2004). The impact was measured utilizing a pre/post-test mixed methods design including standardized scales, observations, and interviews. Student and teacher interviews, and relevant student records were accessed to determine any change over the course of the intervention.

The study culminated with the students' narratives being co-generated into a collaborative artwork process led by an Indigenous Elder. A mural was co-created together as the students were asked: *In 100 years, how would you like your grandkids or kids to be looked after?*

*What would you like to see happening? What things would you see if kids were being looked after well?* The approach embedded a tangible commitment to their values and most importantly, creatively commits to a new narrative and future self they can adopt in the present moment into the future (Hayes, et al., 2010; Westrup, 2014). As an experiential activity the creation of the mural served to achieve multiple research goals, including: process and impact evaluation with students; identification of future-valued living, and a lasting artefact representing the shared lived experience of the intervention. This innovative and ‘out-of-the-box’ evaluation served as a powerful alternative to traditional academic modalities.

### **Example from the United States - Building the Knowledge Base on Effective Human Services Programs for American Indian / Alaska Native Communities**

#### **Background**

The hundreds of Indian Tribes in the United States face a unique set of challenges. Disparities in health care, disparities in education services, and exposure to risk factors are often high. These disparities demonstrate a need to expand and strengthen the evidence base regarding human services for AI/AN populations and communities. Additionally, because most of the research on prevention and intervention approaches lack diverse study samples, the applicability of study findings for diverse communities is incomplete (Gottfredson et al., 2015). Moreover, tensions exist between practitioners and researchers that have resulted in low levels of translation from research results to practice settings.

#### **Experiential Orientation toward Program Evaluation**

This reality provided the context for efforts at the Administration for Children and Families (ACF), the ‘human services’ branch of the US Department of Health and Human Services, a federal agency committed to building the knowledge base on what is effective for AI/AN communities. Specifically, staff in the Office of Planning Research and Evaluation (OPRE) within ACF asked: *How do we get from a supply-push scenario in 2011, where we often seem to push evidence-based programs on tribal communities, to a demand-pull scenario ten years from now, where tribal communities are actively asking questions and identifying relevant data to inform answers about what works best for their communities?* Drawing from conceptual models such as experiential learning, action research, and practice-based research networks (Mold & Peterson, 2005), our research office decided to build into the design of our funding opportunities for evaluation and research in tribal communities a series of requirements related to the active engagement of tribal colleagues and program partners in ongoing, direct research experiences (e.g., the Communities of Learning within the Tribal Early Childhood Research Center at the University of Colorado-Denver, <http://tribalearlychildhood.org>; the technical assistance provided by the Tribal Home Visiting Evaluation Institute for the Tribal Maternal, Infant, and Early Childhood Home Visiting Program, <http://www.tribaleval.org/>).

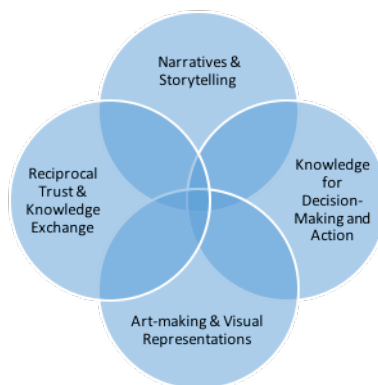
Concurrent to these efforts in 2011, the Children’s Bureau, the agency within ACF that oversees child neglect and maltreatment prevention, convened a workgroup to develop a vision to foster trust and build the knowledge and skills of tribal communities, their research partners, and other stakeholders to conduct more meaningful evaluation to inform child welfare policy. This vision is articulated in [A Roadmap for Collaborative and Effective Evaluation in Tribal Communities](https://www.acf.hhs.gov/sites/default/files/cb/tribal_roadmap.pdf) ([https://www.acf.hhs.gov/sites/default/files/cb/tribal\\_roadmap.pdf](https://www.acf.hhs.gov/sites/default/files/cb/tribal_roadmap.pdf)). This Roadmap is built on underlying values (*Indigenous Ways of Knowing, Respect for Tribal Sovereignty, Strengths Focus, Cultural and Scientific Rigor, Community Engagement, Ethical Practices, and Knowledge Sharing*) and moved forward with action in two primary domains of

*Relationship Building* and *Skill Building*. According to this vision, in their role with tribal communities, evaluators must facilitate collaborative and bi-directional processes to enable effective evaluation.

The availability of this stated vision for ACF, combined with reflection on the concrete experiences of colleagues in research and evaluation activities funded by OPRE, in an on-going monthly conversation among all in ACF interested in these possibilities, has led to an enlivened curiosity about what can work best for the native communities ACF serves. This curiosity has given new meaning to the term ‘evaluation’, where it is expanded to include what is of value for specific communities. This expansion was made possible through the shared creation of knowledge through direct experience in and reflection on research activities, from design, to data collection, to interpretation, to dissemination. Without the experiential emphasis, these efforts to transform opinions and perspectives regarding the evaluation ACF does with tribal communities would likely have been more of a didactic exercise than a transformative opportunity.

### Synthesis and Reflection

Reflection across these examples provides an opportunity to consider experiential approaches that led to meaningful engagement in research and evaluation with diverse communities (see Figure 1). The former examines students’ narratives and the collaborative art-making process where they visually represented visions of their valued future selves and world by creating an enduring artefact in the form of a mural for their school. Similarly, the direct research experiences in the latter, including the Communities of Learning of the Tribal Early Childhood Research Center and the locally-driven rigorous evaluations of the Tribal Maternal Infant and Early Childhood Home Visiting Program, highlight the importance of creating an honest dialogue to collectively manifest the goals of communities. Both orientations relied upon reciprocal trust, knowledge, and skill building as catalysts towards sharing connections and stories to build respectful relationships with people, Country, and self (McKnight, 2015; Thomas, Taylor & Gray, in press).



**Figure 1. Insights into Re-orienting Experiential Evaluation**

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## **The Mentor/Mentee Relationship in Experiential Education: A Systematic Literature Review**

*Glenn Middleton, Western Carolina University, (dmiddleton@wcu.edu)*  
*Amanda McGowan, Michigan State University*

### **Review of the Literature**

While the mentor/mentee relationship has been associated with traditional teacher education apprentice models (Ambrosetti & Dekkers, 2010; Feiman-Nemser, 1996; Little, 1990), it is increasingly reported as integral for experiential education (EE) and leisure instructor training programs (Propst & Koesler, 1998). Moreover, prominent experiential education and leisure programs have asserted the primacy of mentoring as part of their field instructor programs (Divine, 2016; Outward Bound, 2006). The literature, practitioners, and students seem to agree that the mentor/mentee relationship is a critical component of effective experiential education and leisure programming (Cain, 1989; Galloway, 2002; Shooter, Sibthorp, & Paisley, 2009), yet there remains no detailed investigation into the operational definition of mentoring in these contexts and the desirable characteristics of mentoring programs as identified by practitioners to foster the interpersonal relationships essential to the learning of implicit knowledge in these contexts.

Closer examination of the mentor/mentee relationship in experiential education and leisure contexts reveals troubling issues. An inherent problem in the fields of experiential education and leisure is that while the mentor/mentee relationship is both a necessity and an proffered methodology, there is little conceptualization of the terms and definitions comprising the mentor/mentee relationship. For example, if authors insert the words mentor, apprentice, or protégé into an article's conclusion or recommendation section and do nothing to conceptualize that term, they assume the requisite experience of the reader to do that for themselves. However, if the reader does not have the requisite experiences to conceptualize what is meant by these terms, there is no structure by which to guide them to an appropriate use of this concept within the context of the authors' recommendations. As an example, Morrison-Shetler and Heinrich (1999) state "Given the interdisciplinary nature of experiential teaching and the notion of 'group as mentor,' the idea of an interdisciplinary faculty group that mentors members around experiential teaching approaches makes sense" (p. 5). While the authors reference formal mentor/mentee programs, they do not define or conceptualize the components of a mentor/mentee relationship.

The purpose of this study is to determine the amount as well as thematic relation and focus of literature on the topic of the mentor/mentee relationship within the fields of EE and leisure. Second, this study sought to provide a potential structure for conceptualization of the terms encapsulating the mentor/mentee relationship. We consider the present review to be timely, as recent advances in EE and leisure, coupled with anecdotal evidence, provide contemporary practitioners and researchers with increasingly clearer insight into the mechanisms by which field instructors and experiential educators exhibit fundamental skills and implicit knowledge, such as that required for decision-making and risk management, leading to effective functioning in a variety of situations. The gains derived via specific types of the mentor/mentee relationship may be of importance for field instructors and experiential educators as effective behavior is guided by both intrapersonal and interpersonal factors related to the mentor/mentee relationship.

## Methods

A systematic review of papers published prior to March 2017 was undertaken using experiential education and leisure peer-reviewed journals currently in publication (n=12; see Table 1). Each journal was searched using three search terms in four search fields (see Table 1). Database searches, screening, and eligibility of records were performed independently by two authors at two different institutions.

Table 1

Journals	Fields	Search Terms
(1) Annals of Leisure Research	All	mentor*
(2) Applied Environmental Education	Keywords	apprentice*
(3) Australian Journal of Outdoor Education	Abstract	protégé*
(4) Canadian Journal of Environmental Education	Title	
(5) Journal of Adventure Education and Outdoor Learning and Communication		
(6) Journal of Experiential Education		
(7) Journal of Outdoor Recreation, Education and Leadership		
(8) Journal of Outdoor Recreation and Tourism		
(9) Leisure Sciences		
(10) Leisure Studies		
(11) Research in Outdoor Education		
(12) SCHOLE: A Journal of Leisure Studies and Recreation Education		

*Note.* Journals, search fields, and search terms used to identify records.

After the initial database search and the removal of duplicates, records that were screened (n = 30) contained at least one of the three search terms (mentor\*, apprentice\*, or protégé\*) in at



least one of the search fields (All, Keywords, Abstract, Title). At this point, records were excluded (n = 11) because they were book reviews and thus did not meet inclusion criteria. Next, full text articles (n = 19) were assessed for eligibility included in the qualitative synthesis. Qualitative synthesis will be performed using NVivo software to analyze keywords-in-context to identify thematic convergences among articles.

## **Results**

Although qualitative analysis has not been performed at this time, preliminary results reveal that the majority of papers published where mentor\*, apprentice\*, or protégé\* appear in the Keywords, Abstract, or Title are qualitative in nature (Bachert, 2007; Bell, 1990; Chand & Shukla, 2003; Coakley, 2006; Colvin & Tobler, 2013; Gladwell, Dowd & Benzaquin, 1995; Gray, 2008; Maxson, 1983), with three quantitative studies (Morgan, Sibthorp, & Tsethlikai, 2016; Norton & Watt, 2014; Propst & Koesler, 1998), and three theoretical papers (Coakley, 2006; Karagatzides et al., 2011; Wheal, 2000). Four papers propose mentor program curricula (Gladwell, Dowd & Benzaquin, 1995; Powell & Sable, 2001; Schaumleffel, 2009; Wittmer, 2001). These papers implement diverse methods, such as case studies (Bachert, 2007; Bell, 1990; Chand & Shukla, 2003; Colvin & Tobler, 2013; Gray, 2008; Pelchat & Karp, 2012; Skalko, Lee, & Godlenberg, 1998) and informal interviews (Morrison-Shetlar & Heinrich, 1999), to assess the effectiveness of the mentor/mentee relationship in the context of faculty and peer mentoring programs. Both informal and formal mentoring contexts are examined in the papers, with few papers describing the effectiveness of a formal mentoring program. No standardized assessment measures are implemented in the research, with informal semi-structured interviews being the dominant assessment measure. Overall, there is little homogeneity in the investigation of the effectiveness of mentoring programs in experiential education and leisure contexts.

## **Discussion**

Although some articles support the notion that the mentor/mentee relationship is valuable to developing implicit knowledge in EE and leisure contexts (Bachert, 2007; Bell, 1990; Chand & Shukla, 2003; Gladwell, Dowd & Benzaquin, 1995; Maxson, 1983; Morrison-Shetlar & Heinrich, 1999; Morgan, Sibthorp, & Tsethlikai, 2016; Propst & Koesler, 1998; Wittmer, 2001), few papers explicitly conceptualized the defining attributes of the mentor/mentee relationship (Gladwell, Dowd & Benzaquin, 1995; Powell & Sable, 2001; Schaumleffel, 2009; Wittmer, 2001). To further elucidate the conceptualization of the mentor/mentee relationship in EE and leisure contexts, future research directions should include a framework, such as that outlined by Jacobi (1991). Jacobi's research is particularly relevant to this study because she sought to alleviate the subjectivity of a [mentoring] models' measurement by a personalized definition of that subject. Jacobi's lowest common denominators for a mentor/mentee relationship exemplifies a more holistic concept of the term, and therefore, robust model by which to apply that term. For example, a literature review of medical, higher education, and teacher training programs may determine thematic convergences leading to a conceptual model that optimizes learning in EE and leisure contexts. Without such systematic investigation into the conceptualization of the mentor/mentee relationship, the effective characteristics comprising mentoring programs to optimize learning for additional gains in implicit knowledge will remain a challenge.

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# **ADVENTURE THERAPY AS AN ADJUNCT TREATMENT FOR PSYCHOTIC PATIENTS: THERAPISTS' VIEWS ON ITS IMPACTS DURING THE RECOVERY PROCESS**

*Catherine Séguin-Green, Département de psychologie de l'Université du Québec à Montréal (seguin-green.catherine@courrier.uqam.ca)*

*J. Éric Dubé, Département de psychologie de l'Université du Québec à Montréal*

*Camille Girard, Département de psychologie de l'Université du Québec à Montréal*

*Clairéline Ouellet-Plamondon, Département de psychiatrie, Faculté de médecine de l'Université de Montréal, Centre de recherche du Centre Hospitalier de l'Université de Montréal, Centre Hospitalier de l'Université de Montréal (CHUM)*

## **Literature Review**

Psychosis is a severe mental health disorder. Many efforts in the field of psychosis management and treatment, focus on early interventions to promote better therapeutic outcomes for patients (Delamillieure, Couleau, & Dolfus, 2009). The use of adjunct interventions during treatment is advocated by many to encourage engagement in recovery and to promote treatment adherence (Cotton & Butselaar, 2013). Among such adjuncts, Adventure Therapy (AT) has shown much promise in patients with a psychiatric disorder: a previous study has noted, for example, a decrease in anxiety, depression, hostility and paranoia and an increase in self-esteem and self-efficacy (Ewert & McAvoy, 2000). AT is an innovative intervention modality which combines the beneficial effects of activities carried out in nature with those of conventional therapy (Newes & Bandoroff, 2004). However, studies on AT in adults with psychosis remain scarce (Bryson, Feinsten, Spavor & Kidd, 2013; Norton et al., 2014). Moreover, little attention has been paid to AT and its effects from the perspective of those therapists who accompany patients during the adventure and who carry on treatment once the program is complete.

## **Method**

Given this paucity of past results, this exploratory study aimed at identifying potential action mechanisms of AT that appear to impact the recovery process of young adults with early psychosis, in order to better guide future confirmatory studies. More specifically, we were interested in the views of all four therapists (three occupational therapists and one registered nurse) who took part in two distinct waves of an AT program during the summers of 2015 and of 2016. The therapists were familiar with the patients and the challenges they were facing in their recovery process, and they were also first-hand witnesses to changes in treatment occurring immediately following the program, so we felt that they could put us on the trail of relevant–yet unforeseen–action mechanisms.

A total of 15 patients (8 in 2015; 7 in 2016), aged between 18 and 30 years old, took part in the AT program. The patients were all treated at the early intervention for psychosis service “Clinique JAP”, CHUM, Montreal (Canada) at the time of the study. The treatment plan can include therapeutic groups up to four sessions per week (occupational therapy, psychoeducation, sport and motivational therapy for concurrent substance use disorder), individual meetings with a case manager and with a psychiatrist, family interventions, cognitive-behavioural therapy, and outreach interventions. The goal of treatment is functional and symptomatic remission.

The AT program involved 4 weeks of bi-weekly preparation in a group format followed by a 4-day expedition for the patients. The weekly preparatory meetings focused on basic physical training, outdoor equipment familiarization, task allocation, identification of personal goals in a logbook, etc. The 4-day group adventure took place in Vallée Bras-du-Nord, in Québec, Canada.

The young adults were involved in many activities such as hiking, canyoning, zip-lining, as well as camping related activities (setting camp, building fires, outdoor cooking, etc.) Daily therapeutic group discussions, focusing on the patients' experience and its potential relevance in their daily life, were organized after each day of adventure. Each discussion was supervised by our therapists-participants who accompanied them.

Semi-structured individual interviews, focusing on the therapists' experience of AT and on their perception of its impact on the patients' recovery, were conducted. They took place within two weeks after the completion of the AT programs. The first author performed a thematic analysis (Paillé & Mucchielli, 2016) on all verbatim transcripts of the therapists' post-expedition interviews, using the QSR-Nvivo software version 11. This first step of theme selection was then followed by discussions with another co-author to refine the initial theme selection, and to better convey its organization and description.

## **Results**

Our qualitative results first show that therapists believe AT significantly impacted to varying degrees the recovery process of the patients, at least immediately following the expedition. Beyond this general assessment, therapists noted more specifically that the fact that AT takes place in a natural environment outside the city had a positive impact on the social and therapeutic relationships that developed during the program. Therapists also mentioned that for participants who were socially isolated, AT became an opportunity to experience new positive interactions in a safe and social environment.

All four therapists mentioned that their presence offered a kind of "support in difficult situations" lived by the young adults. Some stressed that it was possible for them "to intervene immediately." Also, for some of them, AT is in a way one "window of exhibition protected" in which the young adults can live their difficulties in an overseen environment where professionals who already know their issues are able to support them adequately.

Another significant theme that emerged was that "AT allows therapists to more closely observe patients that are already being treated." Therapists reported feeling that they "gained a better understanding of their patients' functioning in general" because of AT. A major component of this theme was that the environment in which patients and therapists find themselves in leads to exchanges on many "topics that might not be touched upon in regular therapy." Therapists felt that to observe patients in a different context led them to readjust their therapeutic strategies. Also, therapists and young adults got to "know each other in a different environment" which made the relationship between them feel "more solid". Therapists reflected that this allowed for "a greater degree of trust/openness" between therapist and patients which would hopefully lead, in turn, to a positive alliance in therapy sessions to follow. Moreover, therapists felt they were "better equipped with new concrete examples to refer to" when faced with roadblocks during the recovery process.

Finally, therapists reported that the new experiences made in AT by the young adults with psychosis—especially experiences of overcoming challenges they initially felt ill-equipped for—allowed them to build a new perception of themselves, challenging their previous views and sustaining hope for the future.

## **Discussion**

Although noteworthy, the general view of a positive impact of AT on recovery was expected since the therapists-participants voluntarily enrolled in the program, and they were

likely to have a favorable view of its impact. Our interest, therefore, focused more on their observations and thoughts regarding the action mechanisms that could explain these impacts.

The results of our exploratory study, which focused on the therapist's perspectives, point towards certain properties of AT which could contribute significantly to the recovery process of young adults with psychosis, and towards changes in the therapeutic relationship fostered by AT.

With regard to the particular properties of AT, the singular context in which AT takes place appeared to promote social interactions within a small group. Since social isolation remains a reality for many of these young adults, it is important to note that therapists perceived AT as a means to counter social isolation by the creation of new relationships in patients who had so far struggled to do so. It is likely that AT offers an environment that helped the participants to re-develop social skills with other young adults who have lived similar experiences.

Our results also illustrate the apparent significant impact of the continuous presence of therapists during the expedition, which offered them the opportunity to intervene immediately when necessary. The therapists mentioned several times that their continued presence made it possible to emphasize and to encourage the learning experience of the patients, which could allow patients to benefit much faster from this kind of therapy than is the case in standard treatment alone. This is consistent with Newes and Bandoroff (2004) who acknowledge that such support would be a significant factor in the recovery process of these young adults. As Ewert and McAvoy (2000) reported, at any time later on, it is possible for therapists to refer back to the various experiences lived in an AT setting by the young adults. To this end, the use of a discussion group at the end of each day during the expedition seems essential to facilitate the young adults' involvement in the adventure, to help them create meaning for what they have experienced, and to integrate these experiences within the frame of their own personal goals (Ewert & McAvoy, 2000).

In terms of relational impacts, therapists noted that the environment in which AT takes place allowed them to reinforce the bond of trust already present between them and those patients they were already seeing in treatment. They viewed it as promoting confidence in the therapeutic relationship, which seemed to result not only from the fact that patients learned to know their therapist in a more natural environment, as Becker (2010) has previously pointed out, but also because the therapists got to know their patients beyond the "person in need of medical attention." Therapists mentioned that they believe the relationship with their patients will be different post-adventure, since AT allowed them to appreciate their patients in their entirety rather than solely as symptomatic individuals. Therapists noted that AT breaks some of the barriers that are often observed in institutional settings due to the respective roles in which therapists and patients tend to confine themselves. Since therapists and patients shared the same intense experiences, albeit limited in time and scope, this leads us to believe that a stronger bond and relationship could result from participation in AT.

One of the limitations of our study at this stage, remains that our results reflect short-term effects of AT: therapists were interviewed only once, within two weeks of their participation in AT. Our qualitative results have highlighted the positive impacts of AT on the therapist-patient therapeutic relationship. Further research should include follow-up interviews with the therapists and patients to see if those impacts on the therapeutic relationship are maintained over a longer period of time within treatment.

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## **OUTDOOR EXPERIENTIAL EDUCATION IN EAST ASIA: INTERPRETING DATA FROM OUTWARD BOUND HONG KONG**

*Jim Sibthorp, University of Utah (jim.sibthorp@health.utah.edu)*

*Aaron Funnell, Outward Bound Hong Kong*

*Mike Riley, University of Utah*

*Bacon Chan, Outward Bound Hong Kong*

*Lisa Meerts-Brandsma, University of Utah*

### **Background**

Outdoor experiential education (OEE) is typically considered a Western concept, and its philosophical underpinnings are rooted in Western values. Such roots highlight a critical question: How should OEE best function in Eastern cultures and contexts? As the use of OEE in Asian cultures has increased, so has the conversation about how best to implement programs in these contexts (cf., Beames & Brown, 2005). Brookes (2002) cautioned practitioners about the importation of OEE theories into other cultures, noting that translation may result in problems.

Cultural differences between education in Eastern and Western cultures are widely documented. As a former British colony, Hong Kong's schools are structured per British educational traditions (Tang & Bray, 2000), yet many Confucian beliefs, such as notions of collectivism, the salience of social standing and prestige (i.e., face), and the obligation to fulfill one's social expectations are apparent in Hong Kong's schooling (Glenwright, 2010). Like their counterparts in other nations, educators in East Asia are charged with a dual mandate: realizing academic achievement while developing character (Biggs, 1998; Lee, 1996; Li, 2010). In Hong Kong, this had led to a system that focuses on academic examination performance alongside the advancement of intrapersonal skills such as authenticity, compassion, perseverance, and initiative-taking (Education & Manpower Bureau, 2005; Li, 2010). While academic outcomes are easily measured through exams, intrapersonal outcomes remain difficult to measure.

Western conceptions of OEE and traditional Asian educational models are not entirely at odds; however, they are distinct and offer participants unique learning opportunities. While OEE does not directly target academic growth, it is believed to cultivate multiple competencies valued in Eastern and Western cultures such as resolve, diligence, perseverance, and increased concentration (Li, 2010). OEE's overarching goal of intrapersonal and interpersonal development may counter the intensity of academic life and formal schooling in Asia. Moreover, the focus of OEE on relationships and ill-structured problems may complement the formal hierarchy and testing regime common in Asian schools. Despite these possibilities, outcomes attributed to participation in OEE may be interpreted differently in Eastern and Western cultures. Furthermore, typically prioritized OEE processes, such as equitable relationships among students and between students and teachers, are noticeably different from traditional Asian schooling practices, and therefore, may be uncomfortable for students.

Therefore, the purpose of this paper is to increase discussion and dialog on how OEE might be adapted to best serve East Asian cultural settings and students. Below we discuss the role, benefits, and practices of OEE in East Asia and interpret data gathered from Outward Bound Hong Kong to further explore these topics.

## Methods & Results

Outward Bound Hong Kong's Performance Evaluation Questionnaire data were gathered from 2292 secondary and university students who completed an OBHK course between July 2015 and August 2016. The courses were 2 to 18 days long, and involved hiking, sea-kayaking, and sailing. All courses were journey-based, and included camping in remote locations. The sample was 56% male and ranged in age from 12 to 52 ( $M= 17.5$ ,  $SD= 4.3$ ).

These courses targeted three outcomes valued in Hong Kong: initiative-taking (IT), self-confidence in overcoming hardship (SCH), and kindness to others (KTO). Each of these outcomes were measured through a self-report questionnaire completed before (pretest) and after (posttest) the course. Self-report data on sense of belonging (SB) while on course and a measure of teacher-student relationship (TSR), where the course instructor was considered the referent teacher, were also collected. These measures have been validated over several years of work (see Sibthorp, 2015), and demonstrated reasonable validity and excellent internal consistency.

During our analysis, we examined two key relationships. First, we explored differences in outcomes by course language. We hypothesized that the language preference of participants might be a proxy for whether one holds more Eastern (Cantonese) or Western (English) cultural views. Second, we were interested in how SB and TSR predicted outcomes. To answer these questions, we ran three hierarchical regression models that predicted posttest outcome scores controlling for pretest scores, age, and sex, and then determined the amount of remaining variance explained by language, SB, and TSR.

All three hierarchical regressions were significant and the predictors explained between 53 and 60 percent of the variability in posttest scores. Improvements for all three outcomes from pretest to posttest were also significant ( $p<.001$ ) with large effect sizes (IT:  $d=.63$ ; SCH:  $d=.77$ ; KTO:  $d=.78$ ). After controlling for pretest scores, the most meaningful predictors were SB and TSR, which showed up in all three models and explained between 23 and 27 percent of the variance in outcomes. Course language did not explain a meaningful amount of variance in participant outcomes; course language may be a poor proxy for cultural differences. These results demonstrate that OEE in Hong Kong may be effective for cultivating participant growth and that SB and TSR seem to be important course components.

## Discussion

Based on the extant literature and our data analysis, OEE can be beneficial in East Asian contexts. While empirical evidence remains limited, OEE may function similarly in East Asia as in non-Asian contexts, offering participants benefits that cross both academic and non-academic domains. One of OEE's strengths is the intrapersonal and interpersonal development opportunities it provides (e.g., Rickinson et al., 2004), and this strength may complement the traditional hierarchical structure found in Asian educational systems.

While this study does not offer definitive solutions, we do have suggestions for OEE practitioners in East Asia. Findings from this study indicated that students who felt they were valued group members reported greater learning. As in other cultural and educational contexts, relationships matter in OEE. In addition, students who felt more connected to their instructors reported more learning. OEE instructors working in all cultures should leverage these programmatic elements to ensure OEE courses are as effective as possible. As Asian OEE courses can yield outcomes not directly targeted or measured during formal schooling, OEE providers should position themselves as a complement to classroom education.



We still know very little of the long-term outcomes associated with OEE participation in Asia. In addition to long-term outcome studies, the contrasting educational approaches warrant further examination. How does collaboratively solving ill-structured problems on OEE courses affect student functioning when faced with problems or tests at school? How does experiencing more equitable student/teacher relationships affect the view of these roles in formal schooling?

In conclusion, our goal in writing this paper was to stimulate discussion and dialog on how OEE should be employed in Asian contexts. While OEE was brought to East Asia during colonization, it would be interesting to consider what components or processes would be present in an organically-cultivated OEE program. While OEE is rooted in Western philosophies, it is ultimately built on experiential educational principles; therefore, it tends to be student- and group-centered. This innate characteristic may make OEE practices culturally robust; that is, self-correcting to group and cultural differences as instructors shape the course to fit individual and group needs. Perhaps this is a possible explanation for OEE's successful exportation to diverse cultures across the world.

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# **EXPERIENCING THE COMMUNITY THROUGH SERVICE-LEARNING: EXPANDING CONCEPTIONS OF EXPERIENTIAL EDUCATION IN TEACHER EDUCATION**

*Barri Tinkler, University of Vermont, (btinkler@uvm.edu)*

*Alan Tinkler, University of Vermont*

*Jennifer Prue, University of Vermont*

*Lia Cravedi, University of Vermont*

## **Review of Literature**

The field of teacher education has long valued the role of experience in developing future teachers (LaMaster, 2001; Sailors, Keehn, Martinez, & Harmon, 2005). These experiences tend to focus on practica and student teaching in k-12 classrooms where future teachers develop valuable knowledge and skills around effective teaching practice (Marchel & Green, 2014). It is through these practice experiences that preservice teachers begin to define their future teaching selves and make critical connections between theory and application (Zeichner, 2010).

Given the benefits, the field of teacher education continues to push for an expansion of clinical experiences with the belief that more experience will lead to better preparation (Hollins, 2015). While more school-based placements can lead to gains, such as increased confidence in the classroom setting and improved management skills, they do not necessarily ensure deeper understanding of learners and learning or of innovative practice (Guyton & Byrd, 2000). By moving sites of practice beyond the k-12 classroom, teacher educators can target experiences to support particular learning aims (Barnes, 2016; Hallman, 2012).

Our teacher education program made the decision to expand the number and nature of field experiences in our program through community-based service-learning (CBSL). According to Cone (2012), “CBSL is a type of field experience that combines academic learning with community service. It allows preservice teachers an opportunity to apply the knowledge and skills learned in previous teacher education courses, while addressing the real-life needs of their community” (p. 893). In addition, CBSL can target experiences with diverse populations of learners outside of the k-12 school setting (Boyle-Baise, 2002). This change of setting can have important benefits. According to Sleeter (2000), CBSL experiences subvert the traditional power dynamics of k-12 classrooms and thus are more likely to challenge pre-services teachers’ deficit perspectives.

Our primary goal was to support experiences with the New Americans in our community that arrive through refugee resettlement. We sought to broaden our students’ understanding of diversity and support the development of knowledge and skills for working with English language learners. To that end, we embedded service-learning experiences in three courses in our program. In the first-year, introduction to education course, students partnered with a local school district to survey parents about how to better meet student needs. This school district serves a large percentage of resettled refugee youth. In the adolescent development course (completed during the sophomore or junior year) and the content literacy course (completed during the junior or senior year), preservice teachers provided academic support to adolescents in local community centers. Most of the students who use the services of these community centers are refugee youth.

We designed this study in order to gain a view into the experiences of the preservice teachers completing these service-learning projects. This study seeks to answer this question— What do preservice teachers learn when we expand sites of practice through community-based service-learning?

## Methods

In order to examine what participants learned through the service-learning experiences, we designed an exploratory study (Stebbins, 2001). We developed qualitative questionnaires with open-ended questions for each course. According to Johnson and Christensen (2010),

Questionnaires that include mostly open-ended items are called qualitative questionnaires. These questionnaires are often used for exploratory research, such as when the researcher wants to know how participants...experience a phenomenon or when the researcher wants to know why participants believe something happens. (p. 170)

The questionnaires included questions about general learning gains in addition to questions specific to the service-learning experience in each course. The instruments were structured similar to a written interview in that the questions were broad and allowed participants to respond with the breadth, depth, and direction that they chose.

Ninety-nine students (out of 117) chose to participate for an 84% response rate. This included 57 participants from the first-year course (out of 73), 18 participants from the adolescent development course (out of 19), and 24 participants from the content literacy course (out of 25).

Using a process of constant comparison (Leech & Onwuegbuzie, 2008), the first and second author each coded the data independently using an open-coding (Benaquisto, 2008) process to see what emerged from the data. We compared codes to identify areas of commonality and difference and agreed upon 26 codes that spanned the three data sets. We then used a process of axial coding (Charmaz, 2006) to “group the codes into similar categories” (Leech & Onwuegbuzie, 2008, p. 594) to identify broad themes that encompassed these codes.

## Results

There were three primary themes that emerged through data analysis: 1) expanded awareness of the diversity in the community, 2) new knowledge and skills for communicating with parents and English Language Learners (ELLs), and 3) increased awareness of the complexity of learners.

### **Expanded Awareness of the Diversity in the Community**

Across the data set, 73 participants noted how moving into community sites allowed them a view into the diversity within the community that was not as visible through their experiences on campus. One participant noted, “I learned that there was a very diverse community right in my backyard!” Through the participants’ interactions, they listened to stories and gained a view into experiences that differed from their own. One participant wrote, “It was really inspiring to hear about the journeys of many of the refugee students.” This attention to understanding community context and the experiences of diverse members of the community is important in preparing effective teachers (Gimbert, 2010).

### **New Knowledge and Skills for Communicating with Parents and ELLs**

Through interactions with a diverse range of parents and youth, the participants gained valuable knowledge and skills. Sixty-eight participants described the development of knowledge or skills specific to effective teaching practice. Participants in the first-year course described increased knowledge of strategies to engage parents. One participant wrote, “I was able to recognize and appreciate [the school district’s] efforts to make sure parents of all backgrounds were given the same attention. Ex. The use of translators and surveys in different languages.” Some of the participants (n=17) also described skills they developed in communicating with

parents. One wrote, “I learned how to communicate with parents and guardians of many backgrounds.”

For participants in the adolescent development and content literacy courses, they gained knowledge of language acquisition and strategies for effectively teaching ELLs. Twenty-five participants described new skills for teaching ELLs. One wrote, “[I] learned how to focus and control my presentation of info (vocab choice, speed, volume, etc.)” In regards to language acquisition, 21 participants noted learning in this area. One participant stated, “ELLs all progress at different rates. Some may be strong vocally but not able to read and write efficiently and vice versa.” By working with individual students, the participants developed knowledge and skills that will assist them in supporting ELLs included in their future classrooms.

### **Increased Awareness of the Complexity of Learners**

Through one-on-one interactions with parents and youth, participants gained a view into the differences between learners. Parent input provided perspective on the different ways that parents conceptualized their children’s learning. One participant wrote, the “service-learning experience showed me that students really do learn in so many different ways, and what works for one student may not work for another.” While providing academic support, participants gained a view into how each student engaged with the material and the things that could motivate and frustrate. This understanding of the individuality of learners will assist these future teachers in better understanding how to effectively differentiate instruction.

### **Discussion**

This study demonstrates that community-based service-learning experiences can expand opportunities for learning beyond k-12 classrooms. By engaging with parents and community youth, participants were able to gain a view into life experiences that were different than their own (Hildenbrand & Schultz, 2015). Participants also gained knowledge and skills that will inform their future teaching practice.

As teacher education programs seek to expand field components, consideration should be given to the different types of experiences that have the potential to optimize learning. Given the increasing diversity of students in U.S. schools, it is imperative that teacher education programs provide opportunities to develop skills around culturally responsive practice (Meaney, Bohler, Kopf, Hernandez, & Scott, 2008). When structured to advance program learning outcomes, community-based service-learning experiences provide meaningful learning opportunities for preservice teachers.

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# Thanks to everyone for being part of SEER.

## SEER Through the Years

<b>Year</b>	<b>Co-Chairs</b>	<b>Distinguished Researcher Award and location</b>
2001	Alan Ewert	1 <sup>st</sup> SEER @ AEE Charleston, WV.
2002	Alan Ewert	St Paul, MN
2003	Alan Ewert, Jim Sibthorp	Vancouver, BC
2004	Alan Ewert, Jim Sibthorp	Norfolk, VA
2005	Alan Ewert, Jim Sibthorp	Tucson, AZ
2006	Jim Sibthorp, Keith Russell	St Paul, MN
2007	Keith Russell, Cheryl Stevens	Little Rock, AR
2008	Keith Russell, Cheryl Stevens	Vancouver, WA
2009	Cheryl Stevens, Jayson Seaman	Montreal, Canada
2010	Jayson Seaman, Kath Pinch	Keith Russell; Las Vegas, NV
2011	Jayson Seaman, Alan Ewert	Mike Gass; Jacksonville, FL
2012	Stacy Taniguchi, Denise Mitten	Lee Gillis; Madison, WI
2013	Stacy Taniguchi, Denise Mitten	Alan Ewert; Denver, CO
2014	Stacy Taniguchi, Denise Mitten	No award given; Chattanooga, TN
2015	Denise Mitten	Denise Mitten, Portland, OR
2016	Denise Mitten	Anita Tucker; Minneapolis, MN
2017	Denise Mitten, Brad Daniel, Andrew J. Bobilya, Brad Faircloth	Christine Norton & Jim Sibthorp, Montreal, Canada