Ego-Identity and Long-Term Moratoria: Associations with College Attendance and Religious Volunteerism

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EGO-IDENTITY AND LONG-TERM MORATORIA: ASSOCIATIONS WITH COLLEGE ATTENDANCE AND RELIGIOUS VOLUNTEERISM

by

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A dissertation submitted in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY in Family and Human Development

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ABSTRACT

Ego-Identity and Long-Term Moratoria: Associations with College Attendance and Religious Volunteerism

by

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Ego-identity development has long been regarded as an important developmental process for late adolescents. According to existing literature, ego-identity achievement, or committing oneself to a set of identity components after having explored viable identity alternatives (e.g., in matters of relationships, political philosophy, etc.), is conducive to a wide array of positive outcomes for individuals, families, and entire communities. The objective of this study was to examine the extent that college experiences and participation in LDS missionary service (i.e., moratorium experiences) were associated with ego-identity development, specifically in terms of identity exploration and commitment. A sample of late adolescents (N = 425), all of whom had participated in at least some college and of whom 122 had volunteered as LDS missionaries, provided information about their moratorium experiences that could be related to identity development and reported their levels of identity exploration and commitment according to the Extended Objective Measure of Ego-Identity Status (EOMEIS-2).
Independent-samples \( t \) tests and chi-square tests were used to examine demographic and identity differences between LDS postmissionaries and LDS non-postmissionaries. LDS postmissionaries and LDS non-postmissionaries differed significantly only in the variables of sex and age.

Univariate ANOVA and regression were used to examine the extent to which college and missionary service were associated with overall identity scores. Both college studies and LDS missionary service were significantly associated with the four EOMEIS-2 subscale scores of diffusion, foreclosure, moratorium, and achievement. The two moratorium experiences differed significantly in the magnitude and/or direction of their prediction of identity outcomes only in moratorium and foreclosure scores. Both experiences were similarly positively associated with achievement scores and negatively associated with diffusion scores.

Stepwise linear regression was used to examine the extent to which certain features of college studies and missionary service were associated with identity scores. After controlling for age, sex, income, and years of education, numerous features of the two experiences, such as motives for participation, funding, frequency of weekly experiences, and learning a foreign language were significantly associated with identity scores. College features shared the greatest amount of variability with diffusion scores, and mission features shared the greatest amount of variability with foreclosure scores.
The objective of this study was to examine the extent to which college experiences and participation in religious missionary service for an extended period were associated with ego-identity development, specifically in terms of identity exploration and commitment. A sample of late adolescents (N = 425), all of whom had participated in at least some college and of whom 122 had volunteered as LDS missionaries, provided information about their college/missionary experiences that could be related to identity development and reported levels of identity exploration and commitment.

Results indicated that LDS postmissionaries and LDS non-postmissionaries differed significantly only in the variables of sex and age. Both college studies and LDS missionary service were significantly associated with the four EOMEIS-2 subscale scores of diffusion, foreclosure, moratorium, and achievement. The two moratorium experiences differed significantly in the magnitude and/or direction of their prediction of identity outcomes only in moratorium and foreclosure scores. Both experiences were similarly positively associated with achievement scores and negatively associated with diffusion.
scores. After controlling for age, sex, income, and years of education, numerous features of the two experiences, such as motives for participation, funding, frequency of weekly experiences, and learning a foreign language were significantly associated with identity scores. College features shared the greatest amount of variability with diffusion scores, and mission features shared the greatest amount of variability with foreclosure scores.
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Possible transitions from one ego-identity status to another.
CHAPTER I
INTRODUCTION

The purpose of this work was to examine the usefulness of voluntary religious mission experiences and postsecondary education experiences as institutionalized moratoria, and to identify factors involved in the associations between these two experiences and indicators of identity development. This study provides a theoretically grounded update of literature pertaining to long-term experiences that relate to identity development. Organizations that provide programming for late adolescents can use information from this study to orchestrate meaningful opportunities for adolescents to discover who they want to be and form commitments to various facets of their identities.

Erikson suggested that “anything that grows has a ground plan, and … out of this ground plan the parts arise, each part having its time of special ascendancy, until all parts have arisen to form a functioning whole” (Erikson, 1971, p. 92). These words describe Erikson’s perspective that all organisms, including humans, experience epigenesis—an ordered development springing from preexisting parts. Erikson, whose eight stages of psychosocial development provide a framework with which to understand personality formation, contended that, notwithstanding the invariant sequence of the eight stages (and the dominance of one of them at a time), all of the psychosocial crises that characterize the eight developmental stages are present in some form throughout the lifespan. Thus, wholeness can be characterized by the concurrent resolution of each psychosocial crisis (to the extent that it is present) as one progresses through all eight developmental stages.
Ego-identity

Development of Ego-identity

According to Erikson (1963), the principal psychosocial task during adolescence is the development of ego-identity (or simply identity—the terms are used interchangeably in much of the literature). This important developmental task takes place largely during Erikson’s fifth psychosocial stage, Ego-Identity versus Role Confusion. Erikson (1971) suggests that those with mature ego-identities (i.e., who have reached ego-identity achievement) have solidified their pursuits in the domains of love, work, and ideology (i.e., by identifying desirable traits in close partners, identifying occupational interests and skills, and identifying personal values and philosophies). Further, adolescence marks a period of extensive synthesis of identity-forming experiences that have already occurred in one’s life, beginning at birth (Erikson, 1971). Not only do people undergo these identity-forming experiences during the earlier stages of life, but they also relive certain identity-relevant components of the previous stages during adolescence (Erikson, 1971). For example, people of any age may continue to experience some degree of trust building, autonomy seeking, and so forth, until life ends.

The culmination of Erikson’s first five psychosocial stages is ego-identity achievement. Identity achievement occurs when one develops a sense of self that distinguishes him or her from others (Grotevant & Cooper, 1985) and successfully establishes continuity between the formative experiences of childhood and his or her unwavering aspirations for the future (Erikson, 1963). Identity achievement is also characterized by the reconciliation of a person’s self-concept with his or her beliefs about
societal expectations. Echoing Erikson’s theoretical perspective, Marcia (1966) operationalized identity achievement by evaluating the presence of two key elements: exploration of potential identity components and commitment to those components.

Some identity scholars (e.g., Waterman, 1982) have suggested that adolescence, especially late adolescence, represents the meridian of psychosocial development—the most integral period in the development of one’s personality. During this sensitive period, most late adolescents are preparing for increased levels of responsibility and autonomy as they anticipate choosing a field of study and a career (if discretionary formal education and varied career choices are available in their society), selecting a mate, forming a civic philosophy, pursuing a religious faith, and reaching other potentially important milestones—thus making successful ego-identity development, collectively, a notable contributor to stability and functionality in many societies.

**Benefits of Ego-identity Achievement**

Ego-identity achievement has demonstrated significant associations with many potentially impactful behaviors during adolescence and adulthood. For example, identity-achieved individuals are less likely to use marijuana and other harmful substances (Jones, Hartmann, Grochowski, & Glider, 1989; Youniss, Mclellan, Su, & Yates, 1999), and more likely to engage in certain patterns of effective familial communication (Cooper, Grotevant, & Condon, 1983; Grotevant & Cooper, 1985), to obtain independence from parents while maintaining positive relations with them (Adams & Jones, 1983; Lucas, 1997), to exhibit prosocial personality traits (Furrow, King, & White, 2004), to engage in community service (Youniss et al., 1999), and to develop successful careers (Lucas,
1997). Achieved women are more likely to free themselves from abusive relationships (Giles, Cureen, & Adamson, 2005). In these and other ways, identity achievement appears to be an integral component of successful adaptation to the changing roles and responsibilities of many adults.

**Psychosocial Moratorium**

The potential benefits of developing an achieved ego-identity are evidence of the need to understand the processes whereby this achievement takes place. Erikson (1971) suggested that a significant component of adolescence—and an essential step in the process of developing a mature ego-identity—is psychosocial moratorium, a period of active exploration of the socially constructed possibilities in the domains of interpersonal relationships, personal beliefs and values, and occupational opportunities. Moratorium experiences are those that provide an individual with opportunities to explore competing alternatives that may or may not be incorporated into his or her ego-identity. To some extent, the potential for such moratorium experiences exists naturally throughout the lifespan, though naturally occurring opportunities to explore possible identities may vary broadly by culture (e.g., educational and occupational potential in some developing countries is often quite limited; Orgocka & Jovanovic, 2006).

Erikson (1956) also asserts that many societies have created institutionalized moratorium opportunities (e.g., postsecondary educational institutions) that may facilitate the process of identity development. However, many of these experiences are characterized by decreasing amounts of purpose and direction, and because many cultures fail to guide exploring adolescents to adaptive decisions and effective participation in
society, some have highlighted the need to implement semistructured interventions to promote identity development (Côté & Allahar, 1994; Schwartz, 2001). Marcia (1989, p. 406) also made a case for identity intervention and suggested that those who intervene to facilitate identity development should seek to provide “first of all, safety, then structure, facilitation, and some direction.” Indeed, structured moratorium experiences may help adolescents to formulate the vital components of achieved identities without the high social and public costs of the behaviors (e.g., substance use, gang participation, unsafe sexual activity) often associated with random and/or directionless identity exploration. Nevertheless, although readily available (and sometimes easily controlled) opportunities for exploration exist, few researchers have attempted to measure the efficacy of such experiences to facilitate identity development.

Identity Interventions

A fledgling body of literature (which is addressed in greater depth in Chapter II) highlights the potential benefit of identity intervention during adolescence. Enright, Ganiere, Buss, Lapsley, and Olson (1983), and Markstrom-Adams, Ascione, Braegger, and Adams (1993) implemented similar brief identity interventions that produced moderately positive results. However, neither of these interventions was consistent with Eriksonian prescriptions for identity development (Schwartz, 2001). More recently, a few scholars have implemented interventions that have been slightly more theoretically grounded in the writings of Erikson and have demonstrated stronger potential to promote identity development. Nevertheless, identity interventions that have been evaluated to date appear to have been relatively brief (e.g., the intervention of Enright et al. spanned
six 1-hour sessions, and the intervention of Markstrom-Adams et al. took place in 8 sessions), and their results have been limited: effects are small and transitory.

Since, according to Erikson (1963), identity development involves a consolidation of more than 20 years of experience, longer lasting identity-promoting interventions may be more useful in promoting durable identity development. For example, many late adolescents join the military voluntarily in search of opportunities to identify their skills and interests. Others participate in initiatives such as the Peace Corps, international English instruction, and other humanitarian programs, in which opportunities to evaluate and commit to certain facets of one’s identity abound. In addition, various religious organizations provide opportunities for late adolescents to leave their homes to provide voluntary humanitarian service, to disseminate religious teachings, and to obtain education and life skills among unfamiliar people. Though the explicit purpose of these missions is not the active exploration of identity alternatives, such experiences are instituted with the expectation that they will provide extensive opportunities for the exposure to and consideration of identity alternatives, and the formation of commitments to these alternatives. Thus, for many participants, such religious travels function indirectly as a type of institutionalized moratorium. Further, though many of these experiences last only days or sometimes weeks, a few religious organizations provide opportunities for their members to participate in such experiences for months or years. For example, after high school graduation (or its equivalent), many late-adolescent members of The Church of Jesus Christ of Latter-day Saints (LDS) volunteer full-time as missionaries for 18 to 24 months and are appointed to serve either in their native
countries or in other countries around the world. Long-term institutionalized moratoria such as these may produce more durable results than brief identity interventions implemented in the past.

Postsecondary education provides many opportunities for exploration of potential identity components and forming commitments to those components. For example, students in many (but not all) universities have potentially limitless opportunities for associating with people of other cultures, being exposed to alternative philosophies, exploring occupational possibilities, and even traveling abroad. Students often live with roommates who differ from them in numerous identity components, and opportunities for religious and political exploration abound. In addition, the frequently high concentration of willing and eligible romantic partners often leads to substantial exploration in the domain of relationships. Nevertheless, perhaps as a result of the broad variation in many qualities of such experiences that might contribute to identity development, the literature in this area indicates only modest average associations between college attendance and identity development (Pascarella & Terenzini, 2005).

Full-time service as an LDS missionary shares, to some extent, several qualities of the typical postsecondary educational experience. For example, like many college students, most missionaries leave home and gain a high degree of autonomy from parents when they participate in their mission experiences. Further, though LDS missionaries are encouraged not to engage in active exploration of romantic relationships, living with multiple roommates throughout the experience provides many participants with opportunities to explore character traits and relationship preferences (e.g., communication
styles, financial habits, adaptability, cleanliness, etc.) that may be important in future romantic relationships. In addition, missionary roommates may differ from each other in other aspects of their identities—including occupational goals, recreational interests, and political philosophy—and provide each other with meaningful opportunities for exploring (even if only by proxy) such alternatives. Though the primary purpose of these mission experiences is not to explore occupational interests, many religious volunteers have experiences that promote such exploration. For example, LDS missionaries may interact with people of a broad range of professions and interests as they visit homes and disseminate religious messages, and others may have frequent opportunities to develop or explore skills through humanitarian service and other day-to-day experiences. Giving service, such as gardening or painting houses, is in varying degrees an encouraged or expected practice among LDS missionaries.

College experiences and LDS mission experiences also differ from each other in important ways. For example, many LDS missionaries are exposed multiple times every day to various religious beliefs that differ from their own—religious events and discussions with people of other faiths, including in-home and group religious discussions, comprise the largest component of many LDS missions. In addition, many of these volunteers live in locations where they must learn a nonnative language, and a substantial number are assigned to parts of the world in which they are immersed in cultures that differ from their own. Accordingly, differences from the majority population, including ones pertaining to traditions, values, arts and entertainment, education level, wealth, economic conditions, and political and social climate, are likely
to characterize the experiences of missionaries in the LDS Church. In contrast, while both college students and LDS missionaries typically choose, in large part, *whether* to participate in their respective moratorium experiences, college students may be more likely to self-select to a *location* where culture, customs, and language are relatively familiar (Hayden, 2000; Shields, 2004). On the other hand, missionaries have little or no discretion in determining the location of their service. Nevertheless, in some cases, individual characteristics including cognitive, physical, emotional, social, and religious qualities are considered in the assignment of missionaries to their respective areas of service. For example, volunteers with mild cognitive impairment might be assigned to a location that is closer to home, or one in which personal responsibility is not as high of a priority. Another likely difference between college life and LDS missionary life is the concentration of the experience, or the amount of time that the experience occupies each day. Whereas college students may or may not spend a large portion of each day participating in the “college experience” (depending on course load, family or work obligations, traditional or nontraditional student status, distance from home, attendance at a resident or commuter institution, etc.), and might also incorporate into their daily routine activities not directly associated with college, the typical LDS missionary experience occupies most or all of each day.

Another noteworthy difference between these two moratorium experiences pertains to the culture associated with the experiences themselves. The culture of identity exploration may vary substantially from one institution of higher learning to another. For example, military academies and religious seminaries might provide a great degree of
structure in exploration opportunities pertaining to love, work, and ideology. Similarly, some private religious institutions (e.g., Baylor, Brigham Young, Pepperdine, and many others) may impose behavioral standards or requirements that contribute a high degree of structure in ideological exploration, and trade schools and other specialty institutions may provide little opportunity for occupational exploration. In parts of the world where individual careers are chosen by governments (e.g., North Korea), occupational exploration is also severely limited at the university level (Hunter, 1999). Nevertheless, such limitations in identity exploration are relatively rare in today’s colleges and universities. For an increasing number of people, college has become a rich venue for each domain of identity exploration—a place for “finding” oneself (Arnett, 2000). Whereas the oldest colleges and universities in the United States originally imposed substantial structure or limits on various facets of identity exploration (especially ideological exploration; Marsden, 1996), students in most of today’s liberal arts colleges and universities are encouraged to explore occupations, hobbies, philosophies, values, beliefs, friends, and partners that could lead to a sense of homeostasis or life satisfaction. Further, colleges and universities increasingly provide safe havens for students who explore and/or embrace nontraditional aspects of their identities that could marginalize or endanger them (Poynter & Tubbs, 2008; Stevens, 2004).

On the other hand, the relatively homogeneous culture in the LDS Church is often characterized by a high degree of explicit guidance and expectations that could be perceived as limiting identity exploration. For example, some with nontraditional gender role expectations, sexual identities, or political philosophies have expressed feeling out of
place in the organization. Further, most LDS missionaries are expected to abide by a set of rules and guidelines that limit or even prohibit some forms of identity exploration. For example, LDS missionaries are expected to adhere to a guide book that provides direction in matters of when to sleep, what kinds of activities to pursue, limits on interactions with people of the other sex, what kinds of recreation to pursue, and many other aspects of daily missionary life. Nevertheless, the experiences of most LDS missionaries afford vast opportunities to witness and to contemplate (in most cases, such as in their interactions with people of diverse interests and backgrounds), and to experience firsthand (in some cases, such as in their religious teaching experiences and humanitarian service) a broad range of identity alternatives, though the extent to which these opportunities are exploited may vary widely from one missionary to another.

In sum, while the typical LDS mission experience provides many opportunities to consider key facets of ego-identity, this experience differs from the expected college experience in that much of the “exploration” that missionaries undertake occurs by proxy and/or is an indirect byproduct of the experience, rather than a direct objective. Nevertheless, college and missionary experiences are similar in that the extent of exploration of ego-identity alternatives can vary widely from person to person and from location to location. These similarities and differences between the typical experiences of college students and LDS missionaries make an examination of the associations between identity development and such experiences a worthwhile pursuit.
The Current Study

The purpose of this work was to examine the usefulness of voluntary religious mission experiences and postsecondary education experiences as institutionalized moratoria, and to identify factors involved in the associations between these two experiences and indicators of identity development. According to Marcia’s (1966) conceptualization of identity achievement, the most effective of such guided moratorium experiences are expected to facilitate the greatest extent of identity exploration and commitment. Therefore, I expected that the certain features of college studies and missionary service (e.g., that foster and/or indicate exploration and commitment; see measurement section in Chapter III for a complete description of these features) would explain a greater amount of variance in levels of identity outcomes than participation in a particular moratorium experience generally. Thus, if college studies, for example, provided the greatest breadth and depth of opportunities for identity exploration and identity-specific commitment forming, I would have expected that those with more experience in college would demonstrate higher average scores on relevant identity measures. If, on the other hand, missionary service provided the greatest potential for exploration and commitment making, postmissionaries would have reported higher identity scores.

Data for this research were collected through an online survey platform. Data analysis took place in multiple fashions. I compared group means in identity scores through univariate analyses of variance (ANOVA) and used linear regression to examine each experience’s unique predictive utility with regard to identity scores. I also examined
the extent to which certain features of the two moratorium experiences were associated with measured identity outcomes by using stepwise linear regression analyses. Though this research was cross-sectional, by controlling for variables that are often concurrently associated with identity development (e.g., age), I was able to investigate the extent to which identity maturity might be the result of participation in either moratorium experience.
CHAPTER II
LITERATURE REVIEW

Overview

Substantial positive outcomes are associated with ego-identity achievement. Moratorium experiences, which provide opportunities for exploring certain facets of one’s identity, can catalyze identity development. Further, while many opportunities for exploration occur naturally through the course of development, some of these opportunities have been institutionalized through the efforts of public and private organizations and policymakers. Because institutionalized moratorium experiences can be implemented purposefully (and sometimes with some degree of methodological rigor), scholars have begun to examine the usefulness of these experiences in identity intervention. Nevertheless, researchers have not examined associations between identity development and institutionalized moratoria that are characterized by long-term volunteer service, such as religious missionary service, or compared this type of experience with other documented institutionalized moratoria such as college. The purpose of this research is to fill this gap in the literature by examining associations between identity development and participation in the extended moratoria of voluntary religious mission experiences and postsecondary education experiences, and to identify features of the experiences that are involved in these associations.

In this chapter, I illustrate the value and necessity of the study by reviewing the literature that currently exists in the field. Specifically, I describe the theoretical perspective (Erikson’s theory of psychosocial development) that guides this research,
with particular focus on the area of development pertaining to Erikson’s fifth psychosocial stage: Ego-identity versus Role Confusion. Then, I describe Marcia’s contributions to this perspective in which he operationalized the identity construct (with the inclusion of developmental outcomes that Marcia terms identity statuses) to promote scholarship in this area. I review measures of identity status, describe certain patterns associated with identity development as it relates to these statuses, and document advantages and disadvantages associated with each status. Following discussion of ego-identity and the identity statuses, I review the literature pertaining to institutionalized moratoria, and I review the efforts that have been made to facilitate identity development through intervention. Finally, I describe the potential for an extended period of volunteer service to function as an institutionalized moratorium to facilitate identity development during adolescence.

The literature reviewed in this chapter comes from multiple sources. First, the theoretical perspective for this work comes predominantly from Erikson’s seminal printed volumes pertaining to his theory of psychosocial development. Much of the remaining literature in this review comes from refereed articles published in scholarly journals from the fields of human development and psychology. While some efforts to extend Erikson’s work took place as long as six decades ago, I review more recent (since the year 2000) relevant literature available as well. Nevertheless, it is important to note that the majority of the literature pertaining to ego-identity development, related measures, and intervention is quite dated. In this work I provide an update to existing literature in multiple ways. First, I examine the associations of ego-identity with two
forms of long-term moratoria, one of which—religious volunteerism—has not yet been investigated relative to identity development. Second, I evaluate processes that might be involved in these associations, and this evaluation is particularly important given the shortage of research pertaining to qualities of the moratorium experiences themselves. Third, I bring renewed attention to the writings of Erikson by emphasizing the cognitive component of identity exploration, which Erikson (1963, 1971) suggested was integral in the experience of psychosocial moratorium.

Most of the literature in this review came from digital resources such as EbscoHost through proxy services of the university library. I located the literature by employing online search services such as the digital library catalog and Google Scholar, and by locating related pieces of literature in the reference lists of relevant articles. Literature that I could not access online was accessed from printed journals or interlibrary loan services.

**Theoretical Perspective**

Erikson (1963) reinterpreted and expanded Freud’s psychosexual perspective (according to which personality development occurs through adolescence as a function of negotiating psychosexual stages) by developing a theory that explains personality formation through psychosocial stages that are applicable from birth to death. According to Erikson, psychosocial development during the lifecycle is characterized by eight invariant, universal stages. While the first five of these stages correspond with and reiterate certain facets of Freud’s psychosexual model, Erikson’s theory is distinct from Freud’s in a number of significant ways. Each of Erikson’s eight stages, which are largely
driven by the natural course of biological maturation, is characterized by a person’s psychological functioning in the context of social interactions—hence, *psychosocial.* During each stage, a person faces a “crisis”—an opportunity to achieve balance between two opposing alternatives. Achieving this balance results in what is called resolution. Resolution of any stage is largely dependent on the successful resolution of previous stages. A brief description of the eight stages follows.

**The Psychosocial Stages**

**Trust versus mistrust.** In this stage an infant learns to identify trustworthiness and untrustworthiness, particularly in his or her primary care provider, who, in Erikson’s experience, was most often the mother (Erikson, 1963). Similar to Freud’s oral stage, this stage emphasizes the role of nursing the child. An infant who develops a confidence in the mother’s willingness to satisfy nutritional needs and the need for oral gratification will develop a sense of trust in his or her mother. Practicing the development of trust during this formative period will help the infant in the future to identify others in whom he or she can trust and others that should not be trusted, according to Erikson (1963).

**Autonomy versus shame and doubt.** During this stage, the toddler develops the ability to use the bathroom, to feed, and to complete other important tasks associated with self-control independently of caregivers. Children whose parents instill shame and doubt through inconsistent approval or demandingness will likely face difficulties finding a sense of self-certainty in future roles and relationships, while children whose parents express developmentally appropriate expectations are expected to develop confidence in their abilities (Erikson, 1963).
**Initiative versus guilt.** In this stage of increased mobility, children develop the sense that they can plan and undertake more complex and active tasks with the intent to learn and explore (Erikson, 1963). Parents who criticize their children’s efforts or who frequently intervene when their children are performing a task often produce feelings of guilt in their children. During this stage, children learn to distinguish between what they can and ought to do successfully on their own and behaviors that are inappropriate. Successful resolution of this stage provides opportunities for role experimentation, and practice for subsequent exploration of values, occupational interests, and lifestyle choices (Erikson, 1963).

**Industry versus inferiority.** During this stage, a child begins to rely heavily on comparisons with his or her peers to monitor personal development in skills and knowledge. The child is also developing personal interests and the ability to follow the guidance of better-skilled tutors (Erikson, 1963). Children who successfully resolve this stage gain in the presence of their peers a sense that their creative skills—and the ability to learn new skills—are valuable. Children who do not resolve this psychosocial stage develop a sense of resigned inferiority (Erikson, 1963).

**Identity versus role confusion.** According to Erikson (1963), the fifth stage is the meridian of personality development—the previous four stages provide a foreshadowing of one’s experience during the fifth stage, and the final three stages are in many ways a reflection of it. Self-identification is both the product of previous success in navigating the psychosocial stages and a predictor of future success in navigating the three developmental stages that follow. Identity achievement—a favorable outcome for
Erikson’s fifth stage—occurs when an adolescent develops a sense of self that
distinguishes him or her from others (Grotevant & Cooper, 1985) and successfully
establishes continuity between the formative experiences of childhood and committed
aspirations for the future (Erikson, 1971). Identity achievement is also characterized by
the reconciliation of a person’s self-concept with beliefs about society’s expectations of
him or her. Erikson describes the psychological and social components of identity in this
way:

The young individual must learn to be most himself where he means most to
others—those others, to be sure, who have come to mean most to him. The term
identity expresses such a mutual relation in that it connotes both a persistent
sameness within oneself (self-sameness) and a persistent sharing of some kind of
essential character with others. (Erikson, 1956, p. 57)

In the process of achieving a sense of identity, the adolescent experiences what
Erikson (1963) termed *psychosocial moratorium*, a period of active exploration of
potential (socially constructed) identity components. Of particular importance during
identity development, according to Erikson (1963), are the domains of love (identifying
one’s sexual preferences and determining characteristics desirable in a romantic partner),
work (finding a niche in which occupational success and satisfaction can take place), and
ideology (identifying a set of personal beliefs that foster a sense of homeostasis).

Further, an important process in identity development is the synthesis of identity-
forming experiences that have occurred since birth (Erikson, 1971). For example, before
one year of age (Stage 1—Trust vs. Mistrust), babies learn to detect the important role of
time as they develop regimens and begin to expect consistent times for feeding, play, and
sleep. This temporal perspective is also important during and following adolescence,
when individuals juggle the demands of work and social relationships. Similarly, during toddlerhood (Stage 2—Autonomy vs. Shame and Doubt), children develop a sense of either self-certainty or self-consciousness, and during early childhood (Stage 3—Initiative vs. Guilt), children begin the process of role experimentation as their boundaries, physical capacities, and mobility expand. Finally, during middle and late childhood (Stage 4—Industry vs. Inferiority), children develop the capacity to work under the tutorship of others. All of these early experiences build a foundation from which ego-identity ultimately develops. Further, Erikson (1971) suggested that not only do people undergo identity-forming experiences during the earlier stages of life, but they also continue to experience certain identity-relevant components of the previous stages during and after adolescence.

**Psychosocial development following stage five.** Successful resolution of stages 6 through 8 (Intimacy versus Isolation, Generativity versus Stagnation, and Ego-integrity versus Despair) is largely dependent on successful resolution of the earlier stages and especially upon the resolution of Stage 5 (Erikson, 1963). During the sixth stage, for example, a young adult without a firm sense of identity often “shies away from interpersonal intimacy; but the surer he becomes of himself, the more he seeks it” (Erikson, 1980, p. 101). Similarly, adolescents who fail to solidify a trajectory for occupational pursuits might experience difficulty creating a legacy for the next generation during middle adulthood. Finally, one who failed to resolve the fifth psychosocial stage might sense a persistent lack of purpose throughout adulthood, leading
to undesirable experiences during the frequent self-reflection of the later years (Erikson, 1963).

**Omnipresent Stages**

Though the eight stages are invariant in their sequence and one stage is dominant at any given time, Erikson (1963) contended that all of the psychosocial crises that characterize the stages are present in some form at birth and throughout the lifespan. The omnipresence of the psychosocial stages is indicative of Erikson’s (1971) assertion that humans experience epigenesis, personality components that develop from predetermined or preexisting parts. All of these budding components of the human personality function in tandem with each other throughout the lifespan, according to Erikson (1963). Thus, wholeness or completeness can be characterized by the concurrent resolution of each psychosocial crisis (to the extent that it is present) as one progresses through all eight developmental stages. This characteristic of the theory is important to this study in consideration of the lingering outcomes that can result from unsuccessful crisis resolution. Because of its emphasis on identity formation, which represents the most transcendent and impactful developmental task (Erikson, 1971), the period of adolescence is one of great importance in efforts to understand and influence human behavior.

**Appropriateness of Eriksonian Theoretical Lens**

Erikson’s psychosocial perspective provides a useful foundation for this research for a number of reasons. First, the timing of the experiences and processes that are explored in this study fits the theory well. Because adolescence is the most pronounced
period in which a person faces the task of forming an identity (Erikson 1971; Waterman, 1982), evaluating identity outcomes associated with extended volunteer service (which is a much more common feature of adolescence than of other developmental periods) can be accomplished effectively through Erikson’s framework. Further, this theory provides useful explanations of the constructs and processes involved in the research—namely, identity formation, psychosocial moratorium, and commitment (Erikson, 1971). Another advantage of using Erikson’s theory is that it can be applied to experiences of people in many cultures (Erikson, 1963). Finally, Erikson’s theory facilitated the process of locating a body of literature that reflected the research questions of this study.

**Operationalizing Identity Development**

Marcia (1988) contended that ego-identity was the most significant concept—and the only structural one—that Erikson contributed to the study of personality development. However, until 1966, the difficulty of devising a comprehensive operational definition for identity had prevented scholars from assessing identity development in a manner that was consistent with Erikson’s extensive theoretical overview of ego-identity. To overcome this challenge, Marcia (1966) operationalized statuses of ego-identity development by measuring two central components: exploration of available identity alternatives (originally known as *crisis*) and commitment to (or investment in) such alternatives. Combining these two components into a 2 x 2 matrix (with high to low commitment on one axis and high to low exploration on the other) produces four distinct statuses into which people can be classified, according to Marcia (1966). A high level of commitment preceded by active exploration is designated as identity achievement, while low levels of
both constructs are indicative of identity diffusion. One who is actively engaged in ego-identity exploration but who is not yet committed is said to be in a state of moratorium, while one who is committed to certain elements of his or her ego-identity without having explored meaningful alternatives is in a state of identity foreclosure.

Marcia’s (1966) identity status paradigm has been the most frequently used framework for measuring identity development as it pertains to Erikson’s theory (Steinberg, 2008). Marcia (1980) contended that one of the greatest benefits of the ego-identity statuses is that they can be measured with a higher degree of objectivity. Accordingly, a number of researchers have extended Marcia’s work and devised measures of exploration and commitment to facilitate the understanding of identity development in a variety of domains. These measures (including the one employed in the current research to produce unique scores for each of the four statuses) are discussed below.

**Measuring Identity Development**

Since Erikson (1963) developed his theory of psychosocial development, the ego-identity construct has been subjected to many attempts at operationalization. Below is a brief review of existing measures of ego-identity that reflect the work of Erikson and Marcia. As noted later, the Extended Objective Measure of Ego-Identity Status (EOMEIS-2) is one of the more recently developed instruments to assess ego-identity status, and is the most widely used. The following brief overview of measures of identity status serves to justify the use of the EOMEIS-2 in this research.
Marcia’s (1964, 1966) work to operationalize ego-identity status resulted in the creation of the Ego Identity Incomplete Sentences Blank (EI-ISB) and the Identity Status Interview (ISI). With the EI-ISB, a respondent’s level of ego-identity is determined according to both the person’s extent of exploration and commitment, and the person’s ratings of other attitudes and behaviors that Erikson had deemed relevant to identity development. The interview produces a single-score indicator of the extent of one’s identity achievement. One major limitation of the EI-ISB is that it only measures identity achievement, while neglecting other possible categorizations of identity (viz., moratorium, foreclosure, and diffusion). The ISI is a semistructured interview in which the interviewer probes the respondent for indications of the extent of exploration and the presence of solid commitments to identity components. Respondents are categorized into an identity status (achievement, moratorium, foreclosure, and diffusion) according to levels of exploration and commitment. Though this interview permits respondents to be categorized into one of the four identity statuses, the interview requires substantial time and resources to administer. Both the EI-ISB and the ISI rely heavily upon the subjective assessments of interviewers and/or observers.

Researchers have addressed the limitations of Marcia’s structured interviews in multiple ways. Drawing on the EI-ISB, Simmons (1970) created a measure with 24 multiple-choice items that provide an overall objective score for identity achievement. Though this measure is much easier to administer and score than Marcia’s EI-ISB and ISI, it is limited in that it, like Marcia’s two measures, only evaluates the extent of identity achievement. Tan, Kendis, Fine, and Porac (1977) created a relatively brief scale
that measures identity achievement and identity diffusion, but does not measure levels of foreclosure or moratorium. Schilling (1975) also devised a scale that measures only identity achievement and identity diffusion.

Adams, Shea, and Fitch (1979) developed the Objective Measure of Ego Identity Status (OMEIS) to address the limitations of these Marcia-type instruments. The OMEIS contains 24 items that evaluate levels of diffusion, foreclosure, moratorium, and achievement in the three content domains of career orientation, political ideology, and religious ideology. This measure can be administered quickly and easily to large samples and, as suggested by the title, is objectively scored. Psychometric properties of the instrument have been confirmed in many samples (see Adams, 1998). Nevertheless, though this measure addresses concerns about the usefulness of Marcia’s EI-ISB and ISI, its focus is in the domains of identity development emphasized by Erikson (i.e., occupational, political, and religious identity components), and this focus has elicited arguments of a gender bias in such conceptualizations of identity development (see, for example, Gilligan, 1982).

To capture ego-identity status more fully, Grotevant and Adams (1984) and Bennion and Adams (1986) developed the Extended Objective Measure of Ego Identity Status (EOMEIS-I and EOMEIS-2, respectively), a 64-item measure with a subscale for each of the four identity statuses. Each of the four status subscales contains 16 items, including two items from each of the following eight domains: the ideological domains of occupation, politics, religion, and philosophical lifestyle, and the interpersonal domains of sex roles, friendship, recreation, and dating. Item responses are recorded on a 6-point
Likert scale ranging from 1 (strongly agree) to 6 (strongly disagree), and responses are summed separately for each of the four identity status subscales. The EOMEIS-2 is one of the most widely used measures of ego-identity. Its psychometric properties are described in Chapter III.

**Process of Identity Development**

Marcia’s (1966) work has contributed to the identity literature in multiple ways. First, it provides a mechanism to categorize one’s level of identity development at one point in time (hence, in this work, development typically refers to one’s progress within the ego-identity statuses). Second, the operationalized identity construct has enabled scholars in the field to explore the processes of identity development in a manner that is more straightforward than was possible before Marcia’s work. These processes are also relevant to this research.

Scholars have suggested typical orders of progression within the identity statuses proposed by Marcia. Waterman (1982, 1999), for example, suggested that the adolescent typically begins the process of identity development in a state of diffusion. If diffusion does not persist, according to Waterman, the adolescent transitions either to a state of moratorium or to one of foreclosure. Once in foreclosure, the adolescent can remain in foreclosure, re-enter diffusion, or enter moratorium. Only one who has experienced moratorium can possibly reach a state of identity achievement, since achievement requires a period of exploration prior to forming commitments.

Nevertheless, even once a person reaches identity achievement, Stephen, Fraser, and Marcia (1992) suggested that this accomplishment does not signal an “end” of
identity development for many people. Instead, some people engage in sequences of progression and regression known as moratorium-achievement-moratorium-achievement (MAMA) cycles. Such cycles are not limited to the moratorium and achievement statuses, however. Regressing to moratorium or even to diffusion after having reached a state of achievement can sometimes take place as a result of significant life-altering, or disequilibrating, experiences (Marcia, 2002). For example, one who is abandoned by a longtime spouse or partner may begin pursuing viable alternatives quickly or experience periods of disillusionment or confusion regarding his or her identity.

Additionally, one has the potential to become “stuck” in the process of exploration in such a way that a status regression takes place. Specifically, one who has difficulty forming commitments with identity components and engages instead in persistent exploration can actually experience identity dissolution similar in many regards to diffusion (Marcia, 1980). In other words, failure to formalize commitments following extensive exploration can lead to directionlessness.

Figure 1 illustrates this discussion of identity status progression. Note that transitioning from foreclosure to achievement, from achievement to foreclosure, from moratorium to foreclosure, or from diffusion to achievement is not a theoretical possibility.

Marcia (2002) suggested that cycles of progression and regression within the identity statuses are to be expected occasionally. Further, as one progresses through Erikson’s developmental stages (i.e., beyond the period of adolescence), these cycles may become lengthier and more difficult to negotiate. Accordingly, providing experiences
Figure 1. Possible transitions from one ego-identity status to another.

earlier in life that can facilitate identity development characterized by higher satisfaction, purposefulness, and stability can be beneficial, theoretically, because the likelihood of achieving an identity that can persist throughout the lifespan (without the challenge of reformulating one’s identity late in life) can increase at an accelerated rate (see Schwartz, 2001).

It is important to note that, though Erikson (1963) suggested some degree of stage omnipresence for each of the eight psychosocial stages, most of the literature pertaining to identity status progression applies only to development that begins in adolescence. As Waterman (1999) acknowledged, childhood and adulthood patterns of identity status progression are not necessarily the same as those that characterize identity development during adolescence. For example, some (e.g., R. Jones, personal communication, March 24, 2014) have contended that the earliest phase of identity development (i.e., during infancy or early childhood) begins in the foreclosure status. Though clear consensus has not been reached regarding the hierarchy of the foreclosure, moratorium, and diffusion statuses, the writings of Erikson (1971), Marcia (1966), and others clearly identify
achievement as the most adaptive of the statuses. Further, a body of literature, which I review briefly below, highlights some of the outcomes associated with ego-identity achievement and explicitly or implicitly categorizes achievement as the most desirable (i.e., adaptive, mature) of the statuses. Nevertheless, in this research, while I refer to achievement as the ideal status, I avoid classifying the other statuses ordinally (i.e., implying that any of them is more or less desirable than the others). Instead, I merely refer to average scores on the four statuses as they relate to moratorium experience and other factors (see Chapter III).

**Outcomes Associated with Identity Statuses**

In a review of empirical analyses of outcomes associated with the identity statuses, Marcia (1980) suggested that the “better developed” people’s identities are (i.e., the extent that they have achieved identities), “the more aware individuals appear to be of their own uniqueness and similarity to others and of their own strengths and weaknesses in making their way in the world” (p. 159). Literature highlighted below supports Marcia’s argument and indicates that achieving one’s identity supports successful adaptation to the changing roles and responsibilities typical during adulthood. However, it is important to note that, with no known exception, studies of behavioral and psychological outcomes associated with the ego-identity statuses are correlational in nature and lack much of the rigor that could permit causal inferences. Further, identity measures that have been used in such studies (see above) measure the construct in subtly different ways that could limit interpretation. Nevertheless, this body of literature suggests noteworthy relationships with ego-identity that provide rationale for
investigating processes (e.g., in moratorium experiences) that can promote identity development. Positive outcomes associated with identity achievement can be categorized as personal/psychological (i.e., health) benefits, interpersonal/civic benefits, and educational/occupational benefits.

**Personal/Psychological Benefits of Identity Achievement**

Identity achievement is associated with numerous personal and psychological benefits. Some of these advantageous outcomes reflect personal decisions to engage in healthy behaviors and to manage or avoid risky ones. For example, compared to those in identity diffusion and moratorium, having an achieved identity is associated with a decreased likelihood of using marijuana (Youniss et al., 1999) and other harmful substances (Jones et al., 1989). Hernandez and DiClemente (1992) also observed a significant association between identity status and engaging in unsafe sex, such that achieved individuals were more likely to engage in safe sex. Though these studies indicate the possibility that identity development serves as a protective factor against risky behavior, notably, none of them were conducted longitudinally. Thus, identifying the precise mechanism that might be involved in such relationships is still necessary.

Phinney and her colleagues have used Marcia’s model to investigate the role of ethnic identity in development. For example, in one review, Phinney (1991) observed that commitment to one’s ethnic identity is typically positively associated with measures of self-esteem. However, when one fails to understand his or her relationship with mainstream culture (i.e., has not engaged adequately in cultural exploration), self-esteem
tends to suffer. Thus, cultural identity foreclosure is associated with lower self-esteem, while cultural identity achievement is associated with higher self-esteem.

Identity achievement is also associated with adaptive psychological functioning. Adams, Gulotta, and Montemayor (1992), for example, reported several psychological benefits of identity achievement, including higher levels of perceived self-mastery, self-assurance, and self-certainty. In addition, Hunsberger, Pratt, and Pancer (2001) investigated the relationship between identity status and manners of dealing with religious issues and found that those with achieved identities were more likely to consult with both belief-confirming sources and belief-threatening sources (i.e., to feel comfortable and secure while seeking information representing opposing views) and to display healthy personal adjustment. Marcia (1987) found that identity achievement is associated with psychological flexibility and a decreased susceptibility to self-esteem manipulation.

**Interpersonal/Civic Benefits of Mature Identity**

Identity achievement is associated with multiple interpersonal benefits. For example, Furrow and colleagues (2004) implemented a cross-sectional design to investigate relationships between identity development and religious ideology, prosocial attitudes, and perceptions of life meaningfulness. The authors sampled a large group \( n = 801 \) of high school students to examine these relationships and, through survey methodology, found that a strong sense of religious identity was associated with prosocial attitudes.
The identity status literature also supports Erikson’s contention that identity achievement improves one’s odds of resolving the next stage by developing stable intimate relationships. Orlofsky, Marcia, and Lesser (1973) interviewed 53 junior and senior college students and observed that identity-achieved individuals were more likely to have mutual personal relationships characterized by self-disclosure, and that achieved individuals were least likely of all the statuses to be isolated. Marcia (1987) also found that identity achievement was associated with a greater likelihood of engaging in intimate relationships characterized by mutual satisfaction and longevity. A more recent meta-analysis (Årseth, Kroger, Martinussen, & Marcia, 2009), however, indicates statistically significant gender differences in the relationship between identity scores and intimacy, such that women with low levels of exploration are still likely to be rated as intimate—perhaps because women are more likely to construct their identities according to their present relationships (Cross & Madson, 1997).

Family relationships also benefit when family members have achieved identities. Grotevant and Cooper (1985) used observation and survey techniques to examine the relationship between identity exploration and positive components of family–adolescent communication. For this research, 84 adolescents and their families completed a Family Interaction Task under the researchers’ observation and responded to identity surveys. The authors found that positive aspects of family–adolescent communication were associated with identity exploration. This research demonstrates the ability to use identity status to predict some of the important qualities of adolescent interactions with family. In another study, Lucas (1997) observed that the transition to greater levels of autonomy
during and after adolescence is associated with the maintenance of positive parent–child
relations when the adolescent has an achieved identity. Similarly, Adams and Jones
(1983) administered surveys to 82 female adolescents and found that, on average, those
with achieved identities are more likely to have parents who engaged in an enhanced
individuation process with their children.

Those with achieved identities are more likely to engage in effective familial
communication (Cooper et al., 1983; Grotevant & Cooper, 1985). They are also more
likely to obtain independence from parents while maintaining positive relations with
them (Adams & Jones, 1983; Lucas, 1997), to exhibit prosocial personality traits (Furrow
et al., 2004), and to engage in prosocial behaviors such as helping strangers (Hardy &
Kisling, 2006) and engaging in community service (Youniss et al., 1999). According to
Hardy and Kisling (2006), a person with an achieved identity is expected to engage in
more frequent prosocial behavior because of an enhanced ability to form interpersonal
connections and to practice concern for others.

**Educational/Occupational Benefits**

**of Mature Identity**

Identity achievement is also associated with educational and occupational benefits
during adulthood. Lucas (1997) administered self-report measures to 247 college-
attending adolescents to detect associations between identity status and several
components of successful individuation from parents. The author found that, compared to
the other statuses, the identity achieved participants were more likely to develop a
successful and satisfying career. Several possible explanations exist for the association
between identity achievement and occupational success. For example, Waterman (1992)
suggested that those with achieved identities are more likely to engage in goal-setting and to take personal responsibility for their actions. These are qualities that are conducive to productivity and positive interactions with coworkers and employers. Other explanations for occupational benefits of identity achievement include the psychological characteristics (e.g., self-esteem, moral reasoning) that are often present in individuals who have reached this milestone.

Success in some occupations is enhanced by identity status. For example, according to one study, identity-achieved individuals were more likely to have effective counseling styles than nonachieved individuals (Shaffer, 1977). In addition, achieved student teachers were more likely to ask higher-level questions in the classroom, to excel in their student teaching courses, and to facilitate more student–teacher interactions (Walter & Stivers, 1977). Further, in the latter study, compared to cognitive measures, identity predicted a greater degree of variance in teacher success.

**Institutionalized Moratoria**

In many societies, the potential for moratorium experiences exists naturally throughout the lifespan. Even before reaching adolescence, a person has already been exposed to many competing alternatives to consider as potential identity components. Further, the nature of a child’s increasing exposure to social situations, including face-to-face interactions and the use of digital media, yields a similarly increasing potential for exploration (i.e., moratorium experiences). By age 12, many adolescents may have already had opportunities to consider their own educational goals, religious beliefs, friendship preferences, recreational proclivities, and hobbies, and for many, these self-
confrontations only increase in frequency and intensity through the remainder of adolescence.

Additionally, Erikson suggested that, while the natural course of transitioning between childhood and adulthood in most cultures presents many opportunities for identity exploration, some societies and organizations also provide *institutionalized* moratoria for youth in an effort to facilitate identity development (Erikson, 1956, 1971, 1980). Côté and Levine (1988, p. 82) defined such moratoria as “structured settings that allow for experimentation with various roles and that provide socialization experiences felicitous for the development of a viable adult identity.”

Institutionalized moratoria are abundant in many cultures. In societies that provide public education to early adolescents, for example, secondary schools often provide increased discretion to students in their selection of curricula, peer groups, and school-sponsored extracurricular activities. In such developed societies, educational programs can potentially foster such exploration through the remainder of secondary education and then during postsecondary learning, a time in many societies when an unprecedented degree of personal liberty and nearly limitless opportunities and alternatives exist, and when adolescents and young adults are frequently exposed to a broad array of recreational activities, lifestyles, behaviors, and values. Indeed, in the United States, most young college students (which comprise about two-thirds of the population of late adolescents; Arnett, 2000) thrive in their new educational setting only following a period of extensive exploration—the nature of the university experience often demands it, and many universities reward diversity and exploration of thought. Other
examples of institutionalized moratoria in the United States might include the military, technical schools, the Peace Corps, and other large-scale volunteer organizations. Many other societies similarly channel their youth through moratorium experiences (e.g., apprenticeships, the Amish Rumspringa, and a growing number of educational opportunities) that likely facilitate identity development.

Identity Interventions

Scholars and researchers have highlighted the need to implement interventions to promote identity development, especially in an era in which many cultures (even those with institutionalized moratoria such as the ones described above) fail to provide guidance or norms to help exploring adolescents make sound decisions and participate effectively in society (Côté & Allahar, 1994; Schwartz, 2001). For example, Schullenberg, Maggs, and Hurrelmann (1997) argued that, while identity exploration is associated with a certain degree of instability, the resulting increase in identity achievement is associated with higher levels of wellbeing and healthy behavior. Consequently, developmentally appropriate identity interventions, or guided moratorium experiences, might promote identity development and wellbeing. Guided moratorium experiences may provide adolescents with a useful combination of direction and discretion to help them to formulate the vital components of their emerging identities. Nevertheless, although readily available (and sometimes easily controlled) opportunities for exploration exist, few researchers have attempted to measure the efficacy of such experiences to facilitate identity maturation.
Enright et al. (1983) were perhaps the first group of scholars to implement an intervention to accelerate identity formation. During six one-hour sessions, participants in this experimental study’s intervention group engaged in a role-playing activity that required them to compare themselves to certain people in their social spheres, from both their perspective and the perspective of the others to whom comparisons were made. Before and after the intervention period, participants rated their level of resolution of each of Erikson’s first six psychosocial crises by responding to Rasmussen’s Ego Identity Scale (EIS). The authors found that social perspective-taking (participation in the intervention group) was associated with greater increases in the EIS than what the control group experienced. Specifically, those in the experimental group increased their average EIS scores by 6.32 ($SD = 6.27$; 11% change from pretest to posttest), and controls increased by 2.62 ($SD = 5.27$; approximately 5% change), $F(1,39) = 4.44, p < .05$. This study provides marginal support for the argument that intervention can facilitate identity development. However, although the EIS appears to be theoretically grounded in the writings of Erikson, the intervention itself fails to correspond with key components of Erikson’s theory (Schwartz, 2001). Namely, the intervention component of social perspective-taking does not reflect the extended period of exploration characteristic of Erikson’s conception of moratorium. Further, notwithstanding the significant difference in mean EIS gains between experimental participants and control participants, no data were collected to monitor the durability of this change.

Markstrom-Adams et al. (1993) implemented an expanded version of the Enright et al. (1983) intervention in two separate experimental studies involving a total of 100
participants. This intervention, which took place during eight sessions, included enhanced problem-solving tasks that addressed both individuation (i.e., ideological) perspective-taking and social perspective-taking. In addition, the researchers measured identity with the EIS and an additional measure, the Extended Objective Measure of Ego-Identity Status (EOM-EIS). Like the intervention by Enright et al. (1983), this intervention produced statistically significant results. In the first study reported by Markstrom-Adams et al., those who participated in either the social perspective-taking intervention group ($M = 35.25, SD = 0.92$) or the ideological perspective-taking intervention group ($M = 33.49, SD = 0.95$) scored significantly higher in ideological identity achievement than the socially engaged control group (i.e., those who were assigned to participate in group discussions of topics not related to ego-identity; $M = 30.33, SD = 1.01$), according to the EOM-EIS, $F(2,43) = 5.95, p = .005$. Changes in interpersonal achievement scores were not significantly different between the experimental groups and the control groups. Further, it is important to note that those who already scored high (1 standard deviation above the mean) in either domain of achievement (ideological or interpersonal) prior to the intervention were excluded from the study. Thus, significant changes in scores in the experimental groups might indicate an effect of statistical regression such that including in the study those who had scored high in achievement in preassessments may have resulted in nonsignificant changes in achievement scores. In addition, results from the first study indicate that the intervention was significantly associated with increases in ideological foreclosure among males. Thus, among some participants, the intervention appears to have influenced commitments while neglecting the component of exploration.
In the second study, though initial analyses produced only marginally significant achievement-score differences across groups, post hoc analyses indicate that both the experimental group and the socially engaged control group differed significantly from a control group (which only received pre- and post-assessments), but not from each other. Thus, the intervention does not appear to function any differently from simple social engagement in efforts to facilitate identity development. Further, Markstrom-Adams and associates indicate that only those who could be categorized as moratoriums were included in the second study, perhaps indicating that the primary anticipated function of their intervention is to elicit reflections regarding identity commitments, not to provide opportunity for exploration.

In contrast to these earlier interventions designed primarily to induce reflections on identity commitments, more recent interventions have also emphasized opportunities for exploration. Berman, Kennerley, and Kennerley (2008) investigated the effectiveness of a curriculum designed specifically to provide exploration experiences and facilitate identity development. The curriculum took place in 15 ninety-minute class sessions in which readings of potentially difficult identity issues were discussed and associated tasks were completed in a group setting. The Ego Identity Process Questionnaire (EIPQ; Balistreri, Busch-Rossnagel, & Geisinger, 1995) and the Identity Distress Survey (IDS; Berman, Montgomery, & Kurtines, 2004) were administered to participants before and after the intervention period. The researchers conducted repeated-measures analyses of variance (RMANOVA) to evaluate the extent that changes in levels of participant exploration and commitment of identity components had taken place. They found that, on
average, identity exploration increased significantly, $F(1, 41) = 6.13, p = .018, \eta^2 = .13$; and identity distress decreased significantly, $F(1, 41) = 25.70, p < .001, \eta^2 = .39$. Further, 14 out of 43 participants progressed to a higher-level identity status, while 25 participants remained in the same status and four participants regressed to a “lower” level status, according to results from the EIPQ. Chi-square analyses indicated that changes in the number of diffused participants and moratorium participants were nonsignificant, but foreclosures decreased significantly, $\chi^2(1) = 3.81, p < .05$, and achievements increased significantly, $\chi^2(1) = 4.40, p < .02$. Relative to previous efforts, this intervention included a more prolonged period of intervention and placed a greater emphasis on the role of facilitating exploration experiences in promoting identity development. In these ways, the Berman et al. intervention more closely reflects the writings of Erikson and provides a glimpse of the potential for prolonged identity interventions to facilitate identity development. Nevertheless, the intervention appears too brief (a total of 22.5 hours of individual participation) to achieve the magnitude of moratorium experience indicated in Erikson’s writings to be necessary to promote identity development. Further, the study did not include a control or comparison group to detect maturation effects or a long-term follow-up to ascertain the durability of the intervention.

More recently, researchers have implemented other identity interventions that are designed both to foster exploration behaviors and to create opportunities for commitment making. For example, in a junior high school with an overarching goal of identity exploration, Sinai, Kaplan, and Flum (2012) implemented an intervention using literature as a means to facilitate exploration. Though the focal point of analyses was a brief period
of intervention, other peripheral elements of the intervention (e.g., an exploration journal) lasted all three years of the junior high period, from grade 7 to grade 9. Qualitative analyses indicated that many adolescents engaged in substantial degrees of identity exploration as a function of participation in the intervention. However, understanding the value of this intervention in the context of other empirically analyzed interventions based on Erikson’s and Marcia’s work is not possible because identity development (i.e., identity status, identity process) was not measured in a manner that permits such comparisons.

As stated previously, institutionalized psychosocial moratoria such as college (Côté, 2006; Stringer & Kerpelman, 2010) and participation in organizations such as the Peace Corps provide expanded opportunities to explore alternatives that could contribute to one’s identity. However, the literature exploring the influence of such experiences on identity development is limited. Pascarella and Terenzini (2005) noted that most studies of the impact of college on identity development have been small-sample, cross-sectional studies with limited generalizability and limited statistical control.

One exception, in terms of sample size, is a study by Constantinople (1969), who surveyed 952 fulltime college students to determine the extent that upperclassmen and lowerclassmen differed from each other in levels of Eriksonian stage resolution. Constantinople used an adaptation of the Q sort (Wessman & Ricks, 1966) assessing successful and unsuccessful resolution of each of Erikson’s first six stages. She found a significant effect among the four classes of students in levels of successful resolution of Erikson’s fifth stage ($F = 4.91, p < .01$) indicating, as one would expect, that seniors had
higher average levels of successful resolution of this stage than freshmen. Constantinople also conducted longitudinal analyses on a subsample of the original 953 participants, but attrition was so high that the validity of results was questionable. In addition, because she did not evaluate a control/comparison group of late adolescents who were not college students, the question remains whether any group differences in identity development scores were the result of history, maturation, or the experience of attending college. Finally, though results were statistically significant, effect sizes were small (e.g., among male seniors, mean ratings of successful resolution of Erikson’s fifth stage were only 1.7 out of 35 points higher than the same ratings among freshmen).

Evaluations of identity development as a function of participation in long-term extracurricular activities such as service learning and study abroad are sparse in the literature. Miller-Perrin and Thompson (2010) investigated the influence of study abroad experiences (of 1 to 2 semesters) on the identity development of 37 college students by comparing changes in identity scores among these students with those of 37 students in a comparison group. They found a “marginally significant” (p. 94) difference in changes in identity achievement scores between the participant group and nonparticipant group, $F(1,72) = 3.68, p < .07$. This exploratory study had a relatively small sample, a limitation that might have increased the likelihood of Type II errors. In addition, if the authors had predicted the direction of the statistical tests, they could have used one-tail tests rather than two-tail tests, and the resulting $p$-value would have been less than .05. Accordingly, this study indicates some potential of extended interventions in which the participant is exposed to new culture, values, and so forth, to facilitate identity development.
Two qualitative studies also provide support for the proposition of implementing lengthier identity interventions to facilitate identity development. Evanovich (2011) conducted in-depth interviews with four individuals enrolled in a service-learning course and found that participants underwent substantial identity development through the experience. In another study (Shames & Alden, 2005), researchers provided a study abroad experience for 13 college students with learning disabilities and/or Attention Deficit Hyperactivity Disorder. The researchers inferred through verbal data that participants experienced growth in many areas of their identity, including social curiosity, intercultural knowledge and skills, and self-knowledge.

Though longer lasting identity-promoting moratorium interventions may be more useful in fostering durable identity development, a significant challenge associated with examining the usefulness of such experiences is that the implementation of true experimental designs to examine their effectiveness is not feasible. Randomly assigning certain participants to forgo pursuits common to adolescence and to engage instead in an extended moratorium away from home—and funding living and other expenses for these participants—are just two of many components of such research that reduce the likelihood that it could ever be implemented successfully. Nevertheless, large numbers of adolescents do participate in such moratoria, and the possibility exists to use other methods (e.g., statistical controls, forming matched groups) in order to compare identity development in adolescents who participate in long-term moratoria and those who do not. Ferrer-Wreder et al. (2002) demonstrated the value of such quasi-experiments to investigate the effectiveness of identity interventions.
One under-investigated style of prolonged institutionalized moratoria is the religious mission experience. Various religious organizations provide opportunities for late adolescents to leave their homes to provide humanitarian service, to disseminate religious teachings, and to obtain education and life skills among unfamiliar people, sometimes in a strikingly different culture. Though adherence to certain behavioral directives and dissemination of specific religious teachings are typically expected of participants in such religious travels, these experiences provide extensive opportunities for exploring identity alternatives and forming commitments to these alternatives. Further, though some instances of this “exploration” might take place only by proxy and in the form of contemplation (see pp. 6–9), Erikson (1971) suggested that exploration of ego-identity components is in-depth, self-evaluative, and purposeful—qualities that do not of necessity exclude proxy exploration from the process. Thus, when a religious volunteer’s exposure to a variety of ego-identity alternatives is accompanied institutionally by components of purposeful and in-depth self-evaluation, such an experience may function for him or her as an institutionalized moratorium. Further, though many of these experiences last only days or sometimes weeks, a few religious organizations provide opportunities for their members to participate in such mission experiences for months or even years. Long-term structured opportunities for exploration and commitment making such as these could produce more durable results than brief identity interventions implemented in the past.

The Church of Jesus Christ of Latter-day Saints (LDS) sends young men ages 18 to 25 and young women ages 19 and above to most countries around the world to serve as
fulltime missionaries. For most late-adolescent LDS missionaries, this experience lasts between 18 months and two years. Though the explicit purpose of these mission experiences is to facilitate development in others, another frequently implicit objective emphasizes the development of self, and for some, this development might include components of ego-identity. In pairs (known as companions), LDS missionaries interact daily with people of other faiths, other cultures, other customs, other professions, other lifestyles, and other interests. Their exposure to a variety of contrasting personal philosophies, their close interaction with companions (who likely differ in occupational experiences and interests, communication patterns, work ethic, background, etc.), and their potentially broad experience in fields such as humanitarian service, instruction, and communication warrant an investigation of the extent that LDS missionary service could function as an intervention to facilitate ego-identity development.

The purpose of this research was to compare measures of identity development in a sample of late adolescents as they relate to LDS mission participation and college participation. According to Erikson’s theory, those with previous experience that provided the greatest potential for exploration of and commitment to identity alternatives should score highest in measures of identity achievement. Thus, if college experiences, for example, provided the greatest breadth and depth of opportunities for identity exploration and forming commitments to identity components, I predicted that those with more years of college studies would demonstrate higher average levels of identity maturity. If, on the other hand, LDS missionary service provided the greatest potential for
exploration and commitment making, it would be associated with the highest levels of identity achievement.

The confounding variable of maturation, which all participants experienced, was expected to explain a portion of the variability in identity maturation between those of premissionary age and those of postmissionary age. Nevertheless, controlling for age and other relevant variables was expected to reveal that these differences in identity maturation could largely be attributed to the quality of moratorium experiences that these two activities (college and religious missions) provided.
CHAPTER III
METHODS

Overview

In this study, I examined the relationship between participation in two different long-term moratorium experiences (namely, college studies and volunteer religious missionary service) and ego-identity status, according to writings of Erikson (1963) and Marcia (1966). I examined this relationship quantitatively by using cross-sectional data collected via an online survey. This chapter details the methods that facilitated this investigation. In this chapter, I state the research questions and describe the sampling procedure, sample characteristics, procedures for data collection, measurement instruments, data analyses, and procedures for the ethical treatment of human subjects.

Research Questions

This study was an investigation of ego-identity status as it related to participation in two different extended moratorium experiences. According to Marcia (1966), one’s ego-identity status reflects a certain combination of exploration of and commitment to identity alternatives. Specifically, those with high levels of both commitment and previous exploration are categorized into the identity achievement status, those with high current exploration and low commitment into identity moratorium, those with high commitment and low exploration into identity foreclosure, and those with low levels of both exploration and commitment into identity diffusion. Though an identity status can potentially categorize a person generally, most individuals identify with all four identity
statuses to some extent (i.e., in some facets of life; see Jones, Akers, & White, 1994). Accordingly, the study was an investigation not of the likelihood that a certain group could be categorized into one identity status or another, but rather how moratorium experiences related to varying levels of all four identity status scores. Thus, in this work, references to “levels” of the identity statuses do not reflect designations of “pure-status” categories; instead, they reflect scores in four identity status scales. For this study, the Extended Objective Measure of Ego-Identity Status (EOMEIS-2; Bennion & Adams, 1986), in which each item captures both exploration and commitment, was employed to produce a unique score for each of the four ego-identity statuses (see Measurement section on pp. 50-56).

In this study, I pursued three research questions. They are as follows:

1. First, to what extent do those who volunteer as LDS missionaries differ in selected demographic and background variables and in identity status scores from those who do not? For this question, comparisons were made specifically between LDS postmissionaries and nonmissionaries who also identified as LDS, in order to make the comparison more practical. Because of the likelihood that differences observed between LDS postmissionaries and the entire subsample of nonmissionaries (both LDS and non-LDS) could be largely a function of religious differences and not necessarily having volunteered as a missionary, it was determined that isolating this analysis only to respondents who were LDS would have a greater likelihood of illuminating differences that might be purely a function of volunteering as a missionary. Further, although 24 respondents had participated in non-LDS missionary experiences, they were excluded
from these analyses because of the relatively low number of these participants, the broad variability in the nature and purpose of their experiences, and the brief average duration of their missionary experiences. Finally, because all participants in the study had participated in postsecondary studies, I was not able to pursue a similar question regarding college experience. For this question, missionary status was a categorical independent variable (yes or no), and demographic, background, and identity variables were the dependent variables.

2. Second, to what extent do college attendance and LDS missionary service predict identity status scores, both uniquely and through interaction? This question involved multiple analyses; in some, the independent variables were categorical designations of college and missionary status, and in others, years of education was treated as a continuous independent variable. Identity status scores were treated as interval-level dependent variables.

3. Third, to what extent do specific features of these experiences (e.g., duration, concentration, social interactions, exposure to other cultures, motives, funding, etc.) share variance with identity status scores? For this question, variables representing specific features of the moratorium experiences were the independent variables.

I hypothesized that LDS participants who volunteered as missionaries would differ significantly from LDS nonmissionaries in demographic characteristics of age and sex, and in average scores for all four identity statuses. Specifically, LDS postmissionaries were expected to be older on average and to have a higher proportion of males, relative to their nonmissionary counterparts. Additionally, LDS postmissionaries
were expected to have higher average levels of achievement and lower average levels of diffusion. Given the shortage of studies of the relationship between levels of ego-identity status and certain long-term moratorium experiences (especially volunteer experiences; see Chapter II for a discussion of the relationship between postsecondary studies and ego-identity development), I did not predict whether missionary service or college studies would be more strongly associated with identity status scores. Finally, in conjunction with Erikson’s (1956) writings suggesting the importance of exploration and commitment opportunities in the pursuit of achieving one’s identity, I hypothesized that features of the two experiences (see Features of Moratorium Experiences on p. 57) would predict a greater amount of variability in identity scores than the experiences themselves.

**Sampling Frame**

Because data collection was internet-based, participation in the study was not restricted to those of a particular geographic area. However, because most recruitment took place at Utah State University (USU), located in Logan, Utah, most participants were students at this university, and most participants were residing in campus housing at the university and in the area surrounding the university. In fall 2013, USU had a student population of 27,812 (including graduate students, online students, and students from regional campuses). At that time, most students (80%) were white, and 54% were female. Though USU’s student body represents all 50 states in the United States and 88 countries, approximately 76% of USU students are from the state of Utah. The average age of undergraduate students was 22.3 years in 2013. Religious affiliation is not officially recorded at USU, but enrollment at the on-campus institute of religion for The Church of
Jesus Christ of Latter-day Saints totaled 6,746 (41.6% of the main campus student body), indicating a substantial LDS presence at the university.

No one age 18 or above was prevented from completing the online survey. However, only the data provided by those who were between 18 and 30 years of age were used in this investigation. The lower bound of this age range was selected to prevent the participation of minors and to ensure that participants were late adolescents who could be anticipating participation or could have already participated in a long-term moratorium experience. The upper bound of this range prevented the participation of those who were no longer adolescents, while accommodating those who chose to participate in identity-focused moratorium experiences later than usual. Characteristics of the final sample are presented in Chapter IV.

**Sampling Procedures**

Participants in this study were recruited through convenience and snowball sampling techniques. I obtained permission from professors and instructors of 14 classes at USU to describe the study to their students and to invite them to participate. Ten of these classes were undergraduate courses in human development and family studies, and the other four were lower level undergraduate courses in physics, psychology, and biology. The intent of this sampling strategy was to recruit mostly freshman, sophomore, and junior male and female students, with varying numbers of students who had participated in a noncollege extended moratorium experience, students who had not but who were of an age to have possibly done so, and students who had not because of the recency of their high school graduation.
Sample Characteristics

A total of 477 respondents provided most or all of the demographic information that was requested within the survey. Among these, 366 (76.7%) were female, average age was 22.3 years (SD = 3.8), and 437 (91.6%) were college students. Respondents had received an average of 14.1 years (SD = 1.5) of formal education. The majority of participants (418; 87.6%) were white, 26 (5.5%) were Latino or Hispanic American, 9 (1.9%) were Black or African American, 14 (2.9%) were multiracial, and the remaining 3.1% were of other races. Other demographic characteristics, including relationship status, structure of family of origin, employment status, income, and religious affiliation are presented in Table 1.

Table 1

Demographic Characteristics of Total Sample Including Incomplete Cases

<table>
<thead>
<tr>
<th>Demographic characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex (N = 477)</strong></td>
<td></td>
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</tr>
<tr>
<td>Female</td>
<td>366</td>
<td>76.7</td>
</tr>
<tr>
<td>Male</td>
<td>111</td>
<td>23.3</td>
</tr>
<tr>
<td><strong>Race (N = 476)</strong></td>
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<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>418</td>
<td>87.6</td>
</tr>
<tr>
<td>Latino or Hispanic American</td>
<td>26</td>
<td>5.5</td>
</tr>
<tr>
<td>Black or African American</td>
<td>9</td>
<td>1.9</td>
</tr>
<tr>
<td>East Asian or Asian American</td>
<td>6</td>
<td>1.3</td>
</tr>
<tr>
<td>Native American, Pacific Islander, or Alaskan Native</td>
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<td>0.4</td>
</tr>
<tr>
<td>Middle Eastern or Arab American</td>
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<td>0.2</td>
</tr>
<tr>
<td>Multiple races or ethnicities</td>
<td>14</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Student status (N = 474)</strong></td>
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<td></td>
</tr>
<tr>
<td>College student</td>
<td>437</td>
<td>91.6</td>
</tr>
<tr>
<td>Nonstudent</td>
<td>37</td>
<td>7.8</td>
</tr>
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</table>

(table continues)
<table>
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<tr>
<th>Demographic characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relationship status (N = 477)</strong></td>
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</tr>
<tr>
<td>Single, never married, not seriously dating</td>
<td>267</td>
<td>56.0</td>
</tr>
<tr>
<td>Single, never married, seriously dating or engaged</td>
<td>86</td>
<td>18.1</td>
</tr>
<tr>
<td>Married for the first time</td>
<td>100</td>
<td>21.0</td>
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<tr>
<td>Divorced, single</td>
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<td>1.3</td>
</tr>
<tr>
<td>Remarried</td>
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<td>1.0</td>
</tr>
<tr>
<td>Cohabiting with romantic partner</td>
<td>13</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Structure of family of origin (N = 476)</strong></td>
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<td></td>
</tr>
<tr>
<td>2-biological-parent</td>
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<td>81.8</td>
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<tr>
<td>Single-parent</td>
<td>49</td>
<td>10.3</td>
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<tr>
<td>Stepfamily</td>
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<td>4.6</td>
</tr>
<tr>
<td>Lived with grandparents</td>
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<td>1.0</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>2.1</td>
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<td><strong>Gainful employment status (N = 474)</strong></td>
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<td></td>
</tr>
<tr>
<td>Unemployed (includes students)</td>
<td>184</td>
<td>38.6</td>
</tr>
<tr>
<td>Employed part-time (includes students)</td>
<td>243</td>
<td>50.9</td>
</tr>
<tr>
<td>Employed fulltime (40+ hours per week; includes students)</td>
<td>47</td>
<td>9.9</td>
</tr>
<tr>
<td><strong>Income (N = 474)</strong></td>
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<tr>
<td>None</td>
<td>93</td>
<td>19.5</td>
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</tr>
<tr>
<td>$40,001 - $50,000</td>
<td>10</td>
<td>2.1</td>
</tr>
<tr>
<td>More than $50,000</td>
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</tr>
<tr>
<td>Roman Catholic / Greek Orthodox</td>
<td>19</td>
<td>4.0</td>
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<tr>
<td>Mainline Protestant</td>
<td>16</td>
<td>3.4</td>
</tr>
<tr>
<td>LDS / The Church of Jesus Christ of Latter-day Saints</td>
<td>342</td>
<td>71.7</td>
</tr>
<tr>
<td>Other Christian</td>
<td>29</td>
<td>6.1</td>
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<tr>
<td>Judaism</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Nonreligious / none</td>
<td>57</td>
<td>11.9</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>1.5</td>
</tr>
<tr>
<td>Participated in LDS missionary service</td>
<td>134</td>
<td>28.1</td>
</tr>
</tbody>
</table>

Not all data from those who reported demographic information were used in analyses. In the EOMEIS-2 section of the online survey, three items were included to
filter out responses that were given unconscientiously. These items read, “If you are reading this item, select [a specific answer choice, such as “Strongly Agree”]. Those who did not provide the expected response for at least two out of three of these items totaled 13, and their responses were eliminated from analyses that included identity data. An additional 39 participants were missing data from more than 25% of the items in two or more of the four EOMEIS-2 subscales, and these responses were also excluded from main analyses. These selection criteria identified 425 participants who reported adequate EOMEIS-2 data. Thus, depending on the analysis performed, 425 is the maximum number of respondents whose data were included in analyses.

Independent-samples t tests were conducted to identify differences between the 52 participants who reported inadequate data and the remaining 425 respondents. Because variability in the inadequate data was expected to be relatively high, a Levene’s test for homogeneity of variance was conducted to modulate the t-statistics when variances were significantly different between the two groups. With heterogeneity of variance accounted for, respondents who provided inadequate data differed in a few notable ways from those who provided adequate data. For example, on average, the 52 who provided inadequate responses were older than the remaining 425 by approximately 1.6 years (t = 2.18, p < .05). Those who provided inadequate responses had also completed an average of approximately .8 years more formal education (t = 2.11, p < .05) and reported higher average household income (t = 2.41, p < .05) than the remaining 425 respondents. Finally, those who provided inadequate data were significantly less likely to have been invited in person to participate in the study, \( \chi^2(2) = 22.54, p < .001 \). Participants
responded to an item in which they reported how they gained access to the study. Of those who participated as a result of my visit to their class to invite them personally, 7.6% provided inadequate data and were excluded from analyses. An additional 94 participants received forwarded emails containing a link to the online survey, but never received a face-to-face invitation. Of these, 24.5% provided inadequate data and were excluded from analyses.

**Enrollment Procedures**

I provided assisting professors and teachers with a hyperlink to a Google Form on which willing and qualified students could view the IRB-approved letter of information (see Appendix B) and enter their names and email addresses and the name of the assisting professor/teacher. I used all of this information to create a panel of study participants in the Qualtrics online survey software. I then sent participants a web address to which they could navigate to complete the online survey. Qualtrics contains a function for mailing a questionnaire link to a large panel of participants.

Participants were invited to give directions for study participation to eligible peers and family members. Specifically, referred participants were also given the link to the Google Form, in which they provided their names and email addresses to facilitate correspondence through Qualtrics, and the name of the referring participant. Professors and teachers were encouraged to offer extra credit or assignment credit for a student’s participation (according to professors’ discretion). Students could only recruit peers and family members not already included in the initial sampling frame.
Each participant was assigned a unique identification number to be associated with his or her survey response. Through the use of Qualtrics survey mailing records (which included embedded data such as professor name, and an indication of whether participants had accessed or completed the survey), I was able to determine who should be awarded extra credit, from which class such students came, and how many other participants (if any) these students recruited—all without including identifying information in analyzed survey responses. Survey responses were de-identified such that identifying information (name, email address, and Internet Protocol [IP] of respondents) was not included in the finalized data set. Using the same mailing histories, I entered all participants who completed the survey into a drawing to receive one of five $10 gift cards to Cold Stone Creamery. Those who referred other participants to the study were entered into the prize drawing an additional time for each referred participant.

Data Collection

In this study, data were collected through the web-based survey platform Qualtrics. Qualtrics offers a broad range of item and response options and provides the means to export response data into Excel, SPSS, and other data-analysis programs. Qualtrics also permits anonymizing survey responses to ensure participant confidentiality. A link to the online survey was provided for each participant, students reviewed the approved letter of information (see Appendix B), and survey responses were recorded in the Qualtrics database and exported into an SPSS data file. Data for each participant were recorded anonymously on a separate row in the data set.
Measurement

A single survey was used to assess all variables in this study. The survey included questions to gather information about demographic characteristics, participation in moratorium experiences, and specific features of the moratorium experiences. The online survey also contained a revision of the Extended Objective Measure of Ego-Identity Status (Bennion & Adams, 1986). A transcript of the online survey is presented in Appendix A.

Demographic Characteristics

Age was measured by obtaining the birth month and year of participants and subtracting that date from the date of survey completion. Sex was measured with a single dichotomous item in which the participant selected Female or Male. Race and ethnicity were reported with the following item: “Which option best describes your race and/or ethnicity?” Available responses included White, non-Hispanic; Black or African American; Latino or Hispanic American; East Asian or Asian American; South Asian or Indian American; Middle Eastern or Arab American; Native American, Pacific Islander, or Alaskan Native; Multiple races or ethnicities; and Another race or ethnicity. A single item in which participants reported relationship status included the following options: Single, never married, not dating; Single, never married, casually dating; Single, never married, seriously dating; Engaged to be married; Married for the first time; Divorced, single; Remarried following divorce; Remarried following death of spouse; Widowed, not remarried; and Cohabiting with romantic partner. Those who were not married, remarried, or cohabiting also reported in a single item whether they currently resided
alone, with their families of origin, or with roommates. Participants reported one of the following employment statuses: *Unemployed, not seeking employment; Unemployed, seeking employment; Employed 1 - 20 hours per week; Employed 21 - 39 hours per week;* and *Employed fulltime (40 or more hours per week).* Income level was measured on an interval level with options in increments of $10,000. Participants also reported whether they were college students or nonstudents, and college students reported their numbers of cumulative (i.e., already earned) and current credit hours.

**Participation in Moratorium Experiences**

Participants reported whether they had participated in a religious mission experience and/or college. Those who had participated in a religious mission reported which organization they represented and how much college they had completed prior to their volunteer experience. Level of college participation was recorded both as years of formal education (a continuous variable) and as one of three categories of completed credit hours: 30 or fewer credit hours, 31 to 90 credit hours, and 91 or more credit hours (including graduate studies). These categories were selected because of their harmony with typical timelines for decision making in matters of chosen fields of study. For example, many of those who had earned 30 or fewer credit hours were expected to be completing general education requirements and perhaps to be in the process of exploring and selecting a college major. Many of those in the middle category were expected to have chosen a college major but not to have invested substantially in it. Finally, many of those who had earned 91 or more credit hours were expected to have made real commitments to their chosen field (and many other aspects of their ego-identities).
Features of Moratorium Experiences

Participants who had spent an extended period as religious missionaries reported information about a number of features of their experiences that could have been related to opportunities to engage in identity exploration or to form commitments to chosen identity components. Many of these features were selected to parallel the identity domains measured in the EOMEIS-2 (Bennion & Adams, 1986; see p. 59). Specifically, respondents reported the length of their experience in years, months, and weeks, and these values were converted into weeks for all respondents. The concentration of the experience was reported on an interval level in response to the following question: “Approximately how much time per day (in hours) did you spend fulfilling your responsibilities as a volunteer?” The distance of the missionary experience from the respondent’s home was reported on an ordinal level with one of the following responses: Less than 100 miles from my home; Within the same region of my country; In a different region of my country; In my continent, but not in my country; and Outside my continent / Overseas. Participants also reported, on a scale ranging from 1 (similar) to 4 (extremely different), the extent that the culture in the location of their experience differed from their native culture. Participants reported the number of semesters of college in which they had participated prior to their missionary experience. Respondents reported whether they had to learn a nonnative language and what language they primarily spoke during their mission experience. Participants also reported, on a scale of 1 (Not at all encouraged) to 7 (Extremely encouraged), the extent to which they were encouraged by the following to participate in their mission experience: family, friends, religious leaders, religious
doctrines and texts, social media, and other media. Finally, participants reported the approximate number of weekly occurrences of the following events: Small-scale (i.e., with fewer than 10 people) religious discussions with people of YOUR faith; Small-scale (i.e., with fewer than 10 people) religious discussions with people of ANOTHER faith; Religious services (e.g., Mass, worship) of YOUR organization; Religious services of ANOTHER organization; Personal study of religious text that is mostly or completely unique to YOUR faith; Personal study of religious text that is mostly or completely unique to ANOTHER faith; Personal study of religious text that is shared by multiple faiths, including yours; Pondering YOUR religious beliefs; Pondering religious beliefs that DIFFER from yours; Humanitarian service / free labor; Paid labor; Learning about an unfamiliar professional field; Developing skills / gaining experience in your professional field; Learning / developing a previously unfamiliar hobby (e.g., a sport); Nonreligious (e.g., political) discussions with people who DIFFERED from you philosophically; Nonreligious discussions with people who SHARED your philosophy; Sightseeing; Other recreation; Contemplation of qualities that are desirable in a partner / spouse; Contemplation of qualities that are desirable in a relationship (e.g., communication, emotional intimacy, mutual trust); and Romantic pursuits in/near your location of service (to capture the extent of exploration that is common in this domain of ego-identity during missionary service).

A corresponding set of items was administered to those who had participated or were currently participating in postsecondary studies. Most of these items were identical to those administered to respondents who participated in mission experiences, but items
pertaining specifically to the mission experience (e.g., duration of missionary service) were omitted, and the language of other items was adapted to correspond to the college experience.

The EOMEIS-2

The revised version of the Extended Objective Measure of Ego-Identity Status (EOMEIS-2; Bennion & Adams, 1986) was used to measure each of the four identity statuses for each participant in the current study. The EOMEIS-2 is the most popular measure of ego-identity status according to Marcia’s paradigm (Jones et al., 1994) and is recognized as the most fitting of available instruments in large studies of identity development (Willis, 2013). The measure produces a unique score for each of the four identity statuses. Each status is measured with 16 items, two representing each of the ideological domains of occupation, politics, religion, and philosophical lifestyle, and the interpersonal domains of sex roles, friendship, recreation, and dating. Item responses are recorded on a 6-point Likert scale ranging from 1 (strongly agree) to 6 (strongly disagree), and responses are summed separately for each of the four identity status subscales.

Importantly, though scores from the EOMEIS-2 can be used to categorize respondents into one of Marcia’s four ego-identity statuses, in this study, I analyzed only mean subscale scores (i.e., mean scores in the achievement, moratorium, foreclosure, and diffusion subscales for a particular group). Accordingly, as previously stated, “levels” of identity status development in this work are references to subscale scores, not identity status categorizations.
A thorough discussion of the psychometric properties of both versions of the EOMEIS was presented by Adams (1998). Bennion and Adams (1986) administered the EOMEIS-2 to 106 undergraduates to examine reliability and validity of scores on the measure. In this sample, Cronbach’s alpha coefficients in the eight subscales (i.e., interpersonal achievement, ideological achievement, etc.) ranged from .60 to .80, with the exception of the Interpersonal Moratorium subscale, whose alpha coefficient was .58. The magnitude of this value indicates that measurement error pertaining to this subscale might be higher than desired and could lead to Type-II errors. Notwithstanding this limitation, Bennion and Adams (1986) interpreted the range of alphas for the measure as “good to strong” (p. 185). Other researchers have observed higher levels of internal consistency with scores on the measure. Abu-Rayya (2006) calculated alpha coefficients ranging from .81 to .93, and Shanahan and Pychyl (2007) observed alpha coefficients ranging from .67 to .87.

The EOMEIS-2 also demonstrates strong evidence of validity. Concurrent validity was estimated by Bennion and Adams (1986) by examining the association between scores on the EOMEIS-2 and scores on the Eriksonian Psychosocial Stage Inventory (EPSI; Rosenthal, Gurney, & Moore, 1981). Bennion and Adams observed that the EPSI was positively correlated with identity achievement ($r = .38$ and $.47$ on ideological and interpersonal achievement, respectively, $p < .001$) and negatively correlated with foreclosure, moratorium, and diffusion ($r$ ranges from -.17 to -.50, $p < .05$, except for interpersonal foreclosure, which was not significantly related to the EPSI). Schwartz (2004) administered the Multi-Measure Agentic Personality Scale (MAPS; Côté, 1997)
and the EOMEIS-2 to 758 undergraduate students and observed that all but one of the six MAPS subscales differed significantly by ideological identity status (as measured by the EOMEIS-2), Wilks’ $\lambda = .80$, $F(15, 972) = 5.44$, $p < .001$, $\eta^2 = .07$. All six MAPS subscales also differed significantly by interpersonal identity status, Wilks’ $\lambda = .81$, $F(15, 1016) = 5.35$, $p < .001$, $\eta^2 = .07$. Since these two measures measure similar constructs, these findings demonstrate a degree of convergent validity. Bennion and Adams (1986) also estimated convergent validity for EOMEIS-2 scales by calculating the correlation between corresponding ideological and interpersonal scales. Correlation coefficients in pairs of corresponding subscales ranged from .38 to .66, $p < .001$ for all four. In the same analyses, both ideological and interpersonal achievement scores were either negatively correlated or not statistically correlated linearly with remaining status scores ($r = -.41$ to $r = .11$), demonstrating discriminant validity. However, the diffusion and moratorium subscales were positively correlated ($r = .29$ to $r = .71$, $p < .001$ for all), suggesting that perhaps these two theoretically distinct constructs load onto a common empirical factor. Factor analyses further demonstrate that the identity statuses, as measured by the EOMEIS-2 are distinct from each other except for the combination of diffusion and moratorium (Adams, 1998). Bennion and Adams (1986) also indicated that scores on the EOMEIS-2 were not significantly correlated with scores on the Marlowe-Crowne Social Desirability Scale (MC SDS; Crowne & Marlowe, 1960), though they did not provide the actual correlation coefficients in their report.
Procedures for the Ethical Treatment of Human Subjects

I followed all protocols designated by the Institutional Review Board for the ethical treatment of human subjects at Utah State University. I ensured that participant data remained confidential. I also provided participants with statements of information regarding the study. I ensured that participants were aware of their option to cease participation in the study at any time, for any reason. I warned participants of any potentially threatening or uncomfortable aspect of participation in the study. The study was approved by the Institutional Review Board (see Appendix B).
CHAPTER IV

RESULTS

Overview

In this chapter, I present psychometric properties of the EOMEIS-2. I also report results of analyses for the three principal research questions under investigation. First, I report demographic differences and differences in identity scores between LDS postmissionaries and LDS nonmissionaries. Next, I report results of various analyses of the extent that LDS missionary service and college studies generally predict variability in identity scores (according to the EOMEIS-2). Finally, I report results of analyses of specific features of these two experiences that contribute to variability in identity scores. Means and standard deviations of the four EOMEIS-2 subscales for the total sample, as well as for LDS postmissionaries, LDS nonmissionaries, and all nonmissionaries (i.e., the subsample in which features of college studies were evaluated in relation to identity status scores), are reported in Table 4. Means and standard deviations (or percentages) of measured features of college studies and missionary service are reported in Appendix D.

Psychometric Properties of the EOMEIS-2

The EOMEIS-2 demonstrated evidence of reliability and validity in the sample, and these data are presented in Table 2. Cronbach’s alpha coefficients for the four main subscales (i.e., achievement, moratorium, foreclosure, and diffusion) ranged from .74 to .91, all four estimates within the range of alpha coefficients found by other researchers (e.g., Abu-Rayya, 2006; Shanahan & Pychyl, 2007). Bivariate correlation coefficients
were also calculated for each pair of subscales to estimate construct validity via convergent and divergent relations. Each subscale was significantly correlated with the other three, and although the magnitude of each of the interscale correlation coefficients differed somewhat from those reported by Bennion and Adams (1986), directionality in the coefficients in this study was identical to what Bennion and Adams found. In this study, foreclosure scores were moderately positively correlated with diffusion scores \( (r = .13) \), and moratorium and diffusion scores demonstrated a higher positive association \( (r = .52) \). Achievement scores were negatively associated with diffusion scores \( (r = -.33) \) and moratorium scores \( (r = -.20) \) and positively associated with foreclosure scores \( (r = .12) \). Moratorium and foreclosure scores were positively correlated \( (r = .16) \).

**Research Question 1**

The intent of the first research question was to evaluate possible differences between those who participated in LDS missionary service and those who did not. To

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Diffusion</th>
<th>Foreclosure</th>
<th>Moratorium</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diffusion</td>
<td>-</td>
<td>.13**</td>
<td>.53**</td>
<td>-.33**</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-</td>
<td></td>
<td>.16**</td>
<td>.12*</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-.20**</td>
</tr>
<tr>
<td>Achievement</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Cronbach's alpha | .74 | .91 | .80 | .74 |

\* \( p < .05 \); \** \( p < .01 \).
enhance the practicality of this analysis, it was conducted specifically among those who were eligible to serve as LDS missionaries—namely, those who identified as LDS. Further, although 24 respondents had participated in non-LDS missionary experiences, they were excluded from these analyses because of the relatively low number of these participants, the broad variability in the nature and purpose of their experiences, and the brief average duration of their missionary experiences.

Independent-samples $t$ tests were conducted to investigate significant group differences in number of siblings, income, age, and number of years of formal education. Chi-square analyses were conducted to examine differences between postmissionaries and nonmissionaries in sex, marital status (married versus nonmarried), birth order, employment status, and whether the respondent lived with both biological parents while growing up. These demographic variables were chosen for this analysis because they had the potential to be related to scores on the EOMEIS-2. Namely, sex has been linked to identity variables because of gender bias (see Gilligan, 1982), and the other variables listed above could have either been a product of identity development (e.g., those with fulltime employment are more likely to have reached identity achievement; see Chapter II) or provided respondents with greater opportunities to engage in identity development experiences (e.g., those with greater numbers of siblings might have greater variability in identity components that they can explore).

Means, standard deviations, percentages, $t$ statistics, and chi-square coefficients pertaining to these characteristics are presented in Table 3. Independent-samples $t$ tests indicated significant group differences only in age, $t(304) = 6.88, p < .001$, with
postmissionaries reporting higher average ages. Differences in numbers of siblings, income, and years of education were nonsignificant. Chi-square analyses revealed significant group differences only in sex, $\chi^2(1) = 87.68$, $p < .001$, with more

Table 3

**Demographic Differences between LDS Postmissionaries and LDS Nonmissionaries**

<table>
<thead>
<tr>
<th>Variable</th>
<th>LDS postmissionaries</th>
<th>LDS nonmissionaries</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>$M$ (SD)</td>
<td>$M$ (SD)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>23.0 (2.9)</td>
<td>20.8 (2.6)</td>
<td>6.9***</td>
</tr>
<tr>
<td>Years of formal education</td>
<td>13.9 (1.0)</td>
<td>13.9 (1.1)</td>
<td>0.6</td>
</tr>
<tr>
<td>Number of siblings</td>
<td>4.5 (2.1)</td>
<td>4.3 (2.0)</td>
<td>0.8</td>
</tr>
<tr>
<td>Income (out of 7)</td>
<td>2.4 (1.3)</td>
<td>2.2 (1.1)</td>
<td>1.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$n$ (%)</th>
<th>$n$ (%)</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>62 (50.8)</td>
<td>181 (95.8)</td>
</tr>
<tr>
<td>Male</td>
<td>60 (49.2)</td>
<td>8 (4.2)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>28 (23.0)</td>
<td>45 (23.8)</td>
</tr>
<tr>
<td>Not married</td>
<td>94 (77.0)</td>
<td>144 (76.2)</td>
</tr>
<tr>
<td>Family of origin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lived with both biological parents</td>
<td>110 (90.2)</td>
<td>162 (86.2)</td>
</tr>
<tr>
<td>Lived in another arrangement</td>
<td>12 (9.8)</td>
<td>26 (13.8)</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed, not seeking</td>
<td>20 (16.4)</td>
<td>42 (22.2)</td>
</tr>
<tr>
<td>employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed, seeking employment</td>
<td>20 (16.4)</td>
<td>39 (20.6)</td>
</tr>
<tr>
<td>Employed 1 - 20 hours per week</td>
<td>54 (44.3)</td>
<td>80 (42.3)</td>
</tr>
<tr>
<td>Employed 21 - 39 hours per week</td>
<td>20 (16.4)</td>
<td>18 (9.5)</td>
</tr>
<tr>
<td>Employed fulltime (40+ hours per week)</td>
<td>8 (6.6)</td>
<td>10 (5.3)</td>
</tr>
<tr>
<td>Birth order</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oldest child</td>
<td>37 (34.6)</td>
<td>67 (38.1)</td>
</tr>
<tr>
<td>Middle child</td>
<td>43 (40.2)</td>
<td>70 (39.8)</td>
</tr>
<tr>
<td>Youngest child</td>
<td>27 (25.2)</td>
<td>39 (22.2)</td>
</tr>
</tbody>
</table>

*** $p < .001$. 


postmissionaries reporting being male. Reports of birth order, employment status, marital status, and structure of family of origin were statistically similar across the two groups.

Independent-samples t tests were also conducted to examine group differences (across the same two groups) in average scores on the Achievement, Moratorium, Foreclosure, and Diffusion subscales of the EOMEIS-2. Results of these t tests indicate that, compared to LDS participants who did not volunteer as missionaries, LDS postmissionaries reported significantly higher achievement scores, \( t(309) = -2.98, p < .01 \); significantly lower moratorium scores, \( t(309) = 2.26, p < .05 \); significantly higher foreclosure scores, \( t(309) = -2.16, p < .05 \); and significantly lower diffusion scores, \( t(309) = 4.00, p < .001 \). Though these differences were statistically significant, effects were modest. Means and standard deviations of the four EOMEIS-2 subscale scores are presented in Table 4.

**Table 4**

*Means and Standard Deviations of EOMEIS-2 Subscale Scores*

<table>
<thead>
<tr>
<th>EOMEIS-2 Subscale</th>
<th>Total Sample ( N = 425 ) ( M (SD) )</th>
<th>LDS Postmiss. ( n = 122 ) ( M (SD) )</th>
<th>LDS Nonmiss. ( n = 189 ) ( M (SD) )</th>
<th>All Nonmiss. ( n = 303 ) ( M (SD) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diffusion</td>
<td>44.7 (9.9)</td>
<td>40.9 (8.6)</td>
<td>44.9 (8.6)</td>
<td>46.2 (10.0)</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>43.3 (13.4)</td>
<td>48.5 (11.8)</td>
<td>45.4 (12.7)</td>
<td>41.3 (13.5)</td>
</tr>
<tr>
<td>Moratorium</td>
<td>52.0 (10.8)</td>
<td>50.4 (9.2)</td>
<td>53.1 (10.5)</td>
<td>52.6 (11.3)</td>
</tr>
<tr>
<td>Achievement</td>
<td>71.3 (8.7)</td>
<td>73.8 (8.6)</td>
<td>71.0 (7.9)</td>
<td>70.3 (8.6)</td>
</tr>
</tbody>
</table>
Research Question 2

Research question 2 was designed to identify differences in identity scores according to level of college studies and participation in LDS missionary service. This question was analyzed in multiple ways. First, two-way factorial ANOVAs were conducted to examine group differences in scores for each EOMEIS-2 subscale, according to education level (3 levels: 30 or fewer college credit hours, 31 to 90 college credit hours, and 91 or more college credit hours; see Chapter III) and LDS missionary service (2 levels: participated in LDS missionary service and did not participate in LDS missionary service). Then, to examine whether years of formal education or LDS missionary service shared a greater amount of unique variance with identity status scores, four regression analyses were conducted, with years of formal education and participation in LDS missionary service as predictors and the EOMEIS-2 subscales as the respective outcome variables. Standardized beta coefficients were compared by using a t distribution to identify any significant differences between the two betas in each model (Cohen, Cohen, West, & Aiken, 2003). Finally, to examine unique relationships of years of education and participation in LDS missionary service with each of the 32 identity domains (e.g., sex role achievement, political achievement, philosophical lifestyle achievement, etc.), 32 separate regression models were used.

Factorial ANOVAs

Results of factorial ANOVAs are presented in Table 5. Main effects in these analyses were significant but modest for all four identity outcomes, with the exception
Table 5

**Factorial ANOVAs Predicting Identity Status Scores with Missionary Service and Education Level**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Partial η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Level</td>
<td>2</td>
<td>556.33</td>
<td>278.17</td>
<td>3.85*</td>
<td>.018</td>
</tr>
<tr>
<td>Missionary Service</td>
<td>1</td>
<td>508.59</td>
<td>508.59</td>
<td>7.05**</td>
<td>.017</td>
</tr>
<tr>
<td>Education Lev. * Missionary Service</td>
<td>2</td>
<td>139.03</td>
<td>69.51</td>
<td>0.96</td>
<td>.005</td>
</tr>
<tr>
<td>Error</td>
<td>419</td>
<td>30237.96</td>
<td>72.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>425</td>
<td>219483.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>424</td>
<td>32266.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moratorium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Level</td>
<td>2</td>
<td>1910.83</td>
<td>955.42</td>
<td>8.89***</td>
<td>.041</td>
</tr>
<tr>
<td>Missionary Service</td>
<td>1</td>
<td>264.58</td>
<td>264.58</td>
<td>2.46</td>
<td>.006</td>
</tr>
<tr>
<td>Education Lev. * Missionary Service</td>
<td>2</td>
<td>221.78</td>
<td>110.89</td>
<td>1.03</td>
<td>.005</td>
</tr>
<tr>
<td>Error</td>
<td>419</td>
<td>45046.43</td>
<td>107.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>425</td>
<td>1197977.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>424</td>
<td>49515.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreclosure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Level</td>
<td>2</td>
<td>2632.82</td>
<td>1316.41</td>
<td>8.06***</td>
<td>.037</td>
</tr>
<tr>
<td>Missionary Service</td>
<td>1</td>
<td>2836.31</td>
<td>2836.31</td>
<td>17.37***</td>
<td>.040</td>
</tr>
<tr>
<td>Education Lev. * Missionary Service</td>
<td>2</td>
<td>242.22</td>
<td>121.11</td>
<td>0.74</td>
<td>.004</td>
</tr>
<tr>
<td>Error</td>
<td>419</td>
<td>68401.31</td>
<td>163.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>425</td>
<td>874372.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>424</td>
<td>75899.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diffusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Level</td>
<td>2</td>
<td>1365.45</td>
<td>682.73</td>
<td>7.89***</td>
<td>.036</td>
</tr>
<tr>
<td>Missionary Service</td>
<td>1</td>
<td>1772.39</td>
<td>1772.39</td>
<td>20.48***</td>
<td>.047</td>
</tr>
<tr>
<td>Education Lev. * Missionary Service</td>
<td>2</td>
<td>260.28</td>
<td>130.14</td>
<td>1.50</td>
<td>.007</td>
</tr>
<tr>
<td>Error</td>
<td>419</td>
<td>36264.42</td>
<td>86.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>425</td>
<td>889043.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>424</td>
<td>41394.64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: For model predicting Achievement scores, $R^2 = .063$ (adjusted $R^2 = .052$). For model predicting Moratorium scores, $R^2 = .090$ (adjusted $R^2 = .079$). For model predicting Foreclosure scores, $R^2 = .099$ (adjusted $R^2 = .088$). For model predicting Diffusion scores, $R^2 = .124$ (adjusted $R^2 = .113$).*  

* $p < .05$; ** $p < .01$; *** $p < .001$. 
that LDS missionary service was not associated with moratorium scores. Both missionary service and education level produced significant group differences in achievement scores \((F = 7.05, p < .01, \eta^2_{\text{partial}} = .017, \text{and } F = 3.85, p < .05, \eta^2_{\text{partial}} = .018, \text{respectively})\) and diffusion scores \((F = 20.48, p < .001, \eta^2_{\text{partial}} = .047, \text{and } F = .789, p < .01, \eta^2_{\text{partial}} = .036, \text{respectively})\). Tukey LSD post hoc analyses revealed that education level was positively associated with achievement scores and negatively associated with diffusion scores. Post hoc independent-samples \(t\) tests revealed that missionary service, too, was positively associated with achievement scores and negatively associated with diffusion scores. \(F\) tests and post hoc comparisons revealed that education level was negatively associated with foreclosure scores \((F = 8.06, p < .001, \eta^2_{\text{partial}} = .037)\), and missionary service was positively associated with foreclosure scores \((F = 17.37, p < .001, \eta^2_{\text{partial}} = .040)\). Education level was negatively associated with moratorium scores \((F = 8.89, p < .001, \eta^2_{\text{partial}} = .041)\). Interaction effects in each of these analyses were nonsignificant.

**Regression Analyses**

Regression models require that data from outcome variables be normally distributed and that multicollinearity not be present in predictors. Skewness and kurtosis were evaluated by determining the Z-score of each skewness and kurtosis estimate. For achievement, moratorium, foreclosure, and diffusion scores, Z-scores of their respective skewness and kurtosis values ranged in absolute magnitude from 0.64 to 1.97. Because all of these values were less than the critical Z-score of 2.58 \((p = .01)\), I concluded that outcome data approximated the normal distribution. Further, missionary service and
years of education were uncorrelated, and their respective tolerance values were greater than .9, indicating that multicollinearity was not an issue in the two main predictors.

Results of regression models that included years of education (a continuous variable) and participation in LDS missionary service (a dichotomous variable) as predictors, and each of the four main EOMEIS-2 subscales as outcome variables, are presented in Table 6. The difference between each regression model and its corresponding null model was statistically significant, with F ratios ranging from 12.04 to 39.14, \( p < .001 \) for all models. The amount of variance explained by each model varied from \( R^2 = .05 \) (achievement scores) to \( R^2 = .16 \) (diffusion scores), indicating modest effects. Regression results also confirmed the directionality of the relationships found in post hoc comparisons for the two-way factorial ANOVAs described previously.

Specifically, after accounting for variance explained by years of formal education, LDS missionary service was positively associated with achievement scores, \( \beta = .19, t(422) = 3.94, p < .001 \). In addition, unlike its corresponding ANOVA, in the regression model predicting moratorium scores, after accounting for years of formal education, participation in LDS missionary service became a significant, negative predictor of moratorium scores, \( \beta = -.11, t(422) = -2.34, p < .05 \). Missionary service was also positively associated with foreclosure scores, \( \beta = .23, t(422) = 5.02, p < .001 \), and negatively associated with diffusion scores, \( \beta = -.26, t(422) = -5.76, p < .001 \). After accounting for the variance in identity outcome scores explained by LDS missionary service, years of formal education was positively associated with achievement scores, \( \beta = .15, t(422) = 3.12, p < .01 \); negatively associated with moratorium scores, \( \beta = -.32, t(422) \)
= -7.07, \( p < .001 \); negatively associated with foreclosure scores, \( \beta = -.20, t(422) = -4.44, \( p < .001 \); and negatively associated with diffusion scores, \( \beta = -.31, t(422) = -7.00, \( p < .001 \).

These four regression models were re-run to test for interactions between years of education and missionary service. The two predictors were mean-centered, and an interaction term was included in the models. In each of these models, as in the univariate ANOVAs reported above, the interaction between missionary service and years of education was nonsignificant.

Table 6

*Predicting Identity Subscale Scores with Years of Education and LDS Mission Service*

<table>
<thead>
<tr>
<th>Regression Models</th>
<th>Between betas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( b )</td>
</tr>
<tr>
<td>Achievement</td>
<td></td>
</tr>
<tr>
<td>Mission</td>
<td>3.60</td>
</tr>
<tr>
<td>Education</td>
<td>.97</td>
</tr>
<tr>
<td>Moratorium</td>
<td></td>
</tr>
<tr>
<td>Mission</td>
<td>-2.56</td>
</tr>
<tr>
<td>Education</td>
<td>-2.64</td>
</tr>
<tr>
<td>Foreclosure</td>
<td></td>
</tr>
<tr>
<td>Mission</td>
<td>6.85</td>
</tr>
<tr>
<td>Education</td>
<td>-2.06</td>
</tr>
<tr>
<td>Diffusion</td>
<td></td>
</tr>
<tr>
<td>Mission</td>
<td>-5.62</td>
</tr>
<tr>
<td>Education</td>
<td>-2.32</td>
</tr>
</tbody>
</table>

* \( p < .05 \); ** \( p < .01 \); *** \( p < .001 \).
Comparisons of standardized betas. In the above regression models that exclude interaction terms, differences between standardized beta coefficients associated with missionary service and years of education were adapted to a t distribution (according to instructions from Cohen et al., 2003) to test for significant differences in the predictive utility of years of education and missionary service. These t statistics were calculated such that

\[ t = \frac{\beta_i - \beta_j}{SE_{\beta_i - \beta_j}} \]

where \( df = n - k - 1 \), \( k \) is the number of predictors in the equation (in this case, 2), and the standard error of the difference between the two standardized beta coefficients being compared is represented by

\[ SE_{\beta_i - \beta_j} = \sqrt{\frac{1 - R^2_\beta}{n - k - 1} (r^{ii} + r^{jj} + r^{ij})} \]

In this equation, \( r^{ii} \) and \( r^{jj} \) are values from the main diagonal of \( R^{-1} \), the inverse of the correlation matrix for the two predictor variables. The value \( r^{ij} \) is the inverse of the correlation between the two predictors.

Results of these t tests are presented in Table 6. Years of formal education and participation in LDS missionary service differed significantly in their predictive utility only in the foreclosure and moratorium models (\( t[422] = 6.52, p < .001 \), and \( t[422] = 3.28, p < .01 \), respectively). In the achievement model, the standardized coefficient for missionary service was greater in magnitude than the coefficient for years of education, and in the diffusion model, the coefficient for years of education was greater in
magnitude than the coefficient for missionary service. Nevertheless, the moderate
differences in the predictive utility of the two experiences were nonsignificant for the
achievement and diffusion models.

**Predicting specific domain sub-scores.** I also examined the extent that
missionary service and years of education were associated with each of the 32 EOMEIS-2 domain–status item pairs. For example, the two EOMEIS-2 items pertaining to sex role
achievement were scaled and treated as the outcome variable in a regression analysis,
with years of education and missionary status as the two predictors. I assumed that
reliability estimates for these 32 two-item subscales would be lower than what were
found in the 16-item subscales. All 32 models were statistically significantly different ($F$
values ranging from 4.00 to 24.25, $p < .05$ and $R^2$ values ranging from .02 to .11) from
their corresponding null models, with the exception of the model predicting political
achievement ($F = .08, p > .05$).

Whereas years of education was significantly associated with every identity status
score pertaining to occupational identity (positively associated with achievement and
negatively associated with the other three identity status scores), the relationship between
missionary service and each occupational identity status score was nonsignificant. In
contrast, missionary service was associated with all four religious identity scores
(positively associated with achievement and foreclosure scores, and negatively associated
with diffusion and moratorium scores), but years of education was (negatively) associated
only with religious foreclosure.
Further, in three identity domains (sex role identity, dating identity, and recreation identity), missionary service was significantly associated with all status scores except for moratorium. Specifically, for each of these three identity domains, missionary service was positively associated with achievement scores and foreclosure scores, and negatively associated with diffusion scores.

As noted previously, years of education was negatively associated with foreclosure scores, whereas missionary service was positively associated with foreclosure scores. Specific identity domains for which this generalization was true were political identity, religious identity, philosophical lifestyle identity, sex role identity, friendship identity, and recreation identity. Finally, whereas missionary service was not significantly associated with achievement scores in occupational identity and political identity, years of education was not associated with achievement scores in political identity, religious identity, philosophical lifestyle identity, and dating identity. Results of all 32 regression analyses of EOMEIS-2 subdomain scores as they relate to years of education and LDS missionary service are presented in Tables 7 and 8 (see Appendix C for means and standard deviations of these scores across participant groups).

**Research Question 3**

Research question 3 involved the evaluation of specific features of missionary service and college studies that are responsible for their respective associations with identity scores in the EOMEIS-2. Numerous predictor variables representing specific features of each of the two experiences under investigation were included in eight separate stepwise regression analyses (a model for each of the four EOMEIS-2 subscales
### Table 7

*Ideological Subdomain Scores According to Years of Formal Education and LDS Mission Service*

<table>
<thead>
<tr>
<th>Identity domain</th>
<th>Years of education</th>
<th>LDS mission</th>
<th>Entire model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE$</td>
<td>$\beta$</td>
</tr>
<tr>
<td><strong>Occupational identity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>.39</td>
<td>.10</td>
<td>.20</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-.54</td>
<td>.09</td>
<td>-.28</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-.26</td>
<td>.06</td>
<td>-.22</td>
</tr>
<tr>
<td>Diffusion</td>
<td>-.41</td>
<td>.08</td>
<td>-.25</td>
</tr>
<tr>
<td><strong>Political identity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>-.01</td>
<td>.07</td>
<td>-.01</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-.48</td>
<td>.09</td>
<td>-.26</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-.31</td>
<td>.09</td>
<td>-.16</td>
</tr>
<tr>
<td>Diffusion</td>
<td>-.59</td>
<td>.10</td>
<td>-.28</td>
</tr>
<tr>
<td><strong>Religious identity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>-.06</td>
<td>.07</td>
<td>-.04</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-.11</td>
<td>.08</td>
<td>-.06</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-.22</td>
<td>.10</td>
<td>-.11</td>
</tr>
<tr>
<td>Diffusion</td>
<td>-.11</td>
<td>.10</td>
<td>-.05</td>
</tr>
<tr>
<td><strong>Philos. lifestyle identity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>.12</td>
<td>.07</td>
<td>.09</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-.28</td>
<td>.07</td>
<td>-.20</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-.32</td>
<td>.08</td>
<td>-.19</td>
</tr>
<tr>
<td>Diffusion</td>
<td>-.28</td>
<td>.08</td>
<td>-.17</td>
</tr>
</tbody>
</table>

* $p < .05$; ** $p < .01$; *** $p < .001$. 
### Table 8

**Interpersonal Subdomain Scores According to Years of Formal Education and LDS Mission Service**

<table>
<thead>
<tr>
<th>Identity domain</th>
<th>Years of education</th>
<th>LDS mission</th>
<th>Entire model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>( \beta )</td>
</tr>
<tr>
<td><strong>Sex role identity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>.26</td>
<td>.07</td>
<td>.18</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-.22</td>
<td>.08</td>
<td>-.14</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-.29</td>
<td>.09</td>
<td>-.16</td>
</tr>
<tr>
<td>Diffusion</td>
<td>-.38</td>
<td>.07</td>
<td>-.26</td>
</tr>
<tr>
<td><strong>Friendship identity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>.01</td>
<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-.32</td>
<td>.08</td>
<td>-.19</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-.22</td>
<td>.08</td>
<td>-.13</td>
</tr>
<tr>
<td>Diffusion</td>
<td>-.14</td>
<td>.08</td>
<td>-.09</td>
</tr>
<tr>
<td><strong>Recreation identity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>.14</td>
<td>.07</td>
<td>.10</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-.21</td>
<td>.08</td>
<td>-.14</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-.18</td>
<td>.07</td>
<td>-.13</td>
</tr>
<tr>
<td>Diffusion</td>
<td>-.20</td>
<td>.08</td>
<td>-.13</td>
</tr>
<tr>
<td><strong>Dating identity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>.36</td>
<td>.08</td>
<td>.21</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-.70</td>
<td>.10</td>
<td>-.33</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-.12</td>
<td>.10</td>
<td>-.06</td>
</tr>
<tr>
<td>Diffusion</td>
<td>-.24</td>
<td>.10</td>
<td>-.12</td>
</tr>
</tbody>
</table>

\* \( p < .05 \); ** \( p < .01 \); *** \( p < .001 \).
as related to mission experiences, and a model for each of the four EOMEIS-2 subscales as related to college experiences). These features were chosen because they could have been related to opportunities to engage in identity exploration or to form commitments to chosen identity components. Many of these features were selected to parallel the identity domains measured in the EOMEIS-2 (Bennion & Adams, 1986; see p. 59).

In each analysis, age, sex, income, and years of education were included as controls. These four variables were selected as controls because each was significantly correlated with at least one of the four identity scores. Years of education was included as a control in analyses of missionary variables that account for identity scores because all postmissionaries had participated in some amount of postsecondary studies. In the analyses of college variables that predicted identity scores, to eliminate the possibility of bias from missionary service, only those who had not volunteered as LDS missionaries were included.

Results of stepwise regression analyses indicating significant associations of college and mission features with identity scores are presented in Tables 9 and 10. A summary of these findings is below.

**LDS Mission Variables that Predict Identity Scores**

After accounting for variability shared with demographic controls, several mission variables were associated with achievement scores. Respondents’ ratings of the extent that they felt encouraged by church leaders to volunteer as missionaries was significantly positively associated with achievement scores, \( \beta = .30, t = 2.87, p < .01 \).
The unstandardized beta in this relationship was 2.15, meaning that each additional point in a respondent’s rating of this item was associated with an expected achievement score that was 2.15 points higher. Weekly frequency of sightseeing \( (b = 2.15, \beta = .36, t = 3.21, p < .01) \) and weekly frequency of study of a religious text that is unique to the

Table 9

*Features of Missionary Experiences that Significantly Predict Identity Scores*

<table>
<thead>
<tr>
<th>Subscale and feature</th>
<th>( b )</th>
<th>( SE )</th>
<th>( \beta )</th>
<th>( t )</th>
<th>( F )</th>
<th>( R^2 ) (Adj.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Achievement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding from unaffiliated organization</td>
<td>-6.90</td>
<td>2.70</td>
<td>-0.29</td>
<td>-2.56*</td>
<td>6.91***</td>
<td>.37 (.31)</td>
</tr>
<tr>
<td>Motives: felt encouraged by religious leaders</td>
<td>2.15</td>
<td>0.75</td>
<td>0.30</td>
<td>2.87**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of population in area of service that share religious faith</td>
<td>-0.12</td>
<td>0.04</td>
<td>-0.31</td>
<td>-2.90**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week sightseeing</td>
<td>2.16</td>
<td>0.67</td>
<td>0.36</td>
<td>3.21**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week studying religious text unique to own faith</td>
<td>1.79</td>
<td>0.80</td>
<td>0.26</td>
<td>2.25*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Moratorium</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of population in area of service that share religious faith</td>
<td>0.11</td>
<td>0.04</td>
<td>0.30</td>
<td>2.60*</td>
<td>6.19**</td>
<td>.16 (.14)</td>
</tr>
<tr>
<td>Times per week learning about an unfamiliar professional field</td>
<td>1.63</td>
<td>0.73</td>
<td>0.26</td>
<td>2.22*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Foreclosure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learned second language during mission</td>
<td>-8.58</td>
<td>2.14</td>
<td>-0.36</td>
<td>-4.01***</td>
<td>12.35***</td>
<td>.51 (.47)</td>
</tr>
<tr>
<td>Motives: felt encouraged by family</td>
<td>1.73</td>
<td>0.89</td>
<td>0.18</td>
<td>1.94*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week pursuing romantic relationships</td>
<td>4.12</td>
<td>1.29</td>
<td>0.32</td>
<td>3.21**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding from known sponsors (e.g., friends)</td>
<td>-3.61</td>
<td>1.64</td>
<td>-0.23</td>
<td>-2.20*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diffusion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week learning about an unfamiliar professional field</td>
<td>2.51</td>
<td>0.71</td>
<td>0.38</td>
<td>3.52***</td>
<td>6.83***</td>
<td>.36 (.31)</td>
</tr>
<tr>
<td>Number of past roommates and other nonfamily coresidents (including during mission)</td>
<td>-0.28</td>
<td>0.09</td>
<td>-0.32</td>
<td>-3.05**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week developing a new hobby</td>
<td>-1.12</td>
<td>0.43</td>
<td>-0.28</td>
<td>-2.63*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding from LDS Church</td>
<td>2.29</td>
<td>1.10</td>
<td>0.22</td>
<td>2.09*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* * * * * p < .05; ** * * p < .01; *** * * * p < .001.
### Table 10

**Features of College Experiences that Significantly Predict Identity Scores**

<table>
<thead>
<tr>
<th>Subscale and feature</th>
<th>$b$</th>
<th>$SE$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$F$</th>
<th>$R^2$ (Adj.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Achievement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week pondering own religious beliefs</td>
<td>1.11</td>
<td>0.23</td>
<td>.34</td>
<td>4.74</td>
<td>8.48</td>
<td><strong>.15 (.13)</strong></td>
</tr>
<tr>
<td>Times per week pondering religious beliefs that differ from own</td>
<td>-0.77</td>
<td>0.31</td>
<td>-.18</td>
<td>-2.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week developing skills / gaining experience in your professional field</td>
<td>0.73</td>
<td>0.28</td>
<td>.18</td>
<td>2.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding from other sources (e.g., government grants)</td>
<td>-1.03</td>
<td>0.50</td>
<td>-.14</td>
<td>-2.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Moratorium</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motives: felt encouraged by family</td>
<td>-2.04</td>
<td>0.62</td>
<td>-.21</td>
<td>-3.26</td>
<td>13.28</td>
<td><strong>.30 (.28)</strong></td>
</tr>
<tr>
<td>Times per week studying religious text unique to own faith</td>
<td>-0.76</td>
<td>0.23</td>
<td>-.22</td>
<td>-3.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motives: felt encouraged by other media (excluding social media)</td>
<td>0.77</td>
<td>0.30</td>
<td>.16</td>
<td>2.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week pondering religious beliefs that differ from own</td>
<td>0.84</td>
<td>0.33</td>
<td>.16</td>
<td>2.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Foreclosure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week studying religious text unique to own faith</td>
<td>1.34</td>
<td>0.30</td>
<td>.29</td>
<td>4.43</td>
<td>16.72</td>
<td><strong>.39 (.36)</strong></td>
</tr>
<tr>
<td>Times per week pondering religious beliefs that differ from own</td>
<td>-1.78</td>
<td>0.42</td>
<td>-.25</td>
<td>-4.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week contemplating qualities that are desirable in a partner / spouse</td>
<td>0.95</td>
<td>0.38</td>
<td>.17</td>
<td>2.52</td>
<td></td>
<td></td>
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<tr>
<td>Times per week sightseeing</td>
<td>1.47</td>
<td>0.61</td>
<td>.14</td>
<td>2.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motives: felt encouraged by teachers</td>
<td>-1.52</td>
<td>0.52</td>
<td>-.19</td>
<td>-2.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motives: felt encouraged by family</td>
<td>1.79</td>
<td>0.80</td>
<td>.14</td>
<td>2.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diffusion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week studying religious text unique to own faith</td>
<td>-0.98</td>
<td>0.25</td>
<td>-.30</td>
<td>-3.97</td>
<td>16.21</td>
<td><strong>.44 (.42)</strong></td>
</tr>
<tr>
<td>Times per week contemplating qualities that are desirable in a partner / spouse</td>
<td>-0.75</td>
<td>0.28</td>
<td>-.19</td>
<td>-2.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motives: felt encouraged by friends</td>
<td>-1.00</td>
<td>0.34</td>
<td>-.16</td>
<td>-2.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week learning about an unfamiliar professional field</td>
<td>0.84</td>
<td>0.35</td>
<td>.14</td>
<td>2.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times per week pondering own religious beliefs</td>
<td>-0.71</td>
<td>0.31</td>
<td>-.19</td>
<td>-2.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding from known sponsors (e.g., friends)</td>
<td>-2.06</td>
<td>1.01</td>
<td>-.11</td>
<td>-2.04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$; ** $p < .01$; *** $p < .001$. 
respondent’s religious faith \( (b = 1.79, \beta = .26, t = 2.25, p < .05) \) were both positively associated with achievement scores. The percentage of the population in one’s volunteer area who shared the respondent’s religious faith (i.e., in this case, the proportion of a population that identified as LDS) was negatively associated with achievement scores \( (b = -0.12, \beta = .31, t = -2.90, p < .01) \), indicating that volunteering in an area with a proportionally larger population of people of other faiths characterized those who reported higher levels of achievement. Variables that produced significant associations with achievement scores explained 37% of the variability in these scores.

Moratorium scores were associated with the fewest missionary variables. Both the percentage of the population in one’s volunteer area who were LDS and the weekly frequency of learning about an unfamiliar professional field were positively associated with moratorium scores of postmissionaries. These two variables combined explained 16% of the variability in moratorium scores.

Missionary variables and controls explained 51% of variability in foreclosure scores. Learning a second language as a missionary was negatively associated with foreclosure scores \( (b = -8.58, \beta = -.36, t = -4.01, p < .001) \), indicating that those who volunteered in an area where they learned a second language reported lower foreclosure scores than those who spoke their native language during their volunteer service. The extent that one’s service was funded by known sponsors such as friends was also negatively associated with foreclosure scores \( (b = -3.61, \beta = -.23, t = -2.20, p < .05) \). The extent to which one felt motivated by interactions with family to volunteer as a
missionary was positively associated with foreclosure scores \((b = 1.73, \beta = .18, t = 1.94, p < .05)\).

Missionary and control variables that were significantly related to diffusion scores explained 36% of the variability in that scale. Frequency of learning about an unfamiliar professional field during missionary service was positively associated with diffusion scores \((b = 2.51, \beta = .38, t = 3.52, p < .001)\), as was the extent of funding from respondents’ religious organization (i.e., in this case, the LDS Church; \(b = 2.29, \beta = .22, t = 2.09, p < .05\)). The number of previous nonfamily roommates (including during missionary service) was negatively associated with diffusion scores \((b = -0.28, \beta = -.32, t = -3.05, p < .01)\). Weekly frequency of developing a new hobby was also negatively associated with diffusion scores \((b = -1.12, \beta = -.28, t = -2.63, p < .05)\).

**College Variables that Predict Identity Scores**

College variables and demographic controls accounted for 15% of the variability in achievement scores. Frequency of pondering one’s own religious beliefs during college was positively associated with achievement scores \((b = 1.11, \beta = .34, t = 4.74, p < .001)\), whereas pondering religious beliefs that differed from one’s own was negatively associated with achievement scores \((b = -0.77, \beta = -.18, t = -2.50, p < .05)\). Frequency of developing skills and gaining experience in one’s chosen field was positively associated with achievement scores \((b = 0.73, \beta = .18, t = 2.57, p < .05)\), and funding one’s education through external funds such as government grants was negatively associated with achievement scores \((b = -1.03, \beta = -.14, t = -2.07, p < .05)\).
Among those who did not volunteer as LDS missionaries, college variables and controls accounted for 30% of the variability in moratorium scores. Motivation from family to attend college \( (b = -2.04, \beta = -21, t = -3.26, p < .01) \) and frequency of study of religious texts unique to one’s own faith \( (b = -0.76, \beta = -0.22, t = -3.37, p < .001) \) were negatively associated with moratorium scores. On the other hand, receiving motivation from media (excluding social media) to attend college \( (b = 0.77, \beta = .16, t = 2.61, p < .01) \) and frequency of pondering religious beliefs that differed from one’s own \( (b = 0.84, \beta = .16, t = 2.52, p < .05) \) were positively associated with moratorium scores.

Foreclosure scores were more substantially predicted by college variables, which accounted for 39% of variability in foreclosure. For example, frequency of study of religious texts unique to one’s own faith was positively associated with foreclosure scores during college \( (b = 1.34, \beta = .29, t = 4.43, p < .001) \), as was the extent of motivation from family to attend college \( (b = 1.79, \beta = .14, t = 2.24, p < .05) \). In contrast, one’s frequency of pondering religious beliefs that differed from his or her own \( (b = -1.78, \beta = -.25, t = -4.22, p < .001) \) and the level of one’s motivation from teachers to attend college \( (b = -1.52, \beta = -.19, t = -2.91, p < .01) \) were negatively associated with foreclosure scores.

Finally, college variables and controls accounted for 44% of the variability in diffusion scores in the nonmissionary sample. The extent of motivation from friends to attend college \( (b = -1.00, \beta = -.16, t = -2.90, p < .01) \), frequency of contemplation of qualities that are desirable in a spouse or partner \( (b = -0.75, \beta = -.19, t = -2.67, p < .01) \), frequency of studying religious texts that are unique to one’s own faith \( (b = -0.98, \beta = -.30, t = -3.97, p < .001) \), and frequency of pondering one’s own religious beliefs \( (b = -0.84, \beta = -.16, t = -2.52, p < .05) \) were positively associated with foreclosure scores.
= -0.71, β = -0.19, t = -2.27, p < .05) were all negatively associated with diffusion scores in the sample.

**Summary**

In this study, I pursued three research questions. First, I investigated the extent that those who volunteered as LDS missionaries differed in certain demographic characteristics from members of the LDS Church that did not volunteer, and I examined differences between these two groups in scores on the four EOMEIS-2 subscales. Within this subsample that included only LDS participants, significant group differences emerged only in age and sex. The two groups were statistically similar in number of siblings, income, number of years of formal education, marital status, birth order, employment status, and whether the respondent lived with both biological parents while growing up. Compared to LDS participants who did not volunteer as missionaries, LDS postmissionaries reported significantly higher achievement, lower moratorium, higher foreclosure, and lower diffusion scores. Because all participants had at least some college education, I did not investigate similar group differences between college students and nonstudents.

Next, I investigated the extent to which level of college studies (measured in years of education) and participation in LDS missionary service predicted scores on the EOMEIS-2. Missionary service was positively associated with achievement and foreclosure scores and negatively associated with diffusion and moratorium scores. Level of college studies was positively associated with achievement scores and negatively associated with moratorium, foreclosure, and diffusion scores. Missionary service and
years of formal education differed significantly in their predictive utility of moratorium and foreclosure scores, but not of achievement and diffusion scores. Years of education and participation in missionary service also differed in the ways in which they predicted scores in a number of specific identity domains.

Finally, I investigated which features of college studies and missionary volunteerism contributed in significant ways to identity scores. After controlling for demographic variables, several features of missionary service and college studies were significantly associated with identity scores. For example, postmissionaries who reported a greater percentage of Latter-day Saints in their area of service reported higher average achievement and moratorium scores, according to regression models. Additionally, postmissionaries who reported studying religious texts that were unique to their faith, feeling motivated to volunteer by counsel from religious leaders, and engaging more frequently in sightseeing also had higher average achievement scores. Learning a foreign language during missionary service was associated with significantly lower foreclosure scores. Among college students, those who reported higher frequencies of pondering their own religious beliefs and those who reported higher frequencies developing skills and gaining experience in their professional field had higher expected achievement scores. Those who reported a higher extent of external funding from sources such as government grants had lower average achievement scores. In addition, college students reporting greater motives from teachers had lower average foreclosure scores. In contrast, feeling greater encouragement from family to attend college was associated with higher foreclosure scores.
CHAPTER V
DISCUSSION

In the context of Erikson’s (1956, 1963, 1971, 1980) theory of psychosocial development and Marcia’s (1966) work to operationalize and measure ego-identity development, the purpose of this study was to examine the functionality of college studies and long-term religious volunteerism as institutionalized moratorium experiences. With this purpose, I pursued three specific objectives. First, I identified statistically significant differences in demographic and psychosocial variables between those of the LDS faith who volunteered as religious missionaries and those who did not. Second, I examined the extent to which level of college studies and participation in LDS missionary service predicted ego-identity scores, according to the Extended Objective Measure of Ego-identity Status (EOMEIS-2; Bennion & Adams, 1986). Finally, I explored features of college studies and missionary service that contributed to identity scores. In this chapter, I discuss possible roles that college and missionary experiences can play in ego-identity development.

RQ 1: Differences between LDS Postmissionaries and Nonmissionaries

One of the objectives of the study was to identify differences in demographic and psychosocial variables between those who pursue certain experiences such as college attendance or missionary volunteerism and those do not. Because all participants in this study had at least some college experience, I was unable to make comparisons between college students and nonstudents. However, a relatively sizeable proportion of
participants had volunteered as LDS missionaries, so comparisons between them and participants who had not volunteered were possible. Again, postmissionaries were compared to nonmissionaries who also identified as LDS. As reported in Chapter IV, regarding demographic variables, postmissionaries differed from nonmissionaries only in age and sex. This finding is important for multiple reasons. First, it highlights expected differences between the two groups. Both culturally and religiously, greater expectations are placed on male members of the LDS faith than on female members to volunteer as missionaries (Monson, 2012). The difference in ages at which male and female members may be considered for missionary service (males may volunteer at 18 years of age, while the requirement is 19 years for females) also reflects the statistically significant age differences that were observed in this study. Even while the number of female LDS missionaries has risen recently, still, nearly two-thirds of all fulltime LDS missionaries are male (Walch, 2014). Thus, among postmissionaries in my sample, the higher relative likelihood of being male was expected. The average age difference between postmissionaries and nonmissionaries in the sample was between 18 months and two years, the two most common periods of fulltime LDS missionary service. Thus, the average age difference between these two groups was within the anticipated range.

That LDS nonmissionaries and postmissionaries in this sample differed only in sex and age also highlights the importance of variables in which the two groups were statistically similar. Because the two groups were statistically similar in terms of relationship status, income (a finding that is particularly noteworthy given that the service of most LDS missionaries is self- or family-funded), education level, structure of family
of origin, and other key demographic variables, the assumption that postmissionaries demonstrate greater levels of psychosocial maturity (e.g., higher achievement and lower diffusion) because of selection is somewhat alleviated. Although the groups were nonequivalent (i.e., not randomly assigned to participate or not to participate in missionary service) and the data were cross-sectional, the statistical similarities between postmissionaries and nonmissionaries are an indication that preexisting characteristics are unlikely to have predisposed one group both to volunteer as missionaries and to report higher achievement scores and foreclosure scores, and lower moratorium scores and diffusion scores, and so forth, relative to the other group. Thus, after accounting for variability in age, the experience of missionary service itself appears to be a key variable in predicting identity scores. Alternatively, social desirability could have predisposed some participants both to volunteer as LDS missionaries and to report more advanced identity scores.

**RQ 2: Predicting Identity Scores with College Studies and Missionary Service**

Another objective of this study was to examine the extent that college studies and LDS missionary service predicted achievement, moratorium, foreclosure, and moratorium scores. Results of this study indicate that both college attendance and missionary service were significant predictors of all four identity scores. Though missionary service was not significantly associated with moratorium scores according to univariate ANOVAs, its unique shared variance with moratorium scores as evaluated in regression analyses indicated a significant association between the two. This discrepancy between analyses might have occurred because the simple main effect of missionary
status in the ANOVA did not account for the role of college level. On the other hand, when both predictors were included simultaneously in regression analyses (including a more precise variable for educational attainment), after accounting for the association between years of education and moratorium scores, missionary service became a significant predictor. Because LDS missionary service may involve more internal exploration than active exploration of identity components, the subtleness of its association with moratorium scores was expected.

Predicting Overall Scores

**Achievement.** Both college studies and missionary service were significantly and positively associated with achievement scores. Thus, both experiences appear to have provided meaningful opportunities for contemplation and exploration of identity alternatives, and avenues for pursuing commitments to chosen alternatives, which Erikson (1971) and Marcia (1966, 1989) suggest are essential for promoting identity development. Further, although standardized betas in the regression analyses indicated that missionary service was a stronger positive predictor of achievement scores, this difference in the predictive utility of the two experiences was nonsignificant. Thus, in terms of predicting overall achievement scores, both college studies and missionary service contributed to the regression model, and their contributions were statistically similar.

**Moratorium.** According to regression results, both college studies and missionary service were significantly and negatively associated with moratorium scores. Lower average moratorium scores among those who volunteered as LDS missionaries
and those with higher education levels highlight the possibility that identity exploration, for many, might occur at the beginning of (or prior to) college studies and mission participation than toward the conclusion of (or following) the experiences. Though cross-sectional data do not permit definitive conclusions regarding the timing (or the existence) of intraindividual reductions in the amount of exploration that respondents may have carried out as a function of their participation in either of these two experiences, it appears that both missionary service and college attendance provide meaningful opportunities to explore viable identity alternatives. Inasmuch as such exploration was followed by stable commitments to those identity components, resolution of Erikson’s fifth psychosocial stage should reduce the need for continued exploration (Erikson, 1971; Marcia, 1966). Hence, average moratorium scores were lower among postmissionary participants and those with more education. This finding supports the observations of Kroger, Martinussen, and Marcia (2010), who suggested that on average, moratorium increases through adolescence until approximately age 19, after which it begins to decline. In this study, postmissionary participants and those with more years of education tended to be older than the median participant age (21.5 years).

Although directionality was the same in relationships of moratorium scores with missionary service and college studies (specifically, both were negatively associated with moratorium scores), the difference in magnitude of these two relationships differed significantly, according to comparisons of standardized beta coefficients. Though unstandardized beta coefficients for the relationships with moratorium scores were nearly identical (for missionary service, $b = -2.56$; for years of education, $b = -2.64$), the
The proportion of standard error to beta coefficient was much larger for missionary service than for years of education. Because missionary service was measured dichotomously (restricted range), its unique shared variability with the four types of identity scores was expected to be relatively large in comparison to the variability in scores as a function of the continuously measured variable years of education. The standard error in the relationship between missionary service and moratorium scores ($SE = 1.10$) was well within the range of standard error for the remaining three relationships with missionary service ($SE$ ranged from 0.91 to 1.36), indicating that variability in this relationship was not anomalous to that of the other three. Thus, a greater possibility exists that, if levels of exploration indeed decreased as a result of participation in college studies and missionary service, average decreases in moratorium scores that resulted uniquely from missionary service were more modest than the decreases associated specifically with continuing college studies. In other words, the experience of attending college appears to function more clearly as a moratorium experience than missionary service does. Though researchers until now have not compared LDS missionary service to college in matters of identity development, Côté (2006) explained the strong relationship between college and moratorium scores when he suggested that with the increased delay of taking on adult roles that characterizes modern adolescents in the developed world, college increasingly functions as an opportunity to explore oneself without necessarily formalizing commitments to identity components.

**Foreclosure.** College studies and LDS missionary service differed most clearly in their ability to predict foreclosure scores. Years of education and participation in
missionary service predicted identity scores in the same direction (e.g., both experiences were positively associated with achievement scores, etc.) with the exception of foreclosure scores. Missionary service was significantly and positively associated with foreclosure scores, whereas education level was significantly and negatively associated with foreclosure scores. If the moratorium experience (i.e., missionary service or college attendance) was the mechanism of “change” in foreclosure scores, then it might be possible to conclude that attending college facilitates the abandonment of weakly-informed commitments to identity components, whereas missionary service may strengthen such commitments. If missionary service strengthens commitments to underexplored identity components, it creates notable divergence from the typical trajectory of foreclosure scores, which Kroger et al. (2010) suggested are expected to decline throughout adolescence for most people. Nevertheless, other likely explanations could account for this difference between missionary service and college studies. For example, the possibility exists that choosing to attend college is associated with a greater likelihood of having an open mind prior to the experience. Further, all LDS participants may have had higher levels of foreclosure prior to their eligibility to volunteer as missionaries—and all postmissionary respondents were LDS. The mean difference in foreclosure scores between LDS participants and non-LDS participants was 12.02, \( t (423) = 8.94, p < .001 \), whereas the average difference in foreclosure scores between LDS postmissionaries and LDS nonmissionaries was 3.10, \( t (309) = 2.16, p < .05 \). While this difference (i.e., between LDS postmissionaries and LDS nonmissionaries) was statistically significant, it indicates that LDS participants were more similar to each other
in foreclosure scores, regardless of missionary status, than LDS participants and non-LDS participants. Thus, although the typical LDS missionary experience might function in some regards as an “institutionalized foreclosure,” the positive relationship between missionary service and foreclosure scores may have been attributable to some extent to selection.

**Diffusion.** College studies and missionary service were both significantly and negatively associated with scores in identity diffusion. Given the positive associations of the two experiences with achievement scores, their negative associations with diffusion scores were expected, because diffusion and achievement are theoretically “polar alternatives” (Marcia, 1966, p. 551). Further, although standardized betas (in regression analyses) indicated that college participation was a stronger negative predictor of diffusion scores, this difference in the predictive utility of the two experiences was nonsignificant. Thus, in terms of predicting overall diffusion scores, college studies and missionary service were statistically similar.

**Predicting Individual Identity Domains**

The discussion above reflects associations of college studies and missionary service with *overall* scores in achievement, moratorium, foreclosure, and diffusion. The relationships of college studies and missionary service with identity status scores become clearer, however, upon examination of the relationship of the two experiences with each of the eight domains of identity items in the EOMEIS-2 (e.g., occupational identity, dating identity, etc.). Whenever one of the moratorium experiences was significantly associated with an identity status score pertaining to a particular identity domain, the
relationship existed in the same direction as the corresponding overall relationship described above. In other words, statistically significant relationships between years of education and achievement scores, between missionary service and achievement scores, and between missionary service and foreclosure scores were all positive, whereas all of the other statistically significant relationships were negative.

Several comparisons between missionary service and college studies in these relationships are worth noting. For example, whereas years of education was significantly associated with all four occupational identity status scores \((p < .001)\), LDS missionary service was not significantly associated with any of the occupational status scores. Given the nature of the two moratorium experiences—college is viewed as an opportunity to explore occupational opportunities for the purpose of preparing for gainful employment (Arnett, 2000; Stringer & Kerpelman, 2010), whereas occupational pursuits are largely put on hold during missionary service—this difference was not unexpected. Similarly, with regard to political identity, missionary service was associated with only political foreclosure, whereas years of education was associated with political moratorium, foreclosure, and diffusion scores.

All four religious identity scores, on the other hand, were predicted by missionary service. This finding was not surprising, given the religious emphasis of this volunteer experience. LDS missionaries are given to frequent contemplation of their own and others’ religious beliefs, and have numerous opportunities to seek clarification, engage in personal study, and formulate commitments. Accordingly, the associations with religious achievement, moratorium, and diffusion were anticipated. Further, the positive
association of missionary service with religious foreclosure might be a reflection of the population from which the sample came, and the nature of the religious foreclosure items in the EOMEIS-2. Among participants who had volunteered as LDS missionaries, 93% reported having been raised in their faith by their parents. The religious foreclosure items in the EOMEIS-2 contain the following language: “I attend the same church as my family has always attended,” and “I’ve never really questioned my religion.” While these statements have the possibility of characterizing one who is in religious foreclosure, they also do not preclude the possibility that one has also explored or questioned other religious belief systems. Thus, some participants might have reported high religious foreclosure, although some of the language in the items could be true for both foreclosure and achievement.

Whereas missionary service was associated with all religious identity scores, years of education was associated only with religious foreclosure, indicating that average religious foreclosure scores were lower among those with higher education. While this association does not appear unusual, the absence of significant relationships between college studies and the other facets of religious identity indicates that in this sample, college experiences were not consistently associated with most types of religious experiences. This limited association between college studies and religious identity development might also reflect the transition of many universities from a religious orientation to one that is secular, a transition that scholars (e.g., Hartley, 2004) have observed, particularly in the United States.
Of the eight domains of moratorium scores, missionary service was associated with only three: religious moratorium, philosophical lifestyle moratorium, and friendship moratorium. Thus, comparing postmissionaries to nonmissionaries, missionary service was not characterized by significantly different levels of exploration (in the absence of commitment forming) in five of the eight identity domains measured by the EOMEIS-2: occupational, political, sex role, recreation, and dating identity. The lack of association between missionary service and the majority of domains of moratorium scores might be a reflection of the limited scope of unguided exploration opportunities that are available to most LDS missionaries.

On the other hand, years of education predicted all but one domain of moratorium scores: religious moratorium. Thus, those who had pursued an additional year of college studies were expected to report lower levels of noncommittal identity exploration than those with less education, in every domain of identity development (as assessed by the EOMEIS-2) except religious identity. This finding supports a large body of literature highlighting the importance of identity exploration in a variety of domains in college and during early adulthood (e.g., Arnett, 2000; Côté, 2006; Guerra & Braungart-Rieker, 1999).

Notwithstanding lower levels of noncommittal identity exploration (i.e., lower moratorium scores) among those with more years of education, however, corresponding positive associations with achievement scores were not always present. Instead, years of education was positively associated with achievement scores only in the domains of occupational identity, sex role identity, dating identity, and recreation identity. That
college attendance in this sample had limited associations with identity achievement in all of the ideological domains except for occupational identity corroborates Marcia’s (1980) contention that the primary role of college has become to facilitate the process of settling on a fitting professional field. Moreover, political identity, philosophical lifestyle identity, and friendship identity were all characterized by significant negative associations with moratorium scores and nonsignificant associations with achievement scores. Accordingly, while most domains of identity exploration may have decreased over the course of many respondents’ college studies, in this sample, lower levels of noncommittal exploration were not always concurrent with higher levels of commitment, as predicted by years of education. Respondents for whom this generality was true (i.e., those who decreased in exploration but did not increase in achievement scores) might have been expected to have correspondingly high diffusion scores. However, years of education was significantly and negatively associated with diffusion scores in the three identity domains mentioned above. Therefore, spending more time in college seems to be associated with what might be considered an “informed apathy” toward matters of political, philosophical lifestyle, and friendship identity—in essence, that one knows much regarding politics, lifestyle choices, and choosing friends, and has nevertheless determined that these things are of little importance. Scholars have noted the prevalence of such apathy among today’s college students (Chaves, 2011; Longo & Meyer, 2006; Patterson, 2009).

Whereas missionary service was not significantly associated with five out of eight domains of moratorium scores, this experience was significantly and positively
associated with all domains of achievement scores except occupational and political achievement. Thus, after accounting for years of education, postmissionaries reported higher levels of having reached informed commitments to most identity components, compared to nonmissionaries, even when average levels of noncommittal identity exploration were not significantly different across the two groups. Specific identity domains for which this was true were sex role identity, recreation identity, and dating identity. Multiple possible explanations of this finding exist. First, because the structure of the typical LDS missionary experience does not explicitly accommodate exploration of alternatives related to sex roles, recreation, and dating, the possibility exists that in these three domains, much of the identity exploration that takes place during LDS missionary service is less active and purposeful than what is reflected in the corresponding EOMEIS-2 items (see Adams, 1998). Instead, perhaps some of the experiences of typical LDS missionaries engendered contemplation of desired identity pieces related to these domains, particularly in matters of sex role identity and dating identity. Moreover, Erikson (1971) suggested that exploration of such identity components should be in-depth, self-evaluative, and purposeful—that the psychological aspects of the exploration experience are of utmost importance. Additionally, Flum and Kaplan (2006) indicated that identity exploration can be an internal or external process. Thus, though internal (i.e., psychological) qualities of exploration might be relatively difficult to measure precisely, the perception of well-informed identity commitments resulting from such a mental process could explain why missionary service was often significantly (and positively) associated with achievement scores, while not being associated with moratorium scores.
Whereas years of education was significantly associated with most domains of moratorium but not significantly associated with most domains of achievement, missionary service was significantly associated with most achievement scores but not with most moratorium scores. The limited association of missionary service with most moratorium scores might be a function of (a) the potentially limited scope of exploration opportunities during the typical LDS mission, and (b) the possibility that much of the exploration during missionary service occurs in the form of reflection and contemplation, rather than in measurable, active exploration. On the other hand, the limited number of associations between college studies and achievement scores (especially in ideological domains) might result from a limited number of commitment-forming opportunities in college. Marcia (1989) suggested that the processes of exploration and commitment are facilitated most effectively in secure environments. Thus, the possibility exists that while the typical college experience promotes a sense of “safe” identity exploration in most identity domains, in some identity domains, college may provide few comfortable opportunities for commitment forming. In contrast, missionary service may provide just enough opportunities for contemplation and exploration of identity components for participants to perceive their identity-related decisions as well-informed, and a sense of security in the process of forming commitments to those components.

RQ 3: Features of College Studies and Missionary Service that Account for Identity Scores

The final objective of this study was to explore some of the specific features of missionary service and college studies that might help to explain the associations of these
two experiences with identity scores. I predicted that certain features of college studies and missionary service would explain a greater amount of variability in identity scores than the two experiences themselves. The amount of variance in identity scores that was explained by statistically significant features of the two experiences ranged from 15% to 51%, depending on the stepwise regression model. On the other hand, the amount of variability in status scores that was explained by missionary service and college studies generally ranged from 5% to 15%. Thus, participant ratings of specific features of the two experiences clearly predicted identity scores more effectively than the two experiences generally. Some of the elements of participation in college studies and missionary service that related to identity scores pertained to motives for participation, funding, weekly experiences, and differences between the respondent and the majority population.

Motives for Participation

Sources of motivation to participate in college studies and LDS missionary service were related to identity scores. For example, in both the decision to attend college and the decision to volunteer as a missionary, feeling motivated by family members to participate in these activities was positively associated with foreclosure scores. Thus, for many participants, missionary service and college studies might comprise sets of traditions that are passed from one generation to another and that are not often questioned (see Waterman, 1985). Respondents who participated in missionary service or college studies in this context might have had little desire or little opportunity to consider and explore alternatives. In contrast, college attendance that was motivated by teachers was characterized by lower foreclosure scores.
Correspondingly, motivation from family to attend college was negatively associated with moratorium scores. This relationship might exist because some parents encouraged their adolescent children to determine their own educational and occupational pursuits, rather than establishing expectations to adhere to a standard or tradition. Alternatively, these respondents might have pursued their college experiences in an attempt to achieve individuation from parents. Côté and Schwartz (2002) argued that noncommittal identity exploration (i.e., moratorium) often represents an effort to develop autonomy from parents. This type of parent–child dynamic might have also played a role in the positive association between moratorium scores and motivation from media, such that adolescents seeking autonomy from their parents chose to rely more on social cues from media and other sources to develop their sense of self. Coyne, Padilla-Walker, and Howard (2013) noted the important role of the media in providing means for identity development and individuation from parents during late adolescence.

In the present sample, volunteering as an LDS missionary in an effort to follow guidance from religious leaders was positively associated with achievement scores among postmissionaries. Notably, however, a corresponding positive association with foreclosure scores was not present. Thus, seeking to follow guidance from religious leaders, for many participants in this study, was not associated with a tendency to perceive that one’s identity commitments were poorly informed. Instead, participants in this study who sought to follow the guidance of their religious leaders in their decision to volunteer as missionaries may have also followed their leaders’ frequent and corresponding instruction to engage in a rigorous process of mental exploration prior to
making this and other important life decisions (see, for example, Nelson, 2009). In this way, whereas some might expect that following religious leaders should represent a type of “institutionalized” foreclosure, it may instead promote a person’s disposition to engage in meaningful identity exploration, which, when combined with a commitment-forming process, could result in identity achievement.

**Funding**

Results of this research indicate that receiving funding from certain sources in order to participate in missionary service or attend college was associated with identity scores. For example, among postmissionaries, having received funding from known sponsors such as friends or neighbors was negatively associated with foreclosure scores. This relationship might exist in occasions when a prospective missionary seeks to increase his or her social capital (thereby increasing exploration opportunities) in order to offset limitations in financial capital. For example, a missionary with limited financial resources might work to develop deeper connections with a diverse group of potential sponsors, producing a postmission perception of having fewer uninformed identity commitments. Alternatively, some postmissionaries in this sample might have come from households in which one or both parents were not affiliated with the LDS Church (resulting in a lower likelihood of parental sponsorship for missionary service) and who correspondingly encouraged or provided a greater extent of identity exploration opportunities. For example, such individuals would particularly be disposed to religious exploration, given their selection of religious identity components not shared by a parent or parents.
In addition, receiving higher amounts of funding from the LDS Church (e.g., through the church’s collective missionary fund) to participate in missionary service was positively associated with diffusion scores. Thus, among those who volunteered as LDS missionaries, using the LDS Church’s missionary fund to fund a greater portion of one’s missionary service was associated with higher average diffusion scores than using alternative funding sources. Generally, depending on funding from the LDS Church represents a “last resort” in the process of obtaining necessary funds for missionary service, after self-earned funds and funds from family members and other known sponsors have been exhausted. Individuals who received greater amounts of funding from the LDS Church might have failed to fund their own missionary service or obtain funding from other known sources because of a relatively lower level of personal investment in the decision to volunteer (and correspondingly lower personal initiative in resolving financial matters). According to Erikson (1971), identity achievement involves finding continuity between past experiences and committed aspirations for the future. Therefore, if these individuals began their missionary service with lower average achievement scores, their lower scores might be an indication that their commitment to the experience was not as great as the commitment of those who funded their service in other ways. Another plausible explanation for this relationship is that those with lower levels of financial resources experienced corresponding barriers to identity development, including fewer developmental opportunities and higher levels of stress. A body of literature (e.g., Phillips & Pittman, 2003; Yoder, 2000) documents these and other ways that socioeconomic disadvantage can impede identity development.
Similarly, in matters of college attendance, participants who reported receiving greater amounts of funding from external sources such as government grants in order to carry out postsecondary studies reported significantly lower achievement scores, on average. Unlike funding one’s own college attendance, receiving funding from parents and other known sponsors, and being sponsored through privately funded scholarships, funding from government grants is not directly associated with names, faces, and circumstances of specific, voluntary contributors. Accordingly, among those who rely predominantly on less personal funding sources, major life decisions associated with the college experience might be made less purposefully, perhaps with a lower perception of responsibility for the pursuits and outcomes in one’s life course—a sense that has been identified in the literature as agency (Côté & Levine, 2014; Schwartz, Côté, & Arnett, 2005). In partial support of this interpretation, Côté (2002) found that students who pay for most or all of their own college experience appear to display many features of an achieved identity at an accelerated rate. Correspondingly, those receiving lower amounts of funding from government grants might perceive a greater sense of urgency or purpose in making and achieving goals involved in their college experience. Alternatively, as among missionaries who relied more heavily on financial support from the LDS Church in order to carry out their missionary service, perhaps college students who depend to a greater extent on federal grants because of socioeconomic disadvantage have correspondingly fewer opportunities for identity development.
Weekly Experiences

Weekly experiences pertaining to missionary service and college studies also predicted identity scores. For example, the frequency of sightseeing during missionary service was positively associated with identity achievement scores. This relationship might exist because missionaries who frequently engaged in sightseeing were more likely assigned to serve in areas abounding with nonnative culture and novel surroundings (i.e., sightseeing in a relatively familiar location might not be as engaging), providing them with broader opportunities for exploration and self-reevaluation. Another possibility is that those who were interested in sightseeing were also more likely to be inquisitive and to feel driven toward experiences that could help them formulate their sense of self. In support of this explanation, Scharf and Mayseless (2010) indicated that sightseeing often reflects purposeful selection of new experiences that broaden participants’ perspectives about life.

Another weekly feature of missionary service that was positively associated with achievement scores was the study of religious texts unique to one’s own faith. Similar to pursuing missionary service in an effort to follow guidance of religious leaders, studying religious texts that are unique to the faith was not significantly associated with foreclosure scores. Thus, such study did not have a tendency simply to reinforce existing identity commitments; instead, for many participants, studying unique religious texts was associated with a certain degree of thoughtful awareness in matters of identity. For members of the LDS Church, unique religious texts emphasize the importance of careful evaluation and reflection in the process of making important decisions. Perhaps an effort
to follow this guidance is a mechanism linking achievement scores with the study of unique religious texts during missionary service.

During college studies, the frequency of developing skills and gaining experience in one’s professional field was positively associated with achievement scores. This action clearly represents investment in (or commitment to) one’s chosen occupational goals, and implies that the occupational decision-making process has reached some degree of closure. Further, because this item was not significantly associated with foreclosure scores, one can infer that, on average, decisions to invest substantially in a particular field were made following a period of evaluation and thought. This finding supports previous literature highlighting the importance of college studies in matters of occupational identity (Pascarella & Terenzini, 2005).

Additionally, whereas pondering religious beliefs that differed from one’s own beliefs during college was negatively associated with achievement scores, pondering one’s own religious beliefs during college was positively associated with achievement scores. Whereas the positive association between achievement scores and pondering one’s own religious beliefs was not surprising (it represents continuing investment in previously explored identity components), the finding that achievement scores and pondering others’ beliefs were negatively associated with each other contrasted with existing literature suggesting that those with high achievement scores are more likely to consult with both belief-confirming sources and belief-threatening sources (Hunsberger et al., 2001). Because the population from which most of the sample came is relatively homogeneous (especially in religious matters, though this religious influence pervades
many other aspects of the population’s collective identity), this finding might have an explanation that differs from what would be expected in a more religiously diverse population. Perhaps, for example, participants in this study who frequently pondered others’ religious beliefs felt unsettled in several aspects of their identities (either because they did not want to belong to a seemingly less-informed majority or because they felt discomfort in their religious—and often cultural, philosophical, political, etc.—uniqueness). Marcia (1980) also suggested that some people can become “stuck” in a persistent period of exploration that begins to resemble identity diffusion. Accordingly, perhaps the challenges of “finding oneself,” for some participants, were exacerbated in a homogenous society (Appelrouth & Edles, 2008).

**Differences from Majority Population**

According to Erikson (1956, 1963, 1971, 1980), personality development occurs as a function of not only biological changes (as in Freud’s psychosexual theory), but also, importantly, social interactions and self-perceptions in social contexts. Hence, Erikson’s theory is referred to as psychosocial. Accordingly, two notable features of missionary service that were associated with identity scores are related to missionaries’ differences from the majority population, with whom missionaries presumably interacted intimately on a daily basis. First, learning a second language during one’s missionary service was negatively associated with foreclosure scores. The process of learning a second language may have had a direct impact on foreclosure scores. Syed (2001) suggested that learning a nonnative language involves a “struggle to find [one’s] voice and place in society” (p. 127). Thus, the challenges of language learning might elicit a significant degree of self-
evaluation and exploration. Another likely explanation for this relationship is that missionaries who learned a second language were also more likely to interact with relatively large numbers of people who identified with contrasting cultures, beliefs, and so forth. Some of these individuals with whom such missionaries likely interacted could have also included their missionary partners. As these missionaries interacted with people representing a broader spectrum of identity components, they may have also engaged in more frequent and profound self-reevaluation and more engaged identity exploration, such that perceptions of poorly informed identity decisions would be expected to be lower for them than for those who had not learned a second language.

The approximate percentage of the population of the area of missionaries’ service that shared the missionaries’ religious faith was also associated with identity scores. The higher this percentage (i.e., the more closely the typical missionary resembled the surrounding population), the lower achievement scores were and the higher moratorium scores were. One potential explanation for this relationship is the possibility that some of the postmissionaries in the sample had certain characteristics that both increased their likelihood of receiving more local assignments and hindered their processes of identity development. For example, a missionary with slight cognitive delays might be recommended by local church leaders to participate in missionary service in a location relatively close to home (to avoid the need to learn a foreign language, etc.). Another possible explanation is that relatively randomized locations of service predispose some missionaries to engage in a more rapid process of identity development, while providing other missionaries with fewer experiences that trigger such processes. According to the
Privileged Identity Exploration model (Watt, 2007), for example, the more privileged one’s identity is within a society (e.g., when a person belongs to a majority subgroup), the less willing such a person typically is to reevaluate his or her social, political, and economic position within the society. Thus, those surrounded by greater numbers of people who resemble them might be expected to engage in less identity exploration and self-evaluation than those who are more unique within their societies. Accordingly, if the natural course of identity development is characterized by a period of active exploration followed by commitment forming (Marcia, 1966), then postmissionaries who had had greater opportunities to explore during their missionary service (i.e., those who differed more from their surrounding population) may have experienced accelerated identity development, whereas those who differed relatively little from their surrounding population might have been undergoing a delayed period of identity exploration at the time of their participation in the study. Hence, those who shared the same religious faith with greater proportions of the surrounding population had lower achievement scores and higher moratorium scores, on average, than those who differed more extensively from the surrounding population.

**Conclusion**

In this study, I examined how attending college and participating in LDS missionary service (and certain specific features of these two experiences) were related to measures of identity exploration and commitment (according to the EOMEIS-2) in a sample of 425 college students, of whom 122 had volunteered as LDS missionaries. Of the original 477 participants, 134 had volunteered as LDS missionaries, but 12 of these
were excluded from most analyses because they belonged to the group of 52 participants who did not provide adequate data for inclusion in the study (see pp. 60-61). In this work, I have provided an update to existing literature in multiple ways. First, I examined the associations of ego-identity with one long-term moratorium experience—religious volunteerism—that had not yet been investigated relative to identity development.

Second, I evaluated processes that might be involved in these associations—a particularly important component of the research given the shortage of previous studies involving the qualities of moratorium experiences themselves. Third, I brought renewed attention to the writings of Erikson by emphasizing the cognitive component of identity exploration (i.e., the thoughtfulness involved in this developmental process), which Erikson (1963, 1971) suggested was integral in the experience of psychosocial moratorium.

Overall, I observed that both missionary service and college attendance (as measured by years of education) were significantly associated with all four primary subscales on the EOMEIS-2 (achievement, moratorium, foreclosure, and diffusion), as well as many of the specific domains of identity items within the measure. Further, as evidenced by nonsignificant interactions between the two predictor experiences, I observed that college attendance and missionary service play largely unique roles in predictions of identity scores. For example, whether one volunteered as a missionary or not, each additional year of education was associated with a significantly higher achievement score, and those who volunteered as missionaries had higher average foreclosure scores than those who did not, regardless of the number of years in college that participants had spent.
College has long been regarded as an important moratorium experience, though its average associations with indicators of identity development have been relatively modest (Pascarella & Terenzini, 2005). According to findings of this study, while college appears to have afforded more abundant opportunities for noncommittal identity exploration in nearly all identity domains (except for religious identity), years of education predicted achievement scores in only one ideological domain (occupational identity) and three interpersonal domains (dating identity, gender role identity, and recreational identity). Moreover, whereas the institutionalized components of the typical college experience (namely, completing coursework and other requirements to earn degrees and certificates) might be expected to influence identity development more substantially in ideological domains (e.g., occupational, political, religious, and philosophical lifestyle), findings from this study indicate that, with the exception of occupational identity, the most advanced identity development in college students occurred as a function of college experiences that are mostly optional (i.e., exploring recreation and relationships). Thus, identity development during college appears to depend more on the experiences and opportunities that students choose to pursue (including extracurricular activities), and less on the purely institutionalized features of the college experience. Additionally, college experiences associated with most domains of ideological identity development may not be consistent for many students.

While LDS missionary service appears not to provide abundant opportunities for active, participatory identity exploration, findings from this study indicate that volunteering as an LDS missionary is comparable to college in the extent that it is
associated with many indicators of identity development, particularly scores in achievement and diffusion. For example, if missionary service results in identity development, significant, positive associations in this study between missionary service and achievement in most identity domains might have been observed because of opportunities during the typical missionary experience to contemplate and discuss important matters pertaining to identity, and a corresponding sense of security in the process of making commitments to those identity decisions. On the other hand, a relative scarcity of safe commitment-forming opportunities during college, or a tendency to devalue the importance of some identity domains during this time, might be one reason that years of education did not predict achievement scores in a greater number of identity domains.

Together, the findings of this study highlight the tendency of the modern college experience to emphasize educational pursuits that can lead to a successful occupation, in contrast to the preponderance of philosophically rigorous college experiences of decades past (Hartley, 2004; Marcia, 1980; Pascarella & Terenzini, 2005). Further, this study supports literature suggesting that lengthier moratorium experiences away from home may provide greater opportunities for identity development (Evanovich, 2011; Miller-Perrin & Thompson, 2010; Shames & Alden, 2005). Organizations and institutions, including colleges and universities, may consider increasing the number and scope of opportunities that they provide (and perhaps even require) for constituents to leave their homes and engage in meaningful exploration and self-evaluation relative to ego-identity. Such activities could include study abroad, humanitarian internships, teaching language
to nonnative speakers, world history tours, and others. Implementing such opportunities on a broader scale could result in a substantial and accelerated increase in identity development for many late adolescents, and improvement in the outcomes associated with such development.

**Limitations and Recommendations for Future Research**

This study is limited in a number of notable ways. For example, the sample used in this study was a convenience sample. The majority of those who consented to participate were female, and most participants were LDS. Additionally, in comparison to those who did not have a positive experience, former missionaries who enjoyed their missionary service might have been more inclined to participate in a study of the potential benefits of this kind of experience. Thus, the findings of this study are not generalizable to the entire population of late adolescents, the general population of college students, the student body of Utah State University (from which most participants came), or even the population of LDS missionaries. Knowing to what extent moratorium experiences such as LDS missionary service might relate to identity development in the general adolescent population is not possible with the current study. If possible, future studies of a similar nature should include samples that are more representative of the population under investigation.

Another limitation of the study is the likelihood of reduced variability in some of the features of LDS missionary service. This reduced variability could have restricted my estimates of the extent that missionary service is related to identity development. For example, because almost all LDS missionaries are expected to execute their
responsibilities for approximately 12 hours per day, I was unable to observe a meaningful association between the concentration of the experience and identity outcomes. Other variables with very little variability among postmissionaries in the sample included times per week engaging in religious discussions (which, for many missionaries, would exceed the highest value on the scale, 7) and weekly attendance at religious services (which, for most missionaries, would be 1). Researchers conducting similar investigations in the future should consider including a broader array of moratorium experiences in their analyses, so that features of these experiences that might be associated with identity development can have greater variability and yield more meaningful findings.

An additional limitation of this study pertains to study design. Because the study included cross-sectional data and was nonexperimental, generating causal inferences regarding the role of college studies, missionary service, and specific features of these experiences in the process of ego-identity development is not possible. Thus, though the possibility exists that these two experiences cause identity development to occur, such a conclusion is not warranted according to data from this study, and findings should be interpreted with caution. Though a true experimental design is likely not possible in a study of a similar nature, future studies should include longitudinal data collection and greater effort to approximate equivalent groups.

Further, though the EOMEIS-2 is the most widely used measure of ego-identity status, a more useful and precise measure could be developed for future studies. The EOMEIS-2 includes double-barreled items that are intended to capture both exploration and commitment simultaneously. The possibility exists that respondents could rate the
truthfulness of an item toward the middle of the scale when they agree with one part of the item but not the other. An alternate approach that measures exploration and commitment separately could alleviate this problem. Additionally, in light of increasing adolescent apathy and ambivalence toward political matters, an updated iteration of such a measure might replace this domain of items with items more relevant to adolescent experiences today (e.g., education).

Finally, although many of the findings in this study were statistically significant, effect sizes related to group differences, the predictive utility of the moratorium experiences, and the relationship of features of the moratorium experiences with identity scores were relatively small. Accordingly, results should be interpreted with caution.
REFERENCES


APPENDICES
Appendix A

Survey
Dissertation

Are you 18 years of age or older? (You must be 18 or older to participate. If you are not 18 or older, you will be directed to the end of the survey.)
- Yes
- No

How did you gain access to this study?
- I entered my contact information in a Google Form and was sent a link to the survey.
- I accessed the study through SONA.
- Other ____________________

Please provide the following demographic information:

Sex:
- Male
- Female

Birth month:
- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

Birth year:

Race / Ethnicity: Which option best describes your race and/or ethnicity?
- White, non-Hispanic
- Black or African American
- Latino or Hispanic American
- East Asian or Asian American
- South Asian or Indian American
- Middle Eastern or Arab American
- Native American, Pacific Islander, or Alaskan Native
- Multiple races or ethnicities
- Another race or ethnicity

What is your country of origin?
What is your state of origin?

What is your native language?
- English
- Spanish
- Portuguese
- Mandarin or Cantonese
- Tagalog or Cebuano
- Hindi
- Arabic
- Russian
- French
- Italian
- German

Current relationship status:
- Single, never married, not dating
- Single, never married, casually dating
- Single, never married, seriously dating
- Engaged to be married
- Married for the first time
- Divorced, single
- Remarried following divorce
- Remarried following death of spouse
- Widowed, not remarried
- Cohabiting with romantic partner

With approximately how many people outside your family (e.g., roommates, foreign exchange sponsors) have you ever lived?

_______ Number of people

Current living arrangement:
- I live alone
- I live with my family of origin
- I live with roommate(s)

Family of origin: Which of the following describes your family structure during the majority of your upbringing?
- I lived with both biological parents
- I lived with my mother
- I lived with my father
- I lived with one biological parent and a stepparent
- I lived with my grandparents
- I lived in another arrangement
How many biological/step/half siblings lived with you during your upbringing?
- None
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 or more

Relative to your siblings, what is your birth order?
______ Birth order

Are you the head of your household?
- Yes
- No

Number of dependents in your household:
- None
- 1
- 2
- 3
- 4
- 5 or more

Current education status:
- High school student
- College student
- Non-student

What is the highest level of education that you have completed?
- Some high school
- High school graduate
- Some college
- Bachelor's degree
- Master's degree (or equivalent)
- PhD (or equivalent)
Approximately how many college credit hours have you completed since graduating from high school (Do not include credit from AP exams, concurrent enrollment, etc.)

- None
- 1-30
- 31-90
- 91 or more (no Bachelor's degree yet)
- 120 or more (earned Bachelor's degree)
- 120 or more (I'm in graduate school)

How many credit hours are you currently taking?

______ Slide to appropriate number of credit hours

College emphasis

- Social or behavioral sciences, Human services
- Physical and Mathematical sciences
- Education (Early childhood, Elementary, Secondary, etc.)
- Business
- Agricultural sciences
- Health and Human performance
- Humanities
- Other ____________________

Employment status:

- Unemployed, not seeking employment
- Unemployed, seeking employment
- Employed 1 - 20 hours per week
- Employed 21 - 39 hours per week
- Employed full-time (40 or more hours per week)

Annual income:

- None
- $1 - $10,000
- $10,001 - $20,000
- $20,001 - $30,000
- $30,001 - $40,000
- $40,001 - $50,000
- More than $50,000
Current religious affiliation:
- Roman Catholic / Greek Orthodox
- Protestant
- LDS / The Church of Jesus Christ of Latter-day Saints
- Other Christian
- Judaism
- Islam
- Hinduism
- Buddhism
- Nonreligious / none
- Other

How did your current religious affiliation ($\{q://QID11/ChoiceGroup/SelectedChoices\}$) begin?
- I was raised this way by my parent(s)
- I was invited by a friend to participate in this affiliation
- I was contacted by representatives of this affiliation
- Other __________________________

When did you choose your current religious affiliation ($\{q://QID11/ChoiceGroup/SelectedChoices\}$)?
- I initially chose this affiliation before age 10
- I initially chose this affiliation between ages 10 and 18
- I initially chose this affiliation since age 18

Have you ever participated in volunteer missionary service for your religious organization?
- Yes
- No

Please rate your level of agreement with each of the following statements.

Note: For the items pertaining to dating preferences, please respond in the context of your relationship with your spouse/partner. Please do not omit those items.
<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I haven’t chosen the occupation I really want to get into, and I’m just working at what is available until something better comes along.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>When it comes to religion I just haven’t found anything that appeals and I don’t really feel the need to look.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My ideas about men’s and women’s roles are identical to my parents’. What has worked for them will obviously work for me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>There’s no single “life style” which appeals to me more than another.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are a lot of different kinds of people. I’m still exploring the many possibilities to find the right kind of friends for me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I sometimes join in recreational activities when asked, but I rarely try anything on my own.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I haven’t really thought about a “dating style.” I’m not too concerned whether I date or not.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Politics is something that I can never be too sure about because things change so fast. But I do think it’s important to know what I can politically stand for and believe in.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Somewhat Disagree</td>
<td>Disagree</td>
</tr>
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</tr>
<tr>
<td>I’m still trying to decide how capable I am as a person and what work will be right for me.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I don’t give religion much thought and it doesn’t bother me one way or the other.</td>
<td>○</td>
<td>○</td>
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<tr>
<td>If you are reading this item, select &quot;Somewhat Agree.&quot;</td>
<td>○</td>
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<tr>
<td>There are so many ways to divide responsibilities in marriage, I’m trying to decide what will work for me.</td>
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<tr>
<td>I’m looking for an acceptable perspective for my own “life style”, but haven’t really found it yet.</td>
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<tr>
<td>There are many reasons for friendship, but I choose my close friends on the basis of certain values and similarities that I’ve personally decided on.</td>
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<tr>
<td>While I don’t have one recreational activity I’m really committed to, I’m experiencing numerous leisure outlets to identify one I can truly enjoy.</td>
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<tr>
<td>Based on past experiences, I’ve chosen the type of dating relationship I want now.</td>
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<tr>
<td>I haven’t really considered politics. It just doesn’t excite me much.</td>
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<tr>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Somewhat Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
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<tr>
<td>I might have thought about a lot of different jobs, but there’s never really been any question since my parents said what they wanted.</td>
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<tr>
<td>A person’s faith is unique to each individual. I’ve considered and reconsidered it myself and know what I can believe.</td>
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<tr>
<td>I’ve never really seriously considered men’s and women’s roles in marriage. It just doesn’t seem to concern me.</td>
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<tr>
<td>After considerable thought I’ve developed my own individual viewpoint of what is for me an ideal “life style” and don’t believe anyone will be likely to change my perspective.</td>
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<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My parents know what’s best for me in terms of how to choose my friends.</td>
<td>○</td>
<td>○</td>
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<tr>
<td>I’ve chosen one or more recreational activities to engage in regularly from lots of things and I’m satisfied with those choices.</td>
<td>○</td>
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<tr>
<td>I don’t think about dating much. I just kind of take it as it comes.</td>
<td>○</td>
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<tr>
<td>I guess I’m pretty much like my parents when it comes to politics. I follow what they do in terms of voting and such.</td>
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<tr>
<td>Strongly Agree</td>
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<tr>
<td>I’m not really interested in finding the right job, any job will do. I just seem to flow with what is available.</td>
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<tr>
<td>I’m not sure what religion means to me. I’d like to make up my mind but I’m not done looking yet.</td>
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<tr>
<td>My ideas about men’s and women’s roles have come straight from my parents and family. I haven’t seen any need to look further.</td>
<td></td>
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<tr>
<td>My own views on a desirable life style were taught to me by my parents and I don’t see any need to question what they taught me.</td>
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<tr>
<td>I don’t have any true close friends, and I don’t think I’m looking for one right now.</td>
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<tr>
<td>Sometimes I join in leisure activities, but I really don’t see a need to look for a particular activity to do regularly.</td>
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<tr>
<td>If you are reading this item, select &quot;Agree.&quot;</td>
<td></td>
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</tr>
<tr>
<td>I’m trying out different types of dating relationships. I just haven’t decided what is best for me.</td>
<td></td>
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</tr>
<tr>
<td>There are so many different political parties and ideals. I can’t decide which to follow until I figure it all out.</td>
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<tr>
<td>Strongly Agree</td>
<td>Agree</td>
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<tr>
<td>It took me a while to figure it out, but now I really know what I want for a career.</td>
<td>o</td>
<td>o</td>
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</tr>
<tr>
<td>Religion is confusing to me right now. I keep changing my views on what is right and wrong for me.</td>
<td>o</td>
<td>o</td>
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<tr>
<td>I’ve spent some time thinking about men’s and women’s roles in marriage and I’ve decided what will work best for me.</td>
<td>o</td>
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<tr>
<td>In finding an acceptable viewpoint to life itself, I find myself engaging in a lot of discussions with others and some self exploration.</td>
<td>o</td>
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<tr>
<td>Strongly Agree</td>
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<td>Somewhat Agree</td>
<td>Somewhat Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
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<tr>
<td>I only pick friends my parents would approve of.</td>
<td>o</td>
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<tr>
<td>I’ve always liked doing the same recreational activities my parents do and haven’t ever seriously considered anything else.</td>
<td>o</td>
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<tr>
<td>I only go out with the type of people my parents expect me to date.</td>
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<tr>
<td>I’ve thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe.</td>
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<tr>
<td>Strongly Agree</td>
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<tr>
<td>My parents decided a long time ago what I should go into for employment and I’m following through their plans.</td>
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<tr>
<td>I’ve gone through a period of serious questions about faith and can now say I understand what I believe in as an individual.</td>
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<tr>
<td>I’ve been thinking about the roles that husbands and wives play a lot these days, and I’m trying to make a final decision.</td>
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<tr>
<td>My parents’ views on life are good enough for me, I don’t need anything else.</td>
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<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’ve had many different friendships and now I have a clear idea of what I look for in a friend.</td>
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<tr>
<td>After trying a lot of different recreational activities I’ve found one or more I really enjoy doing by myself or with friends.</td>
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<tr>
<td>My preferences about dating are still in the process of developing, I haven’t fully decided yet.</td>
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<tr>
<td>I’m not sure about my political beliefs, but I’m trying to figure out what I can truly believe in.</td>
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<tr>
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<tr>
<td>It took me a long time to decide but now I know for sure what direction to move in for a career.</td>
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<tr>
<td>I attend the same church as my family has always attended. I’ve never really questioned why.</td>
<td></td>
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</tr>
<tr>
<td>There are many ways that married couples can divide up family responsibilities. I’ve thought about lots of ways, and now I know exactly how I want it to happen for me.</td>
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<tr>
<td>I guess I just kind of enjoy life in general, and I don’t see myself living by any particular viewpoint to life.</td>
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<tr>
<td>I don’t have any close friends. I just like to hang around with the crowd.</td>
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</tr>
<tr>
<td>I’ve been experiencing a variety of recreational activities in hope of finding one or more I can really enjoy for some time to come.</td>
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<tr>
<td>If you are reading this item, select &quot;Disagree.&quot;</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I’ve dated different types of people and know exactly what my own “unwritten rules” for dating are and who I will date.</td>
<td></td>
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<tr>
<td>I really have never been involved in politics enough to have made a firm stand one way or the other.</td>
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</tr>
<tr>
<td>Statement</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Somewhat Disagree</td>
<td>Disagree</td>
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<td>---------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>I just can’t decide what to do for an occupation. There are so many possibilities.</td>
<td><img src="rating1" alt="Rating" /></td>
<td><img src="rating2" alt="Rating" /></td>
<td><img src="rating3" alt="Rating" /></td>
<td><img src="rating4" alt="Rating" /></td>
<td><img src="rating5" alt="Rating" /></td>
</tr>
<tr>
<td>I’ve never really questioned my religion. If it’s right for my parents it must be right for me.</td>
<td><img src="rating1" alt="Rating" /></td>
<td><img src="rating2" alt="Rating" /></td>
<td><img src="rating3" alt="Rating" /></td>
<td><img src="rating4" alt="Rating" /></td>
<td><img src="rating5" alt="Rating" /></td>
</tr>
<tr>
<td>Opinions on men’s and women’s roles seem so varied that I don’t think much about it.</td>
<td><img src="rating1" alt="Rating" /></td>
<td><img src="rating2" alt="Rating" /></td>
<td><img src="rating3" alt="Rating" /></td>
<td><img src="rating4" alt="Rating" /></td>
<td><img src="rating5" alt="Rating" /></td>
</tr>
<tr>
<td>After a lot of self-examination I have established a very definite view on what my own lifestyle will be.</td>
<td><img src="rating1" alt="Rating" /></td>
<td><img src="rating2" alt="Rating" /></td>
<td><img src="rating3" alt="Rating" /></td>
<td><img src="rating4" alt="Rating" /></td>
<td><img src="rating5" alt="Rating" /></td>
</tr>
<tr>
<td>I really don’t know what kind of friend is best for me. I’m trying to figure out exactly what friendship means to me.</td>
<td><img src="rating1" alt="Rating" /></td>
<td><img src="rating2" alt="Rating" /></td>
<td><img src="rating3" alt="Rating" /></td>
<td><img src="rating4" alt="Rating" /></td>
<td><img src="rating5" alt="Rating" /></td>
</tr>
<tr>
<td>All of my recreational preferences I got from my parents and I haven’t really tried anything else.</td>
<td><img src="rating1" alt="Rating" /></td>
<td><img src="rating2" alt="Rating" /></td>
<td><img src="rating3" alt="Rating" /></td>
<td><img src="rating4" alt="Rating" /></td>
<td><img src="rating5" alt="Rating" /></td>
</tr>
<tr>
<td>I date only people my parents would approve of.</td>
<td><img src="rating1" alt="Rating" /></td>
<td><img src="rating2" alt="Rating" /></td>
<td><img src="rating3" alt="Rating" /></td>
<td><img src="rating4" alt="Rating" /></td>
<td><img src="rating5" alt="Rating" /></td>
</tr>
<tr>
<td>My parents have always had their own political and moral beliefs about issues like abortion and mercy killing and I’ve always gone along accepting what they have.</td>
<td><img src="rating1" alt="Rating" /></td>
<td><img src="rating2" alt="Rating" /></td>
<td><img src="rating3" alt="Rating" /></td>
<td><img src="rating4" alt="Rating" /></td>
<td><img src="rating5" alt="Rating" /></td>
</tr>
</tbody>
</table>

Approximately how many semesters of college did you complete before participating in your religious missionary experience?

_____ Number of semesters
Approximately how long was your mission experience? (For example, if you served for 15 months, you can either enter 15 next to Months, or you can enter 1 next to Years and 3 next to Months. Either response is valid.)

______ Years,
______ Months, and
______ Weeks

Approximately how much time per day did you spend fulfilling your responsibilities as a volunteer?

______ Hours per day

How far away from home was your experience?

☐ Less than 100 miles from my home
☐ Within the same region of my country
☐ In a different region of my country
☐ In my continent, but not in my country
☐ Outside my continent / Overseas

To what extent would you say that the culture in the location of your mission experience differed from your native (or most familiar) culture?

☐ The culture in the location of my mission experience was similar to my native culture.
☐ The culture in the location of my mission experience was somewhat different from my native culture.
☐ The culture in the location of my mission experience was quite different from my native culture.
☐ The culture in the location of my mission experience was extremely different from my native culture.

Did you have to learn a second language during your mission experience?

☐ Yes
☐ No

What was the dominant language in the location of your service?

☐ English
☐ Spanish
☐ Portuguese
☐ Mandarin or Cantonese
☐ Tagalog or Cebuano
☐ Hindi
☐ Arabic
☐ Russian
☐ French
☐ Italian
☐ German
☐ Other ____________________
How many times per week did you participate in the following activities during your religious mission experience? Note: Select 7 occurrences per week if you participated in the event at least once per day.

- Small-scale (i.e., with fewer than 10 people) religious discussions with people of YOUR faith
- Small-scale (i.e., with fewer than 10 people) religious discussions with people of ANOTHER faith
- Religious services (e.g., Mass, worship) of YOUR organization
- Religious services of ANOTHER organization
- Personal study of religious text that is mostly or completely unique to YOUR faith
- Personal study of religious text that is mostly or completely unique to ANOTHER faith
- Personal study of religious text that is shared by multiple faiths, including yours
- Pondering YOUR religious beliefs
- Pondering religious beliefs that DIFFER from yours
- Humanitarian service / free labor
- Paid labor
- Developing skills / gaining experience in your professional field
- Learning / developing a previously unfamiliar hobby (e.g., a sport)
- Non-religious (e.g., political) discussions with people who DIFFERED from you philosophically
- Non-religious discussions with people who SHARED your philosophy
- Site-seeing
- Other recreation
- Contemplation of qualities that are desirable in a partner / spouse
- Contemplation of qualities that are desirable in a relationship (e.g., communication, emotional intimacy, mutual trust)
- Romantic pursuits in/near your location of service

To what extent did you feel encouraged by the following to participate in your mission experience? (1 star = Not at all encouraged; 7 stars = Extremely encouraged)

- Family
- Friends
- Religious leaders
- Religious doctrines and texts
- Social media
- Other media
To what extent did the following fund your mission experience?

<table>
<thead>
<tr>
<th>Source of Funding</th>
<th>All of my expenses</th>
<th>More than half of my expenses</th>
<th>Approximately half of my expenses</th>
<th>Less than half of my expenses</th>
<th>None of my expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My parents / other family members paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My religious organization paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Known sponsors (e.g., friends) paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Unknown sponsors paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>An unaffiliated organization (e.g., government) paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Approximately what is the concentration of those belonging to your religious denomination in the area where you provided missionary service?

_____ Slide slider to appropriate value

What factors led to your decision to participate in this experience?

What aspects of this experience would you say have been most important to you?

How has this experience influenced the way that you define or understand yourself?

Do you intend to serve as a missionary for your religious organization within the next year?

○ Yes
○ No

What will the nature of your assignment be?

○ Mostly to disseminate religious teachings / to invite others to join my religious organization
○ Mostly to render humanitarian service
○ Other ____________________

Have you already received an assignment (i.e., calling)?

○ Yes
○ No

Approximately when do you anticipate COMPLETING your missionary excursion?
How many times per week do you CURRENTLY participate in the following activities? Note: Select 7 occurrences per week if you participated in the event at least once per day.

_____ Small-scale (i.e., with fewer than 10 people) religious discussions with people of YOUR faith

_____ Small-scale (i.e., with fewer than 10 people) religious discussions with people of ANOTHER faith

_____ Religious services (e.g., Mass, worship) of YOUR organization

_____ Religious services of ANOTHER organization

_____ Personal study of religious text that is mostly or completely unique to YOUR faith

_____ Personal study of religious text that is mostly or completely unique to ANOTHER faith

_____ Personal study of religious text that is shared by multiple faiths, including yours

_____ Pondering YOUR religious beliefs

_____ Pondering religious beliefs that DIFFER from yours

During the typical week, how many hours do you spend engaged in UNPAID service for your religious organization (e.g., making visits, preparing and giving lessons, administrating, preaching, etc.)?

_____ Hours per week

How frequently do you participate in "special" religious activities (e.g., pilgrimages, fasting, Communion, temple worship, etc.)? Do not account for practices that most or all members of your organization regularly experience (e.g., if most or all members of your religious organization participate in Communion every week).

- Never
- Less than once per year
- Between 1 and 6 times per year
- Between 7 and 12 times per year
- 2 to 3 times per month
- Once per week or more

During the typical day, how many times do you pray?

_____ Times per day

How meaningful / uplifting would you consider your typical prayer?

- 1
- 2
- 3
- 4
- 5
Rate your level of agreement with each of the following:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe in the existence of absolute truth</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I believe that truth can be different for different people</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I believe that only one religious organization is completely true</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I believe that many religious organizations have just as much truth as mine</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I believe that all religious organizations have at least some truth</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Rate your level of agreement with each of the following:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel comfortable sharing my beliefs with others</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I enjoy learning about other people's beliefs</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I enjoy serving others without pay</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am committed to my religious organization, even in the face of opposition</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am familiar with my religious text</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am familiar with religious texts that are not mine</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Have you participated in any of the following experiences away from your city / town? If you have participated in more than one, select the experience that lasted the longest.

○ Peace Corps
○ Teaching English in a foreign country
○ Americorps
○ Study abroad / foreign exchange
○ Humanitarian aid (e.g., disaster relief)
○ Political internship
○ Other ____________________
○ No

For the following questions, provide the answer corresponding to the longest-lasting experience that you identified in the previous item ($\{q://QID81/ChoiceGroup/SelectedChoices\}$).

Approximately how long was your experience? (For example, if you were away from home for 15 months, you can either enter 15 next to Months, or you can enter 1 next to Years and 3 next to Months. Either response is valid.)

_____ Years,  
_____ Months, and  
_____ Weeks
Approximately how many semesters of college did you complete before participating in this experience?

______ Number of semesters

Approximately how much time per day did you spend engaged in activities specific to this experience?

______ Hours per day

How far away from home was your excursion?

☐ Less than 100 miles (160 km)
☐ Within the same region of my country
☐ In a different region of my country
☐ In my continent, but not in my country
☐ Outside my continent / Overseas

To what extent would you say that the culture in the location of your experience differed from your native (or most familiar) culture?

☐ The culture in the location of my experience was similar to my native culture.
☐ The culture in the location of my experience was somewhat different from my native culture.
☐ The culture in the location of my experience was quite different from my native culture.
☐ The culture in the location of my experience was extremely different from my native culture.

What was the dominant language in the location of your experience?

☐ English
☐ Spanish
☐ Portuguese
☐ Mandarin or Cantonese
☐ Tagalog or Cebuano
☐ Hindi
☐ Arabic
☐ Russian
☐ French
☐ Italian
☐ German
☐ Other ____________________
How many times per week did you participate in the following activities during your experience? Note:
Select 7 occurrences per week if you participated in the event at least once per day.

_____ Small-scale (i.e., with fewer than 10 people) religious discussions with people of YOUR faith
_____ Small-scale (i.e., with fewer than 10 people) religious discussions with people of ANOTHER faith
_____ Religious services (e.g., Mass, worship) of YOUR organization
_____ Religious services of ANOTHER organization
_____ Personal study of religious text that is mostly or completely unique to YOUR faith
_____ Personal study of religious text that is mostly or completely unique to ANOTHER faith
_____ Personal study of religious text that is shared by multiple faiths, including yours
_____ Pondering YOUR religious beliefs
_____ Pondering religious beliefs that DIFFER from yours
_____ Humanitarian service / free labor
_____ Paid labor
_____ Learning about an unfamiliar professional field
_____ Developing skills / gaining experience in your professional field
_____ Learning / developing a previously unfamiliar hobby (e.g., a sport)
_____ Non-religious (e.g., political) discussions with people who DIFFERED from you philosophically
_____ Non-religious discussions with people who SHARED your philosophy
_____ Site-seeing
_____ Other recreation
_____ Contemplation of qualities that are desirable in a partner / spouse
_____ Contemplation of qualities that are desirable in a relationship (e.g., communication, emotional intimacy, mutual trust)
_____ Romantic pursuits in/near your location of service

To what extent did you feel encouraged by the following to participate in this experience? (1 star = Not at all encouraged; 7 stars = Extremely encouraged)

_____ Family
_____ Friends
_____ Teachers
_____ Employer or coworker
_____ Other consultant, counselor, or adviser
_____ My culture
_____ Social Media
_____ Other media
To what extent did the following fund your excursion?

<table>
<thead>
<tr>
<th></th>
<th>All of my expenses</th>
<th>More than half of my expenses</th>
<th>Approximately half of my expenses</th>
<th>Less than half of my expenses</th>
<th>None of my expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I paid for</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My parents / other family members paid for</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The organization that I represented paid for</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Known sponsors (e.g., friends) paid for</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Unknown sponsors paid for</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>An unaffiliated organization (e.g., government) paid for</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

What factors led to your decision to participate in this experience?

What aspects of this experience would you say have been most important to you?

How has this experience influenced the way that you define or understand yourself?

Approximately how much time per day do/did you spend engaged in activities specific to your college experience?

______ Hours per day

How far away from home is/was your college/university?

☐ Less than 100 miles (160 km)
☐ Within the same region of my country
☐ In a different region of my country
☐ In my continent, but not in my country
☐ Outside my continent / Overseas
During your college experience, do/did you regularly (at least once per week) speak any of the following languages? Select all that apply.

- Spanish
- Portuguese
- Mandarin or Cantonese
- Tagalog or Cebuano
- Hindi
- Arabic
- Russian
- French
- Italian
- German
- Other ____________________

To what extent would you say that the culture where you are participating (or participated) in college studies differs/differed from your native (or most familiar) culture?

- The culture in the location of my college studies is/was similar to my native culture.
- The culture in the location of my college studies is/was somewhat different from my native culture.
- The culture in the location of my college studies is/was quite different from my native culture.
- The culture in the location of my college studies is/was extremely different from my native culture.

During college, how many times per week do/did you participate in the following activities while you are in college? Note: Select 7 occurrences per week if you participate(d) in the event at least once per day.

- Small-scale (i.e., with fewer than 10 people) religious discussions with people of YOUR faith
- Small-scale (i.e., with fewer than 10 people) religious discussions with people of ANOTHER faith
- Religious services (e.g., Mass, worship) of YOUR organization
- Religious services of ANOTHER organization
- Personal study of religious text that is mostly or completely unique to YOUR faith
- Personal study of religious text that is mostly or completely unique to ANOTHER faith
- Personal study of religious text that is shared by multiple faiths, including yours
- Pondering YOUR religious beliefs
- Pondering religious beliefs that DIFFER from yours
- Humanitarian service / free labor
- Paid labor
- Learning about an unfamiliar professional field
- Developing skills / gaining experience in your professional field
- Learning / developing a previously unfamiliar hobby (e.g., a sport)
- Non-religious (e.g., political) discussions with people who DIFFERED from you philosophically
- Non-religious discussions with people who SHARED your philosophy
- Site-seeing
- Other recreation
- Contemplation of qualities that are desirable in a partner / spouse
- Contemplation of qualities that are desirable in a relationship (e.g., communication, emotional intimacy, mutual trust)
- Romantic pursuits in/near your location of service
To what extent did you feel encouraged by the following to attend college? (1 star = Not at all encouraged; 7 stars = Extremely encouraged)

- Family
- Friends
- Teachers
- Other consultant, counselor, or adviser
- My culture
- Social Media
- Other media

To what extent do/did the following fund your college experience?

<table>
<thead>
<tr>
<th>Source of Funding</th>
<th>All of my expenses</th>
<th>More than half of my expenses</th>
<th>Approximately half of my expenses</th>
<th>Less than half of my expenses</th>
<th>None of my expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I pay/paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My parents / other family members pay/paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Known sponsors (e.g., friends) pay/paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Scholarship funds pay/paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Other sources pay/paid for</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

What factors led to your decision to participate in this experience?

What aspects of this experience would you say have been most important to you?

How has this experience influenced the way that you define or understand yourself?
Appendix B

IRB Approved Letter of Information
LETTER OF INFORMATION
Ego-Identity and Long-Term Moratoria:
Associations with College Experiences and Religious Volunteerism

Introduction/Purpose Randall Jones (Professor, Department of Family, Consumer, and Human Development, Utah State University) and Mark Jackson (Doctoral Student, Department of Family, Consumer, and Human Development, Utah State University) are conducting a research study to find out more about experiences that promote identity development. You have been asked to take part in this study because of the study’s emphasis on the educational and volunteer experiences common during late adolescence and early adulthood. There will be approximately 500 total participants in this research.

Procedures If you agree to participate in this research study, you will complete an online survey on a secure website. You will be expected to respond to questions about demographic characteristics and educational/volunteer experiences that may have helped you understand yourself and others better. You will also be able to indicate whether you are willing to receive correspondence about participating in a follow-up study two to three years from now. Completing the survey will require about 30–45 minutes of your time. As long as you complete the survey before the deadline, you may spend as much or as little time on it as you would like. You may complete the survey wherever you would like.

Risks Participation in this research study is considered to be minimal risk. However, some survey items may create feelings of discomfort. Should this occur you may contact several resources on USU’s campus, such as the Psychology Clinic. There is the possibility for loss of confidentiality, but steps will be taken to reduce this risk.

Benefits No direct benefits to you are likely from participating in this study. However, the researchers hope to gain a greater understanding of experiences and processes that contribute to identity development.

Compensation You will be asked to give your name and email address, and the name of your course instructor (if applicable). Upon your completion of the survey, your name will be forwarded to your course instructor so that you can receive extra credit (per instructor discretion). If you prefer not to participate, you may complete an alternative assignment for extra credit. Upon your completion of the survey, your name will also be entered for a random drawing to receive one of five Cold Stone Creamery gift cards. If you were referred by another participant, you will give the name of the referring participant so that he or she can be entered an additional time into the prize drawing.

Voluntary nature of participation and right to withdraw without consequence Participation in this research is entirely voluntary. You may withdraw or refuse to participate at any time without consequence. If applicable, your instructor may provide alternative equivalent opportunities for extra credit.

x7.2/3/2010
LETTER OF INFORMATION
Ego-Identity and Long-Term Moratoria: Associations with College Experiences and Religious Volunteerism

Confidentiality Research records will be kept confidential, consistent with federal and state regulations. Linked identifiers will be destroyed following the completion of data collection for those who do not express interest in participating in a follow-up study. Only the investigator will have access to the data, which will be kept in an encrypted file on a secure, password-protected server or on a password-protected computer in a locked room. To protect your privacy, personal, identifiable information will be removed from study documents and replaced with a random identification number. Identifying information will be stored separately from survey data and will be destroyed after 1) extra credit and prizes have been awarded to eligible participants (before May 2015) or 2) the researchers have corresponded with you (if you indicate interest) about participating in a follow-up study (before May 2018).

IRB Approval Statement The Institutional Review Board for the protection of human participants at Utah State University has approved this research study. If you have any questions or concerns about your rights or a research-related injury and would like to contact someone other than the research team, you may contact the IRB Administrator at (435) 797-0567 or email irb@usu.edu to obtain information or to offer input.

Investigator Statement “I certify that the research study has been explained to the individual, by me or my research staff, and that the individual understands the nature and purpose, the possible risks and benefits associated with taking part in this research study. Any questions that have been raised have been answered.”

Signature of Researchers

Randall M. Jones, Ph.D.
Principal Investigator
(435) 797-1553
r.jones@usu.edu

Mark Jackson
Graduate Researcher
(435) 512-9777
mark.jackson@aggiemail.usu.edu

x7.23/2010
Appendix C

Means and Standard Deviations of 32 EOMEIS-2 Subdomain Scores
### Means and Standard Deviations of 32 EOMEIS-2 Subdomain Scores

<table>
<thead>
<tr>
<th>EOMEIS-2 Subdomain</th>
<th>Total sample $N = 425$</th>
<th>LDS postmiss. $n = 122$</th>
<th>LDS nonmiss. $n = 189$</th>
<th>All nonmiss. $n = 303$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
</tr>
<tr>
<td>Occupational ach.</td>
<td>8.5 (2.6)</td>
<td>8.5 (2.6)</td>
<td>8.3 (2.6)</td>
<td>8.5 (2.5)</td>
</tr>
<tr>
<td>Occupational mora.</td>
<td>6.9 (2.5)</td>
<td>6.9 (2.5)</td>
<td>7.1 (2.5)</td>
<td>6.8 (2.6)</td>
</tr>
<tr>
<td>Occupational fore</td>
<td>3.4 (1.6)</td>
<td>3.5 (1.7)</td>
<td>3.2 (1.5)</td>
<td>3.3 (1.6)</td>
</tr>
<tr>
<td>Occupational diff</td>
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<td>5.6 (2.2)</td>
<td>5.6 (2.2)</td>
<td>5.3 (2.2)</td>
</tr>
<tr>
<td>Political ach.</td>
<td>8.4 (1.9)</td>
<td>8.4 (1.9)</td>
<td>8.5 (1.8)</td>
<td>8.5 (1.9)</td>
</tr>
<tr>
<td>Political mora.</td>
<td>6.8 (2.4)</td>
<td>6.7 (2.4)</td>
<td>7.0 (2.2)</td>
<td>6.8 (2.4)</td>
</tr>
<tr>
<td>Political fore</td>
<td>6.6 (2.6)</td>
<td>7.5 (2.2)</td>
<td>7.1 (2.5)</td>
<td>6.3 (2.6)</td>
</tr>
<tr>
<td>Political diff</td>
<td>7.6 (2.7)</td>
<td>7.7 (2.7)</td>
<td>7.9 (2.5)</td>
<td>7.6 (2.8)</td>
</tr>
<tr>
<td>Religious ach.</td>
<td>9.6 (2.0)</td>
<td>10.2 (1.9)</td>
<td>9.6 (2.0)</td>
<td>9.4 (2.0)</td>
</tr>
<tr>
<td>Religious mora.</td>
<td>3.5 (2.3)</td>
<td>2.6 (1.4)</td>
<td>3.2 (2.1)</td>
<td>3.8 (2.4)</td>
</tr>
<tr>
<td>Religious fore</td>
<td>5.6 (2.7)</td>
<td>6.2 (2.6)</td>
<td>6.2 (2.6)</td>
<td>5.3 (2.7)</td>
</tr>
<tr>
<td>Religious diff</td>
<td>3.8 (2.9)</td>
<td>2.5 (1.2)</td>
<td>2.9 (1.8)</td>
<td>4.3 (3.2)</td>
</tr>
<tr>
<td>Philo. lifestyle ach.</td>
<td>8.5 (1.9)</td>
<td>8.9 (1.7)</td>
<td>8.4 (2.0)</td>
<td>8.3 (1.9)</td>
</tr>
<tr>
<td>Philo. lifestyle mora.</td>
<td>7.6 (1.9)</td>
<td>7.4 (1.9)</td>
<td>7.7 (1.9)</td>
<td>7.7 (1.9)</td>
</tr>
<tr>
<td>Philo. lifestyle fore</td>
<td>5.6 (2.3)</td>
<td>6.2 (2.2)</td>
<td>5.9 (2.2)</td>
<td>5.4 (2.3)</td>
</tr>
<tr>
<td>Philo. lifestyle diff</td>
<td>6.7 (2.2)</td>
<td>6.1 (2.2)</td>
<td>6.8 (2.0)</td>
<td>7.0 (2.1)</td>
</tr>
<tr>
<td>Sex role ach.</td>
<td>8.3 (1.9)</td>
<td>8.7 (1.7)</td>
<td>8.3 (1.8)</td>
<td>8.1 (1.9)</td>
</tr>
<tr>
<td>Sex role mora.</td>
<td>7.8 (2.1)</td>
<td>8.0 (2.0)</td>
<td>8.0 (1.8)</td>
<td>7.7 (2.1)</td>
</tr>
<tr>
<td>Sex role fore</td>
<td>6.3 (2.4)</td>
<td>6.9 (2.3)</td>
<td>6.6 (2.3)</td>
<td>6.0 (2.4)</td>
</tr>
<tr>
<td>Sex role diff</td>
<td>4.9 (2.0)</td>
<td>4.6 (1.8)</td>
<td>5.0 (1.8)</td>
<td>5.1 (2.0)</td>
</tr>
<tr>
<td>Friendship ach.</td>
<td>9.8 (1.6)</td>
<td>10.2 (1.4)</td>
<td>9.9 (1.4)</td>
<td>9.7 (1.6)</td>
</tr>
<tr>
<td>Friendship mora.</td>
<td>6.0 (2.2)</td>
<td>5.5 (1.8)</td>
<td>6.1 (2.2)</td>
<td>6.2 (2.3)</td>
</tr>
<tr>
<td>Friendship fore</td>
<td>6.0 (2.2)</td>
<td>6.8 (2.2)</td>
<td>6.1 (2.1)</td>
<td>5.6 (2.1)</td>
</tr>
<tr>
<td>Friendship diff</td>
<td>4.0 (2.0)</td>
<td>3.7 (1.7)</td>
<td>4.2 (2.0)</td>
<td>4.2 (2.1)</td>
</tr>
<tr>
<td>Recreation ach.</td>
<td>9.3 (1.8)</td>
<td>9.6 (1.7)</td>
<td>9.2 (1.8)</td>
<td>9.2 (1.8)</td>
</tr>
<tr>
<td>Recreation mora.</td>
<td>7.5 (2.1)</td>
<td>7.3 (2.1)</td>
<td>7.7 (2.0)</td>
<td>7.6 (2.0)</td>
</tr>
<tr>
<td>Recreation fore</td>
<td>4.2 (1.8)</td>
<td>4.7 (1.9)</td>
<td>4.3 (1.7)</td>
<td>4.1 (1.7)</td>
</tr>
<tr>
<td>Recreation diff</td>
<td>6.0 (2.1)</td>
<td>5.6 (2.0)</td>
<td>6.2 (2.1)</td>
<td>6.1 (2.1)</td>
</tr>
<tr>
<td>Dating ach.</td>
<td>8.9 (2.3)</td>
<td>9.4 (2.2)</td>
<td>8.7 (2.1)</td>
<td>8.7 (2.3)</td>
</tr>
<tr>
<td>Dating mora.</td>
<td>6.0 (2.8)</td>
<td>6.0 (2.7)</td>
<td>6.1 (2.8)</td>
<td>6.0 (2.8)</td>
</tr>
<tr>
<td>Dating fore</td>
<td>5.7 (2.6)</td>
<td>6.7 (2.5)</td>
<td>5.9 (2.6)</td>
<td>5.3 (2.6)</td>
</tr>
<tr>
<td>Dating diff</td>
<td>6.2 (2.8)</td>
<td>5.2 (2.4)</td>
<td>6.2 (2.6)</td>
<td>6.6 (2.8)</td>
</tr>
</tbody>
</table>
Appendix D

Means and Standard Deviations of Features of College and Mission
### Means and Standard Deviations of Features of College and Mission

<table>
<thead>
<tr>
<th>Feature of college or mission experience</th>
<th>LDS postmissionaries</th>
<th>Non-postmissionaries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mission: duration (months)</strong></td>
<td>18.7 (7.4)</td>
<td></td>
</tr>
<tr>
<td><strong>Hours per day engaged in mission or college tasks</strong></td>
<td>12.9 (4.2)</td>
<td>5.8 (3.7)</td>
</tr>
<tr>
<td><strong>Distance from home</strong></td>
<td>3.5 (1.3)</td>
<td>1.7 (0.9)</td>
</tr>
<tr>
<td><strong>Cultural difference</strong></td>
<td>2.7 (1.1)</td>
<td>1.5 (0.8)</td>
</tr>
<tr>
<td><strong>Mission: learned second language (M = %)</strong></td>
<td>0.5 (0.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Small religious discussions, same faith</strong></td>
<td>5.7 (1.9)</td>
<td>2.3 (2.2)</td>
</tr>
<tr>
<td><strong>Small religious discussions, different faith</strong></td>
<td>6.1 (1.8)</td>
<td>0.9 (1.3)</td>
</tr>
<tr>
<td><strong>Religious services, same faith</strong></td>
<td>1.8 (1.7)</td>
<td>1.5 (1.5)</td>
</tr>
<tr>
<td><strong>Religious services, different faith</strong></td>
<td>0.3 (0.9)</td>
<td>0.1 (0.5)</td>
</tr>
<tr>
<td><strong>Religious text, same faith</strong></td>
<td>6.6 (1.4)</td>
<td>3.4 (3.0)</td>
</tr>
<tr>
<td><strong>Religious text, different faith</strong></td>
<td>0.9 (2.0)</td>
<td>0.2 (0.9)</td>
</tr>
<tr>
<td><strong>Religious text, shared</strong></td>
<td>5.3 (2.6)</td>
<td>1.7 (2.2)</td>
</tr>
<tr>
<td><strong>Ponder own religious beliefs</strong></td>
<td>6.5 (1.4)</td>
<td>3.7 (2.6)</td>
</tr>
<tr>
<td><strong>Ponder different religious beliefs</strong></td>
<td>4.9 (2.6)</td>
<td>1.4 (2.0)</td>
</tr>
<tr>
<td><strong>Humanitarian service</strong></td>
<td>3.6 (2.2)</td>
<td>1.3 (1.5)</td>
</tr>
<tr>
<td><strong>Paid labor</strong></td>
<td>0.1 (0.5)</td>
<td>2.3 (2.5)</td>
</tr>
<tr>
<td><strong>Learning unfamiliar field</strong></td>
<td>0.9 (1.5)</td>
<td>1.4 (1.7)</td>
</tr>
<tr>
<td><strong>Developing in own professional field</strong></td>
<td>2.0 (2.8)</td>
<td>3.0 (2.1)</td>
</tr>
<tr>
<td><strong>Learning unfamiliar hobby</strong></td>
<td>1.5 (2.0)</td>
<td>1.6 (1.7)</td>
</tr>
<tr>
<td><strong>Nonreligious discussions, different philosophy</strong></td>
<td>2.6 (2.6)</td>
<td>1.4 (1.8)</td>
</tr>
<tr>
<td><strong>Nonreligious discussions, same philosophy</strong></td>
<td>3.1 (2.7)</td>
<td>1.9 (2.1)</td>
</tr>
<tr>
<td><strong>Site-seeing</strong></td>
<td>1.0 (1.2)</td>
<td>1.1 (1.3)</td>
</tr>
<tr>
<td><strong>Other recreation</strong></td>
<td>1.1 (1.0)</td>
<td>2.8 (2.0)</td>
</tr>
<tr>
<td><strong>Contemplation of future spouse/partner qualities</strong></td>
<td>3.8 (2.5)</td>
<td>3.1 (2.4)</td>
</tr>
<tr>
<td><strong>Contemplation of relationship qualities</strong></td>
<td>4.4 (2.5)</td>
<td>3.5 (2.4)</td>
</tr>
<tr>
<td><strong>Romantic pursuits</strong></td>
<td>0.2 (0.8)</td>
<td>2.0 (2.2)</td>
</tr>
<tr>
<td><strong>Encouraged by family</strong></td>
<td>6.3 (1.4)</td>
<td>6.4 (1.3)</td>
</tr>
<tr>
<td><strong>Encouraged by friends</strong></td>
<td>5.6 (1.6)</td>
<td>5.7 (1.6)</td>
</tr>
<tr>
<td><strong>Mission: encouraged by religious leaders</strong></td>
<td>6.0 (1.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Mission: encouraged by religious doctrines, texts</strong></td>
<td>6.5 (1.1)</td>
<td></td>
</tr>
<tr>
<td><strong>College: encouraged by teachers</strong></td>
<td></td>
<td>5.8 (1.7)</td>
</tr>
<tr>
<td><strong>College: enc. by consultant, counselor, or adviser</strong></td>
<td>5.2 (2.0)</td>
<td></td>
</tr>
<tr>
<td><strong>College: encouraged by my culture</strong></td>
<td></td>
<td>5.8 (1.7)</td>
</tr>
<tr>
<td><strong>Encouraged by social media</strong></td>
<td>3.3 (1.9)</td>
<td>4.1 (2.2)</td>
</tr>
<tr>
<td><strong>Encouraged by other media</strong></td>
<td>2.6 (1.9)</td>
<td>3.8 (2.2)</td>
</tr>
<tr>
<td><strong>Funding: self</strong></td>
<td>2.3 (1.1)</td>
<td>3.4 (1.2)</td>
</tr>
<tr>
<td><strong>Funding: my parents / other family members</strong></td>
<td>3.5 (1.2)</td>
<td>3.5 (1.2)</td>
</tr>
<tr>
<td><strong>Mission: funding: my religious organization</strong></td>
<td>1.6 (0.9)</td>
<td></td>
</tr>
<tr>
<td><strong>Funding: known sponsors (e.g., friends)</strong></td>
<td>1.4 (0.7)</td>
<td>4.9 (0.5)</td>
</tr>
<tr>
<td><strong>Mission: funding: unknown sponsors</strong></td>
<td>1.2 (0.6)</td>
<td></td>
</tr>
<tr>
<td><strong>College: funding: scholarships</strong></td>
<td></td>
<td>3.5 (1.3)</td>
</tr>
<tr>
<td><strong>Funding: other sources (e.g., government)</strong></td>
<td>1.1 (0.4)</td>
<td>4.2 (1.3)</td>
</tr>
<tr>
<td><strong>Mission: % of population that share faith</strong></td>
<td>18.7 (21.3)</td>
<td>0.2 (0.5)</td>
</tr>
<tr>
<td><strong>College: number of foreign languages spoken</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mark A. Jackson
Family, Consumer, and Human Development
Utah State University
2905 Old Main Hill
Logan, UT 84322-2905
(435) 512-9777
mark.jackson@aggiemail.usu.edu

EDUCATION

2015  Doctor of Philosophy, Utah State University
       Family and Human Development
       Dissertation: Ego-Identity and Long-Term Moratoria: Associations with
                   College Participation and Religious Volunteerism.
       Major Adviser: Randall M. Jones, Ph.D.
       GPA: 3.98

2009  Bachelor of Science, Brigham Young University
       Psychology
       GPA: 3.8

PROFESSIONAL EXPERIENCE SUMMARY

5/2012 – present  Graduate Research Assistant
                  Department of Family, Consumer, and Human Development
                  Utah State University; Logan, UT.

8/2012 – present  Instructor
                  Department of Family, Consumer, and Human Development
                  Utah State University; Logan, UT.

8/2010 – 8/2012  Graduate Teaching Assistant
                  Department of Family, Consumer, and Human Development
                  Utah State University; Logan, UT.

                  Focus Program, Transition Learning Center
                  The Journey: Blazing New Trails; Provo, UT.

                  Department of Psychology
                  Brigham Young University; Provo, UT.

6/2008 – 9/2009  Tutor for Youth with Special Needs
                  Provo School District; Provo, UT.
RESEARCH EXPERIENCE

1/2015 – 5/2015  Advanced Graduate Research Practicum  
Adviser: Jeffrey Dew  
- Wrote and edited manuscripts, reviewed literature, prepared data for analysis, analyzed data, developed statistical models

8/2014 – 6/2015  Graduate Research Assistant  
Adviser: Yoon Lee  
- Reviewed literature, analyzed data, edited manuscripts, corresponded with national collaborators, prepared presentations, assisted with preparation of undergraduate presentation materials

5/2012 – 12/2014  Graduate Research Assistant, Mentor  
Adviser: Elizabeth Fauth  
- Principal data analyst on longitudinal program evaluation study, developed survey instruments, created guide for undergraduate researchers, supervised project implementation, guided undergraduate research projects, produced research manuscripts, presented research at national academic conferences

8/2014 – 12/2014  Graduate Research Assistant  
Adviser: Kay Bradford  
- Reviewed literature, wrote and revised manuscripts, produced materials for professional presentations, presented research

1/2010 – 8/2010  Undergraduate Research Assistant  
Adviser: Jared Warren  
- Recruited participants for an evaluation of services study

Adviser: Gary Burlingame  
- Reviewed group cohesion literature, located studies for meta-analysis, coded methods and results sections to incorporate into meta-analysis

REFEREED PUBLICATIONS

In Preparation:


Under Review:


Published:


GRANT EXPERIENCE

Co-Principal Investigator on grant proposal entitled “Healthy Bodies, Healthy Marriages: A Health Education Intervention to Improve Marriages” (class project). Considered submission in April 2013 to T. Colin Campbell Foundation. $171,988 (not funded).
PROFESSIONAL PRESENTATIONS


TEACHING EXPERIENCE

Undergraduate Courses (Instructor of Record), Utah State University:

- **1/15 – 5/15**
  - Research Methods
    - (FCHD 3130; 31 students)
- **5/14 – 12/14**
  - Balancing Work and Family
    - (FCHD 1010 Online; 67 – 141 students)
- **8/12 – 5/14**
  - Human Development Across the Lifespan
    - (FCHD 1500; 20 – 146 students)

  IDEA course evaluation summary score improved from 56 to 61 (86th percentile; IDEA mean = 50, SD = 10); Excellent teacher rating: 4.7 out of 5 points.

Invited Guest Lectures, Utah State University

- **2013 – 2014**
  - Balancing Career and Family Choices: A Family Sciences Perspective.
  - Career and Life Planning (PSY 1220).
  - September 26, 2013
    - Middle and Late Childhood: Breakthroughs and Barriers. Human Development across the Lifespan (FCHD 1500).

November 28, 2012  Is Midlife Really a ‘Crisis’? Human Development across the Lifespan (FCHD 1500).


August 24, 2012 Making the Most of Your Graduate Experience. Graduate Student Orientation, Department of Family, Consumer, and Human Development.

Teaching Assistantships, Utah State University

5/12 – 8/12  Research Methods (FCHD 3130 Online). Adviser: Gina Cook
- Coached students through semester-long research assignment, developed example assignments, moderated and graded online student interactions and written assignments

8/11 – 12/11  Marriage and Family Relationships (FCHD 2400). Adviser: Jeff Dew
- Mentored students, graded written assignments, developed lecture materials

1/11 – 5/11  Human Development across the Lifespan (FCHD 1500). Adviser: DeAnn Jones
- Graded written assignments, functioned as liaison between instructor and students

1/11 – 5/11  Pre-Practicum Skills (FCHD 4900). Adviser: Jessica Olson
- Graded written assignments, moderated online component

8/10 – 5/12  Research Methods (FCHD 3130). 3 semesters. Adviser: Randall Jones
- Gave lectures, produced lecture material, guided students through semester-long research project, created sample assignments, graded assignments

PROFESSIONAL AFFILIATIONS

2013 – present  The National Council on Family Relations
SERVICE

2013 – present
Group Leader, Community men’s organization, Logan, Utah
Prepared and conducted weekly meetings, planned and implemented service projects for households in need, collaborated with other community leaders, organized group volunteer efforts.

2012 – 2013
Mentor of Undergraduate Students, Utah State University, Logan, Utah
Guided undergraduate students in carrying out the research process, tutored in use of statistical software, trained research assistants in lab procedures.

2012 – 2013
Organizer, River Hollow Neighborhood Alliance, Logan, Utah
Created program for first annual Canyon Road Festival, organized community service projects.

2012
County Delegate, Cache County Political Caucus, Logan, Utah
Counseled with community members at caucus meetings, interviewed political candidates on behalf of community.

2011
President, Institute Men’s Association, Logan, Utah
Planned and conducted weekly meetings, organized and implemented multiple community service projects, recruited volunteers.

2009
Collaborator, Project Youth, Provo, Utah
Led groups of at-risk elementary students during event to promote lifelong learning.

2008 – 2010
Peer Staff Advisor, BYU Chartered Student Housing, Provo, Utah
Mediated resident disputes, fostered positive community and learning environment, functioned as liaison between residents and managers.

2008
Program Director, BYU Student Honor Association, Provo, Utah
Organized program to promote ethical standards among university students.

2008
Member, International Voice for Youth, Provo, Utah
Implemented calling drive to educate the public about pressing community issues.

2006 – 2007
Vice President, Capstone Mentors, Tuscaloosa Alabama
Coordinated mentorship efforts for at-risk children, planned group activities, tutored children.

2003 – 2004
Zone Leader, Brazil Manaus Mission, Manaus, Brazil
Conducted weekly trainings of volunteers, organized local volunteer efforts, collaborated with local and distant leaders.
PROFESSIONAL DEVELOPMENT EXPERIENCES

1/2012 – present  
**Member, Graduate Instructor Forum**  
- Discuss teaching experiences, discuss philosophies, mentor each other in methods of improvement, collaborate in development of teaching effectiveness

2/2012  
**Participant, “Getting Started as a Successful Proposal Writer and Academician”**  
- Day-long graduate student training provided by Grant Writers’ Seminars & Workshops, LLC

ADDITIONAL PROFESSIONAL SKILLS

Languages Spoken Other than English

<table>
<thead>
<tr>
<th>Language</th>
<th>Fluency Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portuguese</td>
<td>Near native fluency (listening, speaking, reading, writing)</td>
</tr>
<tr>
<td>Spanish</td>
<td>High intermediate fluency (listening, speaking, reading, writing)</td>
</tr>
<tr>
<td>German</td>
<td>Low intermediate fluency (listening, speaking, reading, writing)</td>
</tr>
</tbody>
</table>

Statistical Software Proficiency

<table>
<thead>
<tr>
<th>Software</th>
<th>Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPSS</td>
<td>Extensive proficiency</td>
</tr>
<tr>
<td>Mplus</td>
<td>Moderate proficiency</td>
</tr>
<tr>
<td>SAS</td>
<td>Developing proficiency</td>
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</table>

Survey Software Proficiency

<table>
<thead>
<tr>
<th>Software</th>
<th>Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualtrics</td>
<td>Extensive proficiency</td>
</tr>
<tr>
<td>Google Forms</td>
<td>Extensive proficiency</td>
</tr>
</tbody>
</table>

Other Computer Software Proficiency

<table>
<thead>
<tr>
<th>Software</th>
<th>Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Windows</td>
<td>Extensive proficiency</td>
</tr>
<tr>
<td>Microsoft Office</td>
<td>Extensive proficiency</td>
</tr>
</tbody>
</table>

AWARDS AND HONORS

Utah State University

2014 – 2015  
T. Clair and Enid Johnson Brown Scholarship.

2014

Graduate Student Senate Enhancement Award. One of 20 scholarship recipients selected from among all graduate students at Utah State University; selected for excellence in research production, academic achievement, and community service; recommended by faculty.

2013 – 2014  
Phyllis R. Snow Graduate Scholarship.

2013 – 2014  
Dale and Adele Young Scholarship.

Brigham Young University

2008      Summer Academic Scholarship.
2007 – 2008  Brigham Young Scholarship.

The University of Alabama

2006 – 2007  University Honors Program.
2005 – 2006  President’s Cabinet Scholarship, full tuition plus stipend.
2005      Capstone Scholar.