Abstract

PhotoVoice was used to visually understand students’ perspectives of and reveal students’ motivations for participating in a domestic study away. A domestic study away is a high-impact learning experience within the United States that exposes students to unfamiliar places and cultures. The high-impact experience course used as the context of this study was developed and designed using reflection and PhotoVoice, a research method that connects participants with their environment through photographs of moments or events capturing their attention. On a 10-day, study-away field experience, 45 students enrolled at Texas A&M University captured photos of places, events, and objects that held meaning and significance to them. Students each submitted 10 photos they believed best represented their study-away experience. The photos were accompanied with student-generated captions depicting the students’ meaning of the photo. The PhotoVoice analysis identified five major themes—product, process, people, place, and point in time—with an overarching theme of connection. Connection is a driving factor for students to participate in a study away. Developing a study away around connection could enable instructors to recruit students and keep them interested and engaged throughout the experience. PhotoVoice offered students a chance to understand themselves and use photographs to reflect on their experiences.

Keywords: connection, high-impact experience, PhotoVoice

Introduction

High-impact learning experiences provide students with high-demanding experiences that can lead to higher-order learning, engagement, and understanding of course content (Anderson et al., 2006; Kuh, 2008). These experiences require students to work together to meet “mutual needs and to cooperate in meeting significant … interpersonal challenges” (Steiner, 1987, p. 40). According to the Association of American Colleges and Universities (n.d.), high-impact learning experiences include first-year seminars, common intellectual experiences, learning communities, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity/global learning, service-learning, internships, and capstone projects (Keenan, 1992; Kuh, 2008; Muturi et al., 2013). Pence and Macgillivray (2008) found students benefited both personally and professionally from high-impact field experiences. One such field experience is a study abroad, which can enhance students’ academic, professional, personal, and intercultural understanding (Michigan State University Office of Study Abroad, n.d.). Similar to a study abroad is a domestic study away, or field experience, which Odom et al. (2014) described as one way to achieve student learning and engagement in colleges of agriculture. Students in a Parks’s (2014) study expressed that the opportunity to engage in hands-on field work was a key motivating factor for participating in high-impact learning experiences. In addition, Muturi et al. (2013) noted students expected to gain practical experience and knowledge, develop professional skills, and develop personal skills from such experiences and sought “achievement, affiliation, or power to influence others” (p. 400). In a related study, Motley and Sturgill (2013) found students who participated in high-impact experiences developed different perspectives after a direct experience with an unfamiliar topic. Understanding the importance of students’ motivations is critical as motivation is “associated with the acquisition of human capital skills” (Cote and Levine, 1997, p. 240).
Visualizing Connection

Conceptual Framework

High-impact learning experiences create environments that allow students and instructors to immerse themselves into the learning process. Researchers have documented the impact of such experiences using pre-post designs (Anderson et al., 2006; McKim et al., 2013), surveys (Muturi et al., 2013), focus groups (McLeod and Wainwright, 2009), and reflections (Cook and Quigley, 2012; McClam et al., 2008).

Reflection can be a powerful tool when students use it to document their learning (McClam et al., 2008; Odom et al., 2014; Sessa et al., 2009). Students engage in reflection when they “recapture their experience, think about it, mull over it, and evaluate it” (Boud et al., 1985a, p. 19), thus, developing a deeper appreciation and understanding of their experiences. Hands-on experiences beyond the classroom lend well to reflection and challenge both students and instructors to collaborate and reflect (Leggette et al., 2013). However, reflection, as part of high-impact learning, is often measured using written reflection (e.g., personal journals) without considering the impact of visual reflection. One type of visual reflection not often used to study high-impact experiences in higher education is PhotoVoice, a participatory research method developed by Wang and Burris (1994).

Photos can be powerful tools because “the parts of the brain that process visual information are evolutionarily older than the parts that process verbal information” (Harper, 2002, p. 13). Through deeper consciousness, images elicit more of the brain’s capacity than communication based solely on words (Harper, 2002). For example, Wang and Burris (1994) used visual images and documentary photography to draw attention to issues and to encourage critical thinking and interaction with an environment as PhotoVoice connects participants with their environment through photographs of moments or events capturing their attention. Thus, by participating in visual exchange instead of interviews, people use more of their brain’s capacity to delve deeper into critical thinking and gain deeper understandings.

As a research method, PhotoVoice “entrusts cameras to the hands of people to enable them to act as recorders, and potential catalysts for change” (Wang and Burris, 1994, p. 369). It is unique opportunity because research participants can share about “the issues documented in their photographs” (Cook and Guiley, 2012, p. 340). Through PhotoVoice, participants can get involved in the research process, identify issues, and create opportunities for those issues to reach policymakers.

Although PhotoVoice has been used primarily to stimulate social change or bring awareness to underprivileged communities, such as rural Chinese women (Wang and Burris, 1994), homeless people (Wang, 2003), and mental illness patients (Bowers, 1999), it can be used to shed light on what students find important in a class setting. Cook and Quigley (2012) noted students used PhotoVoice as a pedagogical tool “to describe their understanding of science [using photos] and discuss these photos with informed community members” (p. 340). By giving voice to those whose voices may not be heard, PhotoVoice can provide a platform for students in a high-impact learning environment. PhotoVoice is “highly flexible and can be adapted to specific participatory goals, and different groups and communities” (Wang and Burris, 1997, p. 370). Thus, its application to high-impact learning experiences is plentiful because it enables students to record and reflect on their experiences and to enhance how they make meaning of such experiences.

Purpose

The purpose of this study was to use PhotoVoice reflection in an adult-learning, high-impact field experience to understand students’ perspectives of a study away and to reveal students’ motivations for participating in a study away. One research question and two research objectives guided this study.

RQ1: What do students gain from participating in a study away?

RO1.1: Describe students’ perspectives of the benefits of participating in a study away, and

RO1.2: Describe the experiential themes of students who participated in a study away.

Method

Context of Study

Faculty in the Department of Agricultural Leadership, Education, and Communications at Texas A&M University planned a 3000-mile, 10-day study-away field experience to expose students to agriculture outside of the state of Texas. Because many students have never left the state, the experience was designed to show students that many cultures and lifestyles exist beyond Texas. Throughout the trip, students experienced Land Grant Universities, cultural diversity, service learning, volunteering, collaboration, and American history as they visited the Amish of Missouri and the Kentucky Derby racetrack, volunteered to help the tornado victims in Joplin, Missouri, and the FFA students in Indianapolis, Indiana, and discovered the systems behind Caterpillar equipment and the country music industry. Because systems thinking, service learning, and diversity were instrumental components of the course, the stops were intentionally chosen to represent extremes.

Forty-five students representing eight majors from five departments in the College of Agriculture and Life Sciences participated in the experience. To be eligible, students submitted an application, which was used for participant selection. The application was implemented in case the demand exceeded the accommodations. All students were accepted because the demand did not exceed the accommodations. Thus, all students who applied enrolled in the trip-accompanied course and paid the University’s $699 field trip fee.
The course was a semester-long course with the field experience occurring in the middle of the course. Students and instructors met each Friday of the semester for 50 minutes before and after the trip. The class periods before the experience were designated for trip preparation and included lectures about each component of the course—cultural diversity, service learning, volunteering, and collaboration. The class periods after the experience were designated to helping the students make meaning of their experience through reflection, group presentations, and end-of-the-semester projects.

In the weeks leading up to the experience, students learned about social media, systems thinking, journaling, multi-media equipment, experiential learning, service learning, diversity, and learning organizations. At the beginning of the course, students were assigned to semester-long groups for collaboration and were provided with their course assignments. The assignments, implemented to further enhance students’ experience and learning, included participation in the study away experience, blog entries, personal journal entries, photographs, a reflection paper, and a group presentation.

After eight weeks of learning and participating in course lectures, the students applied the material they had learned in the classroom to their study away experience. During the field experience, students submitted a blog, or public, post and a personal journal, or private, post at the end of each day, and the instructors chose two blog posts from each day to post on the course blog. Each student wrote personal journal entries, which were submitted in written and video form. Students also worked in groups to create content for the course blog up to three times per week, on a rotational basis. Blog entries during the field experience were related to specific sites and activities and were completed between scheduled destinations. Many of the students completed blog and journal posts simultaneously throughout the day as they participated in different portions of the experience. In addition, the photographs the students submitted were the basis for this study (see students’ instructions for submitting and identifying photographs in the data collection portion of the method section).

The group spent the first night on the bus before volunteering in Joplin, Missouri. After helping the tornado victims repair small portions of their lives, the group members headed to Columbia, Missouri, where they spent the night and toured the University of Missouri and the Amish and Mennonite communities of Central Missouri. Illinois (Caterpillar Dozer Plant and University of Illinois) was the next stop before heading to Indiana. While in Indianapolis, Indiana, students and instructors attended the National FFA Convention and volunteered for a variety of Career Development Events (e.g., food science, agricultural communications, livestock judging). After spending three days at Convention, the group headed south to Kentucky with stops at Churchill Downs, Wild Turkey Distillery, and Kentucky Horse Park and Farm. From Kentucky, the group traveled to Nashville, Tennessee, to spend one night and tour GAC Broadcasting, Country Music Broadcasters Association, and Grand Ole Opry. Tennessee was the last tour stop before the group returned to campus to complete the course.

After the experience, students devoted their time to reflection and group collaboration. In addition to the blog and journal entries as a basis for their paper and a source of specific examples.

Participants

Participants in this study were Texas A&M University students enrolled in a College of Agriculture and Life Sciences study away course during the fall 2012 semester and represented four of the College’s 14 departments. Participants included seven graduate and 34 undergraduate (31 females and 10 males) students. Five participants opted out of the study after the study away portion of the course.

Data Collection

Students individually captured moments of their trip using photos and submitted 10 photos they believed best represented their study away experience. The 10 photos included student-written captions, capturing the essence of the photo and the experience. Therefore, the data included in this study consisted of 410 photos with 410 corresponding captions submitted by the students. Before completing the assignment, students were instructed to write photo captions that answered questions modified from the SHOWed questions suggested by Wang in 1999, with the main difference being students were asked to be more individually introspective than focused on the group. This study included five questions: (a) What do you see here, (b) What is really happening here, (c) How does this relate to your life, (d) Why does this problem, concern, or strength exist, and (e) What can you do about it? These questions provided a starting point for students to think about the photo: its meaning, its events, and its context.

Prior to data collection, the Texas A&M University Institutional Review Board approved the study. Additionally, photographs taken of people, activities, or inanimate objects in public places were approved by the Texas A&M University IRB for use in this study. Therefore, we believed the use of the photographs was ethical.

Data Analysis

Before beginning data analysis, we printed the photos and captions and pasted the captions on to the back of the corresponding photo. Each photo included the caption as well as an individual-specific code to ensure
the pictures could be traced back to the student. We analyzed the data using a form of content analysis, which is “a technique that enables researchers to study human behavior in an indirect way, through an analysis of their communications” (Fraenkel and Wallen, 1999, p. 405). Lincoln and Guba (1985) stated content analysis uses continuous comparison of data to find similarities and differences and identify themes and subthemes. To do this, two faculty members and two graduate students inductively identified emergent themes using content analysis.

We conducted the analysis in three phases: initial, secondary, and final. During the initial analysis, two faculty members who attended the study away grouped the photos into 29 different clusters based solely on the visual image. Although the faculty members had biases toward the photos and themes, it was their familiarity with the photos that was important for the initial analysis. Researchers in previous PhotoVoice studies were familiar with the participants, context, and settings when analyzing the data (Baker and Wang, 2006; Borron, 2013; Cook, 2012; Wang, 1999).

After the initial analysis, we conducted the secondary analysis and analyzed each group separately for construction of themes and ideas. We, one faculty member and two graduate students, met as a group for the secondary analysis, and the other faculty member analyzed the data individually. The second faculty member analyzed the data separately because she was unable to attend the second data analysis meeting. The three researchers read out loud the caption of each photograph in a group (A – AC). Based solely on the captions, the researchers individually processed the information and developed their own opinions about emergent themes. After we each formed our ideas, we shared our thoughts with each other to condense and validate emergent themes. Once a theme was established, photos were flipped over to authenticate the data—the photos showed the same information as the captions and the themes aligned with the visual (photo) and textual data (caption). If the themes correlated, a sample of photographs representing the theme for all 29 groups was selected. We achieved data saturation in groups AB and AC. The faculty member who analyzed the photographs separately followed the same process, documenting keywords and phrases from each group. The results of the secondary analysis can be found in Table 1.

Next, we met to condense themes in the third and final analysis. Through collaboration and presentation of ideas, we developed five major themes and one overarching theme that explained students’ beliefs about what was important and beneficial during study away experiences. Within each theme identified in the final analysis, subthemes were also identified (see Table 2). Those subthemes are presented in italics within the findings and discussion section.
Findings and Discussion

Students who participated in the study away focused on five themes throughout the experience—product, process, people, place, and point in time—which were developed through connection (see Figure 1). These themes portrayed what students gained from and perceived as highlights of their experience. Connection not only served as the overarching theme of the experience but also provided a way for students to understand how they operated and grew as individuals.

People

Students valued the uniqueness of person and the impact of individuals from different cultures and lifestyles (B11; B15). The sameness of cultures helped students appreciate the differences and the similarities among them (F05). For example, the Amish community lived a lifestyle different and unique from the students’, yet the similarities between the two emphasized the importance of humanity. The similarities between cultures helped students see the uniqueness of lifestyles and realize differences are often parallel and not true differences (V04). For example, even though people are different, traditions and relationships span across cultures as the traditions the Amish people honor resonated with students. By understanding others’ perspectives and lifestyles, one student understood how “diverse our world is and also how important it is to accept those cultures and to not judge them” (V02). This respect resulted in students’ appreciation for the simple traditions and hard work dominating the lifestyle and culture of the Amish (U07; U09). To illustrate, one student saw the handprints in the concrete at one of the Amish farms (M15) as traditional and sentimental to life’s journey.

Students learned through service by helping the community of Joplin, Missouri, and volunteering at the National FFA Convention in Indianapolis, Indiana (D03; D05). Working alongside the residents affected by the tornado helped one student develop empathy and respect for survivors (D07). “Serving your community will not only help those in need, but [also] help you understand the experience when keeping an open mind” (D09).

Additionally, throughout the field experience, students developed friendships through shared experiences (B02), which allowed them to be more engaged and made experiences more impactful. “Meeting new people can open up one’s life to a world of possibilities” (B08) and can help one appreciate the diversity of people. While developing friendships, students learned to appreciate and recognize others’ differences and contributions, which was a significant part of the experience (Figure 2).

Points in Time

Students made numerous mentions of memories and reflection when talking about points in time. While attending the National FFA Convention, one student reminisced about his FFA experience and participation (E05). “Reflecting on the experiences” during and after the field experience “created depth in the overall experience for students in the course” (B06). Dreams and goals manifested as students mentioned memories

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<th>People:</th>
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<tr>
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<td>Tradition and heritage</td>
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<td>Differences in parallel</td>
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<td>Points in Time:</td>
<td>Symbolism</td>
<td>Nostalgia</td>
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<td>Grief and destruction</td>
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Figure 2. A sample of the photographs students submitted as part of their Photovoice reflection assignment. The sample is representative of each emergent theme.
and reflected on them. “Life flashes by in the blink of an eye [...] but we must learn to work hard towards [sic] our goals while we have the time to do so” (AB31). It often takes hard work, effort, and focus for someone to accomplish his or her goals (AB26), but in the end, hard work turns into realized dreams.

Tradition and heritage are integral to life at Texas A&M University, and students referenced such tradition and heritage on multiple occasions. From the Amish passing toys down through generations (F01), to the formal hats at the Kentucky Derby (F02), to citizens showing pride in the American flag (F03), tradition and heritage ran deep during the field experience. Tradition brought people together from diverse cultures, generations, and geographical locations. Students saw the similarities and differences of tradition and heritage most clearly through comparison of universities (O02). While visiting the University of Missouri, students experienced another campus not unlike their own and realized that traditions can be found everywhere. One student (O08) said, “it reminds me of how much our university had in common with theirs, and how very narrow minded I was about different colleges and places before this trip.”

Additionally, students characterized transformation and realized transformation takes time, especially in terms of their own growth and maturity. One of the largest transformations students experienced was the signs of hope and transformation that emerged after the tornado (C01; C04). At that point in time, they began to understand anything can be transformed with time and emotional support.

Place

Students connected with multiple places through tradition, history, uniqueness, and complexity. Many of the places students visited contained rich history and tradition, which resonated with them because of the strong connection they felt to Texas A&M’s tradition (G05; X08). Students noted Churchill Downs was an unforgettable, treasured landmark because it was a unique, “one-of-a-kind” place marked by American history and landmark notoriety (G08; G10; O04). While reflecting on the tradition and history of the places they visited, students were inspired to set goals and achieve their dreams. Seeing time-honored places such as the Grand Ole Opry (X08), Churchill Downs (G08), and the University of Missouri (G06) helped them appreciate how places, monuments, and iconic structures influence and affect people and culture. Such landmarks have the ability to spark interest, move people to learn more about their history, and pass information on to future generations (G18).

Perspective was essential for students as they reflected on the reason for place. In the aftermath of the tornado, students experienced the reason for place by talking to residents about their decisions to stay, weather the storm, and rebuild or to leave and start life anew (A01; A03). Having a place to call home was important to the students, but knowing when to move on and when to stay was just as important (A09; A15).

Process

While observing a process, one student stressed the importance of parts working together to create a whole (Z17). “All of these smaller parts are working together to get one, much larger task done … you can really see how things come together to make a bigger picture” (Z17; see Figure 2). Steps are important to a process, and the transformation of parts during the process is essential and takes patience and time (R07; R17). Not all processes students experienced created a tangible product as overcoming struggle was a process (O07; O08). Students saw growth and maturity during this trip as a process (O08), especially as they witnessed Joplin residents overcome struggles (O07).

A process contains numerous parts that come together and requires a starting and ending point, or input and output (I04; I10). As students viewed and participated in various processes, they expressed an appreciation for process. They observed how raw products were developed into a product through an intense process and realized processes were essential to running a business and creating products (I03; I05; I05). For example, students observed the process Wild Turkey uses to create bourbon—from the wheat and corn to the finished bottled bourbon (R09)—and appreciated the effort and hard work it took to create products like Wild Turkey bourbon (Z01).

Product

A product, tangible or intangible, is created through a process. Starting with undeveloped products and raw ingredients (see Figure 2), a finished product is created through development. Students enjoyed experiencing new products and watching cultures create and sell their products (L03; L06; L07). Students’ interest in the development of product was seen through the major theme of process, and seeing the parts of the process gave students new perspectives and made them appreciate the collective whole (N03). When examining products, students were attracted to business and goals as an outcome and understood they must “work hard, have good luck, and take advantage of opportunities” (AB08) to reach their goals (AB31).

Connection

The overarching theme students experienced due to the study away was connection, because students linked connection with the five major themes. Feeling connected to other students and cultures, points in time, places of importance, products, and processes helped them gain new experiences and understand their values. Interacting with others who have gone through similar hardships helped students understand connection (A04) and realize they were not alone in their struggles (O07). Thus, the field experience was a time of growth, maturity, and transformation as students related the five major themes to their own life.

Within this overarching theme, students discussed numerous factors impacting connection. Students made
Adding photos to students' reflection journal entries may stimulate different types of reflection behavior—possibly deeper thought than reflection journals alone. However, further investigation is necessary to determine the effect of adding photos to typical written reflection journals. Additionally, further research is warranted to investigate the effect of adding photos to written reflection journals on students' and teachers' workload during study away experiences. There is reason to question the diminishing point of return. Specifically, reviewing more than 40 students' reflection journals and listening to focus group audio recordings daily can be daunting.

Also, there may be an undefined point for student burnout, when the frequency, mode, and medium of reflection is not varied during an extended, immersive field experience. Therefore, we provide the following recommendations for practice:

• Schedule time for reflection. Although having students reflect during their free time may seem logical, students could be tired and may not devote effort to reflection.

• Vary the modes and mediums of reflection throughout the field experience. Using a combination of journals, group discussions, and photos with captions to capture students' experiences may reduce students' perceived level of burnout.

• Ask students to use their photo catalogs, reflection notebooks, and reflection group audio recordings to develop deeper, more expansive captions for each photo.

• Ask students to create an audit trail indicating source(s) of information used in their captions. Instructors and researchers could use the audit trails, reflection notebooks, and reflection group audio recordings to identify connections among the selected photos, which may be useful in identifying the most meaningful, engaging learning experiences.

Recommendations

Because the sample included in this study was a small group of students from one college within a large university, more research should be conducted to see if the results can be replicated. Varying the sample demographics, as well as the geographical locations, should help researchers understand how students perceive high-impact learning experiences.

Students' answers to the photo caption questions were methodical without much introspection. This could be because answers to the questions did not require creative and critical thinking. The questions may work better in a focus group setting where participants could talk about and interact with their data. Therefore, further research needs to be conducted using a focus group type setting to see if the results provide more depth and introspection.

Reflection journals and groups were excellent methods for students to document and share their experiences, consider their peers' experiences, and contemplate differences in experiences, motivation, and efficacy. Adding photos to students' reflection journal entries may stimulate different types of reflection behavior—possibly deeper thought than reflection journals alone. However, further investigation is necessary to determine the effect of adding photos to typical written reflection journals. Additionally, further research is warranted to investigate the effect of adding photos to written reflection journals on students' and teachers' workload during study away experiences. There is reason to question the diminishing point of return. Specifically, reviewing more than 40 students’ reflection journals and listening to focus group audio recordings daily can be daunting.

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Kuh, G.D. 2008. Excerpt from high-impact educational practices: What they are, who has access to them, and why they matter. Association of American Colleges and Universities.


