Creative Minds Abroad: How Design Students Make Meaning of Their International Education Experiences

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Dedication

This dissertation is dedicated to all those who have dared to leave the familiar behind and experience life somewhere new… but especially to the design students and alumni who graciously shared their stories and experiences with me in the interviews that made this study possible. May you board plane, train, or automobile again soon, encountering new spaces and places that inspire your creativity and, thereby, enrich our world.

Abstract

The purpose of this study is to explore the ways in which students majoring in a design discipline make meaning of their study abroad experiences in relation to their creativity and creative design work. Students and recent alumni from the College of Design (CDes) at the University of Minnesota-Twin Cities (UMTC) who had studied abroad formed the population of interest.

Mezirow's (1991) transformative learning theory is at the center of this epistemologically constructionist study's theoretical framework, and is combined with the intergroup contact theory (Allport, 1954; Pettigrew, 1998), the systems perspective on creativity (Csikszentmihalyi, 1988), and motivated cultural cognition (Chiu et al., 2000; Chiu & Hong, 2005) to form an integrated conceptual model. The model proposes a rationale for how study abroad is meaningful for design student sojourners.

A variant of Brinkerhoff's (2006) success case method (SCM) was used to select study participants. A recruitment survey was sent to the entire population of interest, and then, based on the survey responses, information-rich interview participants were selected; therefore, the majority of the study data is qualitative. Both the survey instrument and the interview protocol were independently developed by the researcher. Blogs and designs created by the interview participants were used to triangulate information from the survey and interviews.

The findings are organized by research question, and focus on four distinct yet related lines of inquiry: students' expectations for the study abroad experience; the ways they describe the learning they experienced; the ways they make meaning of the

experience in relation to their creativity; and the ways it influenced their future aspirations or plans. The key findings of the study relate to the process of making meaning of the learning experience, and include: the value of engaging with a culture mentor who has deep knowledge of both the host culture and design; the importance of experiencing, firsthand, the reciprocal relationship between culture and design; and the ability to borrow and apply concepts and processes from the study abroad host culture into new and creative designs.

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CHAPTER ONE

INTRODUCTION

"One's destination is never a place, but rather a new way of looking at things."
–Henry Miller, *Big Sur and the Oranges of Hieronymus Bosch*, 1957, p. 25

Background of the Problem

Anecdotal evidence suggests that many of history's great creative minds sought inspiration in lands far from the shores of their birthplaces: Gauguin painted in Tahiti, Hemingway penned manuscripts in the Caribbean, Maugham visited Burma, and Kipling traveled throughout the British Empire. More recently, scholarly research, using quantitative assessments that operationalize creativity, has connected increased creative ability with a variety of international and multicultural experiences, including travel and residence abroad (Fee & Gray, 2012; Maddux & Galinsky, 2009), study of other languages (Lee & Kim, 2011; Leikin, 2013), living in a culturally and ethnically diverse area (Lubart, 1999), exposure to multicultural artifacts and media (Leung & Chiu, 2010), working with a multicultural team (McLeod, Lobel, & Cox, 1996; Tadmor, Satterstrom, Jang, & Polzer, 2012), and undergraduate academic study abroad (Gurman, 1989; Lee, Therriault, & Linderholm, 2012).

The past decade has witnessed an increased interest in the internationalization of higher education, with the goal of producing "global citizen" graduates who will be competitive in an international marketplace of information and ideas (Mestenhauser, 2002; 2011); the underlying assumption is that this exposure to ideas from other places and cultures will enhance students' academic careers (Altbach & Knight, 2007). Study

abroad, "a subtype of Education Abroad [*sic*] that results in progress toward an academic degree at a student's home institution" (Forum on Education Abroad, n.d.), was once a supplemental experience marketed only to the affluent (Bolen, 2006; Brodsky-Porges, 1981). However, in the recent push to internationalize, study abroad has become a major initiative for many institutions that now structure the experience as an important component of an undergraduate education (Knight, 2004). Though still a small percentage of undergraduate students as a whole, the number of students who study abroad continues to rise annually (Paige, 2005; Institute of International Education, 2011; 2012). As campuses internationalize and, concomitantly, the availability of study abroad programming expands, so too does the debate about whether the experience influences and shapes students in the ways that university education abroad offices and study abroad guidebooks often assert it will (see Doerr, 2013). Both scholars and practitioners, interested in documenting the value of an expensive and logistically complex co-curricular experience, have sought to determine whether there are significant, measurable outcomes related to study abroad (Fry, Paige, Jon, Dillow, & Nam, 2009; Paige, Fry, Stallman, Josic, & Jon, 2009; Vande Berg, Paige, & Lou, 2012).

Historically, one of the most discussed and researched areas of development in relation to study abroad has been second language acquisition (Dolby, 2004; see DeKeyser, 2007; Freed, 1995; Rivers, 1998), but Coleman argues in his discussion of European study abroad that "limit[ing] residence abroad research to the linguistic outcomes is to distort the experience" (1998, p. 197). Scholarly responses to this concern

include a range of studies that explore the relationship between study abroad and the development of sociocultural and intercultural competences (Marx & Moss, 2011; Pedersen, 2010; Rexeisen, Anderson, Lawton, & Hubbard, 2008; Vande Berg, Connor-Linton, & Paige, 2009); increased levels of global engagement (Paige et al., 2009); change in use of cultural stereotypes and generalizations (Coleman, 1996; Tusting, Crawshaw, & Callen, 2002); and greater academic achievement (Sutton & Rubin, 2004).

A key element of studying abroad is exposure to another culture, often one with ways of thinking that diverge significantly from one's own (Cushner & Karim, 2004). Culture encompasses the "values, beliefs, attitudes, preferences, customs, learning styles, communication styles, history/historical interpretations, achievements/accomplishments, technology, the arts, literature, etc.—the sum total of what a particular group of people has created together, share and transmit" (Paige, Cohen, Kappler, Chi, & Lassegard, 2004, p. 43), and is "a result of the lived experience (praxis) of participating in social action" (Vande Berg et al., 2012, p. 101). As culture is a primary shaper of behavior in creative production and performance (Csikszentmihalyi, 1988), the connection between the development of creativity and exposure to other cultures through activities such as international travel, living in a culturally diverse area, or using a second language (Gurman, 1989; Lee & Kim, 2011; Leikin, 2013; Lubart, 2010) has also been investigated. Lubart notes, "for complex activities with social facets, such as creativity… understanding the influence of culture is particularly important" (2010, p. 276). However, only recently has the development of creativity been examined through empirical

research as a possible outcome of, specifically, undergraduate study abroad (Lee et al., 2012). Gardner (2006) suggests that both creativity and cultural competence will be critical skills in the interconnected global community; study abroad is an experience that may allow for the simultaneous development of both.

Statement of the problem

While there is already a large body of research exploring the influence of study abroad on intercultural competence, research on study abroad and creativity is comparatively lacking. Further, existing research that examines the relationship between international and multicultural experiences and creativity is primarily quantitative, and rooted in a post-positivist epistemology wherein the development of creativity is assessed psychometrically; the meaning of the international or multicultural experience to the creative individual is not considered. This study addresses the scarcity of constructivist research on creativity and international experiences through a qualitative exploration of the study abroad experiences of students who have selected majors and future careers with a creative focus: architecture and design.

As study abroad programs have increased in number, the types of programs available to students have also multiplied. Some universities offer their own curricula, delivered by their own faculty, on an international partner campus, while others operate under the auspices of a third-party provider; still others allow students to design bespoke programs tailored to their individual academic needs (Cushner & Karim, 2004; Engle & Engle, 2003). Programs are offered that focus on the needs of students preparing for

careers in a particular field, and academic departments have developed rationales for the importance of study abroad to students in their disciplines. Students in majors that mandate a high degree of creative output, including architecture and design, are encouraged to study abroad as part of their individual creative development. For example, the University of Minnesota Department of Art strongly recommends study abroad to art majors, telling students:

> [the] experience can contribute to your liberal education as well as to your formation as an artist. Study abroad provides the opportunity to gain international perspectives that can broaden and enhance your understanding of your own place, deepen your perspectives, and sharpen your awareness—all important elements of the process of creative thinking and visual art making. (Learning Abroad Center, Art, n.d.).

Students majoring in design must "expand their knowledge horizons" through reflective international engagement that will contribute to their ability to consider problems using "an alternate frame of experience and understanding" (Mendoza & Matyok, 2013, p. 219). University of Minnesota College of Design faculty members suggest that studying abroad will give students a "new and richer perspective of the world" (Learning Abroad Center, Apparel Design, n.d.) and prepare them for globally focused careers by "exposing them to cultures and environments that differ from what is familiar, which prepares them to think critically about design" (Learning Abroad Center, Interior Design, n.d.).

Studying abroad offers students the opportunity to "learn things and learn in ways

that aren't possible on the home campus" (Vande Berg, 2007, p. 392). Faculty members teaching in disciplines where creativity and artistic innovation are highly valued recommend studying abroad as a beneficial experience for students majoring in their fields, and limited empirical quantitative studies suggest that international exposure and experiences positively influence the development of creativity. What is unknown, however, is what students in creative majors themselves find meaningful about their time studying abroad; what did they hope to learn while abroad, and how do they perceive the experience influencing them as future artists and designers? These questions form the core focus of this dissertation study,

Definitions of key terms

It has been suggested that the nature of creativity defies precise definition (Torrance, 1988). There is certainly significant debate in the field of creativity research about how to define creativity, particularly when considered from a global perspective where culture influences the way creativity is both expressed and perceived (Niu & Sternberg, 2001). For example, in Scandinavia, creativity is viewed as an attitude toward life and the challenges it poses, while the Soviet-Russian tradition employs a Gestalt psychological perspective to describe creativity as insight or productive thinking (Sternberg, 2006). In Sudanese culture, Khaleefa, Eados, and Ashria describe a tension between traditionalism and "*al-ibd'a*," or creativity, and suggest, "the concept of creativity in indigenous or traditional societies may not necessarily contradict conformity" (1996, p. 275). And in Japanese corporations, the philosophy of "*kaizen,*" or

improvement, encourages broad thinking that extends beyond technological breakthroughs to include innovative organizational restructuring and product sourcing (Basset-Jones, 2005; Shingo, 1959). Given these differences across cultures, Sternberg and Grigorenko (2004) rightly conclude that creativity must be understood within its cultural context.

In the United States, too, scholars continue to debate the definition of creativity (Csikszentmihalyi, 1999), though the most basic conceptualization of what it means for an idea to be "creative" has three parts: 1) the idea must be new or innovative; 2) the idea must be high quality; and 3) the idea must be appropriate to the task at hand (Kaufman & Sternberg, 2010). Therefore, in its simplest form, a quality creative work is both novel and appropriate (Sternberg & Lubart, 1999). The population of interest in this study is undergraduate students majoring in disciplines where creative work is a key component of the future careers for which they are preparing themselves.

In his theory of careers and vocational life, John Holland (1973; 1997) identified six major types of human interests: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (RIASEC), which can be self-assessed using instruments like the Strong Interest Inventory. These six types are linked to various career and major options; for example, the Realistic set of interests is associated with fields such as engineering and agriculture (Gottfredson & Holland, 1996). Holland, Johnston, Hughley, and Asama (1991) hypothesized that, of the six types, creativity would correlate most strongly with artistic interests; later studies found that students in artistic majors scored higher on

creativity self-assessments (Kaufman, Pumaccahua, & Holt, 2013) and that artistic interests predicted artistic creativity (Perrine & Brodersen, 2005). Students choosing to major in fields associated with artistic interests are, in essence, self-selecting for careers with a focus on creative output.

Based on the above discussion, the definitions for the following terms will be applied consistently throughout this paper:

1. *Creative work*: output that is both novel and appropriate (Sternberg & Lubart, 1999)
2. *Creativity*: the ability to produce quality work that is both novel and appropriate
3. *Creative majors*: disciplines which require generation of artistically creative work and are associated with vocations classified as artistic in Holland's (1973; 1997) RIASEC model. The University of Minnesota academic majors considered for examination in this study are: architecture, housing studies, landscape architecture, product design, apparel design, interior design, retail merchandising, and graphic design (Gottfredson & J. Holland, 1996). The academic unit housing these majors is the College of Design (CDes). Therefore, the term "design" will also be used to encompass the broad type of creative majors included in this dissertation study.

Statement of study purpose

The purpose of this study is to explore how undergraduate students in creative majors make meaning of their study abroad experiences in relation to their creativity and the creative work of their chosen fields of study and future careers. Through interviews with recent University of Minnesota study abroad returnees, the study provides an in-depth perspective on the lived experiences of design students who choose to study abroad.

Research questions

Using the definitions outlined above, this study addresses the following research questions:

1) How do undergraduates pursuing creative majors describe their expectations about how their creativity and creative work would be influenced by the study abroad experience?
2) How do they describe, in relation to their creativity and creative work, the learning and development they experienced while abroad?
3) How do they interpret the meaning of their study abroad experience in relation to the creativity and creative work of their major fields and future careers?
4) What influence does the study abroad experience have on their future career plans or future aspirations?

Theoretical and conceptual frameworks

Subjective accounts of the transformational value of study abroad abound in international education literature and recruitment brochures, including returnees' testimonials asserting that "studying abroad changed their lives" (Doerr, 2013; Vande Berg, et al., 2012). Recent scholarly research has sought to investigate the popular belief that study abroad is transformative through theoretically grounded empirical studies (e.g., Fry et al., 2009; Paige et al., 2009; Sutton & Rubin, 2004). Two theories that frame research on study abroad as a learning experience—and are therefore salient to this study—are the intergroup contact theory (Allport, 1954; Pettigrew, 1998) and transformative learning theory (Mezirow, 1991). In this dissertation, these theories are employed as lenses for understanding the learning experiences of design students who study abroad as undergraduates. Additionally, Csikszentmihalyi's (1988) systems perspective on creativity, when combined with the concept of motivated cultural cognition (Chiu, Morris, Hong, & Menon, 2000; Chiu & Hong, 2005), describes a rationale for the influence of a new cultural environment on an individual's creative work.

Intergroup contact theory

Though Allport is credited with the development of the social group contact hypothesis (later intergroup contact theory), which was introduced in his 1954 book, *The Nature of Prejudice*, the idea that intergroup contact could improve relations and reduce bias had been discussed as early as the 1930s (Dovidio, Gaertner, & Kawakami, 2003). In

the period of recovery after the Second World War, however, the need for positive intergroup relations was particularly critical, and Allport's (1954) version of the contact hypothesis was timely. He suggested that,

> to be maximally effective, contact and acquaintance programs should lead to a sense of equality in social status, should occur in ordinary purposeful pursuits, avoid artificiality, and if possible enjoy the sanction of the community in which they occur. The deeper and more genuine the association, the greater its effect. (Allport, 1958, p. 454).

Four essential scope conditions were specified for optimal contact: 1) equal group status within the situation, 2) common goals, 3) intergroup cooperation, and 4) authority support (Allport, 1954); later, "friendship potential" was added as a fifth condition (Pettigrew, 1998). In a meta-analysis of empirical literature that employed intergroup contact as a theoretical framework, Pettigrew and Tropp (2006) determined that the five conditions should be viewed as facilitating rather than essential.

Compared with business travelers and tourists, who may have little personal engagement with local people in international locales, students in well-designed study abroad programs have ample opportunity to engage with members of the host culture under the above conditions. Indeed, this engagement can be a key aspect of learning while abroad: in a case study of one British student studying abroad in Mexico, Bacon (2002) found that encountering the cultural perspectives of the hosts was the most significant part of the student's learning experience. Based on that finding, Bacon (2002)

argued that students sojourning abroad should have access to cultural informants who can support them as they process and reflect upon their experience.

Building on Allport's (1954) conceptualization of social group contact to include process, Pettigrew (1998) describes a four-phase, longitudinal progression of change through contact: 1) learning about the outgroup, 2) changing behavior, 3) generating affective ties, and 4) ingroup reappraisal. These four processes, Pettigrew (2008) argues, are encompassed in friendship potential, the fifth facilitating condition. Step one in this process would be expedited with the aid of Bacon's (2002) proposed cultural mentors, who could potentially become friends; an example would be the paired mentoring and language exchange programs that feature in many study abroad programs.

Allport's (1954) original focus, when developing the social group contact hypothesis, was on the reduction of prejudice, particularly between groups from different races. Yet the applicability of the theory extends beyond interracial relations (Pettigrew, 2008). In the context of study abroad research, intergroup contact has repeatedly been employed as an explanatory theory for how students' stereotypes are reduced, and how they develop improved intercultural competence during their sojourn (Salisbury, An, & Pascarella, 2013). Yet Allport's (1954) hypothesis is applicable to artistic and creative work as well. Eisner (1972) proposes that an increased awareness of others' worldviews (which can logically be developed through intergroup contact) is an aspect of engaging in the process of artistic creation. Further, learning from and having positive experiences interacting with representatives of the host culture also offers a rationale for why those

who live or study abroad may be creatively inspired by their experience:

> When people encounter new cultures, they often experience and hence become less intimidated by the practices, artifacts, and concepts that are different from or even in conflict with those in their own culture. Therefore, exposure… should lower people's resistance (or increase their readiness) to *sample* ideas from foreign cultures. (Leung & Chiu, 2010, p. 725, italics original).

Thus, as sojourners abroad adapt and become more comfortable with members of the host culture and, concomitantly, the "practices, artifacts, and concepts" of those people, they are subsequently more likely to draw ideas from that culture, juxtaposing new information with familiar concepts from their home culture to generate novel, creative results. For students in artistically creative majors, then, interaction and friendships with members of the host culture provide a window into the culture itself, a possible wellspring of new ideas with which to creatively experiment.

Transformative learning theory

While intergroup contact theory (Allport, 1954; Pettigrew, 1998) describes the nature of studying abroad as an experience where new ideas and perspectives are developed through interaction with members of the host culture, Mezirow's (1991) transformative learning theory presents a logic for how the experience of studying abroad initiates frame shifts in understandings and meaning structures (Behnke, Seo, & Miller, 2014; Vande Berg et al., 2012). Intended to be a model of the processes of adult postsecondary learning, the theory is underpinned by constructivist epistemology, which

assumes that "the way learners interpret and reinterpret their sense experience is central to making meaning and hence learning" (Mezirow, 1994, p. 222). The theory is an effort to "explain how our expectations, framed within cultural assumptions and presuppositions, directly influence the meaning we derive from our experiences" (Taylor, 1997, p. 14). Central to Mezirow's (1991) model of transformative learning is critical reflection, particularly on one's own meaning structures.

As described by Mezirow (1994), meaning structures have two facets. The first is *meaning perspectives*, which are broad assumptions based on the surrounding culture; for example, social norms. The second facet is *meaning schemes*, which are beliefs, feelings, and judgments that influence particular interpretations. Meaning schemes, therefore, are the expressions of meaning perspectives in relation to specific topics. Thus, a meaning perspective is akin to a person's overall worldview, while meaning schemes are points of view on specific topics. For example, a person may have been culturally socialized to prefer gender equality; this is a meaning perspective. That person may then believe that all genders should have the right to vote. The belief in equal access to the franchise is the manifestation of the meaning perspective, gender equality, in a meaning scheme specifically regarding the right to vote[1].

Individuals are generally resistant to ideas that challenge their preexisting meaning structures. However, when they engage in reflection and rational discourse due

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[1] In later work, Mezirow (1997) also uses the terms *habits of mind* and *a point of view* to describe *meaning perspectives* and *meaning schemes*, respectively; he employs *frame of reference* as synonymous with *meaning structures*. For simplicity, this paper will use the original terms, which all specifically reference meaning.

to a catalyzing experience called a *disorienting dilemma*, the result is transformative learning (Mezirow, 1991). Study abroad, a type of experiential learning that starts by placing students in an unfamiliar environment far from home, can certainly be a disorienting dilemma (Behnke et al., 2014); Taylor (1994a) employs the more familiar terminology of "culture shock," which can be defined as discomfort or anxiety that results from "misunderstanding… commonly perceived and understood signs and symbols" (Adler, 1975, p.13).

After the disorienting dilemma, which is the triggering phase of transformative learning, the next essential phase is critical reflection. The process of reflecting on premises involves intellectually challenging one's presuppositions. While abroad, students apply their meaning perspectives as lenses to interpret their experiences, but the subsequent critical reflection on those experiences, in turn, leads to the reconsideration and reshaping of original meaning structures. Encounters and dialogue with the meaning schemes of host country members through intergroup contact (Allport, 1954; Pettigrew, 1998) may also result in changes to meaning structures, which Mezirow refers to as dialogic learning (Taylor & Cranton, 2012). Belenky and Stanton argue for the criticality of dialogue to the transformation of meaning structures, because "when our old ways of meaning making no longer suffice, it behooves us to engage with others in reflective discourse, assessing the assumptions and premises that guide our ways of constructing knowledge and revising those deemed inadequate" (2000, p. 71).

Though other cultural perspectives can also be encountered by studying at home,

study abroad offers the opportunity to interact deeply with another culture and engage in focused reflection (Engle & Engle, 2003). The subsequent paradigm shifts (Kuhn, 1970) that occur due to critical reflection contribute to "[b]y far the most significant learning experience in adulthood" (Mezirow, 2011, p. 8). Indeed, Mezirow (1997) argues that transformative learning is the essence of adult learning, because it assists the individual in becoming an autonomous thinker capable of negotiating his or her own meanings and values.

For this significant learning to occur, however, Mezirow (1991) contends that the learner must decide to apply the reinterpretation of experience and meaning to later action; this relates to Pettigrew's (1998) inclusion of changed behavior as a key aspect of reduction of prejudice through intergroup contact. In essence, the ultimate result of transformative learning is that one's perspective is transformed to the extent that a revised understanding of one's experiences leads to a change in future behavior. More granularly, the three broad stages of disorientation, critical reflection, and change in future action are deconstructed into a ten-phase process of transformative learning:

1. A disorienting dilemma;
2. Self-examination with feelings of guilt or shame;
3. A critical assessment of epistemic, sociocultural, or psychic assumptions;
4. Recognition that one's discontent and the process of transformation are shared, and that others have negotiated a similar change;
5. Exploration of options for new roles, relationships, and actions;

6. Planning a course of action;
7. Acquisition of knowledge and skills for implementing one's plans;
8. Provisional trying of new roles;
9. Building of competence and self-confidence in new roles and relationships;
10. A reintegration into one's life on the basis of conditions dictated by one's new perspective (Mezirow, 1991, pp. 168-169).

In a critical review of literature that had used transformative learning theory as a conceptual framework, Taylor (1997) found that the process of transformative learning may not always follow these ten steps in the described order, and learners may be able to transform their meaning structures while omitting some phases. A recent study on the experiences of African international graduate students in the United States echoes Taylor's (1997) assessment that not all learners who experience transformation go through each of the ten steps (Kumi-Yeboah, 2014). From his findings in the empirical literature, Taylor (1997) contends that transformative learning theory has become reified and needs to be reconceptualized. In response to this concern, Cranton (2002) proposes that the steps be re-envisioned as facets of a spiral-like process; in particular, she articulates the importance of an activating event (*disorienting dilemma*), recognition of and critical reflection on assumptions, openness to alternative viewpoints, dialogue that includes co-construction of knowledge, revision of assumptions, and future action based on transformed assumptions. Cranton's (2002) perspective on transformative learning as a multifaceted, nonlinear process informs this dissertation study.

In the field of study abroad research, transformation theory has often been applied to intercultural learning (Taylor, 1994b; see Koskinen & Tossavainen, 2004; Perry, Stoner, & Tarrant, 2012; Rowan-Kenyon & Niehaus, 2011; Whalley, 1996). Many of the classroom methods that Mezirow (1997) describes as especially useful for the promotion of transformative learning, such as critical incidents, metaphor analysis, role play, group projects, and simulations, are also used to help study abroad participants process and learn from their international education experiences (see Paige et al., 2004).

But transformative learning theory, with its emphasis on shifts in meaning structures, and reflection on and integration of new perspectives, can have a broader application: "Transformative learning theory provides a framework for understanding how 'lived experiences' provide a context for making meaning of the world" (Trilokekar & Kukar, 2011, p. 1141). Thus, the theory is germane to the experiences of students in creative majors. Like all students who study abroad, those majoring in creative disciplines will encounter the disorienting dilemma of living in a new cultural context. However, for students in creative majors, critical reflections on assumptions could also include their perspectives on problems related to their creative work, which could further lead to a reassessment of how to address those challenges. For example, a student studying abroad may have pre-existing beliefs about what constitutes beauty, based on experiences and understandings from her own cultural perspective and disciplinary training. However, visits to museums showcasing the art of the host country expose her to new meaning structures regarding beauty. By critically reflecting on her presuppositions

about beauty, she can alter the way in which she approaches her own creative work or appreciates the work of others, particularly as "art [is] far from the unproblematic reproduction of a socially held visual representation. It is a creative and re-creative process of meaning transformation" (Martin, 2002, p. 98).

Additionally, the act of engaging in art-making and creative work can stimulate transformative learning. For example, employing the lenses of different photographic styles forces a reconsideration of ways in which to see the world: a photo taken from "mouse eye view" looks very different from a photo taken at normal vantage (Lawrence & Cranton, 2009). This relates conceptually to intergroup contact theory, where "[c]ross-group contact, and especially friendship, enables one to empathize and take the perspective of the outgroup" (Pettigrew, 2008, p. 190; see also Pettigrew & Tropp, 2008). As Masaru Ibuka, the co-founder of Sony Corporation, once noted, "Creativity comes from looking for the unexpected and stepping outside your own experience" (quoted in Ritter et al., 2012, p. 964). The experience of seeking an image from a mouse's perspective is the artistic equivalent of a frame shift, because

> looking at flowers from the underside… allow[s] us to see the flower in very different ways that we may never have considered… From looking at flowers from the viewpoint of a mouse, is it much of a leap to consider ideas from someone of a different race, culture, or religion? (Lawrence & Cranton, 2009, p. 321).

In this way, transformative learning becomes cyclical; learning shapes artistic production,

but engaging in creative work can also replicate the processes of transformative learning. For design students who study abroad, their creative work can therefore potentially be both the result of and the vehicle for transformative learning.

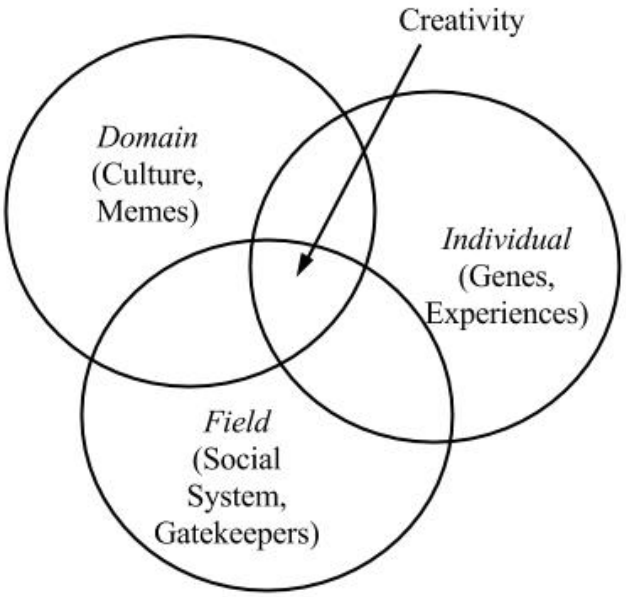
Systems perspective on creativity

Plucker, Beghetto, and Dow (2004) recommend that all discussions of creativity begin with a statement of the authors' conception of creativity as used in their research. The conceptual foundation for this study is Csikszentmihalyi's (1988) systems perspective on creativity, which proposes an interaction between the individual, the creative field, and the cultural environment. Further, motivated cultural cognition (Chiu et al., 2000; Chiu & Hong, 2005) informs the understanding of how individuals draw ideas from the cultural environment to suit the needs of their creative processes.

Rhodes (1961) proposed that four strands intertwine to form the construct of creativity: person, process, product, and press. *Person* refers to the individual, and includes his or her traits, behaviors, and experiences. *Process* involves the mental stages of pondering a creative solution to a problem, while *product* is the creative result of the thought process. Finally, *press* is the environment in which creative thinking occurs.

Csikszentmihalyi (1988; 1999) builds upon Rhodes' (1961) four P's, particularly *press*, arguing that external variables must be considered when explaining "why, when, and where new ideas or products arise" (1999, p. 313). Recognizing that creative output does not spontaneously occur in a vacuum, Csikszentmihalyi (1999) instead proposes that the environment, more than merely serving as the location where creative thought occurs,

actively influences what is created (Csikszentmihalyi, 1988). He divides the environment into two spheres of influence, which he refers to as the *domain* and the *field*; the creative person is the *individual*. Thus, creativity is constructed as a complex system of interaction between a person (*individual*), the realm of creative endeavor and its social system (*field*), and the cultural context of memes and symbols within which the individual exists and creates (*domain*). It is at the intersection of these three constructs that creativity occurs (Csikszentmihalyi, 1999; see Figure 1.1, below). An individual applies his or her inborn talent to a particular field (such as painting, singing, or inventing), with its own rules and norms, and both field and individual are further influenced and shaped by the cultural ideas and perspectives of the surrounding society; a creative product results.



(Figure 1.1. Systems perspective on creativity. Adapted from Csikszentmihalyi, 1988; 1999)

The first part of the three-part system is the *individual*, whose creative skill is shaped by two major factors: genetic input from ancestors, and individual life experiences. Genetic composition and some personal circumstances, such as place of origin or socioeconomic class, are entirely outside of an individual's control; other life experiences, however, such as participation in study abroad, can be selected deliberately. In creativity research, the individual has historically been the most-studied aspect of the three-part system, but Csikszentmihalyi (1988) argues that to examine the individual factors without considering the context is akin to claiming that a fire came only from a spark, without noting the additional necessity of tinder and oxygen. This is echoed by Chiu and Hong, who contend, "the self is always embedded in a cultural context, and always sees the world through a cultural lens" (2005, p. 26). The systems perspective on creativity accounts for the other factors needed to generate a creative "fire": the *field* and the *domain*.

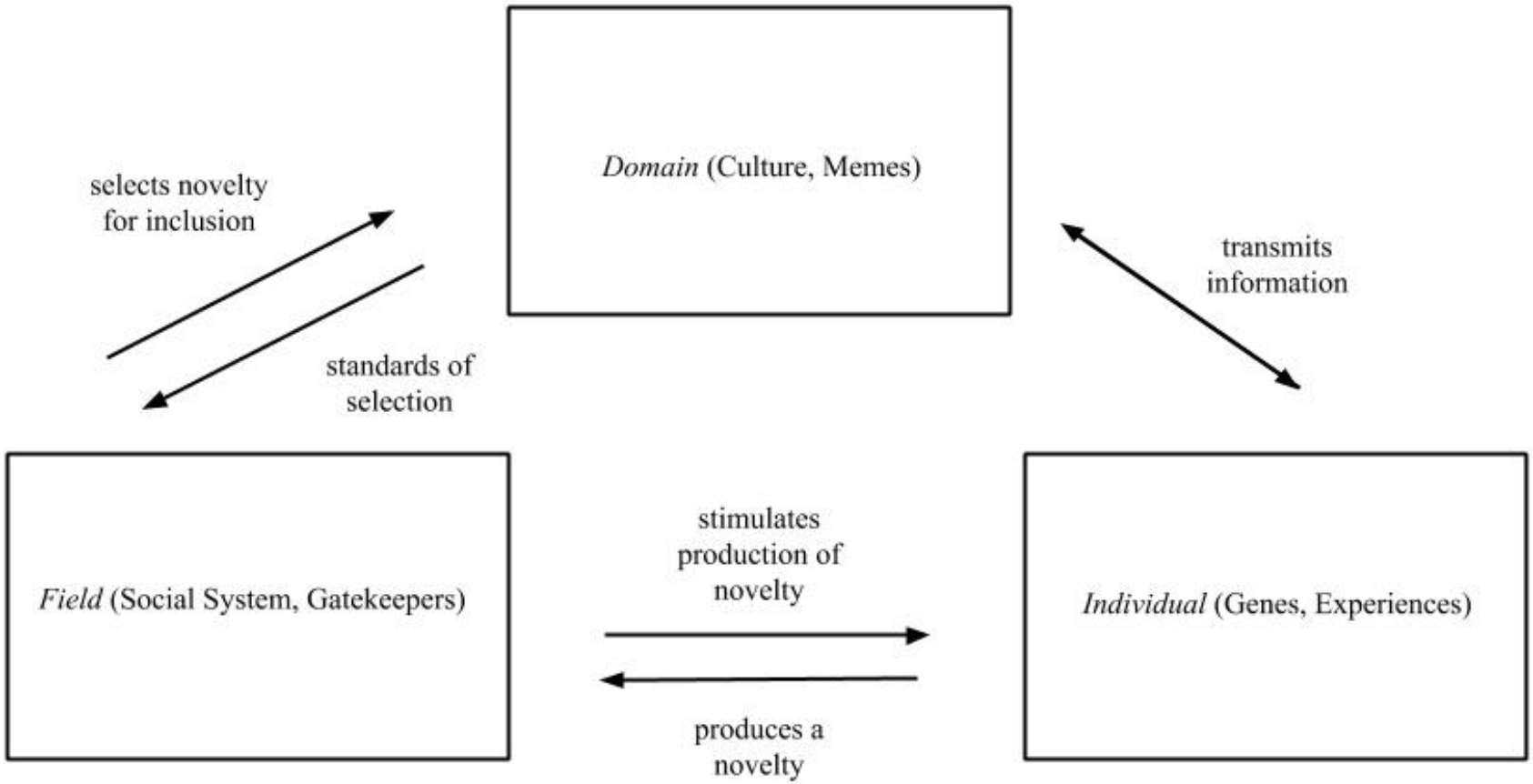
The second part of the system is the *field*, or area of creative production, which is influenced by external, pre-existing social systems and rules that affect the way in which creative works are produced and judged, as well as who is permitted to produce them. For example, Csikszentmihalyi describes an art school where "young women…showed as much creative potential as their male colleagues, or even more. Yet 20 years later, not one of the cohort of women had achieved outstanding recognition, whereas several [of the] men did" (1999, p. 313). Existing beliefs in the society at the time about gendered ability to produce high-quality art influenced the perception of both groups' creativity,

resulting in the cultivation of only one gender group's talents. The field is overseen and defined by an elite group of "gatekeepers" who possess the power to determine which novel works are ignored, and which survive to influence the greater society; modern gatekeepers include journalists, professional critics, and university faculty members.

Finally, the third part of the system is the *domain*, or cultural context. Csikszentmihalyi (1999) employs evolutionary biologist Richard Dawkins' (1976) concept of memes, or cultural building blocks, to describe how creative change occurs: by disrupting the accepted memes that form the basis for a group's common culture and thereby changing the way members of the group feel, think, or act. The degree of creativity in an idea is based on the degree to which it disrupts the cultural memes.

Further, Csikszentmihalyi (1999) notes that the culture (domain) and the social system (field) are inextricably linked together in creative production. A creative, cultural meme-disrupting idea will be judged by the society where it is produced; social validation helps to "distinguish ideas that are simply bizarre from those that are genuinely creative" (Csikszentmihalyi, 1999, p. 321), and allows for the recognition of ideas that are both novel *and appropriate*, the two key elements of creativity as defined by Sternberg and Lubart (1999). A relationship of circular causality exists between all three parts of the system: the domain transmits information, or cultural memes, to the individual; the individual disrupts the meme with a novel variation; and finally, the gatekeepers in the field select the variation as worthy of inclusion within the greater

domain. Additionally, moving across the system in the opposite direction: the individual contributes to the domain; the domain dictates the criteria for selection to the field; and the field stimulates the individual's production of creative work. Figure 1.2, below, provides a visual representation of this relationship.



(Figure 1.2. Relationship between components of the system of creativity. Adapted from Csikszentmihalyi, 1988; 1999)

Motivated cultural cognition

Students who study abroad will encounter concepts that are disruptive to their own cultural "memes," and may draw upon these new concepts to create something novel. Chiu et al. (2000) refer to the use of ideas from other cultures as creative resources as *motivated cultural cognition*, and suggest that individuals do not passively employ cultural influences when approaching a creative problem. Instead, concepts from different cultures function as intellectual resources applied by the individual as appropriate to address the specific challenge or motivational concern currently at hand (Chiu & Hong, 2005). From birth, they propose, each individual is socialized into an initial "cultural theory," or way of understanding the world. This cultural theory (or constellation of meaning structures in Mezirow's [1991] terminology) provides some tools for problem solving and understanding the world—this is the transmission of information from the *domain* to the *individual* in Csikszentmihalyi's (1988; 1999) systems perspective on creativity. However, the consistent use of one cultural lens becomes routinized, and in this way, Chiu and Hong (2005) assert that it can actually impede creativity. Significant contact with other cultures, though, may lead to the development of "[other] cultural meaning systems which, when activated, may also guide… perceptions" (Chiu et al., 2000, p. 256). Thus, cultural knowledge, both from an individual's own culture as well as new cultures, provides "a set of highly accessible cognitive tools that can be applied to a problem to reach a quick interpretation and articulation of one's answer" (Chiu et al., 2000, p. 256). The individual may draw fully from another culture, using an idea that is novel only in a new context, or may juxtapose concepts from two or more cultures to create something that is entirely new. Additionally, Chiu and Hong (2005) propose that

exposure to another culture may remove cognitive barriers such as exemplars from an individual's own culture, which may otherwise prevent the generation of novel ideas.

Applying motivated cultural cognition to their research on multicultural experiences and creativity, Leung et al. note that

> …multicultural experience may foster creativity by (a) providing direct access to novel ideas and concepts from other cultures, (b) creating the ability to see multiple underlying functions behind the same form, (c) destabilizing routinized knowledge structures, thereby increasing the accessibility of normally inaccessible knowledge, (d) creating a psychological readiness to recruit ideas from unfamiliar sources and places, and (e) fostering synthesis of seemingly incompatible ideas from diverse cultures. (2008, p. 173).

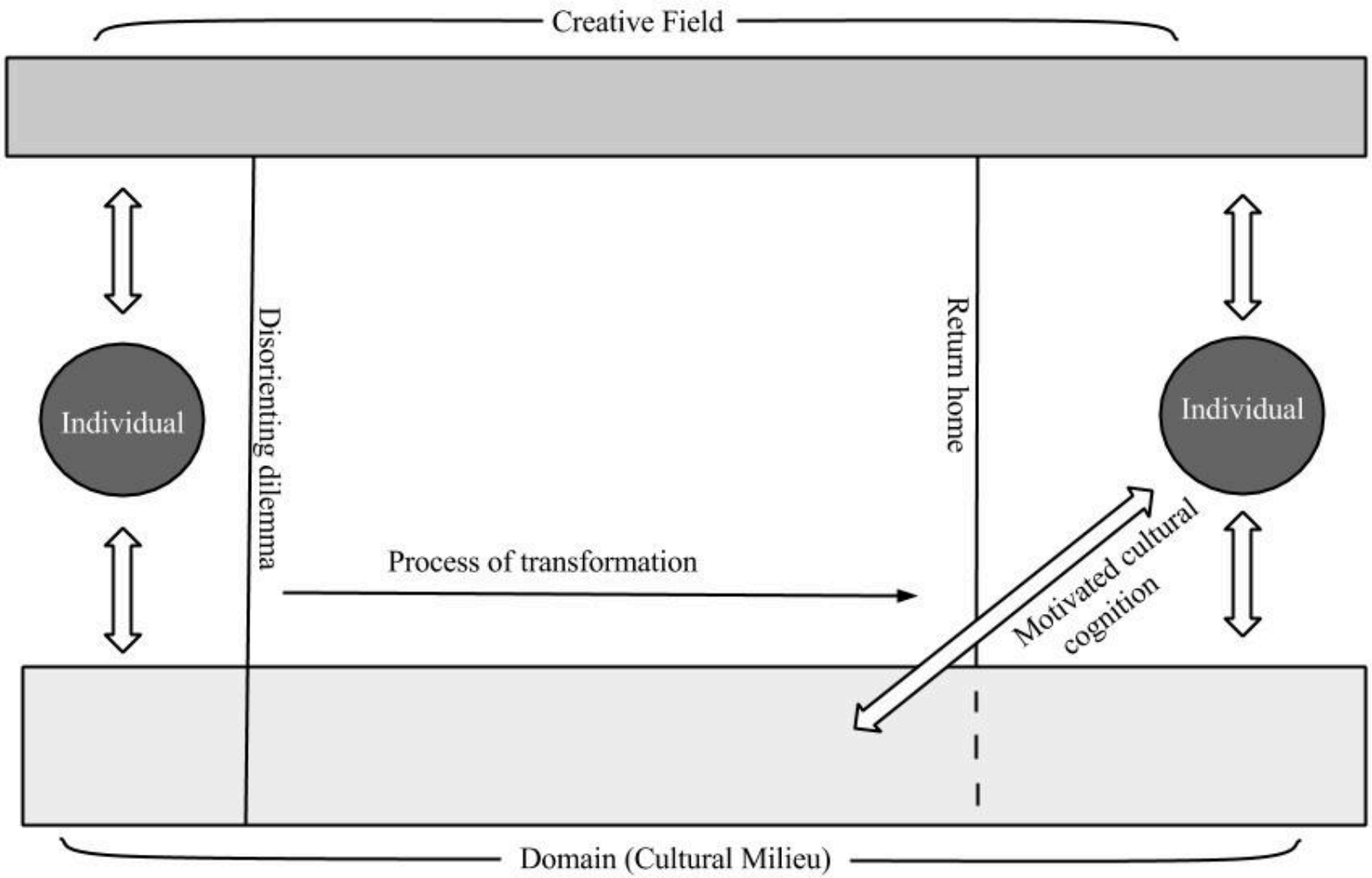
This availability of fresh knowledge and disruptive ways of thinking from a new cultural environment provides a basis for understanding how studying abroad can be a valuable and transformative learning experience for students majoring in creative disciplines. Eisner, an arts educator, uses a constructivist frame to describe the process of drawing on culture in creative work:

> …the sensory system does not work alone; it requires for its development the tools of culture: language, the arts, science, values, and the like. *With the aid of culture we can learn to create ourselves… Work in the arts is not only a way of creating performances and products; it is a way of creating our lives* by expanding our consciousness, shaping our dispositions, satisfying our quest for meaning, establishing contact with others, and sharing a culture. (2002, p. 3, emphasis added).

Culture, or *domain* (Csikszentmihalyi, 1988; 1999), is a resource that can be accessed to shape the creative work, but it also aids in the transformation of the individual. The transformed individual is further able to consider creative problems in new ways, and this consideration is often dialogic in nature, where ideas and perspectives are reflected upon through engagement with those who have different structures of meaning. When woven together, intergroup contact, motivated cultural cognition and the systems perspective on creativity describe a rationale for how studying abroad may be a transformative learning experience for students in creative majors. The next section proposes a model for the integration of these concepts in relation to this dissertation study.

Integrated conceptual model

An integration of transformative learning theory (Mezirow, 1991), intergroup contact theory (Allport, 1954; Pettigrew, 1998), the systems perspective on creativity (Csikszentmihalyi, 1988), and motivated cultural cognition (Chiu et al., 2000; Chiu & Hong, 2005) provides a conceptual model for understanding the learning experiences of students in creative majors who study abroad. Individuals generating creative work are influenced by both the social system of their chosen field and the cultural environment, or domain, in which they operate (Csikszentmihalyi, 1988). However, the transition into study abroad, a disorienting dilemma, triggers a process of transformative learning (Mezirow, 1991; Cranton, 2002) through encounters with the people and culture of the host site (Allport, 1954; Pettigrew, 1998). Upon return home, the individual employs motivated cultural cognition to access the sources of cultural information that are appropriate to respond to his or her creative challenges (Chiu et al., 2000; Chiu & Hong, 2005). A visual representation of the proposed conceptual model is shown in Figure 1.3.



(Figure 1.3. Proposed integrated conceptual model for understanding the learning experiences of students in creative majors who study abroad)

On the left in the above model, the individual is shown in the pre-departure phase. The white arrows indicate the symbiotic relationship of the system of creativity (Csikszentmihalyi, 1988; 1999), wherein the individual both transmits and receives information from the creative *field* and the *domain*. After experiencing the *disorienting dilemma* (Mezirow, 1991) of transitioning abroad, the process of transformative learning occurs. An important part of this process is contact and dialogue with individuals from the host culture (Allport, 1954; Pettigrew, 1998), leading to the refinement, development, or transformation of meaning structures (Mezirow, 1991). Then, when the individual has finished studying abroad and returned home, motivated cultural cognition (Chiu et al., 2000) allows for the accessing of ideas from the domains of both the host and home cultures. The barrier between cultures is permeable for the creative individual whose meaning structures have been transformed and who is thus able to engage in cultural frame-shifting.

Significance of the study

This study explores the lived experiences of study abroad students majoring in creative disciplines. Although there is a small but growing body of literature indicating a positive relationship between multicultural and international experiences and the development of increased creativity (as assessed psychometrically), those studies do not investigate how the individual creators interpret the influence of the multicultural or international experience on their work. By interviewing students in creative majors about how they perceive the meaningfulness of the study abroad experience in relation to their

academic disciplines and future careers, this study seeks to address a gap in the literature and provide an in-depth understanding of how individuals who engage in creative work interpret their international education experience.

For academic institutions as well as practitioners in the field of education abroad, understanding how students think about their study abroad experiences in relation to their majors and future careers can aid in the design of programs that better meet students' needs and expectations. Unlike students in many non-artistically-focused programs, students in creative majors are actively encouraged to consider studying abroad as an aspect of their development as creative thinkers and producers; therefore, they are uniquely positioned to reflect on and connect their international education experiences to the creativity mandated by their future careers.

Creativity is a skill that is increasingly recognized as essential for graduates' success in the job market (Adobe Systems, 2014). As the skills of the creative class (Florida, 2012) are in increasingly greater demand in the "Conceptual Age" (Pink, 2005), universities seeking to maximize the future potential of *all* their graduates need to promote creative development alongside academic and personal growth (Csikszentmihalyi, 2006; Livingston, 2010). In a speech on October 22, 2014, the dean of the College of Liberal Arts (CLA) at the University of Minnesota highlighted the importance of creativity and creative work, and committed to "making world-class excellence in research and creative practice a hallmark of [CLA]" (Coleman, 2014, p. 4). Further, Daniel Pink (2004), writing in Harvard Business Review, argues that creativity

has become so important to the corporate world that "the MFA is the new MBA," indicating that the ability to think creatively is as essential for jobseekers as field-specific career-related knowledge. An exploration of the experiences of students actively engaged in creative work while abroad furthers understanding of how studying abroad can be a meaningful and transformative learning experience that supports creativity, an important 21st century skill.

Chapter one summary

One result of the internationalization of higher education in the United States is an increase in the number and type of study abroad programs available to undergraduates. Programs are often promoted to students as a way to improve language skills, develop a greater degree of intercultural competence, and become better prepared for careers that will require participation in a global society. Howard Gardner (2006) describes our current era as one of global interconnectedness, and contends that graduates must be both interculturally competent and creative in order to be competitive. While well-designed international education programs routinely address the former, development of the latter is rarely considered in the context of study abroad program design or promotion. An exception, however, is students in creative majors, who are encouraged to study abroad as part of the development of their creative selves. These students are, therefore, uniquely well-positioned to consider the meaning of the study abroad experience in relation to their creativity and their future creative careers. By exploring the experiences of students in disciplines traditionally viewed as creative—such as architecture and design—it is

possible to develop an improved understanding of how studying abroad can contribute to the creative growth of students in other majors as well. An integrated conceptual model that draws from Allport's (1954) intergroup contact theory, Mezirow's (1991) transformative learning theory, the systems perspective on creativity (Csikszentmihalyi, 1988; 1999) and motivated cultural cognition (Chiu et al., 2000) forms the theoretical framework that guides the study, offering a logic for why studying abroad may be a transformative and meaningful learning experience for students in the creative disciplines.

CHAPTER TWO

LITERATURE REVIEW

"The only true voyage of discovery, the only fountain of Eternal Youth, would be not to visit strange lands but to possess other eyes, to behold the universe through the eyes of another, of a hundred others, to behold the hundred universes that each of them beholds, that each of them is…." –Marcel Proust, *À la recherche du temps perdu (In Search of Lost Time)*, 1913/2013, location 41359, Kindle edition

Introduction

This chapter presents an analytical review of literature critical to understanding undergraduate study abroad as an academic experience that supports transformative learning for students in creative and artistic majors. It begins with an historical overview of study abroad as an educational phenomenon, examining how the ancient practice of student movement across borders has evolved into a formal academic program in the present day (Hoffa, 2007). When combined with the theoretical framework as described in chapter one, this historical overview forms a foundation for the analysis of empirical research studies on academic study abroad programming in higher education in the United States, with a focus on research that has demonstrated the ways in which studying abroad can have significant, transformative learning outcomes for undergraduate student participants.

The literature review next includes a discussion of creativity research, concentrating on studies that have explored the ways in which creativity is influenced by exposure to other cultures. This includes literature on bilingualism, multicultural workplaces and teams, intercultural interactions, exposure to artifacts and experiences

from different cultures, life as an expatriate, and international travel. The section concludes with an analysis of studies specifically focused on the relationship between creativity and undergraduate study abroad.

Throughout the review, the use of the theories in the existing literature and their connection to the conceptual model for this dissertation is discussed in order to establish a logic for the framing of the study as described in chapter one. Finally, the chapter concludes with a discussion of the gap in the literature that exists at the intersection of the bodies of study abroad and creativity research, and a brief reflection on methodologies and methods that will advance knowledge in this area.

Historical overview of study abroad

While academic study abroad is often thought of as a modern invention, the phenomenon dates back at least as far as the second century B.C.E., when ancient Roman youth would travel east to Greece and Asia Minor to "[study or attend] lectures of recognized authorities, usually in the fields of philosophy or rhetoric, as a sort of supplement to their formal education" (Daly, 1950, p. 41). In the 13th century C.E., medieval Europeans sojourned in the intellectual centers of Baghdad and Alexandria, returning home with new and transformative ideas (Greatrex-White, 2007). For affluent Englishmen, the European Grand Tour became a popular educational experience starting in the 1600s (Brodsky-Porges, 1981). U.S. students later followed suit, and in 1865, so did the Japanese: a group of young samurai escaped from their homeland, then closed under the shogunate's policy of *sakoku*, and traveled to London to enroll in university

courses. The experience not only changed the students' perspectives on the world, but through their later activities upon their return home, had a profound impact on culture and education in Meiji-era Japan as well (Cobbing, 2000).

These early informal and often self-directed study abroad experiences were eventually followed by officially sanctioned exchanges and structured programming. The U.S. federal government, noting the political benefit of cultivating international connections, encouraged both study abroad and international educational exchange: President Franklin Roosevelt created scholarships for young Chinese to visit the United States (Metraux, 1952), the G.I. Bill of Rights included funding for veterans to study abroad (Brodsky-Porges, 1981), and the Fulbright-Hays Program, which offers international education opportunities for both U.S. students and international scholars, was founded in 1946 with the mission of "increas[ing] mutual understanding between the people of the United States and the people of other countries" (Council for International Exchange of Scholars, n.d.). More recently, President Barack Obama has called for U.S. students to study in China under the auspices of his "100,000 Strong Initiative" (Fischer, 2012).

Study abroad as a university-sponsored experience expanded rapidly in the 1950s and 1960s in a post-war boom of student exchanges (Furnham & Bochner, 1982). By the late 1960s, the Institute of International Education counted more than 250 colleges and universities as sponsors of study abroad and international exchange programs, with still more planning to make the experience available to their students in the near future

(Holland, 1967). The rapid increase in both incoming international students and outbound U.S. students led to a parallel rise in the number of administrators who designed, executed, and supported these programs. The National Association of Foreign Student Advisers (NAFSA) was founded in 1948; in order to include professionals supporting the study abroad of U.S. students, the name was changed in 1990 to NAFSA: Association of International Educators (NAFSA, n.d.). International variants of NAFSA, including JAFSA, a parallel organization for Japanese international educators, have also been established, and NAFSA is but one in a field of organizations that includes the Forum on Education Abroad, the Institute of International Education (IIE), and the Association of International Education Administrators (AIEA).

Professional development for international education practitioners is essential as study abroad becomes increasingly common and complex. According to the 2012 Open Doors report, U.S study abroad has tripled in the last twenty years, with nearly fourteen percent of bachelor's degree-seeking students participating (Institute for International Education, 2012). Further, students studying abroad number over a quarter million annually, and participation rises at a rate of nearly ten percent each year (Lincoln Commission, 2005). The congressionally-appointed Commission on the Abraham Lincoln Study Abroad Fellowship Program set a specific goal of one million U.S. students studying abroad for academic credit by the year 2020; the ultimate hope is to achieve near-universal study abroad, because, they argue, "what nations don't know can hurt them…. For their own future and that of the nation, college graduates today must be

internationally competent" (Lincoln Commission, 2005, p. 4). The following section will analyze key studies on the outcomes, including development of intercultural competence, which may occur due to participation in study abroad.

Outcomes of study abroad

Study abroad programs require a substantial investment of energy and resources in logistical arrangements, provision of scholarships, training of faculty and staff, curriculum design, and development of relationships with international partners. A key question for practitioners and researchers in the international education field, then, has been whether the costs of study abroad are justifiable to stakeholders that include students, parents, college and university administrators, and state and federal legislators (Sutton & Rubin, 2004). The Lincoln Commission, as may perhaps be expected of a federally-appointed committee, is narrowly focused on the utility of internationalized graduates in relation to the needs of the United States as a geopolitical actor. The majority of U.S.-based scholarly research on international education and study abroad outcomes has echoed this macro-level interest in promoting national security (Kiely, 2011), yet there is a growing body of literature, in which this dissertation study is also positioned, that is more concerned with the micro-level impact on students' individual learning and development.

In one such study, Fry et al. note, "With [the growth in study abroad programs and participation] has come a strong interest in determining how and in what ways study abroad experiences influence students' learning and their subsequent lives" (2009, p. xi).

In other words, how is studying abroad a valuable or meaningful learning experience for the students who choose to participate, and what are the outcomes? Concrete evidence of outcomes is critical to the credibility of study abroad as a learning experience (Williams, 2005). The following section will discuss several important studies that address this concern across an array of areas of student learning and development. While the large-scale quantitative studies primarily investigate the measurable outcomes of studying abroad—such as language acquisition, intercultural competence, and self-assessed improvement in functional knowledge and self-efficacy—the mixed methods and small-scale qualitative studies explore how individuals describe and interpret the experience in relation to their own lives and future prospects.

Quantitative and mixed-methods literature on study abroad outcomes

The first study discussed in this section offers insight into the quantifiable outcomes of study abroad as assessed by instruments that measure improvement in the skill areas of language proficiency and intercultural competence. The Georgetown Consortium Project (Vande Berg et al., 2009) investigated the relationship between study abroad, language acquisition, and improved intercultural skills through an analysis of the experiences of 1,159 students who studied abroad during the 2003-2004 and 2004-2005 academic years. This large group of participants was compared to a much smaller control group (n=138). While abroad, participants were given pre- and post-tests that evaluated their language ability, via the Simulated Oral Proficiency Interview (SOPI), and intercultural learning, using the Intercultural Development Inventory (IDI). Participants

were selected by staff from the study abroad host sites; unfortunately, the researchers do not describe the selection criteria for student participants, nor do they indicate whether participants were chosen randomly, a key element for validity of results. Further, while the researchers indicate the reliability and validity of the SOPI and IDI, they do not discuss the instruments' re-test reliability or describe any possible influence of practice effects.

The study's findings indicated that study abroad participants demonstrated an average greater improvement in target language proficiency and intercultural competence; while female students made greater average gains than males in both areas, the overall average improvement for study abroad participants of both genders was greater than for those who remained on campus. The researchers also explored specific program-related factors that influenced development. Students who had had an onsite mentor registered greater gains than those without; however, those who spent 26-50% of their time with host country nationals increased their intercultural skills more than those students who spent either less than 26% *or* 51% or more of their time interacting with members of the host culture. These findings indicate that, while contact with host country nationals is, as Allport's (1954) hypothesis suggests, an essential part of reducing prejudice and developing intercultural competence, constant direct immersion in the host culture is less impactful than having the space and time alone to reflect. Time for critical reflection on experiences and values, and for the reassessment of premises, is an important aspect of transformative learning as theorized by Mezirow (1991).

Moving beyond pre-existing assessment instruments such as the SOPI or the IDI, which focus on language and intercultural skills, the Georgia Learning Outcomes of Students Studying Abroad Research Initiative (GLOSSARI) investigated academic development by surveying 255 students who had studied abroad; their responses were compared with a 249-member control group who did not study abroad (Sutton & Rubin, 2004). Areas of investigation included a range of both functional and intercultural knowledges. In particular, study abroad participants were found to exceed their on-campus peers in the measures of functional knowledge, world geography, knowledge of cultural relativism, and knowledge of global interdependence. The researchers confirmed that the study abroad students were not necessarily better overall students than the nonparticipants by conducting second iterations of the t-tests using grade point average (GPA) as a covariate. This is particularly important because study abroad students typically have higher GPAs (Sutton & Rubin, 2004). Controlling for these kinds of demographic factors adds legitimacy to the finding that study abroad can lead to improved learning outcomes. Therefore, an additional post-hoc analysis was conducted to look at the main effects of academic major; findings indicated that even within majors, study abroad was the only statistically significant main effect on functional knowledge and knowledge of geography. Further, study abroad exerted powerful effect on knowledge of global interdependence and knowledge of cultural relativism. Sutton and Rubin (2004) caution that their results may not be generalizable to student populations who receive a significantly different level of prequel or sequel study abroad preparation,

or who spend more time in non-traditional study abroad locations. Their sample of study abroad returnees, drawn from across the University of Georgia's 34-institution system, was highly diverse, and thus they argue that their results indicate study abroad can positively contribute to students' academic development. Unfortunately, however, the control group was not similarly diverse, and the researchers admit that it was a sample of convenience whose demographics and institutional enrollments were not matched with the study abroad group. For example, the control group came primarily from a communications course at one large university, and males and students of color were overrepresented in comparison to the study abroad group. These sampling issues negatively affect the validity of the findings; in order to improve on the GLOSSARI study's design, the researchers state that they plan to have matched pairs of participants in later phases of the project.

While GLOSSARI (Sutton & Rubin, 2004) looked specifically at students' cognitive growth during study abroad, Fry et al. (2009) explored both academic and personal impacts of an international education experience through a mixed-methods retrospective tracer study. They sought to identify the ways study abroad has influenced past participants in four major areas: 1) career, 2) post-baccalaureate education, such as graduate or professional school, 3) knowledge and skills, like intercultural competence, and 4) worldview and values. The 689 participants, who had studied abroad in 1997, 2002, or 2007, responded to a survey that inquired about both their study abroad experiences and their lives after study abroad. The researchers found, based on the survey

responses, that study abroad participants believed their experiences abroad had influenced them in a range of ways, with the five most frequently mentioned domains of impact being language fluency (16.2% of respondents), appreciation of the study abroad host culture (14%), broadening of perspectives (13.7%), gaining an improved understanding of other countries (13.6%), and remembrance, or belief that the experience had been one of the best in their lives (10%) (p. 29). A smaller group of 53 participants was contacted for in-depth telephone interviews that asked them to reflect on their study abroad experience and its effects. Their responses further illuminated the quantitative data from the survey, providing insight into the trajectory of individual lives after study abroad. One participant, for example, described how study abroad had helped him or her develop a better understanding of white American privilege (p. 28); another mentioned the career changes and further international travel that had been inspired by participating in study abroad (p. 31). The meaning structures of these study abroad alumni were, by their own estimation, significantly altered due to their international education experience. One limitation, however, which is acknowledged by the researchers, is the fact that those who had life-altering times abroad may also be those who are most likely to be willing to speak with researchers at length about their positive experiences. However, understanding the experiences of those for whom studying abroad *was* transformative will aid in developing programs that maximize the potential for positive outcomes for all who participate.

Chieffo and Griffiths (2004) also conducted a large-scale project, with over 1,500 participants, aimed at assessing changes in student attitudes due to enrollment in a study abroad program. Their research centered on a specific type of program: short-term study abroad. “Short-term” was defined as three weeks, the length of a University of Delaware winter session. Self-assessments on topics of global and intercultural awareness, personal growth, openness to new experiences, and functional learning were anonymously administered to students after their return from the session abroad. Compared to a control group of students who remained on campus, students who went abroad reported higher intercultural awareness, greater personal growth in areas such as appreciation for fine arts, and more patience for nonnative speakers of English. From these results, the researchers concluded that even a short-term program abroad could have an impact on students’ confidence in their own intercultural skills and functional global knowledge. As Mezirow (1991) describes in transformative learning theory, the essence of transformational learning is the process of reflection and change in meaning structures. Thus, the degree of critical reflection engaged in by participants is perhaps more essential to learning than the length of time spent abroad.

A limitation of Chieffo and Griffiths’ (2004) study, however, is that it only captured students’ self-perceptions of attitudinal change; it measured perceived rather than actual outcomes in a narrow area. On a much larger scale, and with qualitative data to illuminate quantitative findings, the Beyond Immediate Impact: Study Abroad for Global Engagement (SAGE) project (Paige et al., 2009) explored the relationship

between study abroad experiences and post-university involvement in five specific categories: civic engagement, philanthropy, knowledge production, social entrepreneurship, and voluntary simplicity, or living in an environmentally conscious way. The researchers surveyed over 6,000 former study abroad participants; from that group, they also interviewed a randomly selected group of 1% of survey participants, and then conducted ten case studies to complement the major quantitative data with qualitative information about individuals' experiences. From the survey data, the researchers ascertained that many respondents viewed study abroad as the most impactful aspect of their university experiences; further, the interviews and case studies demonstrated that 83.3% of participants deemed study abroad one of the most influential experiences of their entire lives. The researchers investigated this impact by inquiring about engagement across the categories described above, and learned that the majority of past participants attributed their present engagement in these areas to their time abroad. In the terms of transformative learning theory (Mezirow, 1991), transformations in meaning structures due to study abroad resulted in planning a new course of future action. Further, the researchers noted a strong relationship between program location and the depth of the reported experience, with nontraditional locales such as Asia and Africa supporting greater depth; in addition, program depth had both "the highest explanatory power and by far the greatest size effects" (Paige et al., 2009, p. 7). Though the SAGE study did not explore the development of creativity, experiences in locations with cultural and

intellectual traditions notably different from the home culture have been suggested to contribute to greater cognitive flexibility and creativity as well (Chiu & Hong, 2005).

While the Georgetown Consortium Project (Vande Berg et al., 2009) used pre-existing instruments to assess the outcomes of study abroad, the other studies in this body of literature focused on surveys and self-reports of learning and development. The qualitative components of the mixed-methods studies highlight the ways that study abroad can be a transformative learning experience. They also act as a bridge between large-scale outcomes assessments and the smaller phenomenological studies, discussed in the subsequent section, that drill deeper in an effort to understand the meaningfulness of study abroad for individual sojourners. The accounts of self-described changes in meaning structures, especially those captured in the SAGE study (Paige et al., 2009) and the research conducted by Fry et al. (2009), suggest that studying abroad can have a long-term, multi-faceted, and transformative impact on the lives of participants. The qualitative studies discussed below, which include thick data and are framed by a constructivist perspective, allow for an even richer analysis of how students interpret the meaning of the study abroad experience in relation to their own lives.

Qualitative literature on student experiences studying abroad

The results of the quantitative and mixed methods studies described in the preceding section provide evidence for the learning outcomes made possible by a study abroad experience. However, these objective, large-scale perspectives generalize the experience across large populations of students. Generating a deeper understanding of the

learning experiences of individuals necessitates a qualitative approach, the data from which could "assist those in higher education in meeting goals and promoting learning outcomes for students, especially those whose voices have been silenced or made difficult to hear within quantitative research" (Jones, Torres, & Arminio, 2014, p. xi). With the exception of the mixed methods studies (Fry et al., 2009; Paige et al., 2009), the student voice is noticeably lacking in the above literature on study abroad outcomes. The following analysis examines research on study abroad that has employed a constructivist lens for exploring how students make meaning of the study abroad experience. The primary selection criterion for this body of literature was the use of Mezirow's (1991) transformative learning theory to explain the phenomena being researched, providing a salient link from these studies to the theoretical framework of this dissertation study.

Looking to understand the nature of disorienting dilemmas encountered by students while abroad, Trilokekar and Kukar (2011) interviewed a purposive sample of five students who represented the diversity of the Canadian case university's population; unfortunately, this very small sample of participants limited the data available to the researchers for analysis. Each participant was a teaching candidate in the university's school of education, and participated in an international practicum arranged through the campus education abroad office. The two researchers were either past participants of the program, or had been involved in the program's design. Though they note that they addressed this insider knowledge with the participants, they do not sufficiently articulate in the article how they mitigated potential bias during their study. Including this

information would have added credibility to their analytical findings.

Before departing for their international practicum sites, all participants indicated an interest in the development of intercultural competence or improved global knowledge; two specifically noted a hope to "open [her] mind" and "visit a place where [she] had preconceived notions and hopefully eradicate those stereotypes" (Trilokekar & Kukar, 2011, p. 1143). The researchers employed a one-on-one unstructured interview process to access in-depth information about what the students had experienced on their placements in Dublin, Ireland; Jiangmen, China; and Hong Kong, China.

One of the main findings was that the experience had greatly transformed students' understandings of their own racial identities. The two students placed in Jiangmen were Caucasian and Afro-Canadian women, and they often compared their experiences in interacting with the local Chinese; through dialogue and reflection, two key aspects of the process of transformative learning, their meaning structures were altered in regard to race and identity. Similarly, the two students in Hong Kong, an ethnically Chinese woman and a South Asian man, each recounted a particularly disorienting experience they had while using public transportation, when two locals deliberately chose to move away from them; both surmised that the locals did not want to sit next to the South Asian man. From reflecting on these types of experiences, the researchers argue that the students' perspectives on their own identities were transformed, "becoming more interculturally sensitive and developing an intercultural identity. Core to this transformation is the new experience, which begins with disorientation" (Trilokekar

& Kukar, 2011, p. 1148). As demonstrated by this study, critical reflection, triggered by the disorienting dilemma, is an important component of the process of transformative learning.

The disorienting dilemma is, however, only one part of a complex process that culminates in the decision to integrate the transformed meaning structures into future action. Interested in understanding how students made meaning of a 10-day study abroad experience in the Czech Republic, Rowan-Kenyon and Niehaus (2011) interviewed students during, immediately after, and one year after their sojourn abroad. In particular, they sought to learn more about the way students integrated the meaning of the experience into their later lives, and to what extent students followed through with new commitments made as a result of program participation. Seven students participated in the full interview sequence, and results were notably mixed. Three students, though they enjoyed their time abroad and remembered it fondly, nonetheless felt that their future plans had not been particularly influenced by the experience. As one female student remarked, "It's something I'll remember for the rest of my life, and it's an experience I'll have forever. [But] I guess it hasn't really changed me all that much" (Rowan-Kenyon & Niehaus, 2011, p. 218). While these three students had to some minor extent integrated the experiences of the trip into their lives (for example, one said it helped her focus on schoolwork, while another was more sympathetic to the challenges faced by nonnative English speakers), none had decided to change future plans of action.

Conversely, the four other students perceived the learning from the Czech

Republic trip as deeply influential, causing them to make deliberate changes in how they approached their academic, co-curricular, and career decisions. Three of the four decided to study abroad the following year, two for a semester, and all cited the Czech Republic experience as the reason for their decisions to travel again. Further, all three noted that the Czech Republic program helped them think critically about cultural comparisons when they traveled internationally. The fourth student, though he did not pursue additional study abroad, nevertheless described the experience as "a week that changed my life" (Rowan-Kenyon & Niehaus, 2011). His time in the program led to the decision to participate in an internship with the Department of Homeland Security, and he hoped to later pursue a career as a refugee officer. These positive, life-changing experiences are similar to the findings of the SAGE study (Paige et al., 2009) and those of Fry et al. (2009). Rowan-Kenyon and Niehaus (2011) note that there were no fundamental differences between the two groups of students in terms of engagement during the trip, their prior experiences, or even the ways they made meaning of the trip during and after the experience. From this, they surmise that the main difference was in how the students built on the experience in the year after the trip. This indicates the necessity of "reintegration into one's life *on the basis of conditions dictated by one's new perspective*" (Mezirow, 1991, p. 169, emphasis added). Though both groups had engaged in critical reflection during and after the trip, only the four students in the second group successfully integrated their new perspectives by converting thought into concrete action. Thus, even a brief academic sojourn abroad can stimulate transformative learning, but the

lasting effect is dependent upon the decision to weave understandings gleaned from that learning into one's subsequent life.

Wessels, Holmes, and Hererra (2011) used transformative learning theory (Mezirow, 1991) to frame a study on the experiences of preservice teachers studying abroad in Mexico. Of particular interest was how meaning structures were changed and formed due to the time teaching in Mexican classrooms. Similar to the Czech Republic trip examined by Rowan-Kenyon and Niehaus (2011), this program was relatively short, placing students in Mexico for just three weeks. The case study included 15 pre-service teachers, all enrolled in a K-12 ESL licensure program, and data was collected using semi-structured interviews, document analysis, and open-ended surveys. For these teachers-in-training, observing the teaching methods of experienced Mexican teachers challenged their culturally-influenced meaning schemes on what it meant to be a good teacher. One participant, who had expressed a belief that good teaching included professionalism and control of the classroom, later noted, "the first week I felt the room had little control and little discipline. However the second week, I realized that the students were learning the information she was teaching. They were learning in their own way" (Wessels et al., 2011, p. 12). This statement indicates that, between the first and second weeks, the student had taken time to reflect on the cultural differences in teaching styles and was able to acknowledge the effectiveness of the Mexican teacher's methods; the result was a changed meaning scheme.

In the discussion on implications of the study, the authors argue that a key

takeaway is that many pre-service teachers lack understanding of Mexican pedagogical practices, and are thus less likely to value the prior learning of Mexican immigrant students in the U.S. While this is certainly a worthwhile finding, and points to an area of action for teacher educators, on a more macro level the results indicate that studying abroad has the potential to change meaning structures in relation to a specific discipline (in this case, education). Studies on the experiences of pre-service nurses have also demonstrated the transformative learning possible during study abroad, and reaffirm that studying abroad, the disorienting dilemma, is insufficient to promote transformation; students must also critically reflect on the experience and make an effort to engage in future action related to what they have learned (Foronda & Belknap, 2012; Koskinen & Tossavainen, 2004). The transformative learning value of a study abroad experience for students in creative disciplines, however, has yet to be investigated in the literature: this is the gap this dissertation study addresses. In order to better conceptualize the influence of international and multicultural experiences on creativity, however, it is first imperative to review the small but growing literature in this area, and briefly discuss the existing debates about the construct of creativity itself.

International and multicultural experiences and creativity

The systems perspective on creativity (Csikszentmihalyi, 1988; 1999) is employed in this dissertation study in order to describe the relationship between the individual and the environment in creative work. The specific construct of creativity, however, as conceptualized by researchers in the U.S., can be explained using a two-part

definition wherein individual, “little c” creativity is distinct from sociocultural, “Big C” creativity. Individual creativity is the expression of a new mental combination, regardless of its particular usefulness, while sociocultural creativity further mandates that the generated product “is judged to be novel and also to be appropriate, useful, or valuable *by a suitably knowledgeable social group*” (Sawyer, 2012, p. 8, emphasis added). Examples of “Big C” creative products would include famous works of literature like Murasaki Shikibu’s *Tale of Genji* or popular inventions like the Apple iPad; these are products whose creative value has been recognized and subsequently validated by many who have read or used them.

It is “little c” creativity that has been operationalized for measurement by researchers, resulting in assessments such as the Torrance Tests of Creative Thinking (TTCT; Torrance, 1962), the Remote Associations Test (RAT; Mednick, 1968), and the Structure of the Intellect (SOI) divergent production tests (Guilford, 1967). Sternberg and Lubart (1999) have identified seven different paradigmatic approaches to the study of creativity: mystical, pragmatic, psychodynamic, psychometric, cognitive, social-personality, and confluence. A thorough discussion of each of these varied and contested approaches is beyond the scope of this review; what follows is a brief description of the psychometric approach that informs the studies described in the subsequent body of literature. The tests listed above are examples of the psychometric approach, which J.P. Guilford, often described as the parent of modern creativity research, proposed as a way to study creativity “in everyday subjects… using paper-and-pencil tasks” (Sternberg &

Lubart, 1999, p. 6-7). A key feature of most psychometric creativity assessments is that they are domain[2]-general, meaning that they measure a more general conceptualization of creativity, rather than creativity in a specific field such as painting, fiction writing, joke telling, or violin playing. There are also domain-specific assessments of creativity, and the Consensual Assessment Technique (CAT) (Amabile, 1982) is one of the most widely used (Plucker & Makel, 2010; Baer, Kaufman, & Gentile, 2004).

There has been substantial disagreement in the field of creativity research as to whether creativity is domain-specific or domain-general (see Kaufman & Baer, 2005). Results from studies on self-perceptions of creativity, for example, have varied considerably; some suggest that individuals view themselves as creative in a domain-general way, i.e. "I consider myself a creative person" (Barron & Harrington, 1981; Plucker, 2004), while others have found that self-perceptions of creativity are domain-specific, e.g. "My writing is creative" or "I am good at painting" (Kaufman, Baer, & Cole, 2009; Reiter-Palmon, Mumford, & Threlfall, 2012). This dissertation study does not intend to take a position in the long-standing debate on whether creativity is domain-specific or domain-general. However, it is important to note that the current research on creativity and international experiences is situated almost exclusively in the domain-general camp. As this study will center on the experiences of individuals engaged in domain-specific creative work, it is hoped that this dissertation will 1) add qualitative

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[2] This usage of the term *domain* should not be confused with the definition employed in the systems perspective on creativity (Csikszentmihalyi, 1988; 1999). Here, domain refers to an area of endeavor, and better relates to Csikszentmihalyi's (1988; 1999) use of the term *field*.

research to the literature on creativity and study abroad, and 2) contribute to knowledge on domain-specific creative endeavors and international experiences. In this way, the study will add to a holistic understanding of creativity.

Travel Broadens the Mind is the title of an article that discusses the ways in which learning to walk during infancy stimulates development and sets in motion a series of major psychological reorganizations (Campos et al., 2000). The concept driving the article is that movement into new spaces and contexts fundamentally alters babies' perception of the world, creating new cognitive pathways in their brains; acquiring new information and new understanding can change basic psychological processes and even how the brain is wired (see Doidge, 2007). The title of the article, however, also exemplifies the popular belief that travel to a new place or exposure to a new culture will stimulate a changed perspective and innovative thinking. In recent decades, formal research has investigated this possible connection between international and intercultural experiences and creativity. The following section discusses studies exploring the relationship between creativity and a range of international and multicultural experiences of varying durations and depths.

Bilingualism and creativity

Numerous studies have examined the influence of bilingualism on creative output (Carringer, 1974; Lee & Kim, 2011; Leikin, 2013; Okoh, 1980; Ricciardelli, 1992; Torrance, Gowan, Wu, & Aliotti, 1970). Bilingualism is defined as the ability to speak two distinct languages that represent two different cultures (Bialystok, 2001). In 1992,

Ricciardelli compiled the results of twenty-four studies on bilingualism and creativity and found that twenty of them indicated the superior creative capability of bilinguals; one study was inconclusive, and only three suggested that monolinguals are more creative. Though these results are somewhat inconsistent, they imply, overall, that bilingualism positively relates to creativity.

More recently, Lee and Kim (2011) studied the relationship between the degree of bilingualism and the creativity score of 116 Korean American children and teens. Participants' Korean and English language abilities were tested both objectively and subjectively using the Word Association Test (WAT) and the Subjective Self Rating (SSR); degree of bilingualism was then determined by the ratio of Korean and English ability indicated. Creativity was tested using the figural section of the Torrance Tests of Creative Thinking (TTCT)[3]. In their analysis of the data, the researchers found a positive relationship between creativity and degree of bilingualism: "Students who are highly balanced bilinguals tend to be more creative" (Lee & Kim, 2011, p. 1189). However, this research was conducted with only one specific ethnic group, and the generalizability of these results to other populations speaking other languages may be limited.

What these studies suggest is that bilingual individuals, particularly those with

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[3] The Torrance Tests of Creative Thinking (TTCT) and the adult-appropriate variant thereof, the Abbreviated Torrance Tests for Adults (ATTA), measure four cognitive abilities associated with creativity: ideational fluency (the ability to generate many ideas), originality (the ability to produce ideas that are unique), cognitive flexibility (the ability to apply different approaches or strategies to a problem), and elaboration (the ability to enhance an idea by providing more detail). Both verbal and figural creativity are assessed through responses to written prompts and drawing exercises. For example, in the ATTA, participants are instructed to elaborate on a series of blank triangles to create and title drawings (Goff & Torrance, 2002).

more balanced access to both languages and their associated cultural resources, are able to synthesize ideas from two separate cultures and languages to generate a novel product (Raina, 1999). This is conceptually similar to motivated cultural cognition (Chiu et al., 2000), where individuals employ available cultural tools as needed to manage creative tasks. A second language, then, may serve as a set of additional resources for creative problem solving.

Multicultural work groups and creativity

The studies on bilingualism and creativity described above focused primarily on children and teens, or on adults who had developed their bilingual skills at a young age. Studies on multicultural work environments, however, examine the way in which interaction with others from different, unfamiliar backgrounds can influence the creativity of adults; this concept is often referred to in the management studies literature as "value-in-diversity" (McLeod, Lobel, & Cox, 1996). Diversity is defined here as "encompass[ing] a range of differences in ethnicity/nationality, gender, function, ability, language, religion, lifestyle or tenure" (Kossek & Lobel, 1996, as referenced in Bassett-Jones, 2005, pp. 169-170). Many of these facets of diversity relate closely to an individual's culture, and research on minority ethnic groups in the U.S. has suggested that members of these groups often retain close affiliation with their "root" cultures (Cox, 1993). Thus, a discussion of studies examining the creativity of those employed in diverse or multicultural teams is germane to this literature review. However, as standardized psychometric assessments of creativity such as the TTCT measure the

creativity of an individual, modified creativity tasks were used to determine the creativity of the groups in the following studies.

In 1996, McLeod, Lobel, and Cox published one of the first empirical studies on creativity and ethnic diversity in the workplace, in an effort to investigate whether managers' anecdotal belief in a relationship between the two was justified. Their research specifically focused on small group work, comparing the creative output of homogenous (entirely European American) and heterogeneous (African American, Asian American, European American, and Latino/a American) groups. The authors note that 22% of their subjects were born outside the United States, but do not indicate, unfortunately, whether any of the participants identified as biracial or multiracial. Groups responded to "The Tourism Problem," a brainstorming activity that instructs groups to generate, in a fifteen-minute period, a list of ideas to encourage more tourists to visit the United States (Taylor, Berry, & Block, 1958). Independent expert raters then scored the ideas for both effectiveness (the likelihood the idea would bring more tourists to the U.S.) and feasibility (whether the idea could realistically be implemented). Analysis of the scores demonstrated a significant main effect of group composition on idea quality, with ideas generated by the ethnically heterogeneous groups rated as significantly more feasible and more effective (McLeod et al., 1996). While the focus of this study is limited to an idea generation task, and therefore cannot necessarily be generalized to other aspects of creativity, it does suggest that diversity can positively influence one facet of creative thinking.

Page's (2007) "logic of diversity" proposes that the effects of categorical diversity (readily visible demographic traits such as race and gender) are "superadditive." Expanding on this logic in the context of group creativity, Tadmor et al. (2012) hypothesized that the diverse experiences of multicultural groups would be similarly "superadditive" such that these groups would be able to produce output of higher creative value than the sum of their individual efforts. They propose that, "as multicultural experiences accumulate, individuals become more competent in intercultural communication, develop a general willingness to learn from and work with people from other cultures, and demonstrate a greater tolerance for and belief in the value of cultural diversity" (Tadmor et al., 2012, pp. 385-386). Though intergroup contact theory (Allport, 1954; Pettigrew, 1998) is not mentioned as part of the study's theoretical framework, its concepts are echoed in the researchers' hypotheses. They suggest that groups experienced in multicultural engagement may be able to mitigate the communication problems that sometimes trouble heterogeneous groups (Tadmor et al., 2012; see also McLeod et al., 1996).

This study is unique because it specifically distinguishes group creativity from the creativity of the individual. Participants were asked to work independently, for five minutes, on a divergent thinking task requiring the generation of unique uses for a brick (Guilford, 1950); then they were paired with a partner of a different ethnicity and given an additional 15 minutes to generate new ideas (any ideas repeated from their solo work were not included in the pair's final score). Participants were also assessed on their level

of multicultural experience using Leung and Chiu's (2010) Multicultural Experience Survey (MES). The results of the individual creativity assessments were used to control for the effect of an individual's creativity on his or her dyad's results, and creativity was found to be highest when both members of the dyad had high levels of multiculturalism as measured by the MES.

It is important to note that, because there is no equivalent version of an instrument like the TTCT for assessment of group work, these studies do not measure creativity in precisely the same way; Guilford's (1950) uses for a brick task is assessed for fluency, novelty, and flexibility, and the Tourism Problem is a brainstorming task which measures the feasibility and effectiveness of a group's ideas. Further, the tasks were given to randomly assigned, ad hoc groups, and did not measure the creativity of real-life multicultural teams; additional research on existing diverse teams would aid in developing a better understanding of the relationship between teams' composition and their creative output. Nevertheless, the results described above suggest a relationship between working in a culturally heterogeneous group or dyad and the production of creative results.

Multicultural exposure and creativity

Acquiring a second language or working on a task in a multiethnic group are intimate multicultural experiences that occur on an interpersonal level, yet merely being exposed to another culture and its language and artifacts may also influence creative output. The terms multicultural experiences and multicultural exposures are here used

interchangeably to indicate "all direct and indirect experiences of encountering or interacting with the elements and/or members of foreign cultures" (Leung, Maddux, Galinsky, & Chiu, 2008, p. 169). In a study investigating the generational groupings of eminent Japanese artists and intellectuals, Simonton (1997) proposed that the value of multicultural exposure could be measured even at the national level; he compared eras of flourishing and decline to the historical record of Japan's openness or closure to foreign influences, observing significant increases in national creativity two generations after periods of openness. He suggests the reason for this increase in creativity is that "[i]ndividuals who are exposed to a wide variety of perspectives are more likely to realize the arbitrary nature of any particular cultural norms and values, whether intellectual or aesthetic, and thereby impose fewer restrictions on the scope of their creative imagination" (Simonton, 1997, p. 92). These individuals are able, instead, to move beyond their existing meaning structures to sample and modify ideas from other cultures to accommodate their needs (Chiu et al., 2000).

Leung and Chiu (2010) performed a series of experimental studies with European American undergraduates in an effort to explore the short-term influence of multicultural exposure on creativity. In the first study, they exposed students in the experimental groups to Chinese culture, a hybrid culture (Chinese American) or two distinct cultures presented together (Chinese and U.S. American), and measured their creativity both immediately after and 5-7 days after the exposure. Comparison groups encountered only U.S. culture or did not have any cultural exposure at all. While the students exposed to

U.S. culture did not score significantly higher than students who had no cultural exposure, the fusion culture and dual culture groups' scores were significantly higher than the control groups' scores; further, these significant differences were recorded again when students were re-tested 5-7 days after the initial cultural exposure (Leung & Chiu, 2010, p. 729). In subsequent studies that built upon the results of the first study, multicultural exposure indicated a higher level of creative idea generation and an increased likelihood of sampling from other cultures in a creative task. Leung and Chiu claim that theirs is "the first known study that provided evidence for the *causal* role of multicultural experiences in creative performance… Our findings supported the idea that cognitive juxtaposition of seemingly nonoverlapping [*sic*] ideas from two cultures activates a creative mindset and produces creative outcomes" (2010, p. 729-730, italics original). Though this bold assertion of causality certainly warrants further research, the series of studies does offer evidence for a positive *correlation* between multicultural exposures and creativity.

International travel and residence abroad and creativity

The literature discussed thus far has connected increased creative ability with a variety of intercultural and multicultural experiences, including speaking a second language, exposure to multicultural artifacts and media, and working with a multicultural team. While all of these can be part of a study abroad experience, there is little research that has specifically examined the relationship between studying abroad and the development of creativity. Several studies, however, have focused on international travel

and expatriates, and how creativity might relate to traveling or living abroad.

One study that used a sample of 205 MBA students found that, while living abroad positively correlated with creativity, travel abroad did not (Maddux & Galinsky, 2009). However, though the sample was large, the instrument used to test creativity, the Duncker Candle Problem[4], is less rigorous than an assessment like the TTCT, and only looks at one facet of creativity: insight. Moreover, there is only one correct "solution," and the problem is well-known enough that participants may have been aware of the correct response prior to participating. Those motivated to cheat could also have sought the solution on the Internet, as the task was administered via email, along with a survey inquiring about the amount of time participants had spent living and traveling abroad. For those aware of the correct answer, the exercise would be algorithmic rather than heuristic, and therefore not indicative of creativity (Amabile, 1983). The researchers found that time spent living abroad was a significant positive predictor of producing the correct solution while time spent traveling abroad had a significant negative relationship with the correct response. Additional research using a different assessment of creative output, though, is necessitated in order to better understand the different influences of living or traveling abroad on creativity. In another experiment published in the same article, the researchers primed two groups of participants to recall international travel or residence

[4] In this problem, participants are given a picture showing the following items on a table that is placed next to a wall: a candle, a book of matches, and a box of tacks. Using only those objects, the task is to figure out how to attach the candle to the wall so that it burns properly and does not drip wax to the table or floor below. The correct solution is to use the box as a candleholder by pinning it to the wall with the tacks; the solution is considered "creative" because one of the objects involved (the tack box) is used in an atypical manner, thereby demonstrating divergent thinking (Duncker, 1945).

abroad experiences before assessing their creativity using the Remote Associates Test (RAT) (Maddux & Galinsky, 2009; Mednick, 1968). A third group was asked to reflect on life in their hometowns, and the control group thought about a trip to the supermarket. As the participants, French university students, had all lived and traveled abroad before, assignment to one of the four experimental conditions was random. This random assignment is a strength of the study, though the fact that the RAT is a language-focused assessment that was originally developed in English is problematic. In the RAT, participants are given a triad of words and asked to identify a fourth word that would connect the original three.[5] The researchers translated the triads and their answers into French, then back-translated and pilot tested them with a separate group of native French speakers; use of an instrument that is not so heavily dependent on language, or was written for native speakers of French, may have been more appropriate. Further, the RAT, like the Duncker Candle Problem, consists of tasks that have predetermined "correct" solutions, thus replicating some of the problems of the first study in the series. Finally, the direction of causality is unclear; it is equally possible that, rather than travel increasing creativity, creative people are simply more likely to travel abroad (de Bloom, Ritter, Kuhnel, Reinders, & Geurts, 2014). In spite of these issues, this publication has been widely cited as evidence of a positive or predictive relationship between creativity and living abroad (e.g. Chiu, Gries, Torelli, & Cheng, 2011; Chua, Morris, & Mor, 2012; Crisp & Turner, 2010; Mok & Morris, 2010; Ponterotto, 2010).

[5] An example would be "magic-plush-floor," with the correct answer being "carpet" (Maddux & Galinsky, 2009; Mednick, 1962).

Responding to some of the methodological limitations of the previous studies, Fee and Gray (2012) designed a longitudinal, empirical field test of the relationship between living abroad and creativity by testing expatriates and a control group of non-expatriates at pre-departure and again a year later. In order to control for any information given to the expatriate group prior to departure, the control group also attended all pre-departure briefings. The researchers hypothesized that living abroad for twelve months would significantly influence all four cognitive abilities that relate to domain-general creativity in adults: fluency, elaboration, originality, and flexibility; thus, the Abbreviated Torrance Tests for Adults (ATTA) was used as the assessment instrument (Fee & Gray, 2012). Due to this hypothesized increase in the four cognitive abilities, they proposed that participants' Creativity Index, a composite score generated by combining the four cognitive ability scores measured by the ATTA, would also increase significantly.

In their analysis of the results, Fee and Gray (2012) found that ATTA scores for the control group did not increase significantly in any of the four areas or on the composite score; the expatriates also did not demonstrate an increase in their originality. While the expatriate group scored higher on their post-test than pre-test for fluency and elaboration, only their cognitive flexibility and composite Creativity Index scores demonstrated a significant change. The effects were moderate to strong, with $r = .49$ (creativity index) and $r = .48$ (cognitive flexibility). Use of a more rigorous and complex measurement instrument, as well as a pre-test, post-test longitudinal design that included a control group, strengthened the study vis-à-vis prior laboratory-based post-test-only

designs. The authors suggest that the results of their study have important implications for understanding the experiences and cognitive changes of expatriate workers (Fee & Gray, 2012), but clearly, their findings and conclusions are illuminating for the field of study abroad research as well.

Study abroad and creativity

The above research on creativity discussed speaking a second language, working in a diverse team, encountering concepts from other cultures, and traveling or living in an international setting; all are experiences that can be an aspect of studying abroad. Similar to the preceding literature, research on study abroad and creativity has been epistemologically post-positivist, with a focus on quantitative methods. Gurman (1989), using the verbal form of the TTCT, which measures fluency, flexibility, and originality, administered pre- and post-tests to 24 undergraduates participating in a five-week summer study abroad program in London and a 24-member control group who remained in the U.S. Though the sample was small, and the treatment group was not randomly selected, it is nonetheless of interest that the study abroad group demonstrated a statistically significant ($p<.0001$) difference between pre- and post-test results; the control group's scores also increased, perhaps due to practice effect, but their improvement was not significant. Additionally, the independent test scorers noticed that members of the study abroad group, in their post-tests, directly referenced aspects of the host site culture, "such as exhibited in Activity 4, Product Improvement, where the changes suggested for the stuffed animals were often similar to… hair styles and mode of

dress commonly seen on the streets of London" (Gurman, 1989, p. 15). Not only did the study abroad students' assessment scores increase, but their post-tests also offered specific evidence of how the international environment influenced their creative thinking, as they drew directly from the host culture to respond to the test prompts. This use of resources from a second culture to solve a creative challenge is an example of motivated cultural cognition (Chiu et al., 2000; Chiu & Hong, 2005).

In 2012, researchers at the University of Florida conducted a study similar to Gurman's (1989), but the focus was on semester-long study abroad and included a larger sample size (*N*=135) (Lee et al., 2012). A key goal of the study was to add to the literature on the debate regarding domain-general versus domain-specific creativity; the researchers hypothesized that study abroad would contribute to students' post-experience domain-specific creativity on a cultural creativity assessment[6], but proposed that domain-general creativity as measured by the ATTA would not be significantly changed. The researchers compared three groups of undergraduate students: a group who had recently studied abroad (Study Abroad, *n*=45), a group who intended to study abroad (Plan to Study, *n*=45), and a control group who had not studied abroad and did not plan to (No Plan to Study, *n*=45). The researchers posited that the scores of the Plan to Study group would not significantly differ from the No Plan to Study group, as they had not yet

[6] This assessment, the Cultural Creativity Task (CCT), was designed by the researchers to measure domain-specific creativity in culture-related tasks. The tasks include the Tourism Problem (Taylor et al., 1958), which has a general international focus, and four additional activities: waking up with a different skin color, demonstrating high social status, developing new dishes using "exotic" ingredients, and creating a product that will have universal appeal. These four additional tasks were meant to address aspects of culture-specific creative thinking by targeting facets of cultural knowledge such as international awareness, identity, food, and entertainment (Lee et al., 2012).

studied abroad. The inclusion of this comparison aided the researchers in controlling for differences between those students who choose to study abroad and those who do not.

Using the results of the CCT and ATTA assessments as dependent variables, the researchers analyzed the three levels of the independent variable (Study Abroad, Plan to Study, No Plan to Study) to compare the effect of international study experiences on domain-general and domain-specific creativity. As hypothesized, "the Study Abroad group (M=3.14, SD=.40) significantly outperformed the Plan to Study Abroad group (M=2.47, SD=.36, p<.001) as well as the No Plan to Study group (M=2.43, SD=.35, p<.001)," on the CCT, yet there was no significant difference between the No Plan to Study group and the Plan to Study group (Lee et al., 2012, p. 774). However, contrary to what the researchers had supposed, condition also significantly influenced the domain-general Creativity Index generated by the ATTA assessment (p=.025). They conclude, "results indicate that students who studied abroad demonstrate superior creative thinking on both a culture specific and a domain general measure of creative thinking compared with students who have not studied abroad" (Lee et al., 2012, p. 774).

Though this study improved on prior research such as Gurman's (1989) design by testing a larger sample and comparing students who planned to study abroad with those who already had, it is not without flaws. In particular, the validity of the study would have been greatly increased by the inclusion of a pre-test; participants were only tested after studying abroad, and the Plan to Study group's scores were used in lieu of intra-individual pre-tests from the Study Abroad group. While Hadis (2005) argues that a

single-cell design can be used to measure the effectiveness of study abroad, intra-individual testing using a pre-test/post-test with control group study design would have strengthened the researchers' conclusions. However, by examining the relationship between studying abroad and both domain-general and domain-specific creativity, this study offers a roadmap for fruitful future research: a logical next step is to investigate students' individual experiences and how they relate those experiences to their creativity.

Summary of literature on international and multicultural experiences and creativity

In reviewing the academic literature on the relationship between international and multicultural experiences and creativity, it is apparent that these experiences correlate with improved creative thinking and problem solving. Though a range of different types of experiences has been explored in the literature, including working in heterogeneous groups, speaking a second language, and traveling, living, and studying abroad, each has demonstrated a positive influence on participants' creativity. While several studies have used rigorous, reliable and valid instruments to measure creativity, others have employed assessments that measure just one or two facets of this complex construct. Most research in this area has focused on psychometrically-assessed domain-general creativity; only one recent study (Lee et al., 2012) investigated both domain-general and domain-specific creativity, and found that both positively relate to studying abroad.

However, none of the scholars who explored the relationship between a multicultural or international experience and creativity interviewed the participants about their perspectives on the experience and how it related to their creativity. This

dissertation addresses that gap in the literature by asking students majoring in creative disciplines to describe the meaning of studying abroad in the context of their chosen field of study; it is the participants' perspectives that can shed light on how an international sojourn is meaningful for those engaged in creative endeavors.

Chapter two summary

This literature review began with a discussion of the historical development of study abroad as an academic experience. When combined with the theoretical framework as described in chapter one, this historical overview provides a foundation for understanding study abroad as practiced and promoted in present-day U.S. higher education. The review of literature on study abroad outcomes was bisected. The first section, covering large-scale quantitative research, described transformative learning due to study abroad in broad terms: research indicates that student functional and intercultural knowledges, intercultural competence, language ability, perception of self-efficacy, pro-social engagement, and even future plans were all positively influenced by studying abroad. Qualitative data from the mixed methods studies included in-depth accounts wherein students described the real, personal impact of the experience, offering detailed evidence of how, for many, study abroad was the most influential aspect of their undergraduate careers. The review then segued into a second section on student outcomes that analyzed literature focused on thick, interpretative description of students' experiences abroad. This literature functions as a model for exploring study abroad experiences while also delineating a gap for future research; the studies covered

intercultural and affective development; changes in academic, co-curricular, and career plans; and transformative learning in disciplines like teaching and nursing, but creativity and the creative professions are areas yet to be explored.

Finally, the review concluded with an examination of the burgeoning literature on international and multicultural experiences and creativity. This relatively new line of investigation includes research on many areas related to studying abroad, such as second language acquisition and interaction with difference, but only two studies specifically considered the relationship between study abroad and creativity. Both focused on psychometric assessment, which suggests that this is an area ripe for qualitative exploration of the lived experiences of individuals.

This dissertation study addresses both gaps in the literature as described above through interviews with design students about how they interpret the meaning of their study abroad experiences in relation to their creative disciplines and future careers. As Rowan-Kenyon and Niehaus (2011) contend, expanded research on how students make meaning of their time abroad is an essential part of documenting the learning that occurs. This study, which is situated at the intersection of the fields of study abroad and creativity research and employs a qualitative methodology, seeks to add rich data to both.

CHAPTER THREE

METHODOLOGY AND METHODS

"Why do you go away? So that you can come back. So that you can see the place you came from with new eyes and extra colors."
-Terry Pratchett*, A Hat Full of Sky,* 2004, p. 405

Introduction

The purpose of this study is to explore how undergraduate design students make meaning of their study abroad experiences in relation to their creativity and the creative work of their chosen fields of study and future careers. This chapter presents the research questions this study addresses, the context of the study, and the rationale for the study's design and methodology; the procedures used for participant recruitment, data collection, and data analysis are also described. The survey instrument and semi-structured interview protocol used for the study are included in the appendices.

Research Questions

The research questions addressed by this study are:

1) How do undergraduates in and alumni from design majors describe their expectations about how their creativity and creative work would be influenced by the study abroad experience?
2) How do they describe, in relation to their creativity and creative work, the learning and development they experienced while abroad?

3) How do they interpret the meaning of their study abroad experience in relation to the creativity and creative work mandated by their major fields and future careers?

4) What influence, if any, does the study abroad experience have on their career plans or future aspirations?

Philosophical orientation of the study

This section describes the alignment between the epistemological orientation of the theoretical framework and the methodology chosen for the study.

Epistemology

The principal theory framing the study is transformative learning, which is underpinned by the idea that the interpretation of one's sense experiences is central to the construction of meaning, and ultimately, learning (Mezirow, 1994). Thus, the study is situated in the constructionist/constructivist epistemological paradigm, where "truth, or meaning, comes in and out of our engagement with the realities in our world" (Crotty, 1998, p. 8). This epistemological perspective also informs the methodology of the study.

Methodology

Crotty (1998) notes that the constructionist tradition is most closely associated with research that employs qualitative methodology. However, Lincoln and Guba (1994) contest the conflation of epistemological paradigm with methodology, arguing that the research questions and paradigmatic stance of the researcher should guide methodological decisions. Based on my own epistemological orientation and the research

questions listed above, which seek to understand the meaning design students make of their study abroad experiences in relation to their creativity and creative work, the core of this constructionist study is structured as a basic interpretive research study with a focus on "meaning, understanding, [and] process" (Merriam, 2009, p. 38). Merriam (2009) describes four central characteristics of a qualitative study:

1. The study is focused on the meaning individuals make of their experiences;
2. The researcher is the primary research instrument for the collection and analysis of data;
3. The research analysis is an inductive process;
4. The data are highly descriptive rather than numeric.

Although some quantitative data was also collected during participant recruitment and selection through the use of a brief survey, this dissertation study has all four of Merriam's (2009) hallmarks of a qualitative study. The first characteristic is clearly established in the statement of study purpose and research questions, while the remaining three are discussed further in subsequent sections.

Overview of the study

This section describes the research site and the parameters of the participant population.

Context

The context for this study is the University of Minnesota-Twin Cities (UMTC), which is located in the neighboring cities of Minneapolis and St. Paul, Minnesota. UMTC

is the flagship public, land-grant research university for the state of Minnesota, and in the fall of 2014 had an undergraduate enrollment of 30,135 students (Office of Institutional Research [OIR], 2014). Of these, 1,266 were enrolled in the College of Design (CDes) (OIR, 2014). CDes is the administrative unit that houses the creative majors on which this study is focused.

Participant population

The population of participants for this study is UMTC students or recent alumni from design majors who participated for academic credit in a study abroad program of any duration that was offered under the auspices of the UMTC Learning Abroad Center (LAC). The LAC sponsors its own in-house programs and also supports exchanges, collegiate and departmental programs, affiliated and non-affiliated programs, and international internships, work placements, and volunteering (Learning Abroad Center, n.d.). In this study, recent alumni are defined as those who have graduated within the past five years (spring of 2010 and later). The following UMTC majors are included in this study: apparel design, architecture, graphic design, housing studies, interior design, landscape design and planning, and retail merchandising. Table 3.1 shows the number of degrees awarded in each of these majors over the last five years for which data are available (OIR, n.d.).

Table 3.1.
Degrees in design majors awarded each year (OIR, n.d.).

Major	Degree type	2009-10	2010-11	2011-12	2012-13	2013-14
Apparel Design	Bachelor of Science (BS)	17	17	11	17	19
Architecture	BS	52	49	45	47	48
Architecture	Bachelor of Design in Architecture (BDA)	53	56	65	86	94
Graphic Design	BFA	-	25	23	33	60
Graphic Design	BS	59	20	20	23	4
Housing Studies	BS	11	12	11	9	7
Interior Design	BS	35	34	27	30	33
Landscape Design & Planning	Bachelor of Environmental Design (BED)	38	13	18	25	18
Retail Merchandising	BS	46	38	49	63	48
Total		**311**	**264**	**269**	**333**	**331**

According to the 2014 *Open Doors*[7] report, 2,118 University of Minnesota undergraduate students studied abroad in the 2012-13 academic year (Institute of International Education [IIE], 2014). Of these, 155 (7.3%) were from the College of Design, though CDes students comprised only 4.5% of total undergraduate enrollment at UMTC in the fall of 2012 (Learning Abroad Center, Statistics, n.d.; OIR, n.d.). This higher-than-average study abroad participation rate for design students suggests that the University of Minnesota-Twin Cities is a particularly appropriate location to find information-rich participants for this dissertation study (Patton, 2002).

[7] *Open Doors* is a report on study abroad and international students in the United States, and is produced annually by the Institute of International Education (IIE). Funding for the report is provided by the Bureau of Educational and Cultural Affairs at the U.S. Department of State.

Research design rationale

This study used a modified version of Brinkerhoff's (2006) success case method (SCM) to identify and interview participants who were information-rich. In this method, which was initially developed as a way to evaluate the success of employee trainings, all participants first receive a brief survey intended to determine the distribution of those who are and are not achieving success due to the training. From those respondents, the researchers then conduct in-depth interviews with a small, select group of participants who represent the extreme cases of success and non-success. Creswell and Plano Clark (2007) refer to this type of structure as a participant selection model of explanatory, mixed methods design: the research phases are discrete and sequential, with participants representative of success and non-success drawn directly from the results of phase one. While the focus of this dissertation study is on students who feel they have successfully incorporated learning from their study abroad experience into their creative work, cases of non-success, or negative cases, present useful data for better understanding the patterns within the positive cases (Patton, 1999). Negative cases also contribute to the credibility and trustworthiness of a study, which is further discussed below.

Purposeful sampling

The sampling method for this study was purposeful, wherein information-rich cases are selected for an in-depth study (Patton, 2002). As the goal of this study is insight into the experiences of individuals, rather than broad generalizability, a purposeful sample of those who can best illuminate the phenomenon being explored is appropriate.

The planned sampling strategy for the study was a blend of *maximum variation sampling*, which seeks to "captur[e] and describe[e] the central themes that cut across a great deal of variation" (Patton, 2002, p. 235) and *extreme case sampling*, which examines exemplars precisely because they provide the kind of data that "can illuminate both the unusual and the typical" (Patton, 2002, p. 234). A blended sampling strategy can help with managing an initial sample size that may be too large; for example, if too many participants self-identify as extreme cases of success, sampling for maximum variation in type (such as major, study abroad site, or study abroad duration) narrows down the sample (Patton, 2002).

Though a small and heterogeneous sample is typically a weakness, this sampling strategy converts it into a strength: commonalities and patterns that emerge from great diversity are of particular interest, allowing the researcher to capture the essential, shared aspects of a phenomenon or experience for a group of participants (Patton, 2002). The population of interest, as described above, includes students in a range of creative majors who are at varying distances in time from their study abroad programs, and who participated in programs of differing lengths and in different regions of the world. A maximum variation sample that includes these diverse experiences and disciplines allows for the capturing of two types of data:

1. High-quality descriptions of each individual case, in order to document the uniqueness of individual experiences;

2. Shared patterns that unite the cases and are significant *because* they emerged from a heterogeneous sample (Patton, 2002).

Unlike in quantitative research, where an appropriate sample size can be predetermined based on the size of the population and desired level of confidence, in qualitative research it is unsuitable to decide on a concrete sample size before research begins; ultimately, the sample size is determined when saturation, or redundancy, of information is achieved (Lincoln & Guba, 1985). Instead, Patton (2002) recommends setting a minimum threshold for the sample, acknowledging that as qualitative research is emergent, the number may shift once fieldwork begins. The initial proposed sample size for this study, where the unit of analysis is the individual, was 20-25 participants. This size is large enough to include a realistically heterogeneous sample that encompasses variations in study abroad region, study abroad duration, and major discipline as described above, and yet still be feasible for a solo researcher working with limited resources.

Delimitations

While creativity can manifest in many areas of endeavor, such as business and marketing or the sciences, this dissertation focuses on the experiences of students in the artistically creative design disciplines. Therefore, students in majors located outside of the College of Design (CDes) and the College of Liberal Arts (CLA) were automatically excluded from the study. Within those academic units, any majors that did not align with artistic interests in Holland's (1973; 1997; Gottfredson & Holland, 1996) RIASEC model

were also excluded. Due to the low rate of response to the survey by CLA students and alumni, the study was refined to concentrate on CDes students and alumni; thus, while applied arts fields have been included, fine arts disciplines have not.

This study only considers the U.S. model of study abroad. Though students from other countries certainly study abroad as well, as evidenced, for example, by the large numbers of international students in the U.S., the population of interest in this dissertation study was U.S. American students who had studied abroad. The University of Minnesota-Twin Cities was selected as the research site; students from the University of Minnesota system campuses at Crookston, Duluth, Morris, and Rochester were not included. As one of the national leaders in study abroad participation (IIE, 2014), with a higher than average rate of participation for students in applied arts majors, UMTC has a sufficiently large population of information-rich cases for the purposes of this study. However, this also limits the scope of the findings, as UMTC students may present a different student profile from students at institutions in a different region, of a different Carnegie classification type, or of a different size.

Data collection procedures

Notification regarding permission to conduct this study was received from the University of Minnesota-Twin Cities Institutional Review Board (IRB) on March 12, 2015. The study reference number is 1502E63683.

Pilot test

Before sending the survey to the study population, a small pilot test was conducted with a convenience sample of five creative professionals working in the fields of architecture, interior design, graphic design, and photography who had studied abroad as undergraduates. Three were further able to participate in pilot tests of the interview protocol as well. As the study population is relatively small (*N*=296), pilot study participants were selected from outside the population parameters: all had completed their undergraduate degrees prior to the spring of 2010. The professional photographer was invited to participate in the pilot because the dissertation study, as originally conceived, included students in fine arts and performance majors from UMTC's College of Liberal Arts (CLA) as well as CDes design majors. The rationale for ultimately excluding CLA students from the study is detailed below. Suggestions and comments from the pilot study participants were used to refine the phrasing and sequencing of survey and interview questions prior to release of the survey to the study population.

Peer review

Staff from the UMTC Learning Abroad Center reviewed the cover letter, survey questions, and interview protocol prior to the survey launch. Their suggestions were used to improve phrasing in the cover letter and in the design of the form used to collect participants' contact information for the incentive drawing.

Recruitment survey

For this study, the brief survey (Appendix C), hosted on Google Forms, was sent via email with a cover letter (Appendix A) to all undergraduate students in and recent alumni from the College of Design who had participated in a study abroad program of any length through the UMTC Learning Abroad Center (LAC)[8]. In his SCM method, Brinkerhoff (2006) recommends sending the recruitment survey to the entire population of interest because electronic surveys are inexpensive and efficient, and the SCM-style survey takes only a short amount of time to complete. Thus, he contends that there is little advantage in drawing a random sample for the survey. Further, the purpose of the survey is interview recruitment rather than statistical analysis, and a random sample, therefore, is not of primary concern. The results of the survey did provide a small amount of descriptive statistical data as well as supplemental qualitative data in the form of responses to two open-ended questions, but the bulk of the study data were drawn from the participant interviews conducted in phase two of the study.

The survey questions focused on two key areas: 1) demographics, including major, study abroad site, duration of study abroad, current academic standing, year of graduation, race/ethnicity, and gender, in order to construct a maximally diverse interview sample; and 2) individuals' self-perception of successful learning or changes in creative work due to the study abroad experience, in order to recruit individuals at the extreme ends of the success distribution for interviews (Brinkerhoff, 2006). Two open-

[8] In addition to its administrative role in regard to off-campus study, the LAC also functions as the formal gatekeeper for all research involving study abroad participants at UMTC.

ended questions were also included. The first, “What elements of studying abroad had the greatest impact on your creativity?” elicited further detail about how respondents interpreted the meaning of their study abroad experience in relation to their creative work. The second question, “Are there other ways in which you feel studying abroad changed you?” offered a space for respondents who may not have found studying abroad to be creatively impactful to nonetheless have the opportunity to share more about what they learned and experienced while abroad.

A representative from the LAC sent the survey (Appendix C) and cover letter (Appendix A) via email, along with a brief message in support of the research and an IRB-approved consent information sheet (Appendix B), to 296 current students and alumni from the College of Design who had participated in a study abroad program (Erica Qualheim, personal communication, May 13, 2015). The initial message was sent in April 2015, with a first reminder sent after two weeks, and a final reminder sent after one month. The LAC representative also sent the survey to study abroad returnees from the College of Liberal Arts who were enrolled in the following fine arts and performance majors: acting, art, dance, and music (*N*=143) (Erica Qualheim, personal communication, May 13, 2015). However, of the 143 CLA recipients, only one art major responded to the survey, and that individual was a double major in graphic design, a CDes discipline, as well. Due to this extremely low rate of response (0.007%) from CLA students and alumni, the study was refined to focus solely on students in applied creative majors from

UMTC's College of Design[9]. Of the 296 CDes recipients, 69 submitted responses to the survey, for an overall response rate of 23.3%. Past research on study abroad returnees conducted by the LAC has yielded approximate response rates of 15-20% (see Stallman, 2009).

Interview participant selection

Brinkerhoff (2006) describes the process of selecting interview participants from amongst the survey respondents as "sorting the 'catch,'" and recommends developing and applying an objective scoring system to winnow down the responses into an appropriately-sized interview group. As surveys were submitted, the surveys of interview volunteers were scored for degree of success using the points system shown in Table 3.2.

[9] The University of Minnesota-Twin Cities implemented a major human resources and student records software update in April 2015, which resulted in campus-wide system errors; while this is not a definite explanation for the extreme difference in rate of response between CLA and CDes students and alumni, it is certainly a reasonable possibility.

Table 3.2.
Survey response scoring system

I've used something I learned on study abroad to…	I've done this and achieved a concrete and worthwhile result	I've done this, but I wasn't satisfied with the results	I haven't done this yet, but I might in the future	I haven't done this, and don't plan to
1. Think about a problem or assignment in my creative field in a new way.	3 points	2 points	1 point	0 points
2. Combine new ideas in my creative work.	6 points	4 points	2 points	0 points
3. Create a new work of art or a design.	6 points	4 points	2 points	0 points
4. Improve a work of art or a design.	6 points	4 points	2 points	0 points
5. Work on my art or designs in a new way.	6 points	4 points	2 points	0 points

The first question received less weight than the other questions because it reflected more passive engagement; it was the only question that did not inquire about a concrete action taken by the respondent in regard to their creative work or processes. Using this scoring scheme, scores could range from 0 (no success) to 27 (high success), with a score of 18 indicating moderate-high success and 9 indicating moderate-low success. Of the 69 survey respondents, 24 (35%) indicated a willingness to participate in an interview. Due to the small number of total interview volunteers (24) compared to the desired number of interview participants (20-25), the scoring system proved unnecessary for participant selection. The overall responses, however, still illuminate how design students think

about their study abroad experiences in relation to their creativity and creative work. The survey results will be fully described in chapter four.

The demographic profiles of the 24 interview volunteers were compared for maximum variation, and were found to be remarkably diverse. Two female interior design majors had both studied abroad in Copenhagen, Denmark for one semester, but their survey responses were different enough to merit inviting both for an interview: in response to the question "Which statement below best describes your experience since participating in study abroad?" one of them selected "I learned something new and applied it to my work with worthwhile results" while the other chose "I learned some new things, but I don't think what I learned while abroad applies to my creative work." This strong difference in how each interpreted the influence of a very similar experience on her creativity provided a valuable opportunity for comparison, and is discussed in greater detail in the following chapter. Based on their demographic diversity, all 24 volunteers were invited for an interview. Three did not respond to the invitation or a follow-up message, and one interview was cancelled by the prospective participant due to repeated scheduling challenges; 20 interviews were conducted.

Semi-structured interviews

Merriam (2009) notes that interviews with information-rich cases are often the primary research method in a qualitative study. The purpose of interviewing in a qualitative study is to learn what cannot be directly observed—particularly thoughts and feelings—and information about events that have already occurred (Patton, 2002). While

a researcher can never enter another individual's stream of consciousness and experience something exactly as that individual did, interviews help the researcher understand the context of the experience and the meaning of the participant's behavior (Seidman, 1998). As this study seeks to understand students' past study abroad experiences and the meaning they make of those experiences, in-depth, semi-structured interviews are the primary source of data.

Participants were interviewed either in person on the UMTC campus or via video chat using Skype or Google Hangout; participants were given a choice based on their personal preferences and ability to travel to the UMTC East Bank. Due to technical difficulties, one planned Google Hangout interview was conducted primarily over the telephone. The interviews took 30-80 minutes, with an average duration of 54 minutes. All interviews were digitally recorded using Apowersoft Mac Audio Recorder software and then transcribed by the researcher. I also took notes during the interviews and wrote reflection memos after interviewing each participant, in order to capture my impressions around the data as they developed.

Undergraduate students often find interviews with an adult or authority figure intimidating and not conducive to the expression of genuine opinions (Lemons & Richmond, 1987). The participants in the study are of the "Millennial" generation, which Pew Research Center defines as those born after 1980. The Pew researchers provide no specific chronological endpoint for this generation, but propose that, as of 2013, the youngest Millennials were in their teens (Pew, 2010; 2013). I am also a Millennial, and

my hope in conducting one-on-interviews was that participants would speak more freely with me, as young adults are more likely to establish rapport and share opinions with someone closer to their own age (Vaughn, Schumm, & Sinagub, 1996).

Study abroad returnees often express disappointment that family and friends back home are not as interested in hearing stories from their international experiences as they would wish; I further hoped that my genuine interest in talking with participants about their time abroad would encourage open discussion. As Seidman notes, "our actions as interviewers indicate that others' stories are important. At the heart of interviewing research is an interest in other individuals' stories because they are of worth" (1998, p. 3). Interview questions were "real questions," rather than contrived questions in pursuit of specific data; "doing this creates a more symmetrical and collaborative relationship in which participants are able to bring their own knowledge to bear" (Maxwell, 2005, p. 92). Therefore, the interviews were semi-structured and conversational in order to foreground the participants' perspectives and promote a more natural flow of discussion. The interview protocols developed for the study, which provided a loose sequential questioning structure, are provided in Appendices E (undergraduates) and F (alumni).

Participants

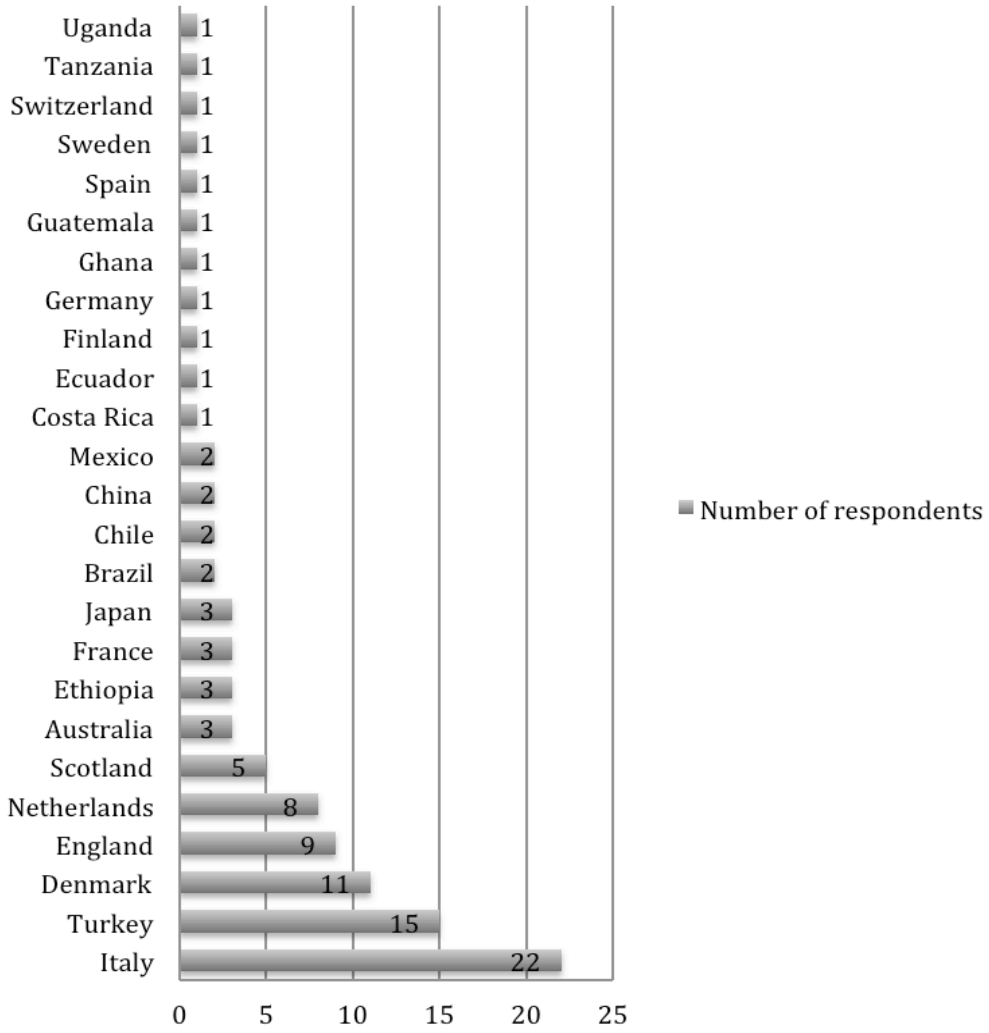
Survey respondents

Of the 296 CDes students and alumni who received the survey, 69 (23.3%) responded. Fifty-six respondents (81.2%) identified as female, and thirteen (8.8%)

identified as male; no other gender identities were selected[10]. In response to the race and ethnicity question, 62 (89.9%) respondents identified as White; five (7.2%) selected Asian; three (4.3%) chose the Black or African American option; and one individual (1.4%) identified as American Indian or Alaska Native (respondents were able to make more than one selection). None (0%) identified as either Hispanic or Latino/Latina or Native Hawaiian or Other Pacific Islander. A total of 25 unique study abroad host countries were identified (see Figure 3.1, below). Some respondents had participated in more than one study abroad program, while others had selected a multi-site program such as the semester-long Rome and Istanbul program offered to architecture and landscape architecture students through the College of Design.

[10] Given that women outnumber men both in study abroad participation and in College of Design enrollment (OIR, n.d.), this gender imbalance in survey respondents was unsurprising.

Figure 3.1.
Survey respondent study abroad sites



Interview participants

Each participant represents a unique combination of creative major, academic standing, gender, study abroad site, and study abroad duration, with the exception of the

two female interior design students, Carly[11] and Eleanor, who both studied in Denmark for one semester. However, as noted above, Carly rated her overall experience as contributing positively to her creativity ("I learned something new and have applied it to my creative work with worthwhile results") while Eleanor selected a lower self-rating ("I learned some new things, but I don't think what I learned while abroad applies to my creative work"). Thus, the rationale for inviting both to interview was related to the variation in how each assessed the creative learning she experienced while on the Denmark program.

As a study abroad site, Denmark is slightly overrepresented in the interview sample, with five participants (25%) having studied for one semester at the same institute in central Copenhagen. However, the Denmark program is also the primary study abroad program offered through the LAC that provides specialized content for students from across the design disciplines. Annie and Chelsea (Graphic Design BFA), Eleanor and Carly (Interior Design BS) and Morgan (Architecture BS) all chose the Denmark program because it offers a large variety of design-focused courses. Audrey (Architecture BS) seriously considered Denmark as well, but ultimately chose an option in Italy as it better suited her interests and learning goals.

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[11] All names included herein are pseudonyms, in order to protect the privacy of participants.

Table 3.3.
Interview participants, listed in order of interview.

Pseudonym	Design Major	Other major, minor(s)	Academic standing[12]	Study abroad site(s)	Study abroad duration(s)
Jacob	Architecture BDA	French Studies BA, Art History minor	Senior	France	One year
Chelsea	Graphic Design BFA	Art BA	Alumna	Denmark	One semester
Parker	Graphic Design BFA	Journalism BA	Alumnus	England	Seven weeks
Morgan	Architecture BS	Sustainability Studies minor	Senior	Denmark	One semester
Carly	Interior Design BS		Junior	Denmark	One semester
Audrey	Architecture BS		Alumna	Italy, China	One semester, May session
Noah	Architecture BDA	Interdisciplinary Design minor, Landscape Design & Planning minor	Junior	Mexico	One semester
Annie	Graphic Design BFA	Product Design minor	Junior	Denmark	One semester
Sabrina	Housing Studies BS	Sustainability Studies minor	Alumna	Tanzania, Uganda	One semester, one month
Kelsey	Architecture BS		Alumna	Ghana, Mexico, Brazil	Two weeks, one semester, two weeks
Amanda	Architecture BDA	Sustainability Studies minor, Environmental Science Policy minor	Alumna	Costa Rica, Ecuador	One semester, three weeks
Erika	Retail Merchandising BS	Spanish minor	Senior	Spain	One semester
Jenna	Graphic Design BFA	History minor	Alumna	Scotland	One semester
Tara	Architecture BDA		Senior	Japan	May session
Lacey	Apparel Design BS		Senior	England	Eight weeks
Mark	Graphic Design BFA		Senior	Italy	One semester
Eleanor	Interior Design BS		Senior	Denmark	One semester
Brent	Landscape Design & Planning BED		Senior	Italy & Turkey	One semester
Danielle	Architecture BS	Geography BS	Junior	Italy & Turkey	One semester
Madison	Architecture BDA		Senior	Australia	One semester

[12] At time of survey response in April-May 2015.

Documents and artifacts

In addition to the interviews, participants were asked to share personal documents and artifacts from their artistic and creative work, and to discuss their reflections on these artifacts with the researcher during the interview. Participants were told that these artifacts could include academic or professional work from their design discipline, as well as personal modes of creative expression, including but not limited to works of art, short stories and poems, design sketches, projects for courses, blogs, YouTube videos, or photos shared through social media—any artifact that the participant viewed as an outlet for his or her creativity. Participants also shared reflections on their study abroad experiences that they had written about in online blogs. Fourteen participants discussed specific creative works during their interviews, and eight provided links to their study abroad blogs. These artifacts and writings were discussed in the interviews, and were used to support and triangulate the interview data during the analysis phase.

Data analysis

Survey analysis

In addition to driving participant selection, the survey responses also generated a small amount of quantitative data. These data serve to further illuminate the qualitative findings from phase two of the SCM. The survey results were calculated and presented to demonstrate the broad shape of how study abroad returnees from design majors view the relationship between their international experiences and their creative work. Responses to the two open-ended questions were evaluated for common themes using *in vivo* codes

and inductive analysis. The themes discerned in this analysis gave contour to the data that was further refined during the interview data analytical process. As the 20 interview participants constituted nearly a third (29.8%) of the survey pool from which they were drawn, the interview analysis both echoes and amplifies the thematic findings from the qualitative survey data.

Interview analysis

Analysis of the interview data also employed an inductive process, beginning with the first semi-structured interview, as data collection and analysis occur simultaneously in qualitative research (Merriam, 2009). The benefit of simultaneous data collection and analysis is that the researcher is able to make adjustments that allow for the testing of emergent theories and concepts (Merriam & Associates, 2002), though Seidman (1998) cautions against analyzing too deeply before data collection is complete. Research memos written shortly after each interview, in addition to handwritten notes made during, allowed for the preservation of observations about emerging themes.

Upon completion of the interviews, all recordings were transcribed by the researcher. Listening to the interviews and carefully considering how to commit the participants' statements into written words encouraged a deeper engagement with the meaning of those words than would have been possible using a paid transcriptionist. During the transcription process, additional observations about each participant, as well as some reflections on developing themes, were added to the researcher memos. Once all the interviews were transcribed, key experiences from each participant were shaped into

vignettes. Participants whose information was particularly rich have a fuller profile, while those whose information is valuable but less complete were structured as briefer vignettes. These vignettes allow me to "present the participant in context... clarify his or her intentions, and… convey a sense of process and time, all central components of qualitative analysis" (Seidman, 1998, p. 102). The vignettes result in a story, which is a compelling way to present the research and reflects the shared participation of both interviewer and interviewee: while the words belong to the participant, the crafting of the story is in the hands of the researcher (Seidman, 1998). For each vignette, large sections of interview excerpts are included in order to present the participant's experience in his or her own words.

In addition to the creation of profiles, the data were also analyzed for themes. For relatively novice researchers, Krueger and Casey (2009) recommend a classic analysis strategy; I used their systematic process of color-coding, cutting, and rearranging paper copies of the transcripts in order to categorize the data. Although there are sophisticated computer programs available for qualitative data coding, such as NVivo, Dedoose, or ATLAS.ti, I prefer to physically engage with the data in a hands-on way, and find the experience to be quite distinct from working on a screen. Seidman echoes this sentiment, noting, "something in the mediums of screen and paper affects the message the viewer receives" (1998, p. 108); therefore, he advocates against categorizing interviews at a computer.

In the first stage of analysis, I read through the transcripts and, following Seidman's (1998) suggestion, highlighted any lines or sections that stood out as particularly interesting. I then added *in vivo* codes in the margins, using the participants' own words to create a preliminary codebook. Through inductive analysis, these codes were subsequently refined and grouped into initial thematic groups. Later, these groups were developed further and rearranged as I engaged in deeper analysis, comparing my interview notes and memos with the raw interview data; the theoretical and conceptual framework for the study heavily guided the analysis at this stage. Finally, I re-read the transcripts to work deductively, examining them for 1) data points that may have been missed during the first stages of coding, but that fit within the defined themes; and 2) conflicting data points that might contest the developed themes.

Arranging the data in two ways, both profiles and thematically, supports the sharing and analysis of the two types of data that Patton (2002) notes are captured in maximum variation sampling: individual cases that document the uniqueness of participants' experiences, and shared patterns that unite cases across heterogeneity.

Document and artifact analysis

In any research project, Creswell (2008) recommends limiting the amount of audiovisual data, as they can be difficult to analyze because the information is, paradoxically, *too rich*. However, he also notes that these kinds of data can be particularly illuminating, as images, especially, allow participants to share their perceptions of reality in a very direct way. In this study, including participants' post-

study abroad creative output in the analysis of how they described their learning enriched both their profiles and the thematic analysis. Examples of creative output served as a jumping off point for conversation, during the interviews, about how studying abroad influenced participants' creative process and products. Participants' spoken words *about* the documents and artifacts form part of the interview data and were analyzed consistent with the procedures described above.

Validity

Lincoln and Guba (1985) reconceptualize validity and reliability as *trustworthiness* for the naturalist paradigm. This section outlines how trustworthiness was pursued in this dissertation study.

Triangulation

Triangulation, or analyzing a research question using data from multiple sources, increases confidence in the research data, and provides a clearer understanding of the problem being studied (Thurmond, 2001). The artifact analysis was used to triangulate the primary data drawn from the semi-structured interviews and survey responses in order to "reveal different aspects of empirical reality" (Patton, 1999, p. 1192). This triangulation of methods allows for greater insight into the researched phenomenon and adds nuance to the study findings.

Researcher positionality

In a qualitative study, the researcher herself is the research instrument. As Lincoln and Guba contend, "inquiry is inevitably influenced by the values of the inquirer" (1994,

p. 184); thus, clearly stating the researcher's perspectives and relationship to the problem is an essential aspect of high quality and trustworthy qualitative research (Merriam & Associates, 2002). In this section, I will share a brief autobiography in order to make explicit my own assumptions and biases around the topics of study abroad and creative work.

As an undergraduate, I was able to study abroad twice: a January term in England and Greece as a sophomore, and a semester at a Japanese university as a junior. I had the opportunity to live abroad after college as well: in Japan from 2003 to 2004, and in South Korea from 2012 to 2013. Although my undergraduate degrees are in history and Japanese, I have always pursued artistic and creative pursuits as hobbies. In my free time, I enjoy writing fiction; I also studied traditional Japanese *sumi-e* ink painting during study abroad, and like to produce other types of two-dimensional art, such as drawings and photographs. I find that the experience of studying and living abroad has influenced me creatively in multifaceted ways, from exposing me to other types of artistic production, like *sumi-e*, to inspiring the storylines of my fiction writing. Therefore, I acknowledge that the concept for this study is rooted in my own experiences as an artistically inclined individual who has spent significant time living and traveling abroad. However, I contend that my experiences are not necessarily universal, and that other students may not find studying abroad to be similarly inspiring. I recognize, though, that my personal history may introduce an element of bias into the study. Throughout data

collection and analysis, I bracketed my experiences through reflective memoing in an effort to prevent my own subjectivity from clouding the study findings.

Chapter three summary

The first part of this chapter described my epistemological orientation, explaining the connection between the research questions, my own perspectives, and the chosen methodology for the study. The subsequent sections outlined the procedures for participant identification, which employed a modified version of Brinkerhoff's (2006) success case method (SCM). The logic behind the selection of this method and its alignment with the research questions was explained, followed by descriptions of how data were collected and analyzed. Finally, researcher positionality and the methods that were used to maintain validity were discussed in the context of *trustworthiness* (Lincoln & Guba, 1985).

CHAPTER FOUR

FINDINGS AND INTERPRETATIONS

"We have had an unspeakably delightful journey—one of those journeys which seem to divide one's life in two, by the new ideas they suggest and the new views of interest they open."
–George Eliot (Mary Ann Evans), quoted in Pennington, 1899, p. 69

Introduction

This chapter consists of three core sections: 1) quantitative and qualitative data analysis from the short participant-selection survey; 2) vignette profiles of the 20 interview participants; and 3) analysis of the interview data, with findings arranged according to each of the four research questions presented in chapter one, including the alignment of the findings with the theoretical and conceptual framework. The majority of the data are drawn from the 20 in-depth interviews I conducted with design students and alumni in the spring and early summer of 2015, but quantitative and qualitative data from the recruitment survey, as well as supporting data from interview participants' blogs and design artifacts, were used to triangulate and add further detail.

Recruitment survey findings

The first phase of this study was a recruitment survey designed to identify study abroad returnees in creative majors who would be suitably information-rich interview participants for phase two. However, the survey itself, which consisted of demographic, multiple-choice, and open-ended questions, also generated worthwhile data about how design students think about their study abroad experiences in relation to their creativity

and creative work. The following sections include the quantitative findings from the survey and an analysis of the qualitative data results from the open-ended questions.

Survey: quantitative findings

The first five questions on the survey, which were displayed in a matrix, asked respondents to consider how they have used what they learned during study abroad in their creative work for their major or career.

Table 4.1.
***Responses to the questions that begin with the phrase:* I've used something I learned on study abroad to:**

n=69	I've done this and achieved a concrete and worthwhile result	I've done this, but I wasn't satisfied with the results	I haven't done this yet, but I might in the future	I haven't done this, and I don't plan to
1. *Think about a problem or an assignment in my creative field in a new way*	89.9% (62)	2.9% (2)	7.2% (5)	0% (0)
2. *Combine new ideas in my creative work*	82.6% (57)	5.8% (4)	11.6% (8)	0% (0)
3. *Create a new work of art or a new design*	69.6% (48)	2.9% (2)	21.7% (15)	5.8% (4)
4. *Improve a work of art or a design*	53.6% (37)	5.8% (4)	34.8% (24)	5.8% (4)
5. *Work on my art or designs in a new way*	73.9% (51)	10.1% (7)	14.5% (10)	1.4% (1)

The results, shown in Table 4.1 above, indicate that most respondents felt that studying abroad influenced their creative work in noticeable ways. All recorded either a substantial experience of thinking about their work in a new way, or an openness to doing so in the future. Further, all respondents were at least open to the idea of combining new ideas in their work, with the majority having actually tried doing so; most felt they were successful in the attempt. These responses align with the central hypothesis of motivated cultural cognition (Chiu et al., 2000; Chiu & Hong, 2005), which proposes that exposure to a new culture increases one's receptiveness to ideas from that culture, resulting in sampling from that culture or combining concepts from one's own culture with those from the new culture.

The majority of respondents also reported using something they had learned during study abroad to create (76.9%) or improve (63.1%) a design, though a noteworthy minority (5.8% of both categories) did not, and had no plans to do so. However, most (89.2%) had attempted to work on their designs in a new way, suggesting that the influence of the study abroad experience on creativity extends beyond motivated cultural cognition (Chiu et al., 2000; Chiu & Hong, 2005); it can affect process as well as product. Csikszentmihalyi's (1988) conceptualization of creativity as a system offers a rationale for why this occurs: as respondents experienced the creative *field* as it functions in their host country, as well as the influence exerted on the *field* by the greater culture, or *domain*, they were exposed to a new way of working in their discipline, and were able to

sample these new methods in the same way they might borrow new ideas from the host culture.

Respondents were also asked to select the response that best summarized their experience as a study abroad returnee majoring in a creative discipline (see Table 4.2).

Table 4. 2.
Responses to the question: **Which statement best describes your experience since participating in study abroad?**

Response option	***n*=69**
I learned something new and have applied it to my creative work with worthwhile results.	52 (75.4%)
I learned some new things and have applied them to my creative work, but I can't point to any very worthwhile results yet.	10 (14.5%)
I learned some new things, but I have not yet applied them to my creative work.	6 (8.7%)
I learned some new things, but I don't think what I learned while abroad applies to my creative work.	1 (1.4%)
I didn't learn anything new while abroad.	0 (0%)

Though not all respondents perceived themselves as having been successful in using what they had learned during study abroad in their creative work, the majority (89.9%) had at least made an attempt to apply that learning to their designs. Only one respondent (1.4%) felt that her study abroad experience was not relevant to her creative work; as she volunteered to participate in an interview, her thoughts regarding this choice are presented in greater detail later in this chapter (see below, *Eleanor*).

The results from the multiple-choice portion of the survey indicate that most design students who study abroad view the experience as exerting an influence on their creativity and creative work. While not all were equally successful, in their own

estimation, at incorporating their study abroad learning into their creative work, the majority had at least made the attempt, or were open to doing so in the future. It is important to note that the survey respondents comprise only 23.3% of the UMTC College of Design majors from the classes of 2010-2018 who studied abroad. Yet the strength of their responses and the frequency with which they chose the strongest response suggest that, as proposed in the integrated conceptual model for this study, the experience of encountering the creative *field* and cultural *domain* of another country or culture can exert a powerful influence on the creative *individual*.

Survey: qualitative findings

In addition to the multiple choice questions, which asked respondents to select a response that most closely matched their experiences in using what they had learned from studying abroad in their creative work, the survey also included two open-ended questions. The first asked participants to share what aspects of the study abroad experience influenced their creativity, while the second left space for them to describe other ways they felt they had been affected by their time abroad.

Open-ended question one: What elements of studying abroad had the most impact on your creativity?

Of the 69 total survey respondents, 50 typed a response to this question, with some respondents listing more than one factor. Using *in vivo* coding and inductive analysis, the responses were grouped by theme; Table 4.3, below, lists the number of responses for each.

Table 4.3.
Thematic groupings of responses to the open-ended question: **What elements of studying abroad had the most impact on your creativity?**

Theme	Number of respondents citing a factor in this thematic grouping (*n*=50; some respondents listed more than one factor)
Developing new perspectives	15
Cultural immersion / Experiencing the host culture	14
Encountering new processes	11
Observing the culture-design link	6
Other people / Collaboration	5
Opportunity to explore	3
Other	4
Total	58

The most common responses were related to the *development of new perspectives* while studying abroad. One respondent indicated that her creativity had been influenced by her encounters with different perspectives because it helped with "discovering the common humanity but also finding differences in thought process" (Respondent EUABV, survey). Another described how her changed perspective affected her design work, saying that "seeing different parts of the world and living there opened up my understanding of the standard things I take for granted at home, because the ways of living/transportation/community were so different and wonderful. I apply these new-to-me qualities to how spaces are created in my work" (Respondent PC7M4, survey). This

application of her new understanding in her design work back at UMTC exemplifies the final phase of Mezirow's (1991) transformative learning theory.

Respondents also noted the value of *cultural immersion*, including the opportunity to experience the cultural artifacts (art, design, architecture) of the host culture. As one graphic design major commented, it was the setting that influenced him the most:

> Being in Florence, surrounded by some of the world's most beautiful art, has been very inspiring. It has given me a better understanding of how creativity drives a culture. I've come to realize the creativity is context dependent and is derived from experience. I have regularly worked on my graphic design, drawing, and photography out in the city, deriving my ideas and techniques from my surroundings (Respondent F3NA5, survey).

Further, respondents observed how their understanding of the *link between culture and design* had deepened, which influenced them creatively. One noted that it was helpful for her to "see… how other people inhabit space, it's not just the designers making places but the everyday people who use the spaces" (Respondent PPCG6, survey). It was also helpful to see how design students from the host culture worked:

> Learning the creative process of the foreign students we were exchanging with. Seeing how architecture and design was translated in China, how it changed and what they interpreted from western culture, gave me a better understanding of our own culture, its impact on the built environment, and the processes we use to create it (Respondent JEN39, survey).

Indeed, *encountering new processes*, as mentioned in the example above, was another common response. One architecture student commented, “I feel much more aware of how useful sketching can be at all levels of design. In architecture especially, drawing has become a way to quickly and intimately understand a building or space, or to explore and develop the potential in design ideas” (Respondent SRM6M, survey). Another connected the difference in process to the different class structure at her study abroad site in Chile: “Students were expected to be more responsible and more self-motivated than they are here in the United States. I learned to critique my own work and to seek out help from peers. I learned how to create my best possible work with very little supervision from the instructor” (Respondent CX6M4, survey). Again, this decision to incorporate her study abroad learning into her work process back in the U.S. typifies the final, or application, phase of transformative learning (Mezirow, 1991).

Respondents also highlighted the importance of *meeting and working with people from diverse cultures*, including but not limited to those from their host sites. One graphic design student said, “I feel like I improved my ability to discuss my work and processes and also strengthen[ed] my input in teamwork when working with groups of multiple people” (Respondent C9NFR, survey). Finally, participants appreciated having the *opportunity to explore* new and unfamiliar locales. An environmental design major who had studied in Rome and Istanbul observed that “getting lost over and over again had a wonderful affect [sic] on my design skills as an urban planner and graphic artist” (Respondent ZLCSZ, survey).

Although a few other isolated factors were also mentioned, including the opportunity to work across disciplines and the development of skills in specific design software programs, the majority of responses clustered around these six central themes. Respondents noted, however, that they learned about far more during their study abroad programs than just how to be more creative designers. The second research question prompted descriptions of what else returnees felt they had learned during their time abroad.

Open-ended question two: Are there other ways in which you feel studying abroad changed you?

The purpose of this question was twofold. First, it provided a space for any respondents who did *not* feel they had developed their creativity while abroad to discuss the aspects of the experience that had been meaningful to them. Second, it acknowledged the multi-faceted nature of study abroad, and recognized that design students are, like students in any major, complete individuals with interests, desires, and developmental needs distinct from their fields of study. Responses to this question were wide-ranging, though many focused on the development of personal traits like confidence, open-mindedness, self-reliance, and independence. Yet some respondents still related these new qualities back to their design work:

> There was much more to experience than the architecture. Being exposed to a new way of life and political and social environment made me more critical of the things Americans take for granted as "the way we do things." In design we are

> constantly trying to improve "the way we do things" and to be exposed to new ways generates an even greater plethora of possibilities because we have begun to question fundamental things about daily domestic life. (Respondent 5RZNB, survey).

Other responses related to an increased desire to travel or live abroad, and a belief that the experience had promoted a more cosmopolitan outlook. Respondents also felt they were more sociable or able to converse with a broader range of people, for example:

> I have changed in many ways. I am more independent. I have no problem going to a new city for a weekend without knowing a soul. This has also made me more outgoing, as I have had so many interesting conversations and engagements with people from all over the world. I am much less intimidated by travel. All I want to do now is travel the U.S. and the rest of the world. There is so much to see and experience and I want to soak it all in. (Respondent C6YDP, survey).

The responses to both the multiple-choice and open-ended questions in the participant selection survey suggest that studying abroad can have a profound impact on how participants majoring in design perceive and understand themselves, their creativity, and their creative work. The ensuing sections describe, in greater depth, the experiences of the 20 individuals who volunteered to participate in one-on-one interviews.

Participant vignettes

This section includes brief (one to two page) vignettes of each of the 20 interview participants, highlighting a key aspect of their experience. Providing these vignettes

demonstrates the uniqueness of each participant's individual experience, in contrast with the subsequent thematic analysis, which captures the commonalities that exist across diversity. As much as possible, large excerpts from the interviews are included in order to present the participants' experiences in their own words.

Annie

A junior graphic design major, Annie studied abroad during the fall, and I interviewed her in the spring, just a few months after her return from Copenhagen. For Annie, the decision to go to Denmark centered around two major factors: her own Scandinavian heritage, and the strong design reputations of both the Denmark program and Denmark itself. In particular, she hoped to learn more about the Danish design aesthetic while experiencing the "classroom style or learning style" of another country (Annie, interview). However, she quickly realized that classroom style might be unique to each instructor: "I kind of took it more as like personal teaching styles versus… cultural teaching styles…. Because, I mean, it's kind of hard to box [in] a culture when everyone in the culture is also so individually different" (Annie, interview).

More than most of the participants interviewed for this study, Annie was deeply engaged with the local people during her time abroad, and spoke often about individual people rather than any monolithic concept of "the Danes." She chose to live with a host family, and had many opportunities to experience Danish culture through family travel and events. She described going pheasant hunting with her host grandfather and his friends, joining her host brother's running club, and spending a weekend at a former

military base through her host father's employer. In addition, she joined the stage design team at a Copenhagen church:

> They needed people to help make decorations and then set up on Sunday mornings, and so I would go a couple times during the semester. We went to somebody's house and we would make big cutouts for the stage with a group of people, or other decorations. And then we'd have creative team nights once a month or every few weeks or something… we'd talk about relevant things that were going on with the creative team, like what our next stage design was going to look like, or we'd have a workshop on how to play keys instruments because the music team was… also meeting with us…. It's definitely very different [from graphic design], it's not computer work, it's all hands on and stuff…. And working in more of, like, a team-based environment. Usually [in] most of my classes you're working on projects individually, and so that was more of a team-based environment that I was working in [at the church]. (Annie, interview).

Annie noted that her host family and her friends from the church had the strongest impact on what she learned about Denmark and Danish culture. "All the people at [the church], actually, were really helpful, because they're so welcoming, talkative, and they… see you and they want to meet you and… tell you about what they do and… hear about what you do and they want to tell you about their culture" (Annie, interview). From her host family, she learned about "normal everyday things about [Danish] culture, like how they

interact with their family, how they interact with their friends, what school is like, what work is like" (Annie, interview).

In a clear example of the link between social contact hypothesis (Allport, 1954) and motivated cultural cognition (Chiu & Hong, 20XX), Annie's regular exposure to and developing comfort with Danish culture and cultural artifacts through her host family and church friends resulted in her use of a cultural artifact to inspire her own creative work. She described how, in Denmark, the Danish flag is a recurring motif, even appearing on birthday cakes. In addition, her

> [host] family was really big into nautical things. They were really into sailing and boating. And so I drew inspiration from flags. And so I did a design [where] I painted a flag… and then I hung it in a way so it was wavy like a flag would be… like it was hanging. And then I photographed it and did a bunch of stuff to it in Photoshop…. I just drew inspiration from all the flags over there for textile design projects. (Annie, interview).

Eleanor

An interior design major, Eleanor studied abroad in Copenhagen, Denmark. She was the only interview participant who described her experience studying abroad with the statement "I learned some new things, but I don't think what I learned while abroad applies to my creative work." When asked about her thought process behind the selection of that survey response, she said, "now that I've been talking about [the experience and creativity], I don't know if I would say that," but she added that she felt she learned "a lot

of other things… I learned a lot of life things when I was abroad. And do I think that applied to my creative work? No. There are many things that do, like all the things we just talked about [in this interview], I think do apply to my creative work. But… when people ask me what I learned abroad, I think about more life things in general first" (Eleanor, interview).

Additionally, it was during her time studying abroad that Eleanor realized she did not want to pursue a career in design.

> When I was abroad, everyone in my program, my core course, was coming from different parts of the U.S., and I was surrounded by that, and I just sort of realized that everyone around me was really pumped to do design. And I was like, hmm, I don't love this. I am interested in it, but that's—designers think about design 24/7. I mean constantly. They think about it in the shower…. And I'm like, I don't want to think about design unless I have to…. And then by the time the program had ended, our studio instructor… wanted to talk and reflect on the semester. And I was like, I think I decided I don't want to do this, and she was like, that's great… it was a semester well spent, if you discovered that this isn't for you. (Eleanor, interview).

However, though she no longer planned to pursue a design career, she saw value in both her design degree and what she learned about design in Denmark: "When I was in Denmark, I tried to use a lot of new things that I'd never done before, like specific skills-

wise. I do envision myself using that in the future…. I learned a lot in Denmark about how to design" (Eleanor, interview).

Ultimately, however, the value of the study abroad experience for Eleanor was in learning and experiences she had outside the realm of design. She described rich conversations she had with her host parents, noting that her interactions with them supported her "cultural understanding and also creative growth" (Eleanor, interview). She called her host family "the joy of my entire experience" and emphasized that they were the most significant contributors to what she learned about Danish culture and design while abroad. Thus, while she did describe ways in which she drew on what she learned in Denmark in her creative work (for example, she shared a design for the interior of an elementary school that borrowed some spatial arrangements from a school she had visited in Denmark [Eleanor, interview; design artifact]), the meaningfulness of the experience was, for her, centered on culture learning and personal growth rather than creative development and expanding her skillset as an interior designer. In her survey response about other ways study abroad had changed her, she alluded to her decision to pursue a career that better satisfies her personal ambitions, noting,

> I became more aware of the surrounding world and the fact that (as dumb as it sounds) there are actually people living their lives and going about their days differently than I am. I sometimes think living in the U.S. isolated me from the rest of the world. I would often go days or even weeks without really thinking about how other people live. I now think about the rest of the world with much

> greater frequency, interest, and compassion. I also believe study abroad taught me to appreciate the things I have. Most of all, I learned about myself, my likes, dislikes, the things that make me happy. I learned that living my life the way others want me to (or the way I THINK others want me to) will never bring me joy. To be happy, healthy, and productive, the best thing I can do is make decisions that impact me by first thinking about how they will make me feel in the future…. It seems to be working so far! (Eleanor, survey response).

Carly

Like Eleanor, Carly studied abroad in Denmark as part of her interior design major. For Carly, however, the experience affirmed her interest in the field, which she appreciates due to the way it blends the technical with the creative: "[It] consists of drafting and planning and solving problems and then gets into the decorative part, so I really enjoy that, and [it] covers a lot of different areas of design, which I enjoy, too" (Carly, interview). Carly knew before she left for study abroad that she wanted to see how another culture approaches interior design, and she hoped to learn new methods. She said that "being immersed in an entirely new culture, learning how others design and how design needs are different in different cultures, has been very influential and has showed me what is really important in design, and expanded my idea of design" (Carly, survey response).

As an example of how this learning process was catalyzed by the study abroad experience, Carly described a weeklong study trip she took with her studio class to

Austria, Switzerland, and Germany. The group consisted of architecture and interior design students and faculty, and on the trip they visited

> various different architectural sites and learn[ed] about history and learn[ed] about the architects and [got] to see amazing parts of the different countries as well…. It [was] really important to see [the architectural sites] in person. And you get a better understanding of the design…. We split into groups beforehand, it was the first assignment, and each group studied a different site that we were going to. And so we all had a little bit of background knowledge going in. And so I think understanding that background knowledge and then seeing the site in person, you realize how valuable it is to actually see the site and experience it. (Carly, interview).

Each example of significant learning that Carly described connected to two major themes: experiencing design in-person, and working with students from other countries and other fields of design. In addition to her weeklong study tour, she went on two other trips (one to Italy and Spain, and one to Poland and the Czech Republic), and her design courses included regular visits to sites around Copenhagen, too. She also highlighted the experience of working with students who have perspectives different from her own: "We collaborate a lot with the architecture students and other design students, which I… really valued in this program" (Carly, interview). She said that encountering these diverse viewpoints "expand[ed] my perspective on what is creative or what it means to be

creative" (Carly, interview); her entire meaning structure around creativity was altered by her encounters with other examples of creativity during her time abroad.

Jacob

An architecture student, Jacob was the only interview participant who chose to study abroad for a full academic year. He noted that he knew before he started college that he wanted to go abroad for an entire year, and he wanted to go to Paris. As a double major, the year abroad fulfilled requirements for his second major, French Studies, but presented some challenges in choosing courses appropriate for his architecture major. None of the programs offered through the College of Design were in France, the only country where he wanted to study: "I was very insistent that I go to Paris and that it be for an entire year" (Jacob, interview). He ended up enrolling in a number of art history courses through the program in Paris, and completed an art history minor during his time abroad. The Parisian art scene was another major draw for him, and he connected French art to his desire to study architecture in Paris, noting that "I just love Impressionists, and I just wanted to see what drew them to the scenes they painted" (Jacob, interview). Although unable to take architecture studio courses while he was away, he viewed the art history courses as providing him with a strong background in art and architectural theory, and said that his UMTC professors commented on his improved grasp of theory after he returned.

In particular, Jacob expressed the belief that studying abroad in France changed the way he approaches his work as an architecture student:

> I think I'm working in a new way now…. It has made me more open to artistic mediums in architectural representation. One of the mediums we explored a lot… in one of my painting classes was watercolors…. When I came back I was like, I really want to keep doing watercolors, so I enrolled in an architectural color representation course, and my mind was just blown…. [In] computer modeling, you can create the entire space and show an entire building in a virtual reality lab you can actually walk through before it's even built. And then you can produce a picture or a 3D model that is really accurate to… what it's going to be. But when you use watercolor, you can, as the artist painting it, you can kind of push it, like, this is how it's going to feel. Which is kind of lost when you keep it in… computer-based images. (Jacob, interview).

Jacob's story illustrates how study abroad can be a meaningful experience for design students even when the available study abroad programs in their country of choice do not offer design-focused courses. However, an ideal program is one that offers courses that fulfill design requirements in a host country of personal and academic interest to the student. Chelsea's experience in Denmark, described below, illuminates the value of this convergence of design coursework with cultural engagement.

Chelsea

Like Annie and Eleanor, Chelsea chose to live with a host family during her time studying in Denmark, and this interaction with people from the local culture was very meaningful for her: "I wanted to live with a host family. I wanted—to me, that was the

most immersive way I could understand where I was in the world and also have a better grasp on the culture and also a built-in helper for my Danish homework, you know?" (Chelsea, interview). One host family member had even been part of the inspiration for a design project:

> This [textile design] was inspired by my host brother as well. Being a three year-old at the time, his favorite movie was *Cars*, which I watched with him in Danish a lot. And he had this, like, *Cars* racecar driver outfit he would wear like all the time and [I was] inspired by his playmats that he would take his cars out on, and also the really confusing maps of Copenhagen that you can't really understand when you navigate. I wanted to do something that was a bit more confusing, and eventually a pattern that, when you follow it, it would never really end…. The roads don't make any sense, there's no grid system like here [in the U.S.] at all. So that's where this textile was inspired by. A bunch of different things. (Chelsea, interview).

This example from Chelsea's design work highlights how design students draw from their daily experiences in their work, and how, when their daily lives are taking place in the new context of study abroad, concepts or themes from the host culture become resources for inspiration. Watching *Cars* with her host brother was a fairly ordinary activity (as an American film, beyond being dubbed in Danish, it was not even a new cultural experience), but Chelsea connected that to her travels on the Copenhagen transit grid, which *was* a new experience for her. Taking a textile design course during the time

of those experiences, she was able to link her class assignment to what she was seeing and experiencing, generating something creative and new.

Morgan

Morgan is the last of the five participants who chose to study abroad in Copenhagen, and the only one who was majoring in architecture. Like Jacob, she had studied French in high school and initially wanted to study abroad in France. However, she decided to focus more on her architecture major and completing that in four years (unlike Jacob, who was in the more flexible Bachelor of Design in Architecture program, Morgan was pursuing the Bachelor of Science in Architecture; studying abroad in a non-architecture program would have lengthened her time to degree). Ultimately, she was pleased with the decision: "I'm really happy that I chose Denmark, because I'm minoring in sustainability, too, so it works really well with my major and my minor…. I really love Denmark, and I've really connected with it, so after graduation, this is hopefully where I'll end up" (Morgan, interview).

Through both her own observations and a sociocultural context course she was taking, Morgan had developed a deeper sense of the reciprocal relationship between design and culture. She was particularly moved by what she learned on a course field trip:

> We visited a crematorium, which isn't as crazy as you'd think [be]cause in Denmark, the most popular thing to do is get cremated, and part of that had to do with filling up land, and I think it was something to do with the Vikings…. Architecture can be, it can look really beautiful, but then is can also feel really

> beautiful, and when you, when you've studied it long enough, you kind of realize that and you know what type of things you can do to make somebody feel a specific way. And for my sociocultural context class that I've had, that's where I've really, really learned that, and I've been placing a lot of value on that in my designs…. So, but at the crematorium, there's obviously a place to be cremated, but the main point is, it's just kind of like where you would host a funeral. And so when my professor was describing why he made the steps this height, or this length… it's like everything had a purpose relative to how someone would feel being in that space…. And then the door on the way out, it's made of copper, and so you, this metal, you expect it to be really heavy, but then it's actually really light… and so you walk out and it's just like this breath of fresh air and this door is light rather than heavy, and so it's just kind of like subtly saying you can do this…. The building just kind of reacts to your emotions. (Morgan, interview).

Morgan later applied what she had learned about the design from this space directly to a funeral ritual room design of her own (described further below; see *Design process and procedures*). She observed that she had also developed some of her own values around architecture and design, thanks to that site visit:

> We have the term "starchitect," where, things are really great, the architecture's cool, but it has no relation to people or how people feel or emotions and stuff like that. Which is fine, not every building needs to be that way, but like a crematorium is something where emotions are, that's all that comes there. Just

> having, like realizing that there's architects that value that, and that can design that way is just absolutely phenomenal and… so inspiring…. Sometimes you can get off balance… but it really brought me back and realizing that that's like the focus, and especially when it comes to something like death, you need to think about people, there's nothing else that matters, because those are the people that are experiencing the building. (Morgan, interview).

Following the site visit, Morgan had reflected on and reconsidered the balance between designing a stunning building and designing for the needs of the people that would use the space; it was a transformative learning experience for her.

Mark

For Mark, too, the time studying abroad in Florence, Italy as a graphic design major helped him conceptualize the interrelatedness of culture and design. Of all the interview participants, he had spent the most time reflecting on how design could influence the culture of the place where it occurred. He spoke extensively about how he felt the creative presence of "hometown heroes" like Michelangelo and Dante Alighieri in Florence, and how he felt that their creativity had developed Italian culture:

> It's the skill, and the beauty, and like, Michelangelo, or Leonardo da Vinci, like a lot of them are just true geniuses. So it's just… overcoming what was originally expected as impossible or pushing boundaries and being innovative. That's definitely attracted me a lot. It's like innovation and driving the culture forward… The amount of people that they influenced, like, their influence was so

> widespread throughout Italy, throughout Europe, and then the rest of the world. And exist[s] now, today. Like, they influence me, 500, 600 years later. It's pretty amazing. (Mark, interview).

In his survey response, Mark had commented that the experience of studying abroad had catalyzed a refinement of his design philosophy. He expanded on that further in the interview, and connected it with his developing ideas about design's influence on culture:

> As a designer, graphic design, much of what you're doing is, someone comes to you, like a client, or a business, and is like, ok, we need your help to communicate our brand or our mission…. So, you have that power, like, it's your responsibility to do that well, and to be successful at it…. I don't know if canon is the right word, like the collection, the cohesion of ideas, art, music, everything goes in the culture, so if you could wrap it up into a word or a series of images or something, it's going to look differently [sic], and it's like, you want to contribute to that in a positive way, like make influences on it…. (Mark, interview).

This example from Mark illustrates how studying abroad supported the development of his understanding about the relationships between the creative *individual*, their chosen creative *field*, and the broader cultural *domain*, as conceptualized in Csikszentmihalyi's (1988) systems perspective on creativity.

Mark also engaged in extensive reflection, and was the only participant who described both preparative reflection (thinking carefully about goal setting and what he

wanted to get out of the experience before he left the U.S.) as well as onsite reflection (considering what he was learning, how that fit into his goals, and how that had changed his perspectives). Ultimately, his experience was richer for it, and he said he had learned to unplug and focus on what he was seeing, hearing, and encountering. Reflection is the central process of transformative learning, and, as the following example from Kelsey illustrates, lack of time for deep reflection during and after study abroad can attenuate the experience of even a bright, motivated student.

Kelsey

During her time as an undergraduate architecture student at UMTC, Kelsey studied abroad three times: first, on a two-week trip to Ghana, immediately followed by a semester in Mexico, and finally on a second short-term program in Brazil. The Brazil and Mexico programs were both related to architecture; the experience in Africa involved volunteer work with Ghanaian children and was not led by faculty from the College of Design. She encountered a brochure for the Ghana program on a visit to the Learning Abroad Center and decided to sign up for it because she felt that she "need[ed] something different… I sometimes like to make impulsive decisions when I know that the experience will be really, really great. Even though it would be really scary" (Kelsey, interview). Shortly after committing to the Ghana program, she was recruited into the Mexico program by one of her architecture professors:

> My first architecture professor came into our studio and told us about… his program that he leads. And he asked me if I was going, if I was thinking about

> doing it. And I was like, well, I'm going to Africa and I get back a day before you plan on leaving, so probably not. And he just looked at me and said 'Do it anyways. It'll be worth it.' And I was like, okay, and I just decided to do it… Another impulsive decision, but well worth it. (Kelsey, interview).

One of the biggest challenges for Kelsey was that, because she had only one day in Minnesota between the end of her Ghana program and her departure for Mexico, she was unable to properly reflect on and process her time in Africa. The following interview excerpt describes her struggle with the transition:

> I was really, really tired, and I had packed everything before I had left for Ghana, I had packed everything for Mexico as well. [Be]cause I had less than 24 hours to get back to the airport to leave for Mexico. And it took me a really long time because I, there was like a huge culture shock when I went to Ghana, it was like nothing that— I'm from a really small town and the [Twin] Cities was enough of a shock for me, but going there was just so incredible. And all the kids were so grateful for everything, which was a nice change. And I was still reflecting on that when I went to Mexico, and I just felt like I didn't have enough time to process everything that happened. I wish I would have taken a little bit more time and went to Mexico a little bit later, but that wasn't an option. But I felt really down when I first got to Mexico because I was thinking about these kids in Africa and how they need a lot of help and they, their school didn't have electricity, they didn't have, their floors were dirt floors so their desks would tip over if there was

> a huge hole, or they couldn't see their paper very well if it was cloudy out. And then I went to Mexico to study courtyard buildings, and I was like, why do these matter when, you know, there's a lot of other stuff going on. So that took a long time. And I didn't really have anybody to talk to because nobody went to Ghana with me that I knew on the trip [to Mexico]. It took a few weeks, but I finally got out of this little slump and then I just dove into whatever projects we were doing and that kind of helped. But I also don't think that I reflected enough on everything that I learned in Ghana. So that probably hurt me a little bit but yeah, there's just a lot to process. (Kelsey, interview).

Kelsey's difficulty with the transition between her two programs highlights the importance of building time for reflection into study abroad programs, and also emphasizes the fact that study abroad, by itself, may be insufficient for major creative development. Significant learning during study abroad requires robust and meaningful support for reflection throughout the program, as well as time to process and react to what is being encountered, experienced, and learned. Without reflection, the learner may be absorbing information, but does not have the opportunity to alter his or her meaning structures to accommodate the new knowledge in a transformative way. For Kelsey, the experience in Ghana was very powerful, but she had no time to reflect on it or guidance on how to do so, and she was unable to meaningfully connect it to her architecture major. In fact, her two architecture study abroad programs, when compared with her experiences in Africa, paled in comparison, and she ultimately chose to leave architecture for a

graduate program in youth development. More robust advising and embedded opportunities for reflection may have better supported Kelsey in rethinking her plan to study abroad in back-to-back programs; diverted her to a more appropriate major earlier in her undergraduate career; or helped her realize how she could use design as a vehicle to further the interests she developed while working with children in Ghana.

Noah

Noah studied abroad on the same architecture program in Mexico as Kelsey, but the experience was a much better fit for his needs and goals. Because his sophomore year was the final year the Oaxaca program was offered, he persuaded the professor to let him join a program normally reserved for juniors and seniors. Noah's experience on this small island[13] program (just nine students), underlines the value of having experienced cultural mentors to help with understanding context. When asked about the people who were most important to his experience, he first mentioned his UMTC professor, the program's faculty leader:

> The professor, for sure, was very key. Actually, he has a house down there [in Oaxaca], because he's been doing this program for twelve years or something like that. So he was at this time very experienced with the culture, specifically in Oaxaca. Their culture and the city, at least where we stayed, where his house was. And so he would give us pointers…. (Noah, interview).

[13] An island program is one in which all the students are from the U.S., and participate in a U.S.-style curriculum.

The UMTC professor also showed the students different architectural sites in Oaxaca. For the first assignment, which focused on what it meant for something to be a courtyard, he took them to a variety of spaces that could be considered courtyards, asking the students to reconsider the meaning of a courtyard.

> Our professor took us around to all these different courtyards in these buildings and then kept asking us to define what a courtyard is, and he'd give us a hint and be like, 'This one's rectangle' and go to another one that was a triangle shape and be like, 'Is this a courtyard? The other one was rectangle.' Or ones that had an arcade of columns around and some that didn't, ones that were semi-covered by the vines, like, did it have to be open to the sky if it's a courtyard? So [for] our first project… we had to write a paper and present an argument for whether we thought each of our courtyards was actually a courtyard. (Noah, interview).

This assignment, Noah observed, helped him think about the importance of considering the human and cultural context of architecture: "not the physical characteristics of it, but like the human projection of use of the space" (Noah, interview). He would later apply this insight to designs he created after his return to the U.S. (see below, *Borrowing and applying*).

Audrey

An alumna of the Bachelor of Science in Architecture program, Audrey studied abroad in Rome her junior year. Having spent her early childhood in Singapore, Audrey knew that she wanted to go abroad again during her college years, and chose a program

in Rome because it was a place that interested her, and because she felt she had already been exposed to an Asian perspective on design.

One learning experience that Audrey described as significant was encountering a new perspective on what it means for a building or site to be old. Her studio was located in a medieval building, and she learned that, while it would be considered "very old to us here in the U.S…. that's not old at all to Italians. So that was… kind of an eye-opener" (Audrey, interview). She said that she learned to "be more critical about… what's important about a historical structure, what's important to keep versus what can be adapted" (Audrey, interview).

Further, she noted that studying abroad "has given me a more tangible (and thus apply-able) understanding of different cultural responses and use in architecture. Subconsciously this became a part of how I understand designing for different cultures and communities, and approaching building preservation and re-use" (Audrey, survey response) and that she felt she had developed a heightened awareness of cultural difference in people's expectations for how a space should look or feel. Now a Master's of Architecture student at UMTC, she noted that she uses what she learned during study abroad to be "a lot more conscious about ways to engage community" and to be "mindful of the values or beliefs of a community" where a building is being planned (Audrey, interview). She summarized it as "being more aware of what goes into making community and then how that influences designing for a community" (Audrey, interview). She gave an example of how she later applied her understanding of the need

for mindfulness about the community while designing a project after her return to the U.S.: "[When] I came back senior year, I had a wood pavilion on a lake as my… fall project, and that was… about what is the community around here, and what would they like. And, you know, they're either German- or Scandinavian-Americans, so let's put [in] a sauna" (Audrey, interview).

She also drew on what she had learned in Italy about renovation, historical preservation, and re-use after her return. In a project in an older building in Minneapolis' Warehouse District, she focused on "what would it mean to lightly touch this space… I learned techniques of how to put new pathways into old buildings, and that's structurally what came into this project, was how to create light touches on [an] existing form to create new structure" (Audrey, interview). She described her newfound understanding of how to work within older buildings and "honoring that distinction [between old and new]… but still giving that space a new kind of expression" as "one of the biggest architectural takeaways [from study abroad] that I've continued" (Audrey, interview).

Jenna

A graphic design major with a minor in history, Jenna had pursued the graphic design major primarily to develop a skillset that could be a source of income if her chosen career as a librarian did not work out, and because she had an additional interest in book design. Due to her interest in history and books, she had a high level of appreciation for older styles of design, such as illuminated manuscripts. However,

because she was less interested in contemporary styles, she had been somewhat frustrated with the CDes graphic design program prior to studying abroad in Scotland:

> Before I studied abroad I was having a lot of issues with the program, the graphic design program. I was struggling with the way things were organized and having issues with the curriculum and the changes that were happening. And so I think study abroad gave me a chance to realize that even if I didn't like how it was—[that] didn't necessarily have to be a big deal. Like, study abroad reaffirmed in me that my ideas and my choices were at one time very appreciated across the world, and the design style I have is very appreciated…. (Jenna, interview).

The experience of studying in Edinburgh also helped Jenna determine the topic for her graphic design senior thesis project, which was a comprehensive family tree and timeline of the British monarchy. This project blended her history minor with her graphic design major, and allowed her to focus on a design that would incorporate the types of older typography and style that she preferred:

> I think that my style, my graphic design style, is very heavily based on the fact that I'm incredibly interested in historic Scotland and England. Like, a lot of the times when I make design decisions—I know some people make design decisions because they're interested in current design trends and… because this is something that's visually interesting currently, but for me a lot of the time I'm like, I kind of love that back in the day, text was so important… And so I have a

> tendency when doing design to lean toward older style scripts, and for me, part of being in Scotland was re-immersing myself in that culture. (Jenna, interview).

The project, inspired by her time abroad, restored Jenna's confidence in her own design aesthetic and was itself a creative response to the challenge of creating a final project that would meet the requirements of her program while still honoring her preferred design style.

Brent

Brent was the only landscape architecture student who volunteered to be interviewed for this study. In addition, he was one of the first landscape architecture students to participate in the College of Design's Rome and Istanbul program; prior to the semester he studied abroad, the program had been only for architecture students. Unfortunately, this meant that some of the curriculum and site visits were still more tailored for the architecture majors:

> I felt a lot of the times that it was totally catered to the architecture students, so I would have liked if I could have had a strictly landscape architecture study abroad trip, that would have been amazing. [Be]cause we did a lot of mosque visits in Istanbul, and as beautiful as they were, I just couldn't, I couldn't get as excited about it as architecture students could, because, I don't know, I see beauty in buildings and the design of buildings, but after awhile I kind of want to just study the air around these mosques. (Brent, interview).

In spite of this frustration, there were benefits to the interdisciplinary experience:

> It was a huge, huge thing for a design student to get opinions from people other than… professors, and that's something I hadn't experienced before…. My core group of [architecture student] friends, it was really easy to find inspiration from the things that they're doing and we were all pretty open about giving honest, constructive feedback to each other. And that's something that I know the landscape design program at the U doesn't have at all. (Brent, interview).

Further, he observed that one of his friends was able to "really design more to this inner characteristic of Turkish spaces," and he was inspired by how she had considered the cultural context in her designs. Although he had originally thought that some spaces in Istanbul were underdesigned, even dingy, seeing her designs helped him realize that "less design is maybe a good thing, that maybe leaving things functioning how they are, if they're functioning well, leaving them to function as they are and just make small changes… rather than trying to renovate an entire space" (Brent, interview). He has since applied this ethos into his own work, even taking into account what might be functional for animal populations that would be encountering his outdoor designs.

Danielle

Danielle also studied abroad on the CDes Rome and Istanbul program, but as an architecture student, she was the primary audience for the program's curriculum. She had just returned from her program abroad when we had the interview, so her memories of the experience were fresher than those of the other returnees. Most of her comments about her time abroad focused on the group experience of being in an island-format

program exclusively with other design students. “It was really unique in the fact that it was always us sixteen taking all the same classes at the same time…. We were able to build off of each other really well, we knew each other’s strengths and weaknesses by the end and knew where to go for help, which person” (Danielle, interview). In fact, even her response to how the experience had influenced her perspective on creativity related to seeing how her fellow students reacted to being in a new culture:

> I’ve traveled quite a bit before this program, probably five other countries, so I think it’s probably something that’s influenced me over the last several years. I think just being able to see the other students. Especially the ones that had never been abroad, taking in another country for the first time or a very different country for the first time. And seeing their different solutions of things, or talking to visiting professors or our professor and seeing what they thought about our ideas, because our ideas do usually start very American. But they definitely evolved as the program went on. But being able to see how each person took it in differently. Which is something I wouldn’t get on my own, for sure…. Like, we were all given the exact same things… obviously we all came from the same place, same state, whatever, so it should have all been similar solutions, but getting to see how they ended up not being similar. (Danielle, interview).

Theoretically, this was something Danielle could have observed in any of her studio classes back at UMTC, yet it took the new cultural milieu of being in Istanbul for the idea to solidify. For the first time, she was seeing her own creative *field* in the context of a

new *domain*, which caused her to perceive herself and her fellow students as creative *individuals* who could be influenced in unique ways by both *field* and *domain* (cf. Csikszentmihalyi, 1988).

Erika

A more seasoned traveler than many of the other participants, Erika had sought a study abroad program that would meet the requirements of both her retail merchandising major and her Spanish minor while giving her a deeper cultural experience: "One of my goals for study abroad [was] staying with a host family just so I could, like, I just wanted to see how they lived, and live how they live" (Erika, interview). Unfortunately, she did not have the same positive homestay experience as described by the women on the Denmark program (see above, *Annie*; *Eleanor*; *Chelsea*):

> I was disappointed because my host mom, my host family, didn't really invite me to anything. I think it was kind of a cultural thing again, like if you think about here, in the U.S., if you have an exchange student, you're taking them everywhere. You know, you want them to be a part of your family and all that stuff, but they definitely do it for economic reasons [in Spain]…. My family left me alone my first weekend. And I got home one night and the electricity wasn't working. Yeah, I was freaking out. It was the first weekend there and I was like, "What do I do?! What the heck?!"…. I actually figured it out, very proud of myself. But, yeah. My host family wasn't very involved. (Erika, interview).

In spite of this setback, Erika made the effort to seek cultural engagement elsewhere, and developed a close relationship with a young Spanish man and his mother. She felt the experience helped her learn to be a better communicator:

> In Spain and Morocco, the countries are so small that they're forced to communicate with other people a lot…. They interact. There's just so much more diversity. They just have to interact with more diverse people. And from being there myself and interacting with people, one of the things that I learned, because also I'm very judging, it's one of my personality traits, and so it's always like, 'Oh, this is an idea that I have for something, so this is the solution for this problem,' but it's like, my solution isn't always the only solution…. And rethinking and reanalyzing why I'm trying to shut this idea down, like, do I have a legitimate reason…. And I think just being more willing to work at communicating with people who communicate differently than me…. I think that's probably the biggest thing, is just being open to new ways of doing things. (Erika, interview).

As the retail merchandising major requires a lot of collaborative group work, Erika had found this new openness to others' ideas to be useful in her creative projects as well: "I'm always checking the rubric and the assignment stuff, so, is there a solution, like does the rubric say we can't do that? If not, then it's like, 'Alright, try to be more open to other people's suggestions'" (Erika, interview). In essence, this attitudinal transformation is an extension of the social contact hypothesis (Allport, 195X), where exposure to people

from another group promotes the reduction of prejudice; experiencing the diversity of Spain and Morocco had made Erika more open to considering the diverse ideas of fellow students at UMTC, too.

Amanda

Amanda, like Erika, had hoped to improve her Spanish language skills while abroad, and she was also interested in sustainability and the environment, specifically the "intersection of design in the built environment and the natural environment" (Amanda, interview). Thus, although an architecture major, she decided to enroll in an intensive sustainability-focused program in Costa Rica that would fulfill requirements for her two minors, sustainability studies and environmental science policy and management. The program included an internship,

> which was really cool because my project was actually related to design, we built a retaining wall on the school property, and it was a sixty foot long space, it was the road and then it was just, like went straight down to the building, so they wanted to put a retaining wall there. And so we built it with sustainable materials, and so we used old tires… and we used earthbag.[14] And so we actually got to research, design, and then construct and actually do it. (Amanda, interview).

Because of her interest in sustainability, Amanda touched often on themes of re-use and re-purposing of materials. Beyond using the old tires for her internship project, she created some decorative headwear out of tropical palm (Amanda, blog) and was

[14] Earthbag is a type of construction material that consists of polypropylene bags, typically filled with soil, flattened and stacked masonry-style into walls that are then plastered over.

fascinated by how the people in both Costa Rica and her second study abroad site, Ecuador, effectively and creatively used materials that would be considered garbage or weeds in the U.S. Ultimately, these ideas shaped the topic of her senior architecture thesis, which was about "indigenous design and how they design with nature in mind" (Amanda, interview). She said that seeing how people in Costa Rica and Ecuador approached life helped her with "seeing the whole gamut of opportunities. I think a lot of time we [U.S. Americans] have one idea in mind, and have a hard time straying from it. So I think they, I mean, what I experienced with them is, there's a lot more out there" (Amanda, interview). This example aligns with the integrated theoretical and conceptual model for this study, as it indicates not only how Amanda's perspective on what constituted a "good idea" was changed; it also suggests that it was her exposure to the local people in her study abroad host sites that increased her willingness to sample from their culture and way of life.

Tara

Tara was the only interviewee to participate in a short-term program (less than one month in duration), and the only one who went to East Asia. A non-traditional student, she came to UMTC with some pre-architecture credits already completed, so she decided to complete that major even though her primary interest, when we spoke, had shifted to web design and user experience. Because she was married, and her partner was uninterested in living abroad, Tara felt that a short-term program could meet her study abroad needs without taking her away from her spouse for too long: "It was like

everything about the Japan trip was a benefit, [be]cause it was short, it was really cheap, it was with one of the professors that I really enjoyed working with, and then it was focusing on a culture and an aspect of Japan that I was really fascinated with" (Tara, interview). An additional benefit was that the students were able to contribute to the trip itinerary:

> I emailed the professor, who was really cool about everything, he had had us fill out a wishlist, and just, he was so accommodating for the whole trip. And so [visiting the Church of the Light] was like top of my list, I really would like to go here, obviously I don't want to derail plans but, I was looking at the website and I was like, we can go, it fits perfect [sic] into our schedule, and he was super excited, emailed the pastor of the church, and got it set up for us to go. (Tara, interview).

Although the trip was short, Tara felt it had been highly impactful; on her survey, she chose the strongest response for each question, and summarized the experience by selecting the option *I learned something new and have applied it to my creative work with worthwhile results.* Tara described how encountering the streamlined nature of Japanese architecture had influenced her web design work:

> Taking the bullshit out of it [laughter]. Because, like, I feel like that's what Japanese architecture tries to do. And it takes away what doesn't need to be there and it presents it—the person that's doing the designing deals with everything that they need to so that when you get it, it's easy to process. And I feel that really

> does apply to web design, because if I can deal with all of the clutter stuff, and make your experience really easy, then I've done my job. (Tara, interview).

She connected this sleek design style to other aspects of Japanese culture as well, noting her appreciation for Japanese cuisine:

> The food was amazing…. Again, the simplicity of it. And I think that can be applied to everything about Japan that I took away from it, was that there's such a beauty to the simple things, and so by presenting one individual thing for the user or the person to focus on makes it more beautiful, and so I think that aspect of the culture really stuck with me. That's something that I try to do in my work. (Tara, interview).

The strong influence that the experience of studying abroad in Japan exerted on Tara's design work, and the way it altered her ideas about beauty, suggests that even a short-term study abroad program can promote transformative learning.

Sabrina

Like Tara, Sabrina was a non-traditional student; she pursued her undergraduate degree in housing studies after working for over a decade in the non-profit sector as an energy auditor. She described her major as the "least design-y major in the College" of Design, but noted that she did have the opportunity to do some creative work in a course that designed a mixed-use development as part of a resilient communities project. She was the only interview participant who had majored in housing studies, as well as the only one who spent a semester in Africa (as described above, Kelsey also went to Africa,

but her program there lasted just two weeks); in addition to her semester in Tanzania, Sabrina returned to Africa for a short-term program in Uganda. She appreciated how studying abroad gave her the opportunity to be in the role of the observer, because

> it forces you to think in different ways, it forces you to realize that your way of living is not the way that everyone lives…. [Being abroad] was so invigorating, it really made me commit to, whenever possible, removing myself from my environment to just go and be an observer for awhile, because that's where the really good thoughts come in. (Sabrina, interview).

She described an experience that helped her "suspend judgment" and see the "ingenuity" of the way people lived in Tanzania:

> For instance, one time I was sitting on the beach, on Zanzibar, watching some women go out into the sea when the tide was low, and they were doing this thing, and I was watching them for hours, and I couldn't figure out what they were doing, and it didn't make any sense. So finally I asked someone, and they were like, 'oh, that's, they're taking coconut husks and they go and bury it and they let it—' and so they explained this long process, and that's how they make their rope. But from the outsider's perspective, you're like, what are they doing? So it was just a neat way to observe how people make things out of their environment. (Sabrina, interview).

Sabrina also observed significant cultural differences in the way that people relate to housing, and noted that this continued to influence her work with immigrant families in the Twin Cities:

> Generally, occupancy is much higher [in Tanzania], because their family structure is, well, generally their families are bigger…. And then like cooking, specifically like indoor air quality. My [host] family had sort of an outdoor kitchen that they cooked in the most. But then inside we'd have unvented propane heaters and food storage and all sorts of things based on what's available to them. You know, water use, just all that is so much different over there…. [That wasn't] really an issue because they had plenty of ventilation… their houses were constructed in a way that kind of allowed for that, but like here [in Minnesota], if we were to take that same family and put them in like a 1950s rambler in Richfield, you get issues…. And you could walk into a home where you have a family of eight living in a three-bedroom rambler and think, what are they—they're not taking good care of their home.... But it's just what they're used to with relating to a structure is different…. I just try to explain… like how our housing is different, and the issues that we get. So, if anything, I think it just gave me maybe more sensitivity to it. To explaining it. (Sabrina, interview).

The exposure to new ways of living had expanded Sabrina's ideas of what could be creative while simultaneously helping her understand how those ways of living had value

in different contexts, and she was able to apply her new understanding to her professional work back in the U.S.

Madison

Madison was the only interview participant who studied in Australia, which she chose because she felt that she would encounter more interesting architecture there, and because she could also "get things off [her] bucket list" like surfing, backpacking, and bungee jumping. The program included an internship with a major Sydney architecture firm, so in addition to experiencing cultural immersion with her host family and having her desired extreme sports adventures, Madison was also able to build her design skill set, particularly in architectural software:

> I did a lot of drawings for them, like via AutoCAD, so plans and stuff, and eventually they taught me how to render in Revit, which is super advantageous, because that's what's most prominently used in the industry right now. They had me in Photoshop a lot at the end, so I was doing renderings for them of buildings and stuff like that. (Madison, interview).

However, beyond building practical skills for her future career, Madison felt the experience had benefited her creatively as well. The firm where she interned sent her on a site visit to Melbourne, and she found the visit to this architectural hub very influential:

> Melbourne, they don't hold back. They have buildings with, you know, green blobs attached to them, like they're big plastic coming from the ceiling, and then thy have other buildings [where] the siding makes a face…. And then they also

> have like neoclassical buildings where they've converted it into a train station or—So yeah, I was just excited to see new things and kind of add it to my creative box up here [points at her head]. (Madison, interview).

Madison went into her experience, particularly the visit to Melbourne, expecting to encounter ideas that would stimulate her creativity. Her comfort level with Australian culture, which was increased due to positive interactions with her host family and her colleagues at the architecture firm, made her open to the idea of sampling from Australia in her designs: "I designed my dream house in architecture class in high school, so now I want to design my dream house now. And it's definitely going to be Australia-inspired, like, very Australia-inspired. So, that will be nice to have in my portfolio" (Madison, interview).

Lacey

Lacey, a recent graduate of the apparel design program, studied abroad during the summer of her sophomore year through an internship program located in London. Though she would have preferred a semester program, that was not possible due to the curricular limitations of her program's studio courses. She chose London because she wanted to be in an English speaking country, and because she appreciated British design style, which she described as having "an interesting sense of whimsy… it's very playful" (Lacey, interview). Her internship was with a high-end women's clothing designer who has dressed celebrities like Beyoncé and Taylor Swift for the red carpet; Lacey described his designs as "a much higher, more high-fashion level than I thought I would maybe

ever be working," yet the design house itself was small, with only about fifteen employees, so Lacey was able to "help with tasks related to design and development and production" (Lacey, interview). Because of this intimate setting, she could work closely with the designer and see his process firsthand:

> Meeting [the designer]… was probably the most influential. You kind of think of designers as these unattainable—and like, people you don't necessarily interact with, but like day one I was in the studio working at a desk right next to [him]. Like, he works in the studio with everyone else. He has an office, but he doesn't like to use it. So just getting a hands on look and literally watching him design and drape things was such an amazing experience… it was just such at a higher level that I had never experienced, and his clothing has a structural drape to it, which is just something I had never seen. Or seen done. So it was really cool to see how he achieved his silhouettes and his shapes and worked with fabric in a draped yet structural way. And that's definitely something I have applied into my aesthetic…. I would say that having that internship inspired my aesthetic. It's weird to say that, [be]cause it's not, I'm not trying to do [his] aesthetic, but it definitely opened my eyes to a different side of fashion that has strongly influenced how I design. (Lacey, interview).

Lacey was careful to assert that she still felt she had her own design aesthetic, but she also acknowledged how both British design generally and the designer at her internship influenced her senior collection:

> Relating… back to the main traits like in terms of whimsical, I played with this little floral print and gingham… but my seamwork is very structural in the shapes within it, there's a bunch of pleating on the front… so those are kind of what traits I observed there and have pulled into my own work…. I'm always kind of juxtaposing elements within my clothes, which is also something very prevalent in [the internship designer's work]. (Lacey, interview).

Parker

Parker, like Lacey, studied abroad in London on a summer internship program. His time in England was one of career discernment and professional discovery more than creative development, though he appreciated the opportunity to experience London's art and cultural scene. Though a graphic design major, the focus of his internship was working on user experience for a website. At the time, this was new to him, but it relates closely to the user experience work he now does for the website of a major financial services company.

> I knew that I was really interested, after that internship… in user experience and that that was a strong career focus for me. But prior to that I didn't really understand how my major was going to get me there. And so the entire experience helped me… but my closing interview with my supervisor really solidified that, and he was very, very complimentary, telling me how impressed he was at my skills… So just that whole learning of—finding my place with my skills in the field that I wanted to be in was really important. (Parker, interview).

Although his day-to-day work is no longer design-focused, Parker felt that the entire experience had been valuable to him as someone who majored in a creative field, works with designers, and continues to enjoy practicing design in his personal life (as an example, he had recently designed a friend's wedding invitations). He felt the experience was always with him: "When you're a designer, if you don't learn from everything that you've done and are trying to accomplish, you aren't going to be a very good designer. So I don't think that I do or create anything without keeping that experience in mind" (Parker, interview).

Interview: qualitative findings

The above vignettes demonstrate the diversity of the twenty interview participants and their experiences. This section will discuss the themes common to the participants, grouping them by research question. Before describing the findings from the analysis of the interview data, however, I present here a brief description of how interview participants explained their decision to study abroad as design majors. The purpose of this background is to provide a context for understanding the participants' expectations, motivations, experiences, and meaning-making processes as discussed in the following data analysis.

When asked why they chose to study abroad, the majority of participants cited a desire to travel as their primary motivator. Erika described how traveling and experiencing new cultures is an important tradition for her family, while Mark and Noah mentioned an interest in leaving the U.S. for the first time. Hearing from friends or family

members about the value of studying abroad also contributed to several interviewees' decisions to participate themselves. Morgan, Chelsea, Madison, and Eleanor all had older siblings who had studied abroad, and Morgan even visited her sister (also a University of Minnesota design student) in London to see the experience firsthand. Annie noted, "everybody who goes talks about it extremely highly and says they recommend it… and that without a doubt if you can afford it… go, because it's a great experience." Two participants specifically mentioned selecting the University of Minnesota for their undergraduate studies, at least in part, because they planned on studying abroad and believed that the university offered programs that would match their academic interests and language learning goals; an additional two described knowing before college that studying abroad was an experience they wanted to have, though it was not the main reason they chose UMTC.

Reasons for selecting specific programs and study abroad sites were far more varied, though some common themes emerged. First, five participants specifically mentioned feeling like their choices were circumscribed by the curricular parameters of their design majors. Many studied abroad as juniors, which is when design students begin to take intensive studio courses. As these classes are not typically offered abroad (or not in a way that would allow the credits to transfer), design students who study abroad often have to either 1) extend their time to degree or 2) choose their program from a more limited menu of mostly CDes-specific programs such as the faculty-led architecture programs in Mexico and Rome and Istanbul. The Denmark program, though

independently managed, has close ties with the UMTC College of Design and was one of "only so many places that [CDes faculty] were allowing credits" (Annie, interview). In spite of these limitations, however, all were able to study in a place that fit at least some of their interests, even if it was not their first choice.

The most common reason for selecting a particular study abroad site was the appeal of the local design scene. All five participants who studied in Copenhagen, for example, specifically referenced Danish design or, more generally, Scandinavian design, as a factor in their decision to go to Denmark:

> I really was very interested in learning about Danish design. They have a reputation for having really great design ideas, and everything they have is so minimal, so I was very interested in learning about Danish design. And I think that was a really big pull for me…. I mean, I could have gone to Italy, and they have a lot of good design in Italy as well, but it was a lot more historic… and with Danish design, it's what's up and coming…. All these new ideas and really cool, interesting, new, fun, modern, contemporary design. (Eleanor, interview).

For some interview participants, though, the historic designs of Italy mentioned by Eleanor were part of their decision to study there. As noted in chapter three, Italy was by far the most popular study abroad site amongst the survey respondents, with 22 of the 69 respondents (32%) selecting sites in Italy for at least a portion of their international experiences. Mark and Audrey cited a love of Renaissance art and an interest in Roman history, respectively, as reasons for choosing Italy programs.

Other reasons mentioned for choosing sites centered around the ability to use the site as a point of departure for other travel adventures (Eleanor, Audrey, and Madison), the opportunity to experience a culture perceived as very different from the United States (Tara, Carly, and Danielle), and the language of the place, either to study the local language (Jacob, Amanda, Erika, and Chelsea) or to be able to use English (Parker and Lacey).

The final rationale for choosing a particular study abroad program or site related to students' degree of willingness to leave their comfort zones. Beyond Lacey and Parker's selection of London as a study abroad site because they wanted to be able to use English, some participants hoped to have an experience that would help them explore the world but still include other safety nets:

> It was an opportunity to go someplace that I couldn't go alone, I think, as far as it's a huge city and the language barrier. I would have missed so much if I didn't have somebody helping me through it. (Danielle, describing her decision to choose the CDes-sponsored Rome and Istanbul program).

Others, however, chose their programs specifically because the location or design of the program would push their personal limits:

> I wanted to go somewhere that was really, really going to shake up my normal day-to-day life…. One thing I love about Africa is that I really like being taken completely out of [my] comfort zone…. I love being forced into the role of the observer. (Sabrina, interview, on choosing her program in Tanzania).

Morgan described looking for a balance between familiarity and being challenged in her international experience. She said that she avoided the CDes Rome and Istanbul architecture program because it was "sixteen U of M architecture [students] and U of M faculty just… in a different part of the world," but she also noted that, unlike independent travel after college, study abroad let you have "people [who] are still holding your hands a little bit."

Although a great degree of care was taken to ensure the transfer of credits back to UMTC, a plurality of participants (n=8, 40%) indicated that they engaged in little to no additional preparation for their study abroad experiences. A few had committed to their programs right before the deadline, and therefore had little time to prepare, but others noted that it simply had not been a priority; most studied abroad in spring or May term, and the pressures of project deadlines during the preceding semester were a distracting factor. The remaining participants mostly prepared in practical ways, researching their host country on the Internet (as Sabrina joked, "Google was my friend"), reading the materials sent by their host universities, or perfecting their design portfolios for internships. Only Mark and Erika described any kind of emotional or mental preparation. Erika credited prior international travel experience as helping her with that process:

> I feel like there is some really deep stuff that you have to prepare yourself for…. Having experience abroad, and just because I really love learning about different cultures, I think I went in with a better attitude than a lot of the Americans. I was already prepared mentally on that deeper level. (Erika, interview).

Mark, having never traveled abroad before, relied on the advice of study abroad returnees:

> I tried to set goals, kind of just thinking about how… I want this experience to impact me long term…. People said it changes you, you're going to come back different, and I was really trying to take it seriously, and not seeing it just [as the] amazing fun time that it is, but really trying to learn from it, learn about [myself]. I just wanted to be very attentive to that, going in. (Mark, interview).

Having contextualized the discussion with the reasons for participants' decision to study abroad and an examination of how they chose their programs and study abroad sites, and how they prepared themselves for the experience, the next section focuses on their expectations regarding how studying abroad would affect them creatively.

Expectations for the experience

The first research question addressed in this study centers on students' expectations for their experience. Specifically, *how do undergraduates and alumni from creative majors describe their expectations about how their creativity and creative work would be influenced by the study abroad experience?* Interview participants' responses about their expectations for what they would learn and how they would grow, as creative majors, from the experience were concentrated in three distinct themes: self-improvement; the physical experience of visiting a new country and being immersed in the culture; and the opportunity to observe the influence of culture on design.

Self-improvement

Many participants expressed the expectation that studying abroad would help them build their design-related skills and knowledge. Kelsey, an architecture student, described how the opportunity to learn hand-drafting was a particularly appealing aspect of her study abroad program in Mexico, while Noah, who participated in the same program as a sophomore, had hoped to learn some advanced techniques from the juniors and seniors he would be traveling with. Audrey described studying abroad as an opportunity to get "a different knowledge set that added to your current knowledge sets" (Audrey, interview).

Participants also described studying abroad as a time when they expected to improve themselves as individual designers. Mark, a graphic design student, noted that he felt it was a great way to "expand my comfort zone… widening my view outside Minnesota" (Mark, interview). Studying fashion design in London would, Lacey had hoped, be a way to refine her aesthetic and "learn… something that will help direct my future collections" (Lacey, interview), while Madison summed up her expectations as "hoping to get… new ideas, new edge, and something to spice up my resume" (Madison, interview).

Physical experience of studying abroad

Some interview participants mentioned specific design-related experiences they knew, before leaving, that they wanted to have during their sojourns abroad. Madison chose her Australia program because visiting Melbourne, "a big architecture hub," was

important to her, and Tara asked her short-term program's faculty leader to modify their travel itinerary in order to visit a church designed by a famous Japanese architect; she described visiting the site as her "biggest anticipation before going [to Japan]" (Tara, interview). Most, however, had a more general expectation of having an immersive experience where they could personally engage with the physical manifestations of design in that country and culture. As a history minor with a strong interest in historic graphic design styles like illuminated manuscripts, Jenna, who studied in Scotland, was particularly looking forward to going "to a place that was totally immersed in [my] kind of aesthetic. To completely experience that was really exciting for me" (Jenna, interview). Tara described the value of this in-person experience for students of design thusly: "When you study architecture, you talk about the buildings, you look at the photos, but until you're actually there, it's completely different" (Tara, interview). This expectation that seeing buildings or designs with their own eyes would contribute to their design learning was a common theme across many interviewees' comments.

Influence of culture on design

Beyond the physical experience of being in a new place, the majority of interviewees described the expectation that studying abroad would afford them the opportunity to observe the impact that culture and place have on design and design education. Several were eager to experience how design was taught in another culture, while others looked forward to seeing professional designers work in a new context; Chelsea described it as "people who… actively design in Denmark were also teaching me

about design in Denmark, [which] was something that I wanted" (Chelsea, interview).

They also hoped to be able to compare design in their host country with design in the U.S. As a landscape architecture student, Brent wanted to "study how European cities work versus American cities, because that's all I've ever experienced before. So as far as my interest in streetscape planning, I was… intrigued by how the pedestrian kind of owns the European city… and how that affects the design process" (Brent, interview). Architecture majors, in particular, expressed the expectation that they would be able to observe and reflect on differences in design outcomes and approaches. Morgan cited the opportunity to compare American and European architecture as a primary expectation for her time in Denmark, and Kelsey added that she was also interested in seeing how the different climate of Mexico influenced design decisions there. Finally, participants indicated an overall expectation that studying abroad would be a time for them to observe how culture shapes design. Carly explicitly stated that she "was hoping to learn how a different culture and a different country deals with design… [and] to learn something and then bring it back to the States with me" (Carly, interview). Prior to going abroad, then, students had a sense that the experience was one that would add to their understanding of design, and expected to learn things that would influence their designs once they returned home. The next section addresses what sorts of learning experiences helped sojourners fulfill their expectations.

Learning and development related to participants' creative majors

The second research question in this study shifts away from students' expectations to examine the study abroad experience itself: *how do undergraduates and alumni from creative majors describe, in relation to their creativity and creative work, the learning and development they experienced while abroad?* Inductive analysis of the data yielded findings grouped into two major thematic areas: 1) the types of learning experiences that participants described as significant, which centered heavily on the experiential learning opportunities that are hallmarks of well-designed study abroad programs; and 2) the aspects of the study abroad experience that contributed to creative learning and development related to participants' major fields.

Experiential learning

When asked to describe the significant learning experiences that happened during their time abroad, all twenty of the interview participants mentioned types of experiential learning. Studying abroad was an opportunity to engage, in person, with design in a new cultural environment, and to connect classroom learning with designs as they exist in the real world:

> …you realize how valuable it is to actually see the site and experience it. And see the materials and the textures and the acoustics and the way things work. And then you have a better appreciation for the building and for the architect and for all the effort that is put into every project. (Carly, interview).

In particular, the five students from the Denmark program spoke enthusiastically about

the value of experiential learning, because it is deliberately woven into the program there. In addition to two study tours, one to western Denmark and one to several other European countries, each Wednesday was specifically allocated to site visits around Copenhagen. On these visits, the students sketched, took photos, and even had the opportunity to enter buildings and see the interior architecture. Eleanor noted that this was a chance to visit places she would have never encountered as a tourist:

> On a lot of Wednesdays my Danish architecture history class would take us to various sites in [and around] Copenhagen. Which was huge because I just saw so much…I saw a lot more than I expected to…. We went to housing complexes… we got tours of homes and different kinds of churches and all kinds of places I never would have seen. (Eleanor, interview).

Many participants extolled the real, in-person aspect of the experience. As Audrey described it:

> Until you get there you have no idea. I guess the best example I have of that is the Pantheon and the Coliseum in Rome. Which are two things that we study all the time, and we see so many pictures of them. And it wasn't until I got there, the Coliseum looked smaller to me than it did in photographs, and the Pantheon looked larger. And I would have had no way of [understanding] that kind of my body to the building kind of scale unless I was there. (Audrey, interview).

Beyond scale, the dimensionality of an in-person experience was important as well:

> I think for me it's because the architecture is something you need to—something

> that's built to be experienced by people, or at least my design philosophy is that architecture is for people—so being in a three dimensional space is really the only way that you can understand how that space is put together. So you can get a feel from photographs and drawings, but you really won't understand a building until you go into it. (Jacob, interview).

Aside from understanding the exterior space and context, which was particularly significant for the architecture students, Eleanor, as an interior design major, noted that site visits helped her determine what might be needed inside a building. "To see the actual building and understand what the actual building was like… I think made it a little bit easier to create and produce something that would feel right in [that] kind of a space" (Eleanor, interview).

In-person visits also helped students connect their classroom learning to the real world for which they design; Amanda described it as "being out in the field and seeing what you're talking about" (Amanda, interview). For their European study tour, all of the Denmark program students had to prepare presentations on one of the sites they would visit, directly linking the research they had done back in Copenhagen to the place they were visiting; throughout the trip, groups presented their findings in front of the sites, with each group responsible for a different place. Audrey shared a similar experience from her Rome program:

> One of my favorite things was, I took a history class called 'Modernism in Rome,' and we did not meet in a classroom. We'd have readings each week, and then

> we'd meet for class in that neighborhood that had that era of architecture. We'd meet in a coffee shop, everyone would have a cappuccino, we'd discuss the readings, and then we'd go out and… look at buildings and we'd discuss what we have been reading about. And I think that was really one of the best ways to learn the history of architecture, was to be able to have that background reading knowledge and then be able to go out and see those buildings and discuss them as a class with a really wonderful professional. (Audrey, interview).

Compared with many other students majoring in fields like the humanities or social sciences, design students are much more likely to have hands-on and experiential learning opportunities as part of their coursework on their home campuses, yet they still described experiential learning as a highlight of the study abroad experience. For Sabrina, as a housing studies student, "the whole experience was a class." Being in Tanzania, "the entire experience of living in a different environment was very applicable, if you look at housing and community development, it was like living that class" (Sabrina, interview).

Experiential learning was, overall, what interview participants emphasized as the central and most significant type of learning, related to their creativity and creative work, that they encountered during their time abroad. Within the framework of Mezirow's (1991) transformative learning theory as re-imagined by Cranton (2002), the experiential learning opportunities described by participants can be envisioned as moments of micro-disorientation embedded within the macro-disorienting dilemma of study abroad; encountering an architectural site that is situated in a surprising way, or a designer whose

process differs from what one has been taught at home, encourages reconsideration of pre-existing notions about how spaces should look, for example, or how garments should be executed. The non-linear reexamination of one's assumptions, like the design process itself, is iterative, and occurs throughout the time abroad. But what aspects of being abroad, in particular, contribute to and exemplify the phases of this iterative and self-reflective learning process? The next section examines, in greater depth, the specific characteristics of the study abroad experience that participants described as contributing to significant learning in relation to their creative work.

Influential factors related to creativity and creative work

Interview participants described four major factors that supported their learning while abroad: interaction with other people; engaging with the context of designs; seeing the relationship between culture and design; and participating in or experiencing other creative fields. Each of these factors has a logical alignment with a component of the integrated theoretical and conceptual model outlined in chapter one, and these linkages are discussed throughout each section.

Interaction with other people

When asked about the aspects of their study abroad experience that had the greatest influence on their creativity and learning, the most common answer participants gave was "other people." Three types of relationships were described: 1) people who possessed a deep understanding of design or the arts, but with whom the participants were not particularly close; 2) people with whom the participants were personally close,

but who were not engaged in design or arts fields; and 3) people with strong art or design backgrounds with whom participants also had a close personal relationship. The most influential people of all were members of the third group: students' design mentors and professors. These were individuals who had deep knowledge about both local culture and local design, and who were able to help students understand the intersection between the two. For example, Danielle appreciated how one of her instructors helped her orient herself to her study abroad site while giving an overlay of architectural information about the city:

> Probably once a week at least she'd walk us through a different part of Rome… and she'd tell us different vocab words and show us examples of it within Rome… and so just being able to actually see that in real life, it made so much more sense. And she was amazing at explaining it and had stories to go with every building, and probably one of my favorite parts of Rome was just walking around with Francesca[15]. (Danielle, interview).

Morgan described a moving experience she had while visiting a crematorium site with one of her architecture professors. She was emotionally affected by how the building had been designed to accommodate the difficulties of dealing with death; fortunately, one of her professors was there to support her and provide context:

> The [professor] I went on the short study tour with is absolutely brilliant… You don't know anything about these buildings, and she knows everything, like inside

[15] Names of individuals mentioned by interview participants have also been replaced with pseudonyms to preserve anonymity.

> and out… one of the buildings, I actually, that we visited, made me cry, and I loved it and she was right there… helping me. (Morgan, interview).

Though most of the teachers mentioned by participants were people from the host country, a noteworthy number of participants (*n*=6, 30%) mentioned teachers who were from North America, but had lived and worked in the host culture for a significant period of time. It is possible that these teachers were more approachable as culture mentors, because they could understand both the students' backgrounds and the perspectives of the host culture; in essence, they could serve as cultural interpreters for students in a way that local teachers could not. For example, the professor for the Mexico program that Noah and Kelsey went on was a UMTC faculty member, but he had a home in Oaxaca and lived there for part of each year. He was instrumental in helping the students familiarize themselves with both the city and Mexican culture early in the program, and "he was very in tune with the architecture of Oaxaca" (Noah, interview).

The second group of people highlighted as contributing to participants' learning and development of creativity included roommates, host family members, and local friends and romantic partners; in other words, people with whom participants shared a greater degree of intimacy, but who were less connected to the design fields of the host culture. One participant, Eleanor, was fortunate to have a host family strongly interested in design; when I asked her who had most influenced her learning, she said her host family had contributed the most to both her culture learning and her design learning. Although not designers themselves, her host parents were engineers who "had an interest

in architecture and interior design, and they liked to talk to me about it, so we would discuss the things that I was learning" (Eleanor, interview). She described how they would take her to places of design-related interest around Denmark, once even making a detour during a family trip so that they could show her a specific site. Eleanor's placement was particularly fortuitous, yet she was not the only participant who described the benefits derived from living with a local family. Of the nine interview participants who chose to live with a host family, eight of them described those people as being an important part of their learning while abroad. Only one participant, Erika, had a very disengaged host family (she hypothesized that they had decided to host primarily for economic rather than cultural exchange reasons), but she became good friends with a local Spanish student whose family filled the culture mentorship role she had hoped her host family would play.

For those who did not select a homestay, roommates, friends, and romantic partners were the primary culture mentors. Jenna had a mixed living situation, with one U.S. American and two Scottish roommates, and she noted that this arrangement provided lots of natural opportunities for conversations about cultural differences. She felt that the experience gave her "a different outlook" compared to some of her friends who lived entirely with other U.S. students, adding that "it was nice to have something to go home to that was very Scottish" (Jenna, interview).

Morgan chose a dormitory setting especially because she wanted to learn more about the lives of Danish students her own age:

> Since I wasn't going to school with Danes, I wanted to live with them so I could meet them…. Part of studying abroad is, I think, important to meet with the locals and hear what people your age are doing…. And that's part of the reason I didn't want a homestay. Because yes, they could definitely give me a really big cultural thing, but living with twenty Danes also gives me a lot of culture things, but it's more focused on my age group rather than just Danish society [as a] whole or how families operate. Because I can ask them how their families operate and stuff like that, too. So I just thought for the cultural immersion that I was looking for, the [dormitory] was best for me. (Morgan, interview).

For Jacob, who chose to live alone in a studio apartment, having a French boyfriend during his time in Paris gave him similar opportunities for cultural exchange:

> He helped me learn a lot about various elements of French culture…. It was interesting to talk to him about growing up, specifically, because he grew up in Paris…. I explain[ed] to him, yeah, I got my first car when I was sixteen, and I had my driver's license, I went to prom, I had a backyard, I have four brothers and sisters, and we live in a single family home, and just kind of all the experiences an average American goes through. And then him saying, 'I live in an apartment, I never learned to drive because I just take the Metro everywhere…. (Jacob, interview).

These types of conversations, though not directly related to design, provided students with a window into their host culture and helped them develop a greater degree of

comfort with the ways in which their new setting differed from what they were accustomed to in the U.S.

The last group of influential people comprised those who had a strong design background, but with whom students were not personally close; for some, it included famous designers they never met, but whose designs themselves were meaningful. Morgan described the influence of Danish designer Bjarke Ingels on her understanding of design:

> He's super progressive and always has the latest things, and sometimes, you know, a lot of them are really wild and kind of nonsense, but the fact is he does that and he's not afraid to. And I think that he really stands for what Scandinavia is when it comes to design, and when it comes to their culture, and it's just been really… eye opening and kind of refreshing. (Morgan, interview).

Mark observed that famous artists and designers of the past are still influencing people in their native countries today. Speaking about his time in Florence, he commented that he was inspired by the many works of Michelangelo present in the city, and felt that the local Florentines were as well:

> Having a hometown hero [like Michelangelo] that's just on another level… they get inspired by that and it impacts the way they approach their creative work. And so, [for] me studying abroad… having this experience of four months, I definitely was able to tap into that same idea…. It's not that I think I could be on the same level as Michelangelo, but having him as inspiration to make progression. To not

> be afraid of critique or what people had to say about doing good work, and working hard, doing what you think is the right thing for your culture, for your society. (Mark, interview).

Tara was motivated by seeing the work of a more modern designer during her trip to Japan, and spoke at length about what she learned during her visit to Tadao Ando's Church of the Light:

> He removes a lot of the frivolity in architecture, and he makes it about you. Because you're not preoccupied with everything in the space, you can go in, you can experience it, but you can reflect within. And I find that in a church that's a very unique quality… I spent all this time and I was thinking about church and God and where I'm at in the universe… and [I wasn't] thinking [about] stained glass and everything about the building itself. (Tara, interview).

Participants also valued the opportunity to learn from and engage with local, less illustrious designers. Annie described the different publishing houses she visited on a study tour to Amsterdam and Rotterdam, where she saw graphic designers in action:

> We got to go to their studio and meet some of their designers and see their work, and it's incredible. And then we did a workshop with them for the full day, so that was probably the most memorable experience that I have, just being able to work so closely with those people for a day. (Annie, interview).

Chelsea described a similar experience that she had visiting an illustrator's studio:

> She just had walls of sketchbooks that we got to just pull and look through and

> ask her questions…. And then she was also showing us how her designs have translated to patterns on occasion, or children's books. Or one book she has was a Christmas cookbook that she had done drawings for and stuff. Being in the space where another creative person actively works and has all of their materials surrounding them, that was fantastic. (Chelsea, interview).

Linking Allport's (1954) social contact hypothesis with motivated cultural cognition (Chiu et al., 2000), as described in the integrated framework for this study, provides a rationale for why students found interacting with people of different backgrounds to be one of the most significant factors that contributed to their learning and creative development during study abroad. As Allport (1954) supposed, engagement with people from another culture reduces prejudice; consequently, barriers to understanding other cultures are reduced as well, and this encourages sampling from the other culture. Though the intercultural encounters described by participants were of varying degrees of depth, having sympathetic culture mentors who could help them understand and interpret their host culture encouraged openness (or reduced prejudice, in Allport's [1954] terminology) to the ideas of the culture itself.

Engaging with the contexts of designs

Though participants described people they had met while abroad as being the most significant contributors to their learning, being in a specific place to experience both the physical and human contexts of design was also an important factor. The physical context was particularly useful for architecture and landscape architecture students as it

helped them understand the unique challenges of working with certain sites; experiencing the human, sociocultural context was beneficial across design disciplines. Learning about the physical and human contexts of design could also overlap:

> I think studying abroad and living abroad and engaging in design abroad really helped me to more consistently understand what [place] meant and what that felt like and what that looked like. What is place to me, what is place to other people. And why is that…. And that is both the physicalness of place, you know, the feel, the size, and the cultural kind of overlay that you see from how people interact with space and place. (Audrey, interview).

Audrey also summarized the things that architecture students could glean from encountering the physical context of a building while studying abroad:

> It's the surrounding buildings, the surrounding city, how people move around the site, what we often call the urban fabric. So how the building sits in the city, how people interact with it, how traffic moves around it, how the sun moves around it, how the wind moves around it, how the buildings over time have responded to one another. (Audrey, interview).

Encountering a building and a city in this way could be a useful learning experience for non-architecture students of design as well:

> I definitely think that I started to rely on the Internet way too much, being in Minneapolis. It was just like, [in Florence], never did I need that. I would just go out somewhere. You find inspiration all around you and it's just sitting right in

> front of you, the source…. You really understand the context, it's like, instead of seeing a picture of [a church] on the Internet, sitting in a square, looking up at it, seeing the Dante statue right there, and then having the buzz of the city around you, you know, these leather shops here, there's a café here, there's people everywhere. And it's like, okay, I get this far more now. I can see, I start to notice the motivation for the designer, the architect, the artist who made this. I can see where they came from, where, I mean, you get a sense of the context and you can get a better idea of where their designs originated…. (Mark, interview).

Engaging with the context opens the window into the culture wider, helping students see how design and culture play off of and feed into one another; this relationship between culture and design is one leg of the triangular systems perspective on creativity (Csikszntmihalyi, 1988), and is discussed in greater depth in the next section.

For Tara, visiting the Church of the Light increased her appreciation of the architect's skill, because she realized the design had been very carefully done to fit the idiosyncrasies of the site where it was constructed:

> You see it in pictures, and you're like…well, that's cool. And then you go there, and it's this tiny plot of land, and he's situated the church just so, so that it all lines up and that you can look through the cross… and nothing's blocking light out in a certain spot. There's power lines everywhere and nothing's cutting into this cross…. In pictures, you don't even think about the site plan of it, and you go there, somebody's house is pretty much on top of the church, and you would have

> never known that from the photos. (Tara, interview).

Experiencing the context helped participants grasp how designers accommodated the needs of different topographies as well, and how unique challenges could be managed through innovation:

> I remember taking an architectural tour of Amsterdam, and the tour guide was like, 'So, is anyone curious as to why there's hooks on all the buildings? And why the buildings are leaning forward?' I was like, I didn't even notice that. He's like, 'Well, the hooks are used to hoist furniture in and out. And then all the buildings are leaning because all of Amsterdam is built on fake land. So the buildings lean in opposite directions so that they support each other.' I wouldn't have even thought of that! I would've thought, from the American perspective, I would've thought, okay, we just need to create a fake foundation underneath, but the Dutch had thought, maybe we should just use the leaning to our advantage, go in different directions so that everything isn't all going the same way. So that the forces cancel each other out. (Jacob, interview).

From this example, it is clear that Jacob's meaning structure (Mezirow, 1991) about how to appropriately manage a problem involving an unstable build site had been adjusted due to his encounter with a different approach.

Kelsey learned, being in Mexico, that she had to think about more aspects of the design than just the building or even the site, and the importance of the physical context made sense to her in a way that it had not during her courses at UMTC:

> I kind of just meandered through the first two years [at UMTC]. I didn't feel like I was connected to what I was doing at all, I didn't understand the projects, they were really, really conceptual…. And even when we were designing actual buildings… I still didn't feel like my buildings said anything…. But then I studied abroad and my thinking just changed, and I was like, oh, there's so much more to think about, like materials and light and vegetation, that I wasn't considering in my past projects. (Kelsey, interview).

The architecture majors, in particular, spoke about how they learned to appreciate the way the specific materials available in their study abroad region influence the types of buildings designed and constructed in that part of the world. Even perspectives on what could rightly be considered as appropriate materials were altered. As part of her senior architecture thesis, Amanda compared the differences in how cultures choose to interact with the natural environment, including the ways they use building resources: "That's what really informed my thesis, is how differently the 'developed world,' so to speak, utilizes resources, or even just views resources, like how they think about them. And how fundamentally different the Tica culture or the Ecuadoran culture or the Quechuan culture—that informs a lot of how I now view resources." She gave an example of what she meant: "Like weeds. What we think is weeds, in a garden or in a field, is very different. Because in the Quechua culture, they raise weeds, and it's like, oh, mint, we can use this for tea, things like that that we take for granted or we think of as a nuisance, they see it very differently and see the value" (Amanda, interview).

Being abroad, for Kelsey, was also "the first time that I really thought about what materials they already use around the site, what the people actually want…. Studying abroad helped me think about more practical things and tying your projects to the location that you're actually studying" (Kelsey, interview). She made a connection, through the use of materials, between understanding the physical context and understanding the human context, which she framed as the desires of the local people: "When we studied abroad, it was really important for us to visit the site, and I finally understood why, just to feel the space. Definitely seeing the materials that were already used, because the people there didn't want something designed that felt out of place, they wanted it to blend in with how their city already looked…. I learned to really appreciate what was already there, how to use local materials, and using, planning something the people actually want, and not just something you are interested in" (Kelsey, interview).

Learning to understand the human context was as important to students as comprehending the physical contexts of design. In particular, they described learning how to design for the needs of the local people, and how to interpret those needs in a sensitive and interculturally competent manner. Audrey summed up this kind of learning as: "heighten[ed] awareness [of what], culturally, people look for in a space and how that differs" (Audrey, interview). This development of intercultural competence is something that will serve students well in their future careers, whether they pursue design work in the United States or abroad. Carly described the experience of seeing how a new culture influenced design as something that helped her develop a skillset applicable to her

interior design major:

> I didn't necessarily anticipate this, but… firms work internationally a lot, and… you have to talk to different cultures differently or be aware how they go about things. I don't think I would have been as culturally sensitive had I not done this experience. (Carly, interview).

When asked how she might apply that skill in the future, she gave the hypothetical example of designing an office space in Saudi Arabia, describing the importance of considering "how people work, how people go about their day, how people work together or don't work together. Relationships between people, or even [gender]… how that's treated in different cultures and different societies" (Carly, interview).

For some participants, like Morgan, this human context-focused learning was formalized in a course on sociocultural context, while for others, it happened more organically:

> I think being abroad was kind of a heightening of [my] awareness [of] culturally what people look for in a space and how that differs. Because learning design [in the U.S.]… there tends to be kind of norms that you learn or you pick up or you talk about…. American houses feel like this and American spaces feel like this. And then to be in Rome, I mean you learn about some of it [in classes in the U.S.], but it didn't really click… until I was abroad. (Audrey, interview).

Audrey concluded that this experience of learning about the differences between American and Roman spaces had made her, as a designer, "even more mindful of— what

is your culture background, versus what do you identify with, versus how many people are using the space—just being even more aware of what goes into making community and how that influences designing for the community" (Audrey, interview).

Annie realized that considering the human aspects of design involved "a lot of behind the scenes work," which she described as

> working with your audience and your target, like for example your target market in packaging design. Being more attuned to people's needs and wants and desires in whatever you're designing a package for; just not taking it for granted that everybody's the same, and thinking about that. (Annie, interview).

Further, Brent noted that this sensitivity to local people's needs and wants even meant reining in his creativity on some occasions: "I feel like restraint to creativity is important… designing for the right people…. [paying] attention to who actually lives there and what they might want" (Brent, interview).

Understanding the physical and human contexts of design in their host culture helped students connect the *domain* of their experience to their *field* of design (Csikszentmihalyi, 1988), and altered their meaning structures (Mezirow, 1991) about what is important in a design and what factors need to be considered. However, to truly understand the *domain* of a new place, students needed to learn more about the broader culture of their host site, which includes design and other fields of creative endeavor. Their learning around these two areas is discussed in the subsequent sections.

Relationship between culture and design

As one of participants' primary expectations for study abroad was the opportunity to see how culture influences design, this facet of learning is, perhaps, the least surprising. Observations about how design is influenced by culture ranged from readily apparent to more subtle factors. Describing what he had seen on his program in Oaxaca, Noah mentioned the Mexican practice of gathering in open parks and plazas for socialization rather than recreation, which resulted in spaces that were simpler, yet still useful to the city residents:

> What I noticed is [the parks and plazas] weren't overprogrammed[16]… the main public plaza in Oaxaca had sidewalks, and there was a gazebo in the center and trees and flowers and things, and that was pretty much it…. So there wasn't anything extravagant, and it didn't have crazy water fountains and kids' playthings or anything to do, but it was always packed with people. (Noah, interview).

Morgan discussed what she had learned about the core values of Danish culture and how they manifested in Danish design:

> Architecture is influenced by the trust in people… When I first got [to Denmark], [the program] had this opening ceremony, and the director of [the program], who's Danish, shared the three pillars of Danish society. And they were tax, trust, and tribe. And when I think about things, and I'm talking to other people about

[16] Programming, in architectural jargon, means the uses planned for a space by the architect and/or requested by the site builder.

> Copenhagen, I can't not bring that up. I mean, taxes are obvious. But trust is a really big thing, and I think it's even in the architecture, like if there's a train line, there's not just fences and fences and fences like the new [Minneapolis-St. Paul] light rail has, or just a specific area you can walk, or lights that tell you to walk because you can't see if there's a train coming. People just have common sense, and they don't need a design for that. (Morgan, interview).

These observations centered on comparisons between the familiar (U.S. American culture and design approach) and the new (the culture and design approach of the host country). This process of comparing the new culture with one's own was mentioned repeatedly by interview participants, and fits within the phases of *self-examination* and *reconsidering one's assumptions* in transformative learning theory (Mezirow, 1991). The comparisons often resulted in changed meaning structures around what constituted good design, or even more basic core assumptions, like what it means for something to be a building:

> [In Oaxaca], generally the layout of even commercial buildings is that there's the street and then the building fronts the sidewalk… there's a courtyard first in the center of the land space and then you go into the building. That is kind of a reversal of what it is here [in the U.S.], where you have a building in the center of land. They have land in the center…. The buildings are almost an inverse of buildings here. The different styles there bring me another perspective of [how] there are multiple ways to do architecture. (Noah, interview).

A central premise of Csikszentmihalyi's (1988) systems perspective on creativity is that not only does culture (*domain*) influence the creative *field*, but so, too, does the *field* affect the *domain*. Though fewer participants commented on how design influences culture, a notable minority did mention perceiving the other direction of the relationship. Interestingly, Audrey made an observation about Italian use of public spaces that was essentially a mirror image of how Noah had interpreted the influence of Mexican culture on the programming of plazas and parks, commenting, "Rome's piazzas are completely different communal gathering space…. [It's] kind of a different understanding for *how space gives opportunities for communities to gather*" (Audrey, interview, emphasis added).

Jacob noted that design could also adversely influence culture and society:

> The inner city of Paris is really, really expensive, so the inner city is where the rich people will live, and the suburbs are where the poorer people will live. So the inner city is really historic, and all these big, beautiful buildings, and you go further out and you see the failures of modernism, I guess you could call it. In the way that designers and architects try to kind of force a certain lifestyle onto people, and [it] just didn't really work out, and there's just the clash of culture and clash of socioeconomic status. (Jacob, interview).

Mark had observed a more positive manifestation of design's influence on culture, and he spoke at length about how being in Florence and seeing the works of Michelangelo all over the city helped him realize how he, as a designer, was also a

participant in "driving the culture forward" (Mark, interview):

> It's like you have a very powerful position to influence and communicate all of the innovations, products, so all the aspects of a society, really…. You want [to be] able to convey it in a way that reflects the culture and contributes to the culture…. I'm realizing more my stake or my say in the progression of culture. (Mark, interview).

Culture, however, encompasses far more than the design fields, and creativity is expressed in numerous ways that combine to comprise the *domain*. The next section discusses the ways interview participants described the experiences they had while abroad with creative outlets outside of their own design disciplines.

Other creative fields

For many participants, the time abroad presented an opportunity to engage with modes of creative expression outside of their design specializations, though they were also able to incorporate elements of these experimentations back into their design work. A primary area of exploration was other design fields. For example, Carly, an interior design student, enrolled in a landscape architecture course, while Annie, a graphic design major, joined an extracurricular organization that worked on stage design for performances at a Copenhagen church. Jenna described the importance of understanding other design disciplines, explaining how art movements and trends could extend across different fields:

> One of the things I've always thought is really interesting about design… is how,

> when you're learning about something like architecture, you're learning about art, you're learning about graphic design; they focus it so it's specific to that field, but if you look at all the different fields, you notice how similar they are across history. (Jenna, interview).

She drew on the example of Art Nouveau to illustrate her point:

> Art Nouveau is one of the big art movements in history, and it's my favorite, and what's really interesting is how a lot of Art Nouveau people not only did architecture… amazing, extravagant buildings, or [if] you go to Paris, the Metro stations have Art Nouveau… but they also did little things, like… their papers would be in Art Nouveau style, and if they were doing books they would be in Art Nouveau, too…. Seeing this great big grand architectural thing, but knowing that they had applied it to all these other things, too. Like windows and chairs and all sorts of different stuff. (Jenna, interview).

Thus, though she was a graphic design major, there was value for her in learning about other design fields in specific, such as architecture or furniture design, and other creative fields more generally as well. Thinking about this relationship between different creative fields and how they were expressed in a culture helped Jacob distill what he interpreted as the core of the French aesthetic:

> I think French food and French fashion were really important [to my learning]…. The food is so good, and it's just like all these really simple ingredients put together in really fantastical ways, and it's kind of the same philosophy in French

> fashion, is just [to] have sort of muted elements put together in a really nice, crisp, clean way. And I think I really want, like, I try to pull that into my creative work [as an architecture major]… thinking, how can I do more with less? How can I put these simple things together to make something that's really great? (Jacob, interview).

When asked how he drew from other fields in his work, he described it as "pulling in" from other areas of creative endeavor:

> The French perspective, for me, is a little more focused on a multitude of arts rather than just being like, architecture is architecture. So, it's been really trying to pull in, like, well, we could use an example of painting to explain this architectural idea, or in this presentation, wouldn't it be nice if we related it to this type of movement in a dance, or a sculpture. (Jacob, interview).

Participants found value in engaging with non-design fields as well. Several took different types of visual arts courses, such as painting or sketching. Annie took a photography class, mainly to fulfill a requirement, and found that she learned perspectives that were useful to her in her design major:

> [The professor] was really interested in the content of your image. And what it means, and what people think about when they see your image and things like that. And so that was something that was really helpful for me, thinking both in a photography sense and in a design sense, [how] everything you include in an image means something and communicates something to people. And so just

being really conscious about that all the time. (Annie, interview).

Others became more aware of creativity as it exists outside the traditional fine arts fields. Tara was fascinated by the attention to detail in Japanese cuisine:

> I think it even presented a completely different way of thinking about creativity…. [If] you've seen the images of the bento[17] lunches, and how much attention to detail each person puts into what they do… the attention to detail, it was really impactful. And so that's definitely something that I… try to do. (Tara, interview).

Street art and graffiti, in particular, stood out to participants as influencing their perspective on creativity and artistic expression. Though only one, Erika, participated in actually creating street art (through an activity approved by the city of Seville), six additional participants specifically mentioned street art as something that influenced them creatively. Chelsea designed new business cards and a logo for an up-and-coming gallery in Copenhagen's meatpacking district, drawing on the surrounding neighborhood's graffiti to influence the style of her design. For Madison, seeing the street art in Australia changed her thinking about how to approach her own work as an architecture student:

> Melbourne was inspirational in the fact that it was so free… I don't want to say careless, but they were very creative and it didn't matter where. So every single alleyway was covered in graffiti, and it was beautiful graffiti, like really well done…. It was interesting how every little thing was art. (Madison, interview).

[17] Japanese boxed lunches where each food item is placed in an individual compartment, and often arranged in an aesthetically pleasing manner.

Audrey and Carly both connected the different perspective on street art in Europe to culture: "They really embrace that art and look at it as something really powerful and expressive, versus negative and depleting the area" (Carly, interview). "I think [in the U.S.] creativity is either very artistic or very technology-based, and when it's technology-based they like to call it innovation. And I think [in Europe]… and specifically in Italy, street art is an expression of creativity" (Audrey, interview). By seeing how other cultures reacted to the presence of street art, participants' meaning structures about what could be considered valuable, creative, or beautiful were altered.

In the systems perspective on creativity (Csikszentmihalyi, 1988), the individual creator is influenced by both the *domain* (the culture at large) and the *field* (his or her area of creative endeavor); the *domain* is also influenced by all the different *fields* practiced by those who live and work in the culture. Through engagement with other creative fields in their study abroad host sites, participants were able to experience additional facets of the culture and even draw inspiration from them. The process of borrowing ideas and applying them to one's own creative work will be further discussed in response to the third research question for this study.

Making meaning of the study abroad experience

The third research question examines the ways in which design students and recent alumni make meaning of their international experiences vis-à-vis their creativity and the creative work they do in their design discipline: *How do undergraduates pursuing creative majors interpret the meaning of their study abroad experience in*

relation to the creativity and creative work of their major fields and future careers? Essentially, this question examines the ways in which the study abroad-associated learning described by participants is meaningful for or applicable to their design work.

In the interviews, participants described two types of major shifts in their design-related meaning structures that could be attributed to their experiences abroad, which I will refer to as *perspective change* and *process change*. Before delving into the details of both types of change, however, it is critical to re-visit the transformation process itself. At the core of Mezirow's (1991) transformative learning theory is reflection, which facilitates an individual's reconsideration of previously held ideas and beliefs about the world in which he or she lives. Cranton (2002) modifies the theory to propose that the process of reflection and reconsideration is iterative, and happens in an ongoing and spiral-like, rather than linear, fashion. Further, Mezirow (1991) as well as Taylor and Cranton (2012) suggest that meaning is further refined through reflection in dialogue with others.

Reflection as part of making meaning

As part of the interview, I asked participants to describe the ways in which they processed or reflected on their time abroad. All but one of the twenty interview participants described how they had actively engaged in reflection during or immediately after their study abroad experiences; two indicated regret about not being even more reflective. Jacob commented, "I should have kept a journal, that would have been really nice to have. I kept a journal my first time I studied abroad [in France], so I kind of felt

like, I'm an expert on France, I'll be fine! But I really should have not gone with that attitude" (Jacob, interview). Kelsey, who participated in three different study abroad programs, went straight from one in Ghana to one in Mexico, with only a day at the airport in between, and she described how the lack of time to reflect on Ghana adversely affected both experiences: "It was hard to transition from being in Africa and then going to Mexico…. I felt like I had a hard time with the projects, because my mind was everywhere else besides there" (Kelsey, interview).

Participants engaged in at least one of three different types of reflection: solitary, group/dialogic, and artistic/expressive. Purely solitary reflection was the least common, though several participants mentioned keeping private journals or using exercise, such as running, as a way to reflect on their international experiences. Mark described modifying his usual exercise routine in order to accommodate reflective practice during his time in Florence:

> Some of the ways I've changed my behavior is I used to listen to a lot of podcasts, I'd just have my headphones in all day long…. [In Florence], I kind of unplugged from that…. I'm a long distance runner and… I normally run with some music or something, but running without that. Just a lot of those opportunities to reflect when I'm by myself. (Mark, interview).

Morgan felt that being alone encouraged greater awareness of the experience, and tried to go out and experience as much as she could because, "when you're doing that and you're realizing how beautiful this place is… that just makes you, makes you reflect. So I think

it's having enough alone time to be able to think about things" (Morgan, interview). As a busy architecture student, it was sometimes challenging for her to find this time, so she would be creative, using moments like long bus rides to process her experiences (Morgan, blog). Five participants also kept personal journals as part of their solitary reflection, which they used both for recording daily events and for processing specific experiences or feelings:

> A lot of it was just day to day, today I did this, today I did that. But I also knew that I was going there, you just kind of look at it as this time to explore… so I remember writing a lot about reaffirming my beliefs in things, and my desires and my dreams…. So, yeah, a lot of day to day but then also just soul searching type of stuff, the things that didn't go well, ways that you're embarrassed, things that you wish you could have done differently. (Sabrina, interview).

For Brent, who studied in Turkey during the Gezi Park[18] protests, listing the day's events often intersected with a need to reflect on how he felt about what was happening. "There was quite a bit to journal about in Istanbul, because we were actually there during a very tense political time. So we were there for two separate rioting events that took place on

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[18] Brent described these events thusly: "It was actually kind of landscape architecture related. There was a park called Gezi Park, in the… heart of Istanbul… and it's almost the only large open public space in Istanbul…. Istanbul is this crazy dense place, like 21 million people live in the city, it's just unbelievably dense, and there's very little public space. And the president essentially wants to create a megamall in this public space, and so that's how the riots originally began, people just saying, 'no, this is our public space, you can't just build a mall there.' So that's how it originally began, but the riots when we were there were actually because of a boy who was put into a coma during the riots of Gezi Park a year before; he was put into a coma by a tear gas canister shot by one of the police. And so when we were there, probably a few weeks before we left, he came out of the coma and died immediately. So then that's why riots began again. But it was still about the same thing, you know, basically just reiterating that the people have the power" (Brent, interview).

our actual apartment street. So that was something I wrote about quite a bit" (Brent, interview).

A greater number of participants chose to reflect in a dialogic way, through public blogs or group conversation. Because the blogs were generally shared with friends and family back home, or other audiences (Morgan was a CDes student blogger, and Chelsea and Eleanor both blogged for the Denmark program's website), the majority of their content was less reflective and more descriptive. Nevertheless, Eleanor described the Denmark program blog as "a big part of processing everything for me" (Eleanor, interview).

Oral dialogic reflection, either in pairs or small groups, was the most common vehicle for students' reflection while abroad, especially for students who participated in island-format study abroad programs like the CDes Mexico and Rome and Istanbul programs. Kelsey described the Mexico program as including a lot of group discussions that supported processing (Kelsey, interview), and Noah said that it was the opportunity to talk through his experiences that was the most helpful for him in reflecting on what he had learned in Oaxaca:

> I think most [reflection], for me, always happens when I actually talk about it with people. So coming back and discussing what happened. Because actually, if I don't have a reason to remember, then I don't actively think on [it]. So just talking through, stuff like this [interview] when I got back, and just telling people about things, was probably the best way I did it. (Noah, interview).

Danielle noted that it was often impossible to *not* share reflection within the Rome and Istanbul program group:

> All sixteen of us were together all the time, so I feel like we were always talking about [our experiences], because we were, we experienced it all together, and so it was kind of always on our mind. And if it was on one person's mind, it was probably on the other person's mind. (Danielle, interview).

Morgan and Annie both used Skype as a way to stay in contact with friends and family, and described those conversations as a way they reflected on what was happening to them during their experience. While this type of regular connection to home and U.S. culture could be seen as a factor that would diminish the study abroad experience, Morgan felt that "being able to share these experiences… is a really great way to reflect on things, too" (Morgan, interview). When she described to me how she thought about the influence of Danish culture on design through the lens of "tax, trust, and tribe," she mentioned that she had shared that thought process first with a family member while chatting via Skype, so there can be value in regularly maintaining U.S.-based connections throughout the experience, as long as those connections do not interfere with the experience itself. Morgan indicated that she was videochatting with someone from home approximately once per week (Morgan, interview).

Finally, participants described engaging in reflection through artistic and creative expression. Photography, including editing the day's photographs or sharing them on a blog, was an outlet for several participants. Jenna maintained a photo blog where she

selected one photo each day to describe and reflect on:

> "It was nice to have the [photo] blog because it was kind of like, oh, right, I'm trying to explain this thing to other, to people who aren't living [in Scotland], so it gave me a chance to realize that what I was doing wasn't exactly—it wasn't strange, necessarily, but it was different than what I'd done in the U.S.… A lot of the processing was done through [the photo blog]" (Jenna, interview).

Sketchbooks and moodbooks[19] were another repository for participants' thoughts and reflections. Annie described how keeping a moodbook helped her process the experience while also serving as a source of inspiration: "[If] you're kind of stuck on a project, it's helpful to go back, flip through all the things that you've seen and see if something strikes you…. It [also] functions as a nostalgia thing in some ways" (Annie, interview). Danielle used her sketchbook to reflect, in particular, on the different designs she was encountering in Italy and Turkey:

> Architect sketchbooks are very analytical, in pulling things apart and trying to figure out either how it's put together or why it's put together. And so I guess reflecting on that and seeing why that's different from normal life here [in the U.S.]. Creatively, I think the sketchbooks are a big part of that as well. (Danielle, interview).

Time for reflection was more available to students on yearlong or semester programs. The three participants who had selected short-term programs (six- or seven-

[19] Moodbooks were described by participants as a place to keep ideas or inspiration for future projects; in essence, a focused design-related scrapbook.

week summer internships or a three-week May term) were less able to engage in reflection during their time abroad. Tara described being so exhausted, after her trip to Japan, that

> I slept for a week, pretty much straight. I was so tired from everything… I was just comatose. So I think that was part of the processing, because it was just so overwhelming. Because there was so much, so much going on, so many people, so much to see. So I slept for a week, and then I started looking through photos, and just talking with everyone helped. (Tara, interview).

Tara's reflection experience, after her return, was a much more intense and compressed version of the processes semester and yearlong students engaged in throughout their time abroad. Lacey also felt that she did not have time for reflection during her program:

> It was a very fast-paced six weeks, just constantly class, work, trying to see as much as I could of London. So I was just trying to get through each day when I was there. And I mean, the fashion industry, our hours were like 9-5, but it's never actually 9-5, I'd be working until like 7 or 8. So it was, it was really busy. So I'd say while I was there it was mostly trying to get through the day while having a great time. So most of my reflecting on the experience happened once I returned home. (Lacey, interview).

Regardless of when they were able to find time to reflect, participants noted that it helped them appreciate the experience and think of ways it influenced them as individuals and as designers. Madison said she used her alone time to "just remember

where I was, because I didn't want to take it for granted ever…. I just tried to step back and realize it and appreciate it—that all the opportunities I got from my internship were amazing, I can't believe I have that to put on my resume now" (Madison, interview). Even more than a year out from her experience, Chelsea said:

> I think about it every day. There's not a day that I've lived since that I haven't thought about either my little host brother, or my host mom, or certain pastries that I would get around the school that were incredible. Or seeing a poster of something and thinking [of] all the posters I'd see on the subway, going to my design studio and stuff. I feel like I'm always thinking about it, always wishing I had someone to practice Danish with. I always, you know, I design for a living, and [I'm] always thinking, when I'm making something, to just cut the fat, make this more minimal, more to the point. I feel like it's pretty ingrained in me now. (Chelsea, interview).

Chelsea's description of how she regularly returns, mentally, to the experiences she had in Denmark, even after graduating and beginning her professional design career, demonstrates the long-lasting influence of the study abroad experience, and supports Cranton's (2002) assertion that the reflective process is non-linear. In iterative fashion, individuals may return repeatedly to the same ideas and themes, reconsidering them through the lenses of new contexts or settings.

Perspective change

A principle fundamental to transformative learning theory is that reflection, triggered by the disorienting dilemma, can result in shifts in meaning schemes and structures. Participants described two central areas where their perspectives around design, creativity, and related concepts were altered due to reflection on the experiences they had while studying abroad. The first was tied to change in perspectives about what made a design successful, beautiful, or appealing, which I will call *aesthetic perspective change*. The second relates to the concept of creativity itself, and how the very idea of what it means to be creative shifted for participants because of their international sojourn; I will refer to this second type of adjustment in perspective as *creativity perspective change*.

Aesthetic perspective change

The very experience of being in Mexico encouraged Noah to rethink his views on what it meant for architecture to be of high quality. He described how the prevailing view is that the best buildings are in Europe, or perhaps the United States, yet he realized that "surprisingly for me at the time, [there is] amazing architecture in Mexico" (Noah, interview). Eleanor realized that beauty could be found in simplicity, which led her to reject some aspects of the U.S. American aesthetic she had grown up with. She described Danish design as "hav[ing] this very minimal white aesthetic to it, shapely things, wide open space. I think that is different, that's not like here [in the U.S.], we stick tacky stuff

on everything" (Eleanor, interview). Tara echoed this sentiment about a more minimalist style in describing her appreciation of Japanese food:

> Again, the simplicity of [Japanese cuisine]. And I think that can be applied to everything about Japan that I took away from [the trip], was that there's such a beauty to the simple things, and so by presenting one individual thing for the user or the person to focus on, [that] makes it more beautiful. And so I think that aspect of the culture really stuck with me, that's something I try to do in my work, and so I actually have a very, very minimalist style. And so I think that aspect of [the experience] influenced me a lot. (Tara, interview).

Kelsey compared the environments of the three different places where she studied abroad to her hometown in Minnesota, observing that she had learned there were different types of beauty to be found in all four places.

> Each site was beautiful in a different way. Like when I think about Ghana, it's thinking about the kids' smiling faces and absolutely nothing in the background…. And then in Mexico was just the ocean… and the sunsets…. And then in Brazil, the beauty there was [that] the favelas were built into the hills, so you look at them and it just looks like a wall of little buildings, I can't even really describe it. It's kind of beautiful, but when you go there, it's not the most beautiful living conditions. But you just see all around you, up on these hills, are little huts built into the side of a hill…. Studying abroad made me realize that the world is a lot prettier than what I'm used to, I guess. Or, in a different way. I

> mean, where I'm from, I'm from a rural town in southern Minnesota, and that can be really beautiful, too, but just in a completely different way. I think that kind of opened my mind and I feel like I can be more creative just because I've seen different environments and different cultures. (Kelsey, interview).

Eleanor also credited the shifts in her perspective to the experience of living and studying abroad, and attributed further development of her creative skills to this perspective change as well: "I think that I have learned how to solve problems creatively, and I think having gone abroad has given me a totally different perspective on what it means to have a solution that works and a solution that—like, what it means to have a successful design" (Eleanor, interview).

Creativity perspective change

This new point of view about what it means to have a successful or beautiful design aligns with how participants described changes in their conceptualizations of creativity, or *creativity perspective change*. Carly said the experience of studying in Denmark allowed her to "see [others'] creativity, see something that's very different from American design. So, expanding my perspective on what is creative and what can be creative" (Carly, interview). She tied this idea of what can be creative back to her observations about street art, noting, "What's accepted as creative [in Copenhagen]—there's a lot more graffiti in some areas, and it's looked at very positively, because it's street art as opposed to tagging, [which] can have a very negative connotation" (Carly, interview). Eleanor described how she realized that "creativity can be looking at

something in a new way, or it can be creating something new entirely. Which I don't necessarily think is something I always thought about" (Eleanor, interview). Kelsey said that she was "thinking about creativity in such a narrow way before, like just related to architecture… I think [study abroad] just made me realize that there's a lot of other areas to be creative in than I was thinking" (Kelsey, interview).

Several participants affirmed that while they believed anyone could be creative and produce creative products, the experience of traveling and being immersed in another culture enhances one's ability to create:

> I think anyone can be creative and I don't think you have to travel to be creative, but it definitely makes you way more broad-minded in a sense. So, I mean, because everything you have that's created… it kind of branches off something you've seen or an idea that was sparked by something. So it's just, overall, *I think you're able to be more expansive with your creativity if you've studied abroad*. Or at least, that's what it's done for me… just given me ideas I probably never would have thought of had I not seen Melbourne or… walked around in my neighborhood [in Sydney]. (Madison, interview, emphasis added).

Jacob concurred, but connected it back to the culture of his host country: "I kind of ascribe to the school of philosophy that anyone can be a creative person… and I think definitely, being in France, that's only been encouraged" (Jacob, interview). He described how, in France, students would often complete a degree in science, only to later leave the STEM fields to pursue a career in a creative discipline, and he attributed this trend to an

overall culture of appreciation for and awareness of the arts in France that he felt was not equally vibrant in the United States.

Sabrina, too, linked her reconceptualization of creativity to culture, in the sense that U.S. American life affords her the opportunity to be creative, noting that in the U.S., "we have the luxury of truly exploring our creativity a little bit more. We have more safety nets here to be able to explore" (Sabrina, interview). Yet she also observed that the local people in Tanzania and Uganda developed creative solutions to their life challenges that would not have occurred to her, and she said that having the opportunity to observe their creativity "forces you to think in different ways, it forces you to realize that your way of living is not the way that everyone lives" (Sabrina, interview). Audrey hypothesized that, just as people from different cultures live differently, so, too, do they approach creativity differently, and she linked that difference to the place itself:

> Creativity is both personal and tied to place… Like you can be creative in a blank white room, but also be creative in a completely different manner in, you know, a Tuscan villa or in a dense urban fabric, and it's different forms of inspiration, and how that feeds your creativity and how you then interpret that and jump off from there. (Audrey, interview).

Ultimately, she surmised that

> creativity can be grown, and you can continue to understand it more as you… learn more about the world and engage different parts of the world…. Creativity is very much a subset of… tools that you pick up from people or from places, and

> it's kind of the variety of those that allow you to be even more flexible as a designer and in your creativity. (Audrey, interview).

Eleanor also attributed her changed perspective to encountering new people while abroad:

> I think it just kind of widened my horizons as far as what it means to be creative. [I was] surrounded by people who live across America, and then a lot of Asian students who are international students, [who] would be considered international students here [in the U.S.], actually studied abroad in Denmark as well, so I got their perspective on what creativity [means] to them. As well as… the Danish perspective. So I definitely widened my horizons on what creativity means and… different ways that you can be creative…. Creativity can be looking at something in a new way, or it can be creating something new entirely. (Eleanor, interview).

Morgan agreed, noting that both people and place are important, and offering her theory for why that was the case:

> I've realized that… to be creative and to keep your creativity going, if you're in kind of the same environment, you're going to start, you're going to design the same things. So I think it's really important to experience different areas of creativity, how different places do it or what they value…. Creativity is experiencing other creativity, and that may mean cultures, or that may just be connecting with other people. *I think part of creativity is experiencing*…. It makes your creativity and your designs more holistic and more well-rounded, and you

can pull aspects from this culture or [that] culture, or this experience or that experience. (Morgan, interview, emphasis added).

This statement from Morgan illustrates the theoretical connection between engaging with the local people and becoming more open to their ideas and cultural norms (Allport, 195X), experiencing the cultural *domain* (Csikszentmihalyi, 1988), and deciding to draw concepts from the new culture (Chiu & Hong, 2005). Acting on new understandings of creativity and sampling ideas from a new cultural resource exemplifies the final phase of Mezirow's (1991) transformative learning: reintegration into one's life on the basis of conditions dictated by one's new perspective. For students in creative majors, I will call this shift *process change*.

Process change

Study abroad returnees from creative majors described four types of process change that they ascribed to their international sojourns: inspiration seeking; borrowing and applying new ideas; design identity and approach; and design process and procedures.

Inspiration seeking

Participants described how their experiences abroad gave them new sources for inspiration, and encouraged them to seek inspiration in places they might not have previously considered. Inspiration could be derived from both major experiences and smaller things. For Jacob, it was his frequent visits to the Louvre museum, which he found both artistically and architecturally inspirational:

> Every time I went in, it's kind of awe-inspiring. I mean, this is the entrance to a great world treasure. And it's like, a huge open space that's totally underground, but it's so bright and airy, and then, you go from going down, you go up a set of stairs or a set of escalators, and suddenly you're surrounded by all these historic works of art. Like, the experience of going through this large, open, welcoming space to being in this treasure chest. Always really inspirational. (Jacob, interview).

He added, about Paris more generally, that:

> I also really want to keep the experience of seeing all the pieces of art and architecture as a source of inspiration for my future creative work. Because that was really part of the reason I went in the first place, was to understand the actual pieces themselves… [The experience] just opens… a multitude of new influences and new sources of inspiration. (Jacob, interview).

Annie described her appreciation for a smaller aspect of Danish culture and how it inspired her:

> I drew inspiration—they were really big on flags in Denmark, like their flag was everywhere, their flag was on everything… it was all over the place. They really like it. It's on their little birthday cakes on little toothpicks…. And then my [host] family was really big into nautical things. They were really into sailing and boating. And so I drew inspiration from flags. (Annie, interview).

One of Erika's summer plans was to look through her photos from Spain and Morocco

and use them to inspire the jewelry and knitting designs she creates for her small online store (Erika, interview). She noted that the experience of studying abroad had made her open to using more diverse sources for inspiration during group work during her senior year, and said that "if I go into retail… I hope to continue to be open to other people's ideas and to draw inspiration from diverse sources" (Erika, interview).

While it differs from directly borrowing from the *domain* of the host country, drawing inspiration from concepts or artifacts within the culture is orthogonally related to Chiu et al.'s (2000) concept of motivated cultural cognition. It certainly suggests an individual's comfort with the creative resources available from other cultures (or what Erika described, above, as being "open to other people's ideas"). Most participants, however, also described a deeper engagement with their host site's cultural concepts, by borrowing ideas or styles and directly applying them to their own work.

Borrowing and applying

Chiu and Hong (2005) describe motivated cultural cognition as the use of cultural concepts as resources or tools for solving creative problems, and suggest that individuals who have been exposed to or have developed a deeper understanding of another culture are equipped to both sample ideas from the new culture and combine concepts from their own culture and another. Interview participants described borrowing concrete cultural concepts from their host culture as well as applying more general cultural perspectives to their designs.

The most common way participants drew on ideas from their host culture was in

imparting a “feeling” of that culture through their designs. Often, this involved situating the design within the appropriate sociocultural context, and borrowing aspects of the host culture while still keeping the design their own. Chelsea, a graphic design student, designed signs and stationery for a refugee center in Copenhagen, and focused on choosing soft, earthy colors and rounded, sans-serif fonts that she believed would impart feelings of calm and welcome as well as a sense of “Danishness” to newly-arrived immigrants (Chelsea, interview; design artifact).

Jenna and Annie, also graphic design students, both took a packaging design course at UMTC after their return to the U.S. One assignment involved creating food packaging and a carrier or display item for the food. Both women drew on their study abroad experiences for the project, using design elements to signal that the food item originated in her host country. Jenna, who studied abroad in Scotland, designed a package for shortbread cookies. Inspired by what she had learned in a history course about rural Scottish life, her design included

> a sheep mascot, and part of the design was a nice woolen Scottish sweater, but then also another part of the design was incorporating the rock walls that are all over Scotland, that were created in ancient times to simply mark land…. It was really cool to come back from [study abroad] and be given an opportunity to use something I’d found fascinating in my design work. (Jenna, interview; design artifact).

Similarly, Annie created apple juice cartons that looked like the exteriors of Danish

country houses. She said that while designing the cartons, “I found myself thinking about, how can I make this Danish now?” (Annie, interview). So she thought about the elements she could draw on to give them a Danish look:

> I wanted them to have Danish roof tiles, they have these orange roof tiles on every house, basically. And I wanted it to sort of reflect Danish culture, but I also wanted it to be an American product, so I didn't want it to be completely foreign and weird…. I tried to incorporate a few things that would make it look Danish. Apple trees are a really big thing there, so they have apple trees in every yard and they all pick their own apples…. And then the bike, everyone has a bike and bikes everywhere, and they’re just really a small town, homey kind of thing again, just making it really friendly and nice because that’s how they are. (Annie, interview; design artifact).

For architecture students, designs that conveyed a sense of the place where they had studied abroad manifested more subtly. When Audrey was designing an adapted reuse for an older building in Minneapolis’ Warehouse District, she knew she wanted to draw on some elements of European design regarding the kinds of programming she designated for the space. “The style itself is actually not Italian at all, the exterior, but the overall kind of idea of how spaces fit into one another was very European, and my professor commented on it” (Audrey, interview; design artifact). Madison also planned to give future designs an Australian feel, because she admired the way Australian buildings “incorporate[ed] outdoor spaces with the indoor. And so that’s what I can bring forward

from Australia" (Madison, interview).

Participants also described incorporating a culturally specific look or idea into their designs. A particularly rich example comes from Chelsea, who was inspired by the Danish concept of *hygge*, which she described as "[a] feeling of being cozy. You can experience *hygge* at a coffee shop with a friend if you're in a great atmosphere or, for me, it's just like a quiet cabin, isolated" (Chelsea, interview). In a wallpaper design assignment for her textile design class, she wanted to create wallpaper that would cultivate a sense of *hygge* in the space where it was hung. Drawing from her observation that Danish women bundled up in bulky knit sweaters and scarves during the winter, she created a hand-drawn illustration of a cable knit for her wallpaper design (Chelsea, design artifact). "I wanted it to be cozy feeling, something that you would put in your North Woods cabin" (Chelsea, interview).

Not all participants described borrowing from their host cultures in such a specific way; some applied more general concepts such as the feeling of a design or how to think about a space. In designing a pocket park[20] for a location on the West Bank of the UMTC campus, Noah pulled from what he had learned in Mexico about public spaces having more "minimalistic programming…. Like not trying to overthink all these different things that could be happening in the space, but just putting in trees and… benches and tables and things, and just having the space for people to use for whatever they want to use it for" (Noah, interview). As Chiu et al. (2000) propose, motivated cultural cognition can

[20] A pocket park is "a small park, usually situated in an alleyway or near a building, or… on a very small, underutilized portion of land" (Noah, interview).

involve drawing ideas from a second culture or combining ideas from more than one culture. In this project, Noah blended what he had learned about an idea that had been successful in Mexican culture (minimal programming) with a U.S. land use concept (pocket parks).

Design identity and approach

The way participants approached their work as designers was also influenced by the experience of studying abroad. First, they were able to compare U.S. design approaches with those of their host culture. Often, they connected the differences in approach to differences between the broader cultures as well, exemplifying the connection between *domain* and *field* in the systems perspective on creativity (Csikszentmihalyi, 1988). Of her experience, Eleanor said:

> I think I learned a lot about the differences between the way that Danish designers approach creating something and the way that Americans do. Americans have a tendency to be all about efficiency, in the sense that if you have a large building, you should take every opportunity to use the square footage available to you. And Danes do not feel that way, they're like, you know, if you want to have [a] large open space because that makes your design better, then you should do that. Whereas American designers would say that's a waste. Because you could put more offices there and you could make more money, because you have more tenants. Which was not the way Danish designers approached design at all…. They approached it in a way that was more about the experience that you had

> inside of a building and how that reflects on the people that use the building, rather than how can we make this give us the most money. And I think that that's the way Danes approach many things. (Eleanor, interview).

Ultimately, this was something that Eleanor continued to think about in her own design work. She described the first project she did after her return from study abroad, which was a group project to re-design the interior space for an elementary school:

> We have this large open space here in the front, you can actually see it, which was not all my idea but definitely I think I contributed to the idea because I had just learned about… not making economical decisions just because it's economical. And so we wanted to have this really cool open space where… people could gather or where you could—play games, or [do] fun projects or that kind of thing. Which was certainly influenced by my time abroad. (Eleanor, interview; design artifact).

For many participants, being abroad helped them refine their own personal design approaches and develop a sense of design identity. Noah said he felt he was able to look at projects more objectively (Noah, interview), while Chelsea thought she was able to have a more conceptual approach, rather than "just making designs to make designs, just [be]cause it looks pretty" (Chelsea, interview). Annie described how, being with the same cohort of graphic design students for her first two years in her major,

> it kind of gets easy to get stuck in this rut of, 'OK, this is how I design….' But going to Denmark, it really helped me to step away from people I knew here [at

> UMTC] and how I worked here and to just start over, and be able to be like, 'OK, now that I know a little more about design from going to school for a couple years… I can just try totally different things…. I'm getting closer to finding more of my aesthetic. (Annie, interview).

For Jenna, studying abroad in Scotland and seeing the type of historical graphic design styles that she preferred was particularly resonant, as she had felt her work was undervalued by design faculty at UMTC who preferred a more contemporary style:

> Before leaving… the stuff I [was doing wasn't like] what everybody else [was] doing… .It was a little disheartening, and then I went abroad, and I was like 'Oh, right. You know, everybody's different, and this whole city [of Edinburgh] is basically designed in a style I would think is awesome. And so it was reaffirming [to] my own creativity…. Study abroad reaffirmed what I wanted creativity to be. (Jenna, interview).

Design process and procedures

Beyond changing how participants thought about design and the way their designs should look (which, above, I refer to as *design identity and approach*), studying abroad also influenced the way they created designs (*design process and procedures*). Participants described how they adapted the way that they work to accommodate what they learned while studying abroad.

First, many participants said they thought more about the physical and sociocultural context of their designs, and have thus begun including a research step in

their design procedures. For an assignment that required designing a ritual space, Morgan chose a funeral as her ritual; however, because the room was for use by Danes, an important part of the project was researching how Danish culture treats death, and how any cultural differences might change the resulting design. She learned from Danish friends that cremation is more common in Denmark than in the U.S., and that families only visit loved ones' interred remains for a limited period of time before they "retire" their sorrow and move on. Based on what she had learned, she centered the design of the space around this impermanence of grief, creating a space that would ultimately erode and return to nature:

> the main room, the biggest one that's a circle in the plan, in this section the walls are kind of this concrete, but it's got perforations in it… and then where the light is coming, that's obviously an open hole…. So it's not protected from all these elements, of nature, so eventually it will just kind of start taking it over. (Morgan, interview; design artifact).

Brent described applying this same mindset to his work back at UMTC, sharing a recent project where he had deliberately added a research phase to his process:

> I wanted to pay more attention to the research side, the pre-design aspect of the design process. So, one of the studio projects we had was to re-design this old elementary school, and so I spent a lot of time studying the demographics of the area and who lives there now, and why it doesn't function as an elementary school anymore. And so I decided to change it into this active senior learning

> center… because that's what the demographic is and… what they might actually want…. The research, I guess, is the biggest thing I took away [from study abroad]. (Brent, interview).

Because of the limitations of some study abroad sites or programs, participants also developed an appreciation for including some analog, versus all-digital, aspects in their design process. On the Mexico program, for example, the participants did all of their designs using hand-drafting and paper and clay models, because they were unable to access the advanced software they were accustomed to using at UMTC (Kelsey, interview; Noah, interview). In his program in France, which was focused on art and art history, Jacob learned how to paint with watercolors. While he had previously only used computers and 3D modeling, he now appreciates how "this medium that you would think is outdated for architecture is still really, really relevant; I can show a lot of things and a lot of feelings" (Jacob, interview). With the encouragement of her Danish graphic design instructor, Annie started an inspiration board where she posted scraps or magazine clippings that she might find useful for future designs. "It was really helpful, just because it was a really analog way to work, and a lot of times designers, graphic designers especially, get stuck at their computer" (Annie, interview). Working within some of these limitations while studying abroad changed participants' ideas about what types of tools could be useful in their design process.

Similar to finding or affirming their design style and approach, several participants explained how they began to discern their own personal design process while

abroad. Danielle described becoming more comfortable with messiness in her process, which she linked to the chaos of where she was designing:

> I'm typically a very clean, modern, straightforward person, but Istanbul is fairly messy. And messy didn't bug me at all there. I usually like things like one color or a certain color scheme, and somehow Istanbul was able to put so many different parts together and modge podge it and make it look great. Especially inside mosques, I feel like there are always so many colors that you would think wouldn't be able to go together, and somehow they did it. And it was like, huh. So I guess… just not being afraid of messing things up a little bit, and even if I mess it up too much, being able to at least get past that point and being able to distill it. And then be like, "OK, well, this is too much mess, but some of it could stay." (Danielle, interview).

From that increasing comfort with messiness, Danielle was able to add a greater level of iteration to her process, as she realized that the first draft did not have to be perfect or final. "Whether or not I liked my first idea, continuing to make other ideas and testing them out, so that I didn't just go with my first idea…. Just being able to make iterations" (Danielle, interview). Madison described a similar change in her work style, which she attributed to her time in Australia, and especially to the experience of seeing the unique architecture of Melbourne. She said she now starts "way outside the box, even if I'm not supposed to…. So if someone wants me to design something, I'm going to start pretty radical, and then if they want me to tone it down, then I will…. [I'll] have it be my art to

begin, and then… refine" (Madison, interview).

Finally, participants reported developing the ability to better regulate the pace of their work. Chelsea described this learning process:

> [In] my information design course, our deadlines were different than anything I experienced at [UMTC]. The day before a project was due, you had to have your project done… and lay it all out, have it printed. You had to have your presentation ready by 10:00 PM the night before the presentations. Which, at the U, does not exist in any of the courses I ever took, it was always working until 5:00 in the morning to get things done. And I remember in our first project, we asked our instructor, Elof, 'Why do we have to do this? Why does it have to be done at a certain time?' And he was like, 'Why not? You have it done, you can get a good night's rest, and then you can come here the next day and you'll be well-rested and ready for your presentation.' And everything just made so much more sense then. Like, oh, wow. These deadlines aren't just arbitrary…. But it was because they really wanted you to be ready and be prepared. And I feel like with most design courses here [at UMTC] it was just working up to the last minute, like, nail biting to get things done. And I think trying to understand deadlines and effectively work to that deadline and be well-rested and well-prepared was a big lesson, I'm sure. (Chelsea, interview).

Now working as a freelance graphic designer, Chelsea has continued to apply this lesson in her professional career. Eleanor, who also studied abroad in Denmark, ascribed this

difference in pacing to Danish culture, which she felt supported a better work/life balance, and was less focused on efficiency or career (Eleanor, interview). These kinds of *process changes* demonstrate how, for the creative individual, being in another cultural context not only encourages the borrowing of cultural concepts into one's work, as hypothesized be Chiu and Hong (2005); it can also result in a transformed perspective around what it means to do creative work and do it well. And while cultural borrowing or combining may not occur in every project, changes in work habits can, as the example of Chelsea demonstrates, last long into the future. However, these process changes are not the only way that design students' futures are influenced by the experience of study abroad. The final research question in this dissertation study explores how students in creative majors perceive the study abroad experience as changing their future plans.

Influence on future aspirations or plans

Few interview participants indicated that they had expected studying abroad to affect their careers or future plans, yet research on study abroad returnees indicates that studying abroad often has a powerful impact on individuals' professional, academic, and personal trajectories (Fry et al., 2009; Paige et al., 2009). The fourth research question in this study explores, specifically, how studying abroad affects the future paths of design students: *What influence does the study abroad experience have on the future career plans or future aspirations of undergraduates pursuing creative majors?*

Overwhelmingly, participants said that studying abroad had inspired them to continue to travel, and many hoped to pursue careers or graduate study abroad. For some,

it was only after studying abroad that they realized working or attending graduate school abroad was an option. Carly said that, while she knew she did not want to be a long-term expatriate, she had become open to the idea of doing international design work; taking it a step further, Annie said she now felt comfortable with the idea of actually moving abroad for her career: "I've always been open, after graduation, if I got a job in California, I would move there. And now, after graduation, if I got a job in Denmark… [or] like in Europe or something, I'd definitely go there. I'm definitely more open to it now" (Annie, interview). Noah had developed a unique career idea for himself, as a way to pursue architecture abroad:

> My latest [idea] is I would really like to flip houses…. Combining that with, like, I really want to travel more and go around the U.S. and also around the world. Wanting to be able to find an old house that I really like and buy it and live there for maybe a year or six months or something like that. And renovate it and then find another one somewhere completely different and do the same thing. (Noah, interview).

Some participants were less certain about taking their design careers abroad, but were looking into working or living abroad through other channels. Erika and Tara both expressed interest in teaching English in the countries where they had studied, and Eleanor had accepted an English teaching position in Thailand. Amanda had applied to do Peace Corps in Latin America, and although her first application had been unsuccessful, she was in the process of trying again at the time of our interview. Jacob

had been accepted to a graduate architecture program in France, while Audrey, already enrolled in the Master's in Architecture program at UMTC, had decided to study abroad again, through a May term program in China. All attributed these changes in their goals and plans to their time abroad.

For some participants, studying abroad was an intense time of self-discernment. Sabrina described how, through the process of reflective journaling during her time in Tanzania, she realized what she wanted to do after finishing her undergraduate degree:

> It was when I was [in Tanzania] that I actually realized that, yes, I did want to go on to grad school…. It took me a long time to get my undergrad and I was just really sick of being in school. And I was kind of trying to choose between, well, going on to grad school or not. And [studying abroad] sort of helped me understand what I want to share with the world, and what I want to do, and what makes me feel the best and the most productive. And so I was exploring that, so it really helped me decide that, yes, I do need to go on and continue learning. When you're in an environment where people are so hard up, it almost seems incredibly selfish to not use every resource that you have to better yourself. [Be]cause the people there that are trying to do that, it's so much harder for them than it is for us. And like, who am I to not, even though I'm going to go into massive debt, who am I to not go on and learn more and do more and… It was a humbling experience. (Sabrina, interview).

It was also during their time abroad that both Kelsey and Eleanor realized that they did

not wish to pursue design careers. For Kelsey, the two weeks she spent working with children in Ghana were far more meaningful than either her semester studying architecture in Mexico or her short-term architecture program in Brazil. Reflecting on this, she realized that she wanted to do work that felt more significant to her:

> Going to places like Ghana and seeing how they really need basic structures, and wondering why that isn't happening, or why that isn't everybody's focus, you know, I [had] never really thought about [that], because before I wanted to build hospitals here [in the U.S.], like these big fancy glass hospitals. And then when I went to Ghana, I was like, this isn't what we actually need in the world…. It made me have a different view on the [architecture] profession. (Kelsey, interview).

Due to this change in her thinking, Kelsey had decided, instead, to pursue a career working with children, and planned to start a graduate program in youth development in the fall of 2015. Both Kelsey and Eleanor still felt, however, that their design degrees and their time abroad in design programs had been valuable for their futures. Eleanor intended to continue using her knowledge of design software, and Kelsey had met with her architecture advisor to discuss how design thinking could be relevant to a teaching career.

Finally, participants described how studying abroad had helped them refine their self-perception as designers. For some, this involved pinpointing exactly what type of subfield they wanted to work in. Madison realized she could combine her athletic interests with architecture:

> I actually thought of that while walking through the streets of Melbourne, because there was this huge building, and one side of it was an entire big glass wall, and behind it was this rock climbing wall. And it just looked like a mountain… and then I got, like, ten different ideas about rock climbing walls and extreme sport ideas with architecture…. I'm definitely looking into a lot of career routes going that direction because of it. (Madison, interview).

For others, their career interests became more flexible; this was partially due to having the opportunity to explore other creative fields while abroad, as described above. Chelsea said:

> I think when I went [to Denmark] I was anticipating doing more web and user experience. Which I still have an interest in now, but I think being able to do textile design and more branding when I was there, I feel like that more so solidified what I want to be doing. And even though I still wish I had more user experience experience, I like that I've been able to dip my fingers into a bunch of different things and know a little bit about everything. (Chelsea, interview).

Similarly, Parker's internship helped him realize that, "while I enjoy practicing design, I almost enjoy practicing design as more of a personal outlet of creativity…. In my professional life, I prefer… art direction" (Parker, interview). He had been unsure, prior to studying abroad, how his major would help him pursue that type of career, but he noted that:

> the entire experience [abroad] helped me find how a graphic designer is important

> to a web developer or a user experience department… So just… finding my place with my skills in the field that I wanted to be in was really important…. I wouldn't be working in the field that [I'm] in if I hadn't had that experience [in London]. (Parker, interview).

As detailed in the literature review, prior research indicates that studying abroad can be a time of great change and self-discovery for student sojourners (Fry et al., 2009; Paige et al., 2009; Rowan-Kenyon & Niehaus, 2011). From the responses of the interview participants, it is clear that this is true for many design students as well, both for those who found their places within their design fields and for those who realized design may not be the right career for them.

Chapter four summary

This chapter presented the major findings of both the participant selection survey and the twenty interviews; while the latter were the primary source of data for this dissertation study, the former demonstrated that, for most respondents, study abroad exerted a strong influence on their creativity and creative processes. The first of two open-ended questions elicited additional information about what aspects of study abroad had most influenced returnees creatively, with responses clustering around the six themes of: developing new perspectives; cultural immersion and experiencing the host culture; encountering new processes; observing the link between culture and design; engaging with and collaborating with other people; and having the opportunity to explore. As the interview participants were drawn from the survey respondents, these themes repeated

and were further developed in the qualitative interview analysis.

First, vignettes highlighting key elements of each interview participant's experiences were provided, in order to document individual uniqueness (Patton, 2002). From the experiences of this heterogeneous group, a number of common themes nevertheless emerged. Participants' expectations for the experience were discussed, as well as the type and facets of learning that contributed to their creativity and creative work. The ways in which they reflected on the experience, how that reflection led to transformed perspectives, and the way their creative work was affected by this transformation, were also described. Finally, the analysis concluded with an account of how participants felt the study abroad experience had changed their future aspirations. Building upon the analysis developed in this chapter, the following chapter will discuss the implications the findings of this study have for theory, policy and practice, and future research.

CHAPTER FIVE

IMPLICATIONS FOR THEORY, PRACTICE, AND FUTURE RESEARCH

"Journeys are the midwives of thought."
-Alain de Botton, *The Art of Travel*, 2002, p. 57

Introduction

The purpose of this dissertation study is to explore how students from design majors consider the meaning of their international education experiences in relation to their creativity and creative design work. The first chapter described the background of the study, including the theories that provide a structure for conceptualizing the relationship between creativity and international experiences. Subsequent chapters reviewed literature relevant to both creativity and study abroad; outlined the study methodology and methods; and presented the findings from the analysis of the survey and interview phases of the study. In this chapter, the findings from chapter four are synthesized, and based on those findings, the integrated theoretical and conceptual model proposed in chapter one is reexamined. Implications for practitioners, researchers, and instructors in the field of international education are discussed, with particular attention given to those who work with students in creative fields. Finally, the chapter concludes with a discussion of avenues for future research on facets of creativity and the student study abroad experience.

Synthesis of findings

As noted above, the primary goal of this study is to examine the ways design students make meaning of their study abroad experiences vis-à-vis their creativity. As

Seidman (1998) observes, a researcher can never fully share in the experiences of a study participant; however, Patton (2002) proposes that interviews allow the researcher to capture a participant's feelings about and memories of an experience. As such, individual interviews were employed as the principal method of data collection for this dissertation study, with a participant recruitment survey providing supplementary data through both multiple choice and open-ended questions; document and artifact analysis enriched and triangulated the interview and survey data.

Creativity has been an under-examined area of student development in the field of study abroad research when compared with other facets of growth such as language, intercultural competence, and academic success. The few existing studies on study abroad and creativity (Gurman, 1989; Lee at al., 2012) employed a post-positivist lens that operationalized creativity for psychometric measurement; conversely, this constructionist dissertation study examines the study abroad experience by recording the individual experiences of study abroad returnees whose academic majors are in applied creative disciplines.

Participants' narratives about their experiences suggested that they expected study abroad to be a worthwhile experience for them as future designers. They expressed the belief that studying abroad would expose them to the way design functions in another culture, giving them the opportunity to compare design and design education in their host country with the U.S. They also thought that they would improve their creative skills while abroad, and further develop themselves as designers. Finally, they felt the physical

experience of being abroad would support their understanding of how designs exist in a specific space; this was particularly true for students working in three-dimensional fields like architecture and interior design.

Participants from across the design disciplines highlighted the benefits derived from the experiential learning opportunities available during study abroad. As one participant was quoted in chapter four: “the whole experience was a class” (Sabrina, interview). Being abroad afforded students the opportunity to personally engage with design in a new cultural environment. In addition, it helped them link their academic learning with designs as they exist outside the classroom walls, and supported students in being more thoughtful about how their own designs would need to function “in the real world.” Interviewees identified four major aspects of the experience that influenced their creativity while abroad. The first was people, especially those who could serve as both design and cultural mentors (typically professors who were either from or had deep ties to the host culture). Host country nationals with whom participants had close personal relationships aided in the development of cultural understanding—which could later be drawn upon in creative work—but their lack of design knowledge made their contributions less obviously relevant. Interviewees also extolled the value of being able to engage with both the physical and sociocultural context of designs. These observations further supported the development of their understanding of how culture could influence design; a noteworthy minority became more aware of how design can have an impact on

culture, too. Finally, participants shared how being abroad was a time when they could explore other creative fields and relate them back to their design disciplines.

Interview participants described three ways in which they reflected on their study abroad experiences: solitary reflection, dialogic reflection, and artistic/expressive reflection; some used more than one method to consider and process what they were experiencing and learning while abroad. Based on their reflections, participants described two types of change. The first was a change in their perspectives, which was also highlighted by the larger pool of survey respondents. The more in-depth exploration with the interview participants yielded discussion on two types of perspective change: their views on aesthetics, and their views on creativity itself. Participants also described how they had adjusted their creative processes while abroad. First, they had learned how to apply concepts from their host culture to their creative work, and how to use new sources of inspiration. Additionally, they had refined their design identities and approach to design to accommodate their new meaning structures, which influenced the ways in which they engaged in the processes and procedures of their design work.

Finally, similar to what was found in the SAGE study (Paige et al., 2009), the influence of study abroad can extend long after the experience is over. Participants said that studying abroad had increased their interest in traveling and living abroad, and a few had even made concrete plans to either return to their host country or relocate somewhere new. The time abroad was also one of intense self-discernment; many participants

returned from abroad with clearer ideas about their design subfield and identity, their plans for graduate school, and their future career goals.

Implications of the findings for theory

The theoretical and conceptual framework for this study, as explained in chapter one, is an integration of four key concepts. This section describes the implications of the findings for both transformative learning theory and the complete integrated theoretical and conceptual model.

Implications for transformative learning theory

Mezirow's (1991) transformative learning theory, as reconceptualized in a non-linear structure by Cranton (2002), is the central theory of this dissertation study's integrated conceptual model, and it provides a deconstruction of the cognitive processes behind the development of participants' post-study abroad ways of working and creating. Mezirow (1991) described a ten-step series of events that comprise the transformative learning process, with the first being a catalyzing event called the *disorienting dilemma.* Indeed, the crux of transformative learning theory is that encountering the *disorienting dilemma* forces the reconsideration of one's preconceived ideas about the world; upon reflecting, if an individual chooses to incorporate these new ideas into their meaning structures and future actions, they have had a transformative learning experience (Mezirow, 1991; Cranton, 2002). However, Taylor (1997), in a meta-review of empirical studies focused on transformative learning theory, observed that not all learners go through the process in sequence, and may even skip steps; therefore, Cranton (2002)

reimagined transformative learning as a spiral, wherein learners may navigate the stages in a different order, or even return to steps in an iterative manner.

Regardless of the order in which learners traverse the stages of the process, reflection functions as the fulcrum around which transformative learning pivots: it is upon reflection that perspectives change and new ways of thinking can be incorporated into future action. In the research literature on transformative learning, there is a strong focus on reflection through dialogue and the co-construction of knowledge via oral processing (Belenky & Stanton, 2000; Taylor & Cranton, 2012). However, interview participants described an additional type of reflection, explaining how they engaged in creative and expressive projects such as uploading photo blogs or curating mementos in moodbooks as a way of processing what they were learning while abroad. These creative outlets represent an avenue for reflection distinct from the internal or dialogic processing most commonly discussed in the context of transformative learning theory. Considering creative reflection alongside solo and oral reflection recognizes that not all individuals react to or process their experiences in the same way, and acknowledges the validity of other types of reflection as potentially supportive of transformative learning.

Implications for the integrated conceptual model

Csikszentmihalyi's (1988) organization of creativity into a three-part, mutually influential system forms the foundation of the conceptual framework for this dissertation study. Moving beyond the idea of creativity originating solely from within the creator, Csikszentmihalyi (1988) argues that the *individual* exists in a state of interdependence

with the *domain* (his or her cultural milieu) and the *field* (the area of creative endeavor). The *individual* does not source ideas from a vacuum, but instead is deeply affected by the cultural context: for example, the intricate geometry in some Middle Eastern art is a reaction to the Islamic prohibition on depicting living creatures. The chosen creative *field* and its gatekeepers both inspire the *individual* and choose which of the creator's contributions merit inclusion in the *domain*. Lastly, the *domain* and its cultural rules shape how the *field* responds to the output of the *individual*. Where *field*, *domain*, and the *individual* converge, creativity occurs (Csikszentmihalyi, 1988; see also chapter one, figure 1.1).

A question at the heart of this dissertation study was whether having access to a second *domain* in the form of their host culture would influence how design students perceived their creativity or their creative work: as creative individuals, how was the experience of studying abroad meaningful for them? Interview participants confirmed that encountering the new *domain* was inspirational; some drew directly from the host culture's art and artifacts, while others wove new concepts into their work in more subtle ways. Additionally, participants described how their creative processes were influenced by both the lifestyle of their host country (*domain*) and the way that teachers, mentors, and exemplars from the host culture approached their design work (*field*).

Engaging with members of the host culture also provides study abroad students with an opportunity to explore the concepts that underpin their existing meaning structures, and to reconsider their preconceived notions. The social contact hypothesis

(Allport, 1954; Pettigrew, 1998) proposes that interaction with members of another group leads to reduced prejudice. Reinterpreting "reduced prejudice" as "increased openness" offers a rationale for comprehending the learning that occurs when study abroad students interact with host country nationals: the interaction is both an exposure to new ideas as well as a dialogue about the social and cultural values that buttress those ideas. For design students, engagement with members of their host culture bolstered their creativity because they were able to 1) see how local designers worked (*field*) and 2) better understand the culture itself (*domain*).

Chiu et al. (2000) suggest that this type of comfort or familiarity with another culture can result in greater willingness to sample concepts from the second culture in one's creative work; they call this *motivated cultural cognition* (see also Chiu & Hong, 2005). Social contact supports the development of openness and reduced prejudice, and subsequently, motivated cultural cognition is the use of newly discovered ideas as resources or tools. Among the interview participants, motivated cultural cognition manifested most clearly in the borrowing of cultural concepts directly into design work, such as including the clean lines of Danish typography on a sign, or programming a park in a minimal, Mexican style. Responses from the survey indicated that a majority of returnees were using ideas from their study abroad experiences in their creative work, and comments from the interviewees further explicated the ways in which creative individuals borrow from the creative processes of their host culture as well.

The integrated conceptual model from chapter one synthesized the above theories and hypothesized a rationale for how the study abroad experience influences the creative work of students in design majors. The model as originally proposed is shown below in Figure 5.1.

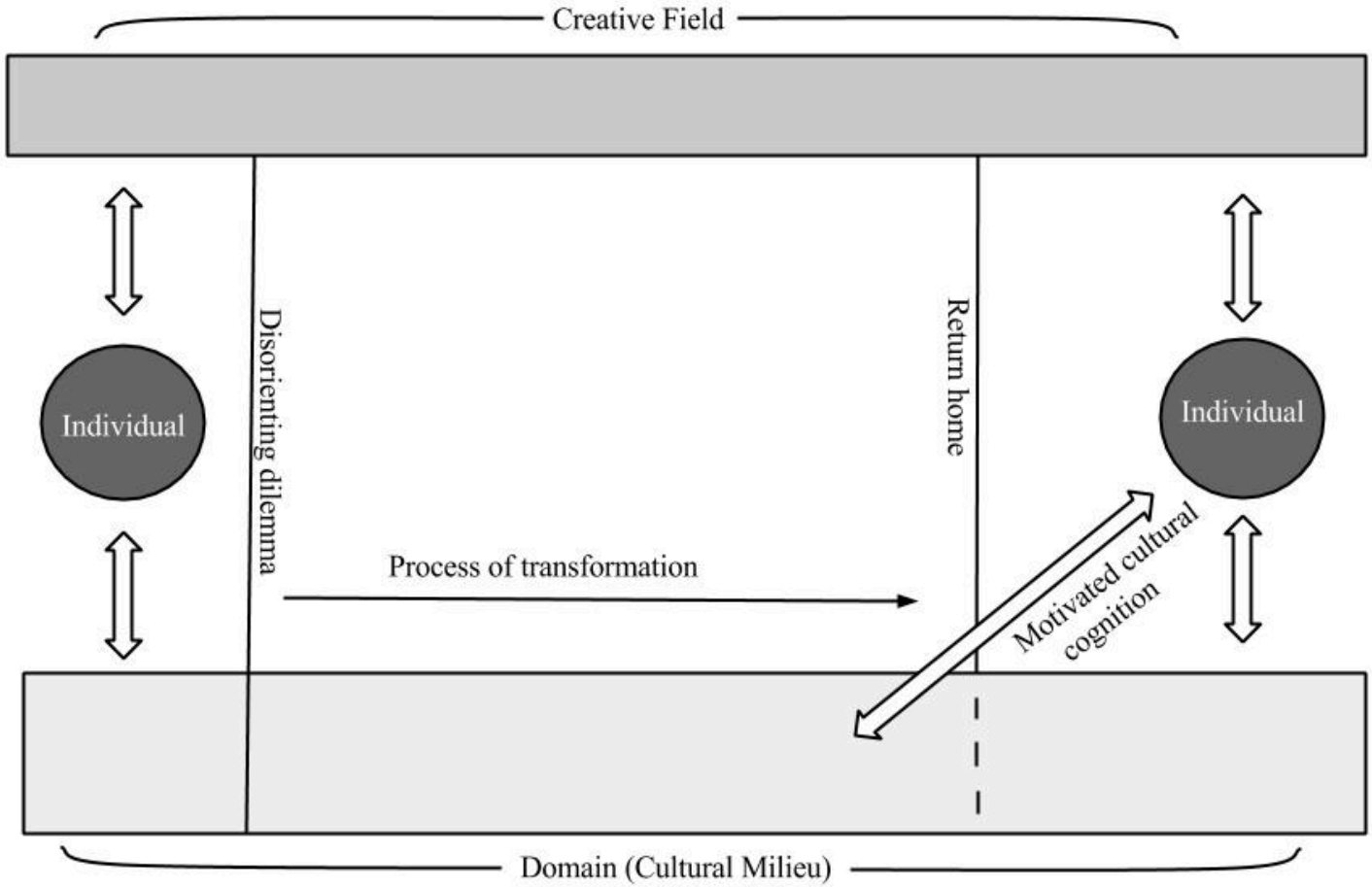

Figure 5.1. Proposed integrated conceptual model for understanding the learning experiences of students in creative majors who study abroad

The above figure demonstrates how, after encountering the *disorienting dilemma* of study abroad, preexisting meaning structures are reassessed during the process of transformation such that, upon return from study abroad, the creative *individual* is able, through motivated cultural cognition, to access the cultural concepts of both their home and host *domains* in their creative work. However, based on the analysis of interview participants' descriptions of their experiences as discussed in chapter four, it is apparent that students were influenced, as well, by the specific structures and procedures of their chosen creative *fields* as practiced in their host cultures.

In a motivated cultural cognition-like manner, returnees sourced ideas for design processes and methods from their host sites' creative *fields*. Recall the example of Chelsea, who learned from a Danish design professor that it was important to give herself more time on her projects and not work right up to the deadline (Chelsea, interview). This change in her process was derived from her study abroad experience, and is closely tied to the *field* of graphic design as practiced in Denmark; however, following the system of creativity as structured by Csikszentmihalyi (1988), it is important to note that the Danish graphic design *field* is also influenced by the broader Danish *domain*.

The accessibility of the *field* as a source of ideas for altering the design process varied, however, depending on whether students were exposed to local designers during their sojourns. Comparing the experiences of architecture students Morgan and Jacob reinforces this point: while both had studied French language and originally hoped to study abroad in France, Morgan prioritized the opportunity to enroll in architecture

coursework, and ultimately selected the Denmark program instead. Conversely, as Jacob was a French Studies double major, continuing with his plans to participate in a Paris-based program was a logical decision. Yet that choice meant a year of art, art history, and French language courses that did not afford him as much access to French architects and, concomitantly, their design processes. Thus, though both students had positive study abroad experiences and were able to describe their learning in rich and varied ways, it was Morgan who had a more open channel of access to the architecture *field* as practiced in her host country. This learning manifested in her designs, where she was actively employing some of the Danish perspectives and techniques she had learned. Jacob, too, was ultimately able to incorporate a French perspective in his design work, but it was a much more independent process that required a greater degree of effort and initiative on his part.

A revised integrated theoretical and conceptual model, updated to visually depict this finding that students draw from both the *domain* and the *field* of their host culture, is shown in Figure 5.2. Similar to the original model, where the barrier between *domains* is now permeable for individuals who have experienced another culture, the new model reflects how the *individual* is also able to access (and potentially contribute to) the *field* of the host culture.

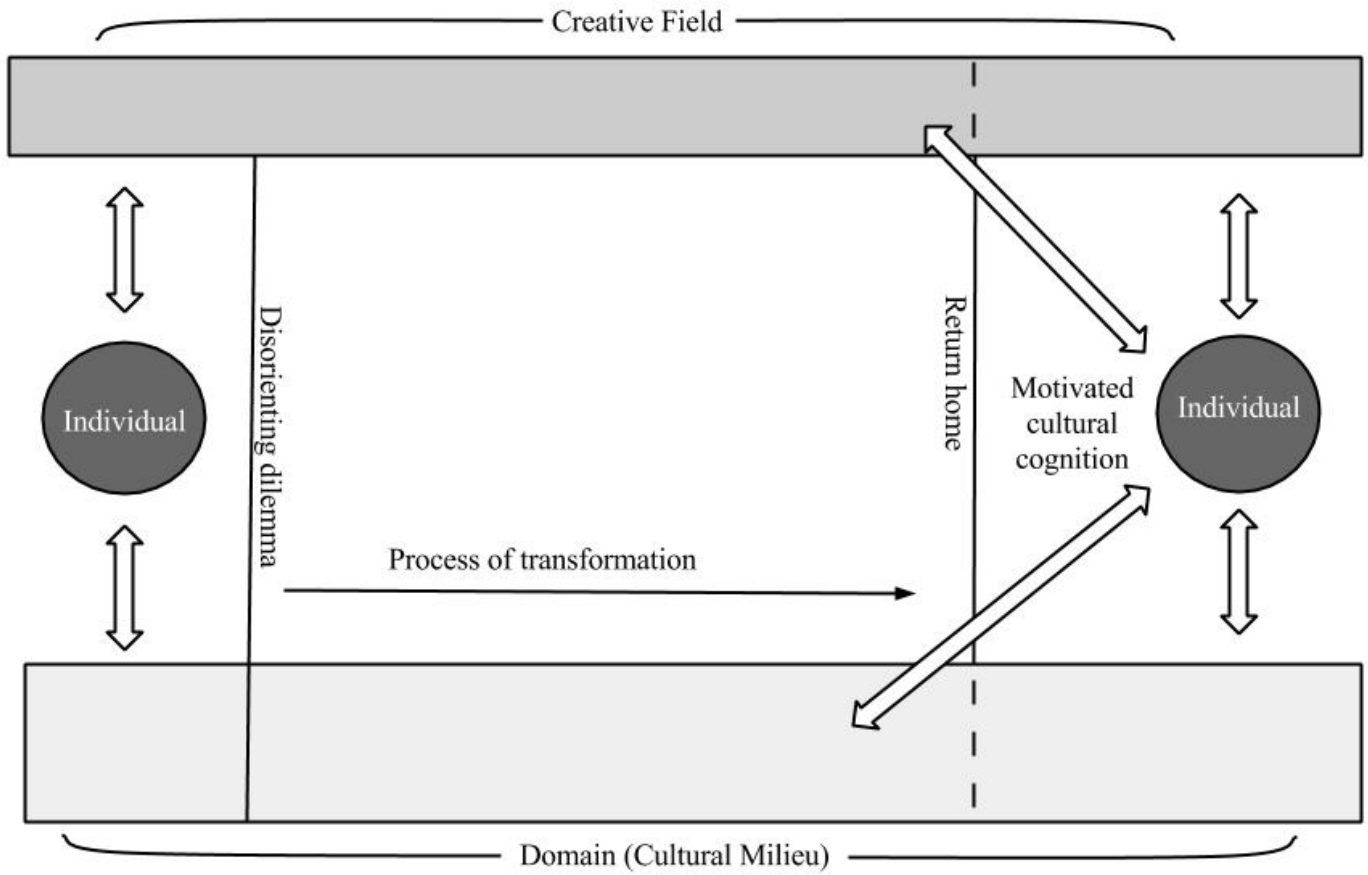

Figure 5.2. Revised integrated theoretical and conceptual model

Implications of the findings for policy and practice

As a researcher with professional experience as an international education practitioner (both administrative work and classroom teaching), my scholarly philosophy emphasizes the practical implications of the findings as coequal in importance to the theoretical. In addition to the theoretical contributions of this study, there are lessons from the findings about how program design and structure can influence students' learning and the development of their creativity. These implications will also be discussed within the context of the theoretical and conceptual framework for the study. Below, the implications of the findings for policy and practice are discussed, interwoven with suggestions from the participants themselves.

Implications for the pre-departure phase

Recruiting for creative learning

When asked why they had decided to study abroad, few participants reported making the decision because they believed it would support the development of their creativity. Yet the survey responses, as well as the comments from the interviewees, indicate that the study abroad experience does exert a powerful effect on how participants view their creativity and creative work. Combined with the quantitative evidence from previous studies (Gurman, 1989; Lee et al., 2012), it is apparent that studying abroad can have a positive influence on the creativity of many returnees. Students from the UMTC College

of Design participate in study abroad at a higher rate than the national average for design students, yet their overall participation rate is still low when compared with students from other major fields like the humanities (IIE, 2014). Though study abroad recruitment materials often extoll the ways in which students can build their resumes by improving their linguistic and intercultural skills while abroad, the development of creativity is not mentioned, even though twenty-first century employers increasingly seek creative employees. Wider dissemination of information about how study abroad can influence creativity may encourage more students from the fine and applied arts, as well as other fields where creativity is valued, to register for the experience.

Accommodating study abroad for creative majors

In order for students to participate in study abroad, however, their major curricula need to accommodate the experience. Many interview participants commented on how the rigidity of their major curricula limited their study abroad program options, and described the sometimes challenging process of finding a program where the credits would seamlessly transfer back to UMTC. One participant mentioned his architecture adviser telling him about another student who had enrolled directly at the Bauhaus-Universität Weimar in Germany, only to return and not get any credit for his experience, and that was "an expense I really didn't want to incur" (Jacob, interview). The fact that an

architecture student was unable to transfer credits from such a prestigious architecture institute suggests a problem rooted in the credit transfer policy.

Further, proper timing of the study abroad experience is particularly critical for design majors, who often begin intensive studio work in their junior year, which is also the most frequently-chosen year of college for semester or yearlong study abroad participation. Not being able to take these courses can cause students to fall behind their cohort, or result in missing out on learning essential skills. Kelsey described how, because she had studied hand-drafting during her semester abroad, she did not learn how to use AutoCAD, an architecture software program. When she started looking at jobs in her major field, she realized that this was a critical omission: "The downfall of that was that I didn't learn AutoCAD…. you absolutely have to know Rhino and AutoCAD and all these programs, [be]cause that's what they're looking for now" (Kelsey, interview).

These twin challenges, of finding a program whose credits will transfer, and then timing the program to not miss important studio courses, represent significant barriers to participation in study abroad for students of design. Although the participants in this study had the resources to overcome these barriers, it is impossible to determine how many other students were deterred from the experience because of these same institutional roadblocks. As studying abroad has been demonstrated to positively influence student learning across a

range of measures, and has been cited by participants in this study as meaningful to their creativity and creative development, reducing barriers to participation is a matter of equity and should, therefore, be an institutional priority.

Implications for the program phase

Embedded reflection in short-term programs

Although recent research has suggested that short-term programs can also significantly influence student learning and skill development (see Nam, 2011), all three interviewees in this dissertation study who participated in shorter programs found it challenging to develop relationships with local people or engage in guided reflection. While this is too small a group from which to derive concrete assumptions, it nevertheless suggests that a greater length of time, with built-in downtime for reflection and mental reprieve, allows for deeper access to and engagement with a culture. As both Tara (who participated in a May program) and Lacey (who did a summer internship) described, they were so busy during their programs that reflection was impossible during their time abroad; Tara said she was so mentally exhausted from the experience that she slept for nearly a week upon her return. Only Parker (summer internship) described any on-site reflection time, in the form of evening debriefings with his flatmates. However, he noted that this was primarily due to the fact that he and his roommates were “lighter on funds” than some of the other students in their program, and were therefore unable to spend as many evenings out while they

were in London; these reflection sessions were not formally structured into the program (Parker, interview).

In a short-term experience where every moment matters, it is often all too easy to reduce reflection time in favor of activities and site visits, yet this time is crucial to the cognitive processing that underpins transformative learning. While students on semester programs may have more personal time to engage in reflection (although, as the example of Morgan attests, it can be challenging even for these students to find time; see chapter four), reflection needs to be embedded into the structure of shorter programs as an essential element. Further, for faculty-led programs like the one in which Tara participated, the faculty leaders themselves may need training on how to include reflection alongside the curricular components. As the findings of this study indicate, reflection has implications for transformative learning that can influence how students approach and execute their creative work, so there is ultimately a design benefit to engaging in reflective processing during study abroad, too.

Learning from local designers

The implications of the findings for theory suggest that design students draw not only from the *domain* of their host culture when they study abroad, but are inspired to adopt some of the design processes and procedures of the *field* as practiced in the new cultural context as well. Students like Morgan and Annie, who worked closely with Danish designers and design experts in their courses,

were able to experiment with ideas from the local *field* and incorporate them into their work; recall, too, how Annie described the daylong workshop with Dutch graphic designers as one of the richest learning experiences of her time abroad. Brent observed that not having access to local designers and design students prevented him from learning about how creativity was conceptualized in his host culture:

> I think I would've found out more about the creativity from the culture if I was creating things with people in that culture. I think there was a certain disconnect with designing in the country. [Be]cause I think our studio work could have been, could have taken place anywhere. The actual studio project was influenced by the culture of the area. I think my view of creativity, I think I would have been more influenced if I had seen the creative process of someone, you know, that's not American. (Brent, interview).

Enrolling in design courses taught by local designers, and including local students, would allow study abroad students to observe the processes of both experts and learners like themselves. Although some students had access to local designers, it is important to note that none of the interview participants had the opportunity to take design courses alongside local students. There is a wide array of direct-enrollment study abroad programs available, and design students (particularly those like Amanda, Jacob, and Erika who are also interested in

improving their language skills) should be encouraged to pursue study abroad options where they can take studio coursework with design students from the host country.

Meaningful engagement with local people

For many participants, doing a homestay or having other meaningful connections to people from their host culture was a highlight of the study abroad experience, and was a substantial contributor to their processes of meaning-making. Those who participated in island-format and faculty-led programs, however, struggled to meet and engage with local people in the same way. Mark described his experience with an island program in Florence:

> I think my biggest disappointment, like, I didn't make a single Italian friend. There was one American, a student, who had all Italian roommates. She wasn't in our program, she was in one of the other ones, and I think she got the best experience out of everybody because she made really good friends with them, she got to meet their friends, go out with them, meet more people that way, and they helped her with her Italian…. And I think she got the most out of it in that sense. (Mark, interview).

As Brent observed about the CDes Rome and Istanbul program,

> I guess that was another thing I kind of wished was a part of our program. We didn't really have too much interaction with Italian students or

> Turkish students…. We met a few Turkish people, like, the closest I got with any Turkish people was either just like the coffee shop owners that we'd go to regularly or a few people we met on our spring break trip. But nothing in, like, a learning environment. (Brent, interview).

Danielle, who did the same program in a different year, shared Brent's disappointment with that aspect of the program, but she also noted the value of being in a cohort where reflection could happen often and spontaneously amongst the group members, and she cited her fellow UMTC students as having contributed significantly to her learning. Conversely, students on programs arranged through independent study abroad providers usually had more opportunity to meet locals, but they did not travel with the same type of close-knit group. Both local interactions (social contact hypothesis) and critical reflection on preexisting assumptions (transformative learning theory) were fundamental components of the learning described by participants; in an ideal program, students would have the opportunity to engage with locals (particularly local design students and design professionals) *and* be able to participate in guided reflection with faculty and peers.

Implications for the returnee phase

Opportunities to use and showcase learning

As is apparent from the findings, students of design who study abroad draw on their experiences encountering concepts and artifacts from their host

cultures in their design work. These “fusion” design projects present a multifaceted opportunity. First, by applying ideas learned from study abroad in their work, returnees re-engage with their international experience, providing an opportunity for additional reflection on what they have learned; this re-engagement supports the iterative processes of transformative learning (Mezirow, 1991; Cranton, 2002).

Second, returnees have the ability to share what they have learned with fellow design students. This may encourage other students to study abroad, and it can also spread one place’s cultural concepts to students who may not choose to study abroad in the same country. For example, Eleanor described how she adapted the open, flexible layout of a Danish school she had visited while abroad for use in a group design project for an elementary school. While working on the project, she shared her experience with her colleagues, and together they expanded on it and developed something new. Through their collaboration, the Danish concept was re-worked and re-imagined for a U.S. context; though Eleanor was the only group member who had studied in Denmark, all were able to draw on the Danish interior design *field* for the project. This suggests that design student returnees should be encouraged to share their study abroad-influenced work when they return to the home campus, as aspects of their learning can be transmitted to other students.

Limitations of the study

First, because the population of interest for this study is small, the interview participant recruitment survey was sent to the entire population of study abroad returnees from the College of Design classes of 2010-2018, and participation was voluntary. Thus, less variability in response is present than might be anticipated with a random participant sample. For example, only one respondent summarized her study abroad experience as "I learned some new things, but I don't think what I learned while abroad applies to my creative work," and she later qualified this response in her interview, noting that she *did* feel the experience had influenced her creative work, but not to the degree that it had affected her in other ways (see chapter four, *Eleanor*). It is possible that students who felt the study abroad experience either did not influence their creativity, or had an adverse effect on their creativity, were disinclined to complete a survey or volunteer for an interview about study abroad and creativity. Further, because the survey was a self-report measure, the accuracy and veracity of participants' responses cannot be conclusively determined.

In addition to the limitations of selection bias and response bias, retrospection bias is possible. While some survey and interview participants had only recently returned from their experiences abroad, others were removed from the experience by several years; there is, therefore, the possibility of misremembering or mischaracterizing their experiences. However, the

congruence between the responses of current undergraduates and alumni, as well as the rich examples of participants' creative work, suggest that participants found their study abroad experiences meaningful for their creativity, and that the experience influenced their creative work in ways that may not have been possible had they remained at UMTC for the entire duration of college.

Finally, although creative writing certainly falls into the category of artistic creativity, this discipline could not be included in the study. The College of Liberal Arts (CLA), which was included in the population for the initial survey release, does house a program in creative writing. However, as it is a post-baccalaureate program granting Master of Fine Arts (MFA) degrees, it was excluded from this study, which is focused on the experiences of undergraduates. As my own primary artistic interest is creative writing, this limitation serves to decrease any bias my personal experiences may introduce to the study. Ultimately, as described in chapter three, all CLA majors were excluded from the study due to low rate of response.

Suggestions for future research

A central goal of this study, as described in chapter one, was to contribute qualitative, constructionist research to a field dominated by post-positivist studies that operationalize the construct of creativity for psychometric assessment. The findings of this study provide insight into *how*, rather than *whether*, creative individuals find international education experiences

meaningful for their creative work, and contribute to filling a sizeable gap in the research literature about the ways returnees consider their experiences abroad in the context of their creativity. Given, however, the understudied nature of this phenomenon, there remain several fruitful avenues for further research on study abroad and creativity.

As fine arts students were originally planned as a part of this study's population of interest, a logical direction for future research would be to consider the study abroad experiences of art, theater, and music students. Like design students, fine arts students are also well-situated to consider their creativity in light of their international experiences, yet the difference in field may also result in significant dissimilarity in learning processes and meaning-making. Further, as discussed in chapter one, creativity is necessary for majors outside of the art and design fields as well, and is an increasingly in-demand job skill. Quantitative studies on creativity and study abroad demonstrate that, for students from a variety of majors, study abroad exerts a positive influence on both domain general and domain specific creativity (Gurman, 1989; Lee et al., 2012). A key contribution of this dissertation study is that it focuses on the meaning-making processes of creative individuals themselves, and describes the ways they interpret their study abroad experiences into their creative work. While art and design students are certainly well-positioned to reflect on their creativity, creativity is not the sole bailiwick of these disciplines. For example, students

majoring in business entrepreneurship or political science may also engage their creativity within their academic fields. Interviewing these students about their experiences would move beyond the domain-specificity of this dissertation study to explore how non-design students interpret the meaning of their time abroad vis-à-vis their major discipline.

Another worthwhile area of consideration would be the experiences of design students from universities other than UMTC. Several architecture majors and alumni who participated in the interviews mentioned that, in meeting students from other schools at their study abroad sites, they realized that the CDes architecture department has a more theory- and creativity-driven philosophy of design. Conversely, colleagues from other universities were more focused on the structural and engineering aspects of architecture. Examining the international experiences of students who have studied under such a different architectural philosophy may illuminate the ways in which institutions can lay the groundwork for creatively inspiring sojourns abroad for their students.

Further, the findings derived from the interview data demonstrate that participants drew meaning from the study abroad experience in ways not originally conceived before data collection, necessitating the revision of the proposed integrated conceptual model to include how participants described adopting ideas from the host culture's *field* in their creative processes. The interview data from this study could function as the first phase of a sequential

mixed methods exploratory study, supporting the development and validation of a quantitative instrument that better interrogates and captures respondents' experiences than the initial survey used in this study, which functioned primarily in a participant recruitment capacity. Administering a more developed quantitative survey to a random sample could also mitigate some of the response bias introduced through this study's sampling design.

Finally, longitudinal studies on international experiences and creativity are virtually non-existent. A systematic longitudinal design that revisited the study participants at some point in the future would allow for examination of whether the effects of exposure to and engagement with another culture persists; are returnees still pulling concepts from the *domain* and *field* of their study abroad cultures, or has the accessibility of these creative resources faded with time? The example of Chelsea, the alumna who said that she continues to think about her time in Denmark every day, suggests that for some, the experience can still wield a strong influence; this possibility should be considered in further research with a larger participant pool.

Conclusion

This study was conceived with two core purposes. The first was to fill a gap in the existing empirical literature on creativity and international experiences—the majority of which is post-positivist and quantitative in nature—by focusing on the creative experiences of individuals who have

participated in study abroad as undergraduates. The second goal was to explore the ways in which design students make meaning of their international education experiences in the context of their creativity and the creative work they generate within their design majors.

The argument has been made that creativity, like intercultural competence, is an important twenty-first century skill (Gardner, 2006), and therefore, employers in a multiplicity of fields seek individuals who can solve problems in innovative ways (Pink, 2004). Further, existing studies demonstrate how international and intercultural experiences result in a greater degree of domain-general creativity as assessed psychometrically (Fee & Gray, 2012; Lee & Kim, 2011; Lee et al., 2012; Leung & Chiu, 2010; Leikin, 2013; Lubart, 1999; Maddux & Galinsky, 2009; Tadmor et al., 2012) and improved domain-specific creativity as well (Lee et al., 2012). From the review of literature, a third study purpose, of adding to the research on the relationship between international experiences and domain-specific creativity, also emerged.

In the participant recruitment survey, respondents were asked to self-assess the degree to which they had used ideas from their study abroad host culture in their creative work. The study was designed so that the survey responses would allow for the selection of particularly information-rich extreme cases. However, because a low rate of response and low variation in responses were combined with high self-ratings from the interview volunteers, negative

cases were virtually non-existent; only one individual who self-defined as having a lower degree of success in using her study abroad experience in her creative work was willing to participate in an interview. This issue, combined with the extremely low rate of response from College of Liberal Arts students and alumni, resulted in the reconceptualization of the study to focus on the transformative learning and meaning-making processes of students from the UMTC College of Design.

In the interviews, participants were asked to share significant learning experiences they had had while abroad, and to describe the factors that they felt had most contributed to the development of their creativity or to the creativity of their design work. Their responses highlighted the importance of having a culture mentor, ideally someone with deep knowledge of both culture and design. Guidance in interpreting the cultural experience helped students envision the link between culture and design, and supported their understanding of how to design for another cultural group in a socioculturally competent manner. In addition, they noted that being abroad was a time to explore other creative fields, both design and otherwise, and drew lessons from those other creative fields that could be applied back to their design work. Further, the experience of being immersed in a new culture, or *domain*, and in the processes of their design *field* as practiced in the second *domain*, provided students with bountiful new sources of creative inspiration and design procedures.

The integrated conceptual model provides a rationale for understanding the learning process experienced by design students in the study abroad context. In the system of creativity as proposed by Csikszentmihalyi (1988), creator, culture, and creative discipline exist in a symbiotic triangular relationship. However, when studying abroad, students of design are removed from their home *domain* and *field*, experiencing those of a new culture. While some may be resistant to adopting practices and ideas from a new culture into their work, Mezirow's (1991) transformative learning theory hypothesizes how other individuals are able, through critical reflection on their assumptions, to adjust their meaning structures to accommodate new concepts. Finally, social contact hypothesis (Allport, 1954; Pettigrew, 1999) suggests that prejudice is reduced through social engagement with those from another culture; and Chiu et al. (2000) propose that reduced prejudice and greater openness to a culture can also increase the likelihood that an individual will borrow concepts from that culture in a process they call *motivated cultural cognition*. The study findings offer confirmatory evidence for the logic behind the integrated conceptual model, with a key modification: the consideration that creative individuals borrow not only from the cultural *domain*, but from the new variant of their specialized *field* as well.

There are several steps universities must take if they are to capitalize on the value that study abroad can offer to students of design in the form of greater

resources for their creative inspiration and processes. Study abroad programs should contain embedded reflection and opportunities for deep, meaningful engagement with local people, especially local design practitioners, instructors, and students who can provide guidance about both *field* and *domain* as they exist in the host country. Further, students should be encouraged to consider the meaning of their experiences vis-à-vis their creativity before, during, *and* after their time abroad, so that they develop an awareness of the creative resources available to them in their new cultural context.

Prospective study abroad students from the design fields may have a nascent awareness of the ways in which study abroad can influence them creatively; as one participant said of her pre-departure expectations, "I was just excited to see new things and kind of add it to my creative box up here [points at her head]" (Madison, interview). The findings of this study offer implications for how high quality program design, reduction of barriers to participation, and support for the iterative processes of transformative learning can aid students in maximizing their study abroad experiences as resources that contribute to their creativity and creative design work.

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APPENDIX A: Recruitment Survey Cover Letter

SUBJECT: Share your study abroad experiences as an art & design major: Opportunity to win $50 Amazon gift card

Dear University of Minnesota Study Abroad Returnee,

The Learning Abroad Center is forwarding the following survey request from a University of Minnesota graduate student and supports the goals of this research project:

You are cordially invited to participate in a research study that examines how students and alumni from creative majors make meaning of their study abroad experiences. You are being invited as a possible participant because you have studied abroad and have majored in an art, performance, or design major at the University of Minnesota-Twin Cities.

This survey asks several questions about your experiences studying abroad as a student majoring in a creative field such as art, performance, or design. While it will ask you about your activities since studying abroad, this is in no way an evaluation of you or anyone else. The sole purpose is to learn more about how students and alumni from creative disciplines think about their study abroad experiences in relation to their majors and/or professional creative work.

Before beginning the survey, please carefully read the consent information, which is located on this website [https://sites.google.com/a/umn.edu/consent-information/], and ask any questions you might have.

Your responses are confidential and will be seen only by the researcher. The survey asks for your name and email address only because the researcher may wish to interview some respondents in order to gather more information. Sharing your name and email address is **optional**.

To respond to the survey, please follow this link [http://z.umn.edu/creativityabroad] and click on the response choices that best reflect your experience. When you have completed each item, please submit the survey. The survey should take approximately 3-5 minutes to complete. **All who complete the survey may choose to be entered in a random drawing to win one of three $50 Amazon gift cards**. You do not need to consent to an interview in order to win.

Thank you! I really appreciate your honest and helpful feedback.

Sincerely,
Rachel Sherman Johnson
sherm326@umn.edu

APPENDIX B: Survey Consent Information Sheet

Creative Minds Abroad: How Art, Performance, and Design Majors Make Meaning of Their International Education Experiences

You are cordially invited to participate in a research study that examines how students and alumni from creative majors make meaning of their study abroad experiences. You are being invited as a possible participant because you have studied abroad and have majored in an art, performance, or design major at the University of Minnesota-Twin Cities. Please read this form carefully and ask any questions you may have before agreeing to take part in the study.

This study is being conducted by Rachel Sherman Johnson, a Ph.D. candidate in Comparative and International Development Education in the Department of Organizational Leadership, Policy, and Development at the University of Minnesota-Twin Cities.

Background Information

The purpose of this study is to learn more about how students from creative majors use what they learn on study abroad in their creative work, and how they think about studying abroad in relation to their future plans or careers in creative fields. The results will provide valuable insights about the influence of international experiences on creativity and creative work, and will impact policies and practices in study abroad program design.

Procedures

If you agree to be in this study, you will be asked to fill out the linked survey. The survey will take approximately 3-5 minutes to complete.

Risks and benefits of participating in the study

I do not anticipate any risks to you participating in this study other than those you would normally encounter in day-to-day life. The results will not in any way be related to your student or alumni status at the University of Minnesota.

There are expected benefits for you for participating in the survey. By participating in the survey, you will have the opportunity to: reflect on your study abroad experience; consider the learning that occurred during your study abroad experience; and become more aware of your creativity and creative processes.

Compensation

At the end of the survey is a link to a form to enter an online drawing. Survey participants may choose to enter in the drawing to win one of three $50 Amazon gift cards. Winners will be drawn randomly by the researcher. Estimated odds of winning are approximately 1 in 67. Winners will be contacted via the email address they provided on the online drawing form.

Confidentiality

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify you. Research records will be stored securely, and only the researcher will have access to the records.

Voluntary nature of the study

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relationship with the University of Minnesota. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and questions

The researcher conducting this study is Rachel Sherman Johnson, and the study adviser is Dr. Gerald Fry. You may ask any questions you have now, or if you have any questions later, you are encouraged to contact Rachel [via email at sherm326@umn.edu, or by telephone at (612) 246-0875] or the study adviser, Dr. Fry [University of Minnesota, 330 Wulling Hall, Minneapolis, MN 55455;gwf@umn.edu; (612) 624-0294].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Research Subjects' Advocate Line [University of Minnesota, D528 Mayo, 420 Delaware Street Southeast, Minneapolis, MN 55455; (612) 625-1650].

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APPENDIX C: Survey Instrument

Study Abroad Experiences of Creative Majors

Here are some actions you may have taken, regarding your creative work, either during or after your study abroad experience. Please check the response opposite each action that best describes your experiences.

I've used something I learned on study abroad to…	I've done this and achieved a concrete and worthwhile result	I've done this, but I wasn't satisfied with the results	I haven't done this yet, but I might in the future	I haven't done this, and don't plan to
1. Think about a problem or assignment in my creative field in a new way.				
2. Combine new ideas in my creative work.				
3. Create a new work of art or a design.				
4. Improve a work of art or a design.				
5. Work on my art or designs in a new way.				

6. Which statement below best describes your experience since participating in study abroad?

- I learned something new and have applied it to my creative work with worthwhile results.
- I learned some new things and have applied them to my creative work, but I can't point to any very worthwhile results yet.
- I learned some new things, but I have not yet applied them to my creative work.
- I learned some new things, but I don't think what I learned while abroad applies to my creative work.

- I didn't learn anything new while abroad.

7. What elements of your study abroad experience had the greatest impact on your creativity?

8. Are there other ways in which you feel studying abroad changed you? If so, please describe in the box below.

9. Information about you:

a. Gender
- Female
- Male
- Other

b. Current academic standing
- First year
- Sophomore
- Junior
- Senior
- Alumnus/alumna of the University of Minnesota

c. Major
- Acting BFA
- Apparel Design BS
- Architecture BS
- Architecture BDA
- Art BA
- Art BFA
- Costume Design BS
- Dance BA
- Dance BFA
- Graphic Design BFA
- Graphic Design BS
- Housing Studies BS
- Interior Design BS
- Landscape Design & Planning BED
- Performance Bachelor of Music
- Retail Merchandising BS
- Other (please specify): _____

d. What country did you study abroad in?

_____

e. Approximately how long was your study abroad program? (E.g. One month, one semester, one year).

_____

8. I would be willing to participate in an in-person or Skype/Google Hangout interview about my study abroad experience.

- Yes (please provide name and email address below)
- No

9. Name [optional] _____

10. Email address [optional]_____

Your name and email address are requested because the researcher would like to follow up with some respondents for an interview. Data collected will be held in strictest confidence. Individual responses will not be shared.

APPENDIX D: Interview Consent Information Sheet

Creative Minds Abroad: How Art, Performance, and Design Majors Make Meaning of Their International Education Experiences

You are cordially invited to participate in a research study that examines how students and alumni from creative majors make meaning of their study abroad experiences. You are being invited as a possible participant because you have studied abroad and have majored in an art, performance, or design major at the University of Minnesota-Twin Cities. Please read this form carefully and ask any questions you may have before agreeing to take part in the study.

This study is being conducted by Rachel Sherman Johnson, a Ph.D. candidate in Comparative and International Development Education in the Department of Organizational Leadership, Policy, and Development at the University of Minnesota-Twin Cities.

Background Information

The purpose of this study is to learn more about how students from creative majors use what they learn on study abroad in their creative work, and how they think about studying abroad in relation to their future plans or careers in creative fields. The results will provide valuable insights about the influence of international experiences on creativity and creative work, and will impact policies and practices in study abroad program design.

Procedures

If you agree to be in this study, you will be invited for an interview. The interview will include questions about your major, your time studying abroad, your creativity, and any creative work that you do. If you have any items of creative work (such as drawings, designs, photographs, blogs, poems, videos, or pieces of music, etc.) that you would be willing to discuss with me, I ask that you bring these items to the interview. I will also ask you questions about these selected item(s) of creative expression. The interview will take approximately 60-90 minutes to complete. With your permission, I would like to audio record the interview.

Risks and benefits of participating in the study

I do not anticipate any risks to you participating in this study other than those you would normally encounter in day-to-day life. The results will not in any way be related to your student or alumni status at the University of Minnesota.

There are expected benefits for you for participating in the interview. By participating in the interview, you will have the opportunity to: reflect on and share your study abroad

experience; consider the learning that occurred during your study abroad experience; and become more aware of your creativity and creative processes.

Confidentiality

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify you. Research records will be stored securely, and only the researcher will have access to the records.

Voluntary nature of the study

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relationship with the University of Minnesota. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and questions

The researcher conducting this study is Rachel Sherman Johnson, and the study adviser is Dr. Gerald Fry. You may ask any questions you have now, or if you have any questions later, you are encouraged to contact Rachel [via email at sherm326@umn.edu, or by telephone at (612) 246-0875] or Dr. Fry [University of Minnesota, 330 Wulling Hall, Minneapolis, MN 55455; gwf@umn.edu; (612) 624-0294].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Research Subjects' Advocate Line [University of Minnesota, D528 Mayo, 420 Delaware Street Southeast, Minneapolis, MN 55455; (612) 625-1650].

You will be given a copy of this information to keep for your records.

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APPENDIX E: Interview Protocol: Undergraduates

[Introductions and informed consent process]

[NAME], thanks so much for taking the time to talk with me today about your study abroad experience. I'm looking forward to hearing more about what you did and learned, and how you use your experiences and learning in your creative work.

1. First, tell me a bit about your major, and what kind of creative work you do.
    a. When you declared your major, what career or job did you hope to get after college?

2. I'd like to talk a bit about your decision-making process around studying abroad.
    a. How did you get the idea to study abroad?
    b. How did you decide where to go, for how long, which program?

3. Thinking about your expectations for the experience, what did you hope to learn, in specific relation to your major? How did those expectations change over time?

4. How did you prepare to study abroad?

5. Now I'd like to turn to the experiences you had while abroad. Please tell me about your study abroad program.
    a. What kinds of courses did you take?
    b. What courses did you take that were related to your major?
    c. What out-of-class activities did you do?
    d. What would have made the experience better for you?

6. In what ways did you reflect on your experiences, either while abroad or since you've returned? Do you have any blogs or journals that you would be willing to share with me?

7. I'd like to talk a little more specifically about what you learned while abroad, particularly what you learned that is related to your major. Can you tell me about a significant or memorable learning experience you had?
    a. What about it was significant or memorable?

   b. How would you relate that learning experience to your creative work as a _____ major?

8. Please tell me about some more experiences you had while abroad that affected the way you think about your major and creative work.

9. Can you tell me about some people you met in [STUDY ABROAD SITE] who were important to your learning? Who were they, and how were they important?

10. How do you think studying abroad influenced you creatively? Can you give me some specific examples?

11. How do you use what you learned while abroad in your creative work? Can you give me some concrete examples?

12. Now that you're back…
    a. How, if at all, have your career plans or plans for the future changed?
    b. What do you hope to do in the future with what you've learned?

13. Do you have any creative work, such as artworks or designs, either from your time abroad or after, that you would be willing to share with me?
    a. In what ways is this work meaningful to you or representative of what you learned while abroad?

14. How do you think your study abroad experience affected how you think about or understand creativity?

15. Is there anything else you think I should have asked, or that you'd like to tell me about your study abroad experience?

APPENDIX F: Interview Protocol: Alumni

[Introductions and informed consent process]

[NAME], thanks so much for taking the time to talk with me today about your study abroad experience. I'm looking forward to hearing more about what you did and learned, and how you use your experiences and learning in your creative work.

1. First, tell me a bit about your major, and what kind of creative work you do.
    a. When you declared your major, what career or job did you hope to get after college? Are you currently working in your major field? What do you do? If you're in graduate school, what are you studying?

2. I'd like to talk a bit about your decision-making process around studying abroad.
    a. How did you get the idea to study abroad?
    b. How did you decide where to go, for how long, which program?

3. Thinking about your expectations for the experience, what did you hope to learn, in specific relation to your major? How did those expectations change over time?

4. How did you prepare to study abroad?

5. Now I'd like to turn to the experiences you had while abroad. Please tell me about your study abroad program.
    a. What kinds of courses did you take?
    b. What courses did you take that were related to your major?
    c. What out-of-class activities did you do?
    d. What would have made the experience better for you?

6. In what ways did you reflect on your experiences, either while abroad or since you've returned? Do you have any blogs or journals that you would be willing to share with me?

7. I'd like to talk a little more specifically about what you learned while abroad, particularly what you learned that is related to your major or your

current work. Can you tell me about a significant or memorable learning experience you had?

a. What about it was significant or memorable?
b. How would you relate that learning experience to your creative work as a _____ major/ _____ professional?

8. Please tell me about some more experiences you had while abroad that affected the way you think about your major, your career, and your creative work.

9. Can you tell me about some people you met in [STUDY ABROAD SITE] who were important to your learning? Who were they, and how were they important?

10. How do you think studying abroad influenced you creatively? Can you give me some specific examples?

11. How do you use what you learned while abroad in your creative work? Can you give me some concrete examples?

12. In the years since you studied abroad…
    a. How, if at all, were your career plans or plans for the future changed by the experience?
    b. What, if anything, do you hope to do in the future with what you've learned?

13. Do you have any creative work, such as artworks or designs, either from your time abroad or your professional work, which you would be willing to share with me?
    a. In what ways is this work meaningful to you or representative of what you learned while abroad?

14. How do you think your study abroad experience affected how you think about or understand creativity?

15. Is there anything else you think I should have asked, or that you'd like totell me about your study abroad experience or your current creative work?