An Examination of the Impact of Studying Abroad with AFS on Level of Differentiation

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The purpose of this study was to examine differences in the changes in levels of
differentiation, as measured by the Differentiation of Self Inventory (DSI) (Knauth & Skowron, 2004), that occurred among high school students who participated in a semester-long (n = 69) and year-long (n = 119) AFS (formerly known as American Field Service) program and a control group (n = 75) that did not study abroad. Gender of student and level of individualism of host country were also examined. The DSI full scale and four subscales: emotional reactivity, I position, emotional cutoff, and fusion with others were used to assess levels of differentiation. This study was a non-equivalent control group experimental pretest-posttest design. Pretest scores were used as the covariate in the posttest ANCOVA. Results revealed that female students who studied abroad for both one year and one semester experienced significant increases in levels of differentiation as measured by the DSI full scale versus female students who did not study abroad. There were no significant differences among males who studied abroad for one year, one semester or not at all. Additional results indicate a significant difference in changes in level of differentiation, as measured by the DSI full scale, between genders in the control group and the semester abroad group. Additional gender differences were revealed on the emotional reactivity and fusion with others subscales. Level of host country’s individualism was not a significant factor. Results support previous literature which states that males and females engage in differing processes when forming their identity. Results also demonstrate that studying abroad
is a meaningful life experience significant enough to assist females with increasing levels of differentiation. Additional results, a discussion of the results, limitations, and implications for practice and research are also provided.
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CHAPTER I

Introduction

Many students who study abroad state that it is the single most memorable and life-changing educational experience of their lives (Shank, 1960). Studying abroad facilitates personal growth and learning about both oneself and another culture in ways students say they will not forget (Kauffmann, Martin & Weaver, 1992; Laubscher, 1994). The experiences that one has while studying in a foreign country cannot be replicated by a year in one’s home country. Researchers have examined the impact of study abroad on students, and one of the earliest studies observed that most students who study abroad return with a changed self-image and a changed perception of one’s nationality (Mandelbaum, 1956). The major portion of current study abroad literature, however, examines adolescent development utilizing individualistic psychosocial theories. This author is unaware of any research examining the impact of study abroad on adolescents’ development from a systems theory perspective, specifically in terms of Bowen’s concept of differentiation. While differentiation is a concept that relates to adolescent development, increases in levels of differentiation have unique implications that set it apart from individual psychosocial theories. High levels of differentiation are tied to an increased ability to manage oneself in a way consistent with one’s values and beliefs even in stressful situations. Furthermore, individuals with high levels of differentiation are more capable of balancing individuality and connection with others, experience fulfilling relationships, and hold a more solid sense of self. While study abroad has been shown to be a memorable experience (Shank, 1960) that leads to a heightened understanding of oneself and others (Kauffmann, Martin & Weaver, 1992; Laubscher, 1994), it is uncertain whether a study abroad experience can lead to increases in levels of differentiation. This project was intended to fill the research gap.
Theoretically, the experience of studying abroad naturally facilitates the process of differentiation. Due to the nature of both basic and functional differentiation, as anxiety increases, functional differentiation decreases (Gratwick Baker, 1998; Kerr & Bowen, 1988; Titelman, 1998). In a close family system, this decrease in functional differentiation leads to borrowed functioning, a process in which individuals in a close relationship borrow from the other’s functional level as an attempt to alleviate anxiety or symptoms of anxiety (Gratwick Baker, 1998; Kerr & Bowen, 1988; Titelman, 1998). During an AFS year of studying abroad, an adolescent has the opportunity to evade, for a period of time, the borrowed functioning of one’s family of origin. This brief escape provides one the opportunity to develop new patterns of interacting with others. This, coupled with the many varying experiences involved with living in a foreign country, provides the AFS participant the chance to evaluate and challenge his or her beliefs, a vital component of defining self (Kerr & Bowen, 1988; McKnight, 1998). Previous literature demonstrates that a foreign exchange experience leads to heightened flexibility in terms of thought patterns, behaviors, and adaptability (Hansel & Grove, 1986; Stitsworth, 1988; Thomlison, 1991). Examining a study abroad experience from a Bowen perspective facilitated the measuring of such effects, and provided an appropriate theoretical foundation for explaining the way that those changes affect personal development and interpersonal relationships.

Statement of the Problem

Study abroad programs such as AFS became popular after World War II. The purpose was to promote tolerance and understanding between cultures which had previously been at war with each other. Currently many countries and cultures around the world have a declining view of the United States. Meanwhile the United States seems to give the impression that they are interested mainly in self-serving motives. While there is not currently a world war being fought,
tension among nations and cultures is increasing, and tolerance and understanding seem to be decreasing. This seems a most opportune time to embrace the concepts upon which study abroad programs built their foundations. Namely, programs placed students abroad to break down stereotypes by living temporarily in another culture to promote one’s own, and to learn about the values and beliefs of others. Learning about others’ values and beliefs and therefore questioning one’s own also assists students in increasing their worldview and understanding of themselves and others. In a time where adolescents in the United States seem to be less self-aware and increasingly self-absorbed, it is most appropriate to explore ways to help adolescents develop strategies to address the common developmental struggles they encounter and to acquire a heightened understanding of the way they relate to and are affected by those around them.

Theoretical Concerns

All individuals will experience symptoms of anxiety given stressful enough situations (Bowen, 1978; Kerr & Bowen, 1988; Titelman, 1998). Individuals less able to balance the tasks of differentiation are more susceptible to ongoing anxiety and further problem development (Kerr & Bowen, 1988; McGoldrick et al., 1989; Schnarch, 1997; Taffel & Masters, 1989; Walsh & Scheinkman, 1989). Those able to balance individuality with togetherness and balance emotional functioning with intellectual functioning are better able to handle stressful situations and therefore are better able to deal with increased levels of anxiety and are less likely to experience chronic problems (Bowen, 1978; Kerr & Bowen, 1988; McKnight, 1998; Papero, 1990; Titelman, 1998).

Until one is able to differentiate, one is likely to experience heightened and continuous levels of anxiety due to the interrelatedness of differentiation and connection with others. One adapts to the environment in which one grows and because many people are not exposed to
healthy relationships in childhood, if one is to differentiate one must learn to act differently as one matures (Bowen, 1978; Kerr & Bowen, 1988; Papero, 1990). Most families have dysfunctional strategies for handling stressful situations such as becoming emotionally fused or distant, triangulating another family member into the problem, or another family member may act out to distract from the problem at hand (Bowen, 1978; Kerr & Bowen, 1988; McKnight, 1998; Papero, 1990; Titelman, 1998). When one adapts to incorporate such strategies into one’s individual functioning, one is likely to experience persistent problems.

If one does not learn to relate to others in society and not to be overly reliant on or avoidant of them, then one will experience continual struggles. This study measured changes in levels of differentiation due to a study abroad experience. This investigation was groundbreaking in that it varied from traditional studies using individual psychosocial theories and instead applied Bowen theory to explain the development, which occurred as a result of a study abroad experience. Based on results from previous studies that demonstrate that a foreign exchange experience promotes increased flexibility in terms of thought patterns, behaviors, and adaptability (Hansel & Grove, 1986; Stitsworth, 1988; Thomlison, 1991), it was believed likely that a study abroad experience would affect levels of differentiation. However, due to fundamental differences in individual and relational theories, this hypothesis could not heretofore be tested.

Methodological Concerns

Beyond the limitation of utilizing primarily individualistic theories to explain developmental change, there are several additional concerns with the existing research. First, a major portion of the research was conducted before the end of the 1970s (Billigmeier & Forman, 1975; Bower, 1973; Churchhill, 1958; Garraty & Adams, 1959; Leonard, 1964; Mandelbaum,
This is problematic because aspects of the world change constantly. Many of the countries and programs that were examined with previous research in the 1960s and 1970s have changed considerably in terms of political make-up and social patterns. During these times for example, Germany was still a divided nation (Buckley, 2001) and the Czech Republic and Slovakia were still unified as Czechoslovakia (Goldman, 1999; Innes, 2001). The restructuring of these countries led to many political and social changes throughout Europe (Buckley, 2001; Goldman, 1999; Innes, 2001) that make it difficult to believe that a present study abroad experience would be comparable to one 30 years ago. Although these research findings provide an excellent base from which to work on future research, the findings are limited in terms of applicability today.

Randomization is another problem facing many research studies, and study abroad literature is not free from this concern. Multiple research studies used sampling methods other than randomization (Bower, 1973; Gurman, 1989; Herman, 1996; Hoeh & Spuck, 1975; Juhasz & Walker, 1998; Kauffmann, 1983; Lathrop, 1999; Pace, 1959; Stitsworth, 1988). Validity and generalizability are the major concerns when a researcher neglects to use a random sample (Howell, 2002).

Limited sample size is another concern of many study abroad research studies (Billigmeier & Forman, 1975; Bower, 1973; Gurman, 1989; Herman, 1996; Hoeh & Spuck, 1975). The problem that arises with small sample size is a decrease in the statistical power of the study (Murphy & Myors, 2003). When there are not enough participants included in the study, the power of the study decreases, making the results less reliable (Murphy & Myors, 2003). There are ways to increase the power of the study without increasing the number of participants. Such strategies involve increasing the effect size. This can be done by shrinking standard
deviations by using a homogeneous group or measures with high reliabilities, running an ANCOVA to reduce error variance, or increasing the alpha coefficient (Murphy & Myors, 2003). In the aforementioned studies, there is limited discussion of the implementation of such controls.

Another problem with the current body of literature is that several studies use a one-shot case study design as the primary means of collecting data (Billigmeier & Forman, 1975; Churchill, 1958; Garraty & Adams, 1959; Herman, 1996). There are multiple threats to internal validity with a one-shot case study design, because the design gives no consideration to issues of control (Monette, Sullivan, & DeJong, 1998). Therefore, in such studies it is difficult to assess the degree to which the independent variable is responsible for the change to the dependent variable (Lehman, 1991).

A similar concern facing the study abroad literature deals with control and comparison groups. Several of the more recent studies were not designed to include a control or comparison group (Billigmeier & Forman, 1975; Churchill, 1958; Garraty & Adams, 1959; Herman, 1996; Hoeh & Spuck, 1975; Pace, 1959). Although such groups are not necessary, the analysis is limited in terms of interpretation when no control or comparison group is used (Monette et al., 1998). Specifically, a researcher can more safely make the assumption that the observed outcome is due to the independent variable(s) when a control or comparison group is used, because the researcher is measuring the change from pretest to posttest for the experimental group, measuring changes for the comparison group, and measuring the differences between the two groups (Monette et al., 1998).

Many researchers have used self-developed measures as a primary means of collecting data (Hansel & Grove, 1986; Hensley & Sell, 1979; Juhasz & Walker, 1988; Kauffman, 1983; Nash, 1976). The problem with self-developed measures is that when proper testing is not carried
out to ensure acceptable reliability, the data yield results that are difficult to interpret accurately due to an over or underestimation of the coefficients (Pedhazur, 1982). Many of these studies, as well as others (Gurman, 1989; Stitsworth, 1988) fail to discuss the reliability and validity of the measure(s) used, whether self-developed or not.

The most common forms of data analysis in the study abroad literature are analysis of variance (ANOVA) (Gurman, 1989; Kauffmann, 1983), analysis of covariance (ANCOVA) (Lathrop, 1999; Stitsworth, 1988), multivariate analysis of variance (MANOVA) (Herman, 1996; Juhasz & Walker, 1988), and multivariate analysis of covariance (MANCOVA). These are acceptable forms of analyses; however, when comparing groups, one must show that groups begin as equal. Another concern that arises with control groups is the way the researcher chooses individuals for the control group. One way to do this, though not always possible, is to match a control group to the experimental group based on the theory driving the research study (Monette et al., 1998). Another sampling technique is random assignment, and when neither random assignment nor matching is possible, using strategies previously implemented in research is advised (Monette et al., 1998).

The most widespread and detrimental problem with the past research is that relatively few studies, despite examining personal or psychosocial development, operate out of a single particular developmental theory. For example, many researchers (Billigmeier & Forman, 1975; Churchill, 1958; Garray & Adams, 1959; Hensley & Sell, 1979; Hoeh & Spuck, 1975; Pace, 1959) have looked at changes in personality or personal growth and make general reference to sources such as Erikson (1963, 1982), Vygotsky (1978), Chickering (1969) and Chickering and Reisser (1993). However, only few research studies (Herman, 1996; Kauffmann, 1983; Lathrop; 1999, Pyle, 1981) outline a developmental theory such as Erikson’s (1963, 1982), Vygotsky’s
(1978), Chickering’s (1969), or Chickering and Reisser (1993) and present their findings in conjunction with that theory. Examining personal growth without regard to a theory can leave one’s research aimless and one’s findings baseless. Even if a valid and reliable measure is used, one has no theory to draw upon to assist with interpreting the results. This makes difficult the task of measuring improvement or marking change in a way that is meaningful to the study. The error embodied in the majority of the current study abroad literature is failing to state clearly the theoretical orientation out of which one is functioning and to have that theory drive each step of the research process.

In addition to the aforementioned concerns, results of past studies are inconclusive with regard to increases in self-esteem, interpersonal relationships, and flexibility of thoughts and behaviors due to studying abroad. Historically, researchers focused primarily on the theoretical models of Erikson (1963, 1982), Vygotsky (1978), Chickering (1969) and Chickering and Reisser (1993). This researcher believes that constructs such as interpersonal relationships, and flexibility of thoughts and behaviors are appropriately measured by Bowen’s concept of differentiation. Furthermore, this researcher believes that utilizing a systems theoretical model will shed light on results which have been indeterminate heretofore. Therefore, this study built upon current literature and addressed research gaps by using Bowen Theory (1978) to examine the effects of studying abroad on levels of differentiation. When designing and conducting the study, this researcher addressed the shortcomings of previous study abroad research by remaining theory-driven and mindful of the previously mentioned limitations.

Purpose of the Study

The purpose of this study was to examine the changes in levels of differentiation that occurred among high school students who participated in a semester-long and year-long AFS
program. This study also investigated the measurable developmental changes in terms of differentiation that occurred in high school students who did not study abroad. Additional independent variables that were examined in the analysis are gender of student and level of individualism of host country. Gender of student was examined to address concerns related to differences males and females experience while developing a sense of self (Apter, 1990; Chodorow, 1978; Knudson-Martin, 1994; Lyons, 1983; Tannen, 1990). Level of individualism of host country was examined as a fundamental aspect of differentiation involves balancing togetherness and connectedness with individuality and autonomy (Kerr & Bowen, 1988). Gender differences and the differentiation task of balancing connectedness with individuality will be further described in the literature review.

This researcher purposefully utilized Bowen theory, which underlies a family therapy model, to examine adolescents studying abroad, a non-clinical population. Bowen theory was used for non-clinical research because differentiation, the Bowen concept being measured, is based on one’s level of functioning. Differentiation is a concept that applies to clinical and non-clinical populations alike, and therefore provided insight about the growth adolescents make while studying abroad.

Research Questions and Hypotheses

The following research question guided this study. Do high school students participating in a semester-long and year-long AFS program experience increases in levels of differentiation over high school students who did not study abroad? The research hypothesis that guided this study was that individuals who study abroad increase their level of differentiation as measured by the Differentiation of Self Inventory (Knauth & Skowron, 2004). The following research questions and hypotheses guided the study:
1. Do students who study abroad increase in levels of differentiation?

   \textbf{H}_1: \text{There will be a statistically significant increase in levels of differentiation for the Semester-Long Group as measured by the Differentiation of Self Inventory (DSI).}

   \textbf{H}_2: \text{There will be a statistically significant increase in levels of differentiation for the Year-Long Group as measured by the Differentiation of Self Inventory (DSI).}

2. Do students who study abroad increase in levels of differentiation over students in the control group?

   \textbf{H}_1: \text{Students in the Semester-Long Group will experience a statistically significant increase in level of differentiation over students in the Control Group as measured by the Differentiation of Self Inventory (DSI) when initial differences are controlled.}

   \textbf{H}_2: \text{Students in the Year-Long Group will experience a statistically significant increase in level of differentiation over student in the Control Group as measured by the Differentiation of Self Inventory (DSI) when initial differences are controlled.}

3. Do different groups within students who study abroad exhibit varying rates of change in levels of differentiation?

   \textbf{H}_1: \text{There will be a statistically significant difference among genders in terms of differentiation as measured by the Differentiation of Self Inventory (DSI) when initial differences are controlled.}

   \textbf{H}_2: \text{There will be a statistically significant difference among travelers to host countries high on Hofstede’s individualism index and countries low on Hofstede’s individualism index in terms of differentiation as measured by the Differentiation of Self Inventory (DSI) when initial differences are controlled.}
Significance of the Study

This author’s research measured the change in differentiation that occurred due to a study abroad experience. Based on the changes noted in previous literature whose authors investigated psychosocial change (Herman, 1996; Lathrop, 1999; Nash, 1976; Stavig, 1966) and the tenets behind Bowen Theory (1978), this researcher believes that change can be measured using concepts from Bowen Theory. Bowen Theory is distinguished from individual psychosocial theories in that Bowen theory forms its concepts on relationship processes (Kerr & Bowen, 1988). While the effect of study abroad on adolescent development has been the focus of many research studies, few researchers have attempted to examine the effect from a specific theoretical perspective. Based on a Bowen Theory (Kerr & Bowen, 1988) perspective, it was hypothesized that the effects of a year abroad may directly affect the level of differentiation among the adolescent travelers who participates in an exchange program. Due to conceptual differences between Bowen theory and individual psychosocial theories, differentiation is difficult to chart when using measures derived from psychosocial theories that do not embrace relational processes. Therefore, this study is significant by addressing a gap in the current body of study abroad literature and adding to the current body of family therapy and study abroad literature.

Additionally, because this study focused on changes in levels of differentiation, and the documented benefits of increased levels of differentiation, this study provides an explanation for study abroad participants’ increased ability to cope with high levels of stress and anxiety. This study provides a basis for longitudinal, follow-up research examining long-term developmental benefits of a study abroad experience. Therefore, this study is important as it provides a foundation for multiple aspects of future research.
This study is also meaningful in that study abroad participants identified significant experiences that they felt were particularly valuable in learning about themselves and others. Information gleaned from participant responses may lead to a heightened understanding of ways individuals can increase their level of differentiation. As more is understood about practical ways to increase levels of differentiation, experts will be better able to develop structured activities to assist those wishing to experience the benefits of heightened levels of differentiation. As not all individuals are able to or wish to study abroad, these structured activities may benefit those beyond the study abroad community. As only a small percentage of students study abroad, many more will potentially benefit from structured activities that are linked to increases in differentiation, but do not require a study abroad experience.

Results may add to the current body of assimilation and acculturation literature. While in many respects studying abroad for a defined period of time is different than moving to a foreign country, some similar aspects are likely to exist. Results from this study may increase the current understanding of changes that result from experiences while living in a foreign country. Such information can be utilized by assimilation and acculturation experts to assist newly relocated individuals with developing strategies for making the initial transition from one’s home country.

Definition of Terms

**Study Abroad Organization**

**AFS.** AFS, previously known as American Field Service, is a foreign exchange organization which sends students to over 50 countries world-wide. AFS has been sending students abroad since 1947. The individuals making up the academic year group, and the semester group in this research project are students from the United States who studied abroad with AFS. A detailed history of AFS is provided in the literature review.
Groups Considered in the Study

Academic year group. The group termed academic year is comprised of students who studied abroad with AFS for one academic year beginning in the Summer of 2007.

Semester group. The semester group is comprised of students who studied abroad with AFS for one semester beginning in the Summer of 2007.

Control group. The control group is a comparison sample of students with no study abroad experience. Individuals in the control group were selected by friends who participated in an AFS exchange year or semester beginning in the Summer of 2007.

Adolescents

In this study the adolescents refers to individuals between the ages 15 and 18 years old.

Bowen Theory Terms

Bowen theory. Bowen Theory (1978) is relational in context and therefore differs fundamentally from individual psychology theories. Bowen Theory asserts that individuals are part of and connected to systems larger than the individual, and the way one relates to these systems directly impacts the functioning of the individual. Therefore, Bowen theory shifts away from reductionism, the view that the individual is the fundamental unit, and toward a more holistic view.

Systems. A system is composed of regularly interacting or interrelating groups of parts which, when taken together, form a new whole (Kerr & Bowen, 1988). The whole, for instance a family, has properties which cannot be found in the individual elements, or family members.

Differentiation. Differentiation is a primary concept of Bowen’s theory which involves balancing the connection to family members with one’s individuality and autonomy (Anonymous, 1967; Bowen, 1978, 1985; Kerr & Bowen, 1988; Titelman, 1998). Differentiation

**Basic differentiation.** One’s basic level of differentiation is largely determined by the level of emotional separation achieved from one’s family of origin, and does not change easily (Gratwick Baker, 1998; Kerr & Bowen, 1988). Along these lines, the more differentiated a person, the greater the ability to separate the feeling process from the intellectual process (Anonymous, 1967; Bowen, 1978, 1985; Kerr & Bowen, 1988; Schnarch, 1997; Titelman, 1998). Kerr and Bowen point out that the higher one’s basic level of differentiation, “the more consistently high the functional level, and the less the *discrepancy* in the functional levels” (1988, p. 99).

**Functional differentiation.** Functional differentiation can vary above or below one’s basic level of differentiation in response to relationships and life stressors, which makes determining one’s basic level of differentiation difficult. It is one’s functional level of differentiation which is observable (Gratwick Baker, 1998; Kerr & Bowen, 1988). When anxiety and stress is up, the functional level of differentiation typically drops below the basic level of differentiation. The opposite is also true, when anxiety and stress are low, the functional level elevates above the basic level of differentiation.
CHAPTER II

Literature Review

The effects of a study abroad experience have been examined many times over. For the purpose of this study, the researcher reviewed study abroad literature pertaining primarily to adolescent development. Additionally, this section includes an outline of the history of AFS, the foreign exchange program examined, as well as the basic tenets of Bowen Theory, the theoretical foundation of the study.

Past Study Abroad Research

Research on the topic of study abroad is vast and covers a wide range of topics. The literature reviewed for this study is limited to the impact of study abroad on various aspects of adolescent development. Within adolescent development, researchers have examined creativity, self-esteem, interpersonal relationships, flexibility of thought patterns and social behaviors.

Creativity

Gurman (1989) conducted a research study to observe changes in creativity as a result of a study abroad experience. Gurman administered the Torrance Tests of Creative Thinking to 24 graduate and undergraduate students before and after their summer abroad experience. Gurman also administered the measure to an equal number of students who made up the control group. Results indicate that the experimental group increased significantly in regard to creativity as compared with the group that did not travel abroad.

Self-esteem

Kauffmann (1983) undertook a study comparing changes in selected aspects of personality functioning between college students who studied abroad for a trimester and college students who did not study abroad. Her sample included 126 students who studied abroad and 81
students who did not. Results from the study indicate that those who study abroad for a trimester experienced increased levels of self-esteem and independence, as well as increased interest in the welfare of others when compared with students who do not study abroad. Kauffmann notes that participants most commonly attribute the change to the overall “bi-cultural mechanism” of the activities encompassed in a study abroad experience.

Juhasz and Walker (1988) undertook a similar study, and found what on the surface appear to be opposing results. Juhasz and Walker examined changes in self-esteem and self-efficacy in undergraduate individuals (n = 70) who studied abroad for one semester or one year compared with undergraduate students (n = 19) who did not study abroad. Juhasz and Walker (1988) administered a pretest and posttest to both groups. Results revealed that students who did not study abroad had higher levels of self-esteem and self-efficacy than those who studied abroad. Juhasz and Walker (1988) explain that such results highlight the growth and maturation process that individuals experience as a result of studying abroad. They contend that the results suggest studying abroad assists individuals with viewing themselves more objectively. Juhasz and Walker assert that the growth and maturation along with the increased ability to view themselves more objectively led study abroad participants to respond modestly on the posttest giving the impression that they had lower levels of self-esteem and self-efficacy. However, it is likely that the life experiences provided during a study abroad program increased participants’ understanding of their true levels of self-esteem and self-efficacy which were in contrast to their previous notions of self-esteem and self-efficacy on the pretest.

Interpersonal Relationships and Autonomy

Pyle (1981) examined the impact of short-term cross-cultural experience on personal development using the Student Developmental Task and Lifestyle Inventory (SDTI)(Winston,
Miller, & Prince, 1987). Pyle’s sample included 25 college students. Results revealed that students who went abroad for one month increased significantly over those who did not go abroad in terms of autonomy, achievement of mature life plans and overall development as measured by the SDTI.

Herman (1996) also conducted a study using the Student Developmental Task and Lifestyle Inventory (Winston, Miller, & Prince, 1987) to examine the impact of a study abroad experience on psychosocial development. In the study, Herman also examined the influence of cultural immersion and gender on psychosocial development during a study abroad year. Herman’s sample consisted of 54 participants, 35 from Ohio University and 19 from Antioch College. Results showed no statistically significant difference for the main tasks of the instrument by gender or levels of cultural immersion. Herman concluded that a short-term study abroad experience may not provide ample opportunity to impact developmental outcomes as measured by the Student Developmental Task and Lifestyle Inventory. Herman suggests the use of other instruments with future research.

Lathrop (1999) used a non-equivalent, control group design to examine the influence of a study abroad experience on students’ psychological development. Lathrop compared changes between a fully-integrated group (n = 16), a hybrid group (n = 24), and a control group (n = 30). In Lathrop’s study, fully-integrated signifies a traditional study abroad experience while hybrid signifies American students studying in a foreign country at an American educational institution. The Student Developmental Task and Lifestyle Assessment (Winston, Miller, & Prince, 1995) was utilized to capture desired data. Among the subscales being measured were Emotional Autonomy, Instrumental Autonomy, Interdependence, Peer Relationships, Cultural Participation, Tolerance, and Educational Involvement as well as others. Results did not reveal a significant
difference among groups in terms of Emotional Autonomy, Instrumental Autonomy, Interdependence, or Peer Relationships. Lathrop did find a significant difference among groups in terms of Tolerance, Educational Involvement, and Academic Autonomy and notes that the fully-integrated group appeared to experience the greatest overall increases in psychological development.

*Thought and Behavior Flexibility*

Bower (1973) conducted a study examining attitude change among 12 United States college students spending approximately four months at an American college center in Egypt. Results from the study indicate that the study abroad experience did not yield statistically significant increases with regard to openness, flexibility, or sensitivity to change.

Results from Stitsworth’s (1988) study examining changes in personality as a result of a short-term abroad experience to Japan contradict previous results that indicate no significant change occurs. This supports the notion that as a country changes politically and socially with time, so may the results of research examining the effects of a country’s culture on a foreign exchange student. Stitsworth’s sample included 154 teenagers who went abroad and 112 teenagers who remained in the United States. A pretest-posttest design was used to compare changes in personality as measured by the California Psychological Inventory between students who lived in Japan for one month and those who remained in the United States. Results demonstrated that students who went abroad experienced a significantly higher increase on the following aspects of personality change: Communality, Flexibility of a person’s thought patterns and social behaviors, and Achievement via Independence. Results further indicate a significant difference among participants depending on previous language experience. Those with one or two semesters of foreign language exposure experience less psychological change than those
with no prior language exposure. However, results show that students with exposure to three or more semesters of a foreign language experienced the greatest change.

Hansel and Grove (1986) conducted a study with high school students to examine the benefit of an intercultural experience. A self-developed questionnaire was administered to students going abroad as well as to students staying in their home country. The questionnaire was completed before departure and again upon return to the United States. Hansel and Grove examined Independence, Adaptability, Critical Thinking, Awareness and Appreciation of Home Country and Culture, Awareness and Appreciation of Host Country and Culture as well as other factors. Results indicate that students who studied abroad experienced statistically significantly increased gains over students who did not study abroad with regard to the aforementioned categories. Results indicate no significant difference between groups with regard to Communication with Others, High Standard for Personal Relationships, and Appreciation of Own Family. Hansel and Grove conclude that an intercultural experience facilitates adolescent growth and development that provides the necessary skills to assist with effectively handling situations encountered in adulthood.

Thomlison (1991) used a self-developed questionnaire to examine changes in student behaviors, attitudes, and cultural awareness due to studying abroad in England for one semester or year. Thomlison’s sample included 174 college students. Results indicate that students who studied in England experienced significant changes with regard to attitude, values, behaviors, and cultural appreciation.

Additional research projects revealed that a study abroad experience increases cultural awareness (Billigmeier & Forman, 1975; Pace, 1959), promotes a new perspective of self (Nash,
1976; Stavig, 1966), encourages changes in student attitudes with regard to conservatism (Leonard, 1964), and fosters student personal growth (Churchhill, 1958; Mandelbaum, 1956).

Despite the volume of previous research on the topic of developmental changes resulting from studying abroad, results are varied. One area of notable difference is length of time spent abroad. Varied results appear to indicate that the length of stay in the host country plays a role in the likelihood of change. This study examined time abroad by sampling students who studied abroad for one semester as well as for one academic year.

Additionally, results of past studies differ with regard to increases in self-esteem, interpersonal relationships, and flexibility of thoughts and behaviors due to studying abroad. While historically researchers focused primarily on the developmental models of Erikson (1963, 1982), Vygotsky (1978), Chickering (1969) and Chickering and Reisser (1993), research results were not explained or discussed within the context of the guiding theory. This researcher believed it beneficial to utilize the Bowen concept of differentiation to examine changes in adolescent development resulting from a study abroad experience. Differentiation (Bowen, 1978) encompasses many of the same constructs previously examined in the literature including connection with others, individuality and autonomy, as well as flexibility of thoughts and behaviors. Applying differentiation to the study abroad experience was a novel approach that provided further information and a different theoretical lens to view changes that adolescents experience as a result of studying abroad. Furthermore, the researcher used the guiding theory to explain research results.

History of AFS

AFS is a foreign exchange program that is based on providing individuals with “international and intercultural experiences” (Volunteer Leader’s Guide, 2001). AFS was
founded in 1915 but did not begin sending high school students abroad until 1947. Originally AFS stood for American Field Service Ambulance Corps and served as an aid in both the First and Second World Wars. After witnessing the devastation of both wars, Stephen Galatti, the Director General of the American Field Service Ambulance Corps during World War II, envisioned educating a new generation through intercultural experiences (Host Family Handbook, 2002). Thus began the foreign exchange component.

Initially, Galatti wanted to bring German high school students to live in American communities which had lost military members during World War II. After only a few years, the German returnees organized AFS volunteer groups in their homeland. This made it possible for these countries to host as well as send students. “Today, more than 10,000 students are exchanged every year from more than 50 different nations around the world” (Volunteer Leader’s Guide, 2003).

AFS-USA states, “the successful AFS experience is defined by mutual respect between your family and your AFS son or daughter” (Host Family Handbook, 2002). United States AFS strongly believes that families are the foremost carriers of culture, and therefore places students in homestays to live and learn with families. Although AFS organizes orientations for the exchange students periodically throughout the year, families are primarily responsible for assisting exchange students through their adjustment.

The AFS exchange program is a multi-dimensional experience. As in Bowen theory (1978), each person is affected by others’ actions and reactions. In this way, exchange students, their families of origin, host families, host schools, friends in both countries, and AFS volunteers are affected by the experience. As one grows and changes, so do one’s relationships (Bowen, 1978; Kerr & Bowen, 1988). An AFS year involves a great deal of growth and change, and
without proper skills to facilitate these changes, students and families may struggle to adapt adequately.

AFS recognizes that families are the major embodiment of culture, however, families are often only subtly aware of this and unable to adapt to the experience of hosting an exchange student. Although many families may have been able to work through their own differences in the past, adding an additional person to the family, let alone a stranger from another culture, drastically changes the dynamics. This is a transition unlike any other and therefore calls for growth, development, communication strategies and processing skills unlike ones used in the past.

**Bowen Theory**

Bowen family therapy is based on Bowen theory (1978) and is one of the fundamental approaches to family therapy (Goldenberg & Goldenberg, 1996). Murray Bowen developed family systems theory in an effort to leave traditional psychoanalytic approaches, which focused primarily on individual functioning, for an approach that would emphasize the relational dynamics of a family unit (Goldenberg & Goldenberg, 1996; Kerr & Bowen, 1988).

**Differentiation.** One of the main concepts fueling Bowen’s theory is the concept of differentiation. Kerr and Bowen (1988) state that every human enters the world an infant, totally dependent on others. As the infant grows older, he or she has the task of developing into an increasingly independent person. With this developmental task comes the challenge of differentiating. There are two levels of tasks to balance when striving to differentiate: an individual level and a relational level (Ault-Riche, 1986).

**Individual level.** On an individual level, one is faced with the task of balancing emotional functioning with intellectual functioning (Ault-Riche, 1986; Walsh & Scheinkman, 1989). Most
individuals are inclined to operate primarily out of one of the two functions (Apter, 1990; Chodorow, 1978; Knudson-Martin, 1994; Lyons, 1983; Tannen, 1990); however, differentiation occurs when one learns to balance intellectual and emotional functioning. Neither intellectual nor emotional functioning is superior to the other, but both are necessary for healthy functioning (Ault-Riche, 1986; Kerr & Bowen, 1988). The less able one is to balance intellectual functioning with emotional functioning, the more likely one is to experience prolonged periods of anxiety (Kerr & Bowen, 1988; Taffel & Masters, 1989; Walsh & Scheinkman).

Relational level. The second-level task is relational and involves balancing togetherness and connectedness with individuality and autonomy (Ault-Riche, 1986; Bowen, 1978; Kerr & Bowen, 1988; McGoldrick & Carter, 1999; Schnarch, 1997; Walsh & Scheinkman, 1989). The extremes of these two functions are emotional fusion and emotional cutoff. On this level, individuals must evaluate the way they relate with others; increased differentiation comes when one is able to connect with others in meaningful ways without losing oneself in the relationship. As with the individual level, most people have a preferred style of relating to others (Apter, 1990; Chodorow, 1978; Knudson-Martin, 1994; Lyons, 1983; Tannen, 1990); in regard to relationships, individuals tend to fall on either the cutoff or fused end of the spectrum. When one learns to function out of both sides of the spectrum, one will be less likely to lose oneself in a relationship or to find oneself without meaningful connections, and therefore will experience less anxiety (Schnarch, 1997). “In a well-differentiated family…people recognize their realistic dependence on one another but are able to be fairly autonomous in their emotional functioning” (Kerr & Bowen, 1988, p. 94).

basic level of differentiation is difficult to change, and is in large part effected by the level of emotional separation achieved from one’s family of origin (Gratwick Baker, 1998; Kerr & Bowen, 1988). Along these lines, the more differentiated a person, the greater the ability to separate the feeling process from the intellectual process (Anonymous, 1967; Bowen, 1978, 1985; Kerr & Bowen, 1988; Schnarch, 1997; Titelman, 1998). Functional differentiation can vary above or below one’s basic level of differentiation in response to relationships and life stressors, which makes determining one’s basic level of differentiation difficult. It is one’s functional level of differentiation which is observable (Gratwick Baker, 1998; Kerr & Bowen, 1988). When confronted with stressful situations, individuals with high basic differentiation easily adapt and think of resourceful solutions, whereas individuals with a low basic level can be seriously affected by periods of high anxiety. “When anxiety is low, people are less reactive and more thoughtful” (Kerr & Bowen, 1988, p. 99), giving the impression of a higher basic level of differentiation. Therefore, during times of low stress and anxiety, an individual with a low basic level of differentiation can function at a higher level of differentiation, giving the appearance of one with a higher basic level of differentiation. On the other hand, low levels of functional differentiation are observable when anxiety is high and individuals and systems begin deteriorating. Kerr and Bowen point out that the higher one’s basic level of differentiation, “the more consistently high the functional level, and the less the discrepancy in the functional levels” (1988, p. 99). Therefore, one with a higher basic level of differentiation experiences an increased capacity to repeatedly handle stressful situations.

_Individuation versus connectedness._ A Bowen theorist (Bowen, 1978) assumes that each person has the deeply-rooted desire to develop one’s individuality by differentiating from others. Bowen theorists also believe that one possesses the innate desire for connectedness or
togetherness (Bowen, 1978; Kerr & Bowen, 1988). Although this is a personal developmental task, due to the nature of systems, this process can be aided or hindered by familial relationships. Bowen believes that one’s level of differentiation is closely related to the level of differentiation of one’s parents, as well as to the characteristics of one’s relationships with family members (Anonymous, 1967; Bowen, 1978, 1985; Kerr & Bowen, 1988; Titelman, 1998). Therefore, if one’s parents have a low level of differentiation, it is likely that one will also have a low level of differentiation and will engage in many of the same interaction patterns as one’s parents. The higher the level of differentiation, the greater one’s ability to differentiate between thoughts and emotions, thus allowing the choice of being directed by one’s “head” or “gut.” This is an important skill when considering the struggle to separate from an enmeshed family or the attempt to connect with an emotionally cutoff family, because rather than being unaware of one’s actions, one is actively involved in the developing relationship with family members. Individuals with low levels of differentiation and who are enmeshed rely heavily on the opinions of others and thus do not manage well apart from enmeshed relationships (Anonymous, 1967; Bowen, 1978, 1985; Kerr & Bowen, 1988; Titelman, 1998). Therefore, the more differentiated one becomes, the less reliant one is on others, and the greater one’s ability to engage in emotional relationships without being over or under-involved.

Defining self. Kerr and Bowen (1988) state that complete differentiation exists when one resolves all emotional attachment to one’s family. Complete undifferentiation is exactly the opposite, and exists when one does not achieve any emotional separation from one’s family. Although these extremes are highly unlikely—if not impossible—to attain, they serve as theoretical guides for measuring one’s level of differentiation.
If motivated, it is possible to raise one’s basic level of differentiation. This is a difficult task that involves a gradual process of “acquiring new knowledge and experience” (Bowen, 1978, p. 473). The struggle to define self is sometimes considered a selfish act of avoiding others and therefore easily forsaken by individuals not truly invested in the process. Individuals who resign from the differentiating process are usually individuals with a low level of differentiation. Avoidance, however, undermines one’s attempts to differentiate. Schnarch (1997) explains that differentiating involves growing closer to others while growing more distinct rather than distant. The result of differentiating will be an individual who is more aware of his or herself in the midst of emotional relationships with others (Anonymous, 1967; Bowen, 1978, 1985; Kerr & Bowen, 1988; Schnarch, 1997; Titelman, 1998). This does not mean that becoming more differentiated causes one to care less about others, but rather that one’s actions are less dependent on those with whom he or she is in an emotional relationship.

Although many people wish to differentiate, or develop a more defined self, there is typically much resistance from others: spouse, parents, siblings and close friends (Bowen, 1978, 1985; Hanes Meyer, 1998; Kerr & Bowen, 1988). This resistance is attributed to the perceived change in the relationship (Anonymous, 1967; Bowen, 1978, 1985; Kerr & Bowen, 1988; Titelman, 1998). The loved ones combat the change with efforts to control in hopes of restoring the established ways of relating. If one is successful in continuing the pursuit of a higher level of differentiation despite the resistance, one will work not only to define oneself, but also to model effective differentiation for others. “Differentiation is a product of a way of thinking that translates into a way of being” (Kerr & Bowen, 1988, p. 108).

Benefits of differentiating. Raising one’s level of differentiation has many benefits, the first of which is the ability to develop intimate relationships. Schnarch (1997) writes “becoming
more differentiated is possibly the most loving thing you can do in your lifetime—for those you love as well as yourself” (p. 73). Kerr and Bowen write “the more differentiated a self, the more a person can be an individual while in emotional contact with the group” (1988, p. 94). Highly-differentiated individuals do not avoid or grow anxious about intimate relationships, but rather embrace such relationships, allowing individuals to have more meaningful connections.

Another benefit of a high level of differentiation is the ability to cope in times of high stress (Anonymous, 1967; Bowen, 1978, 1985; Hanes Meyer, 1998; Kerr & Bowen, 1988; Titelman, 1998). There are several reasons for this. One is that highly-differentiated individuals adapt easily to new situations and “require considerable stress to trigger symptoms” (Kerr & Bowen, 1988, p. 112). In addition, because one who is well-differentiated is less reactive, one handles stressful situations in a manner consistent with his or her beliefs. Maintaining one’s belief system in times of stress may be an indication that one is able to process the situation intellectually rather than reacting emotionally. An additional explanation is that “better differentiated people are more successful in maintaining a network of emotionally supportive relationships” (Kerr & Bowen, 1988, p. 118). For these reasons, highly-differentiated persons are likely to continually experience greater levels of satisfaction than those with lower levels of differentiation.

**Gender differences.** Feminists have voiced their concern that Bowen Theory (1978) undervalues the female developmental process (Ault-Riche, 1986; Knudson-Martin, 1994; Libow, 1986; Luepnitz, 1988; McGoldrick, Anderson, & Walsh, 1989; McGoldrick & Carter, 1999; Taffel & Masters, 1989; Walsh & Scheinkman, 1989). The process of identity development occurs differently for females than for males, in that females seek to understand themselves through relationships with others (Apter, 1990; Chodorow, 1978; Knudson-Martin,
Males, however, develop a sense of self by separating themselves from the primary caregiver (Chodorow, 1978; Knudson-Martin, 1994). Some, (Ault-Riche, 1986; Knudson-Martin, 1994; Luepnitz, 1988; Walsh & Scheinkman, 1989) believe that Bowen Theory, according to Kerr and Bowen (1988), postulates that differentiation comes when one functions autonomously and is not affected by others’ praise or criticism. Knudson-Martin (1994) points out that this definition leaves little room for meaningful connection with others, which is the way many females develop a sense of identity. According to this particular feminist argument, Kerr and Bowen (1988) do not take into account the female experience when describing the process of differentiation.

Others (Horne & Hicks, 2002) however, believe that Kerr and Bowen (1988) sufficiently incorporated aspects of female identity development in their definition of a well-differentiated individual. Horne and Hicks (2002) believe that the larger issue at hand has little to do with the definition of differentiation and more to do with critiquing Bowen Theory (1978) from a worldview other than evolutionary thought. Because evolutionary thought was behind the development of Bowen Theory (1978), critiquing it from another worldview is problematic because the two worldviews operate from varying contexts and fundamental assumptions (Horne & Hicks, 2002).

Several writers (Jagger, 1991; Pierce, 1991; Spelman, 1991) caution against making over-generalizations about the female developmental process, noting that the process is complex and different for everyone. Others mention that few studies have examined differences in gender norms by race, class, or culture (Davenport & Yurich, 1991; Knudson-Martin, 1994; Moody-Adams, 1991). A revised conception of differentiation, which seeks to capture the experience of female identity development may in itself be limiting by failing to recognize the individuality
involved in the developmental process and implying that females develop according to the newly defined process.

A well-differentiated individual balances and recognizes the importance of the differentiation tasks (McGoldrick et al., 1989; Schnarch, 1997; Taffel & Masters, 1989; Walsh & Scheinkman, 1989). Because individuals are different, each person will have a unique struggle in learning to balance the tasks of differentiation. While some may have difficulty learning to become different from others while staying in meaningful relationships, others might find it difficult to remain in meaningful relationships during the process of becoming a unique individual (Chodorow, 1978; Josselson, 1987). While there may be similarities in the process within genders, recognizing that differentiation is a process of learning to balance individual and relational tasks allows each person his/her own struggle to differentiate rather than assuming that all individuals begin the process at the same point and continue along the same path.

Given the varying views on gender differences within the process of differentiation, it was appropriate to include gender as a variable in the study. This researcher included gender as an independent variable and examined changes in levels of differentiation among genders resulting from a study abroad experience.

*How Study Abroad Produces Change*

In theory, a study abroad experience naturally aligns with the process of differentiation. Challenging one’s beliefs forces one to think differently about the belief and to consider for oneself whether the belief is something he or she wishes to continue valuing in the same way. This involves moving away from trusting others and moving towards trusting oneself. Results of past studies examining the impact of a study abroad experience conclude that individuals who study abroad undergo increases in autonomy and independence (Hansel & Grove, 1986; Pyle,
1981) Schnarch (1997) states that trusting others will not lead to change, but trusting oneself and acting upon that trust will provoke change. “The endpoint of differentiation is being willing and able to trust yourself” (Schnarch, 1997, p. 18). Coming to trust oneself does not discontinue trust in others; in fact, trusting others is necessary for the development of appropriate trust in oneself.

It would be naive to assume that every individual who studies abroad will make a differentiating move. Regarding the process of differentiating, Schnarch (1997) states that this process “can be excruciating at times” (p. 74). Initially, living in a foreign county with a strange family may in itself seem excruciating. While some may learn to adjust to the new environment, others may grow distressed and fail to adapt. Depending on one’s basic level of differentiation at the start of the experience an individual may not successfully navigate the study abroad experience. For some, the stress involved with learning to adapt to a new culture without the borrowed functioning of family members may prove too difficulty to withstand. However, others who begin the study abroad experience with a higher basic level of differentiation may be able to function for a transitional period of time with a lower functional level of differentiation without borrowing from others.

Making a differentiating move is a complicated task that often requires living away from one’s family of origin. Kerr and Bowen (1988) state:

Basic level is fairly well established by the time a child reaches adolescence and usually remains fixed for life, although unusual life experiences or structured effort to increase basic level at a point later in life can lead to some change in it. Clinical experience suggests that a person must be self-sustaining and living independently of his family of origin to be successful at modifying his basic level of differentiation in relationship to the family. (p. 98)
Given this, a year abroad seems a most appropriate opportunity to develop oneself in a manner perhaps not previously possible. One will experience distance from one’s family of origin with intentional self placement into a temporary situation of independence from one’s family culture and customs.

Studying abroad assists adolescents in differentiating by interrupting routine and introducing the opportunity for change. Daily life typically consists of routine, and routine usually does not require one to develop an awareness of one’s interactions with others. The nature of routine makes changing one’s level of differentiation after adolescence extremely difficult and unlikely (Bowen, 1978; Kerr & Bowen, 1988). Bowen (1978) stated that although it is difficult to raise one’s level of differentiation after adolescence, with intent and distance from one’s family of origin, it is possible.

A further means by which differentiating may occur through studying abroad is the exchange student’s chance to live with a host family. This provides the student a potential support system of people with whom the student can connect on an emotional level, allowing the student to build meaningful emotional relationships. Remaining emotionally connected with others, especially when in anxiety provoking situations is vital to a successful differentiation effort (Ault-Riche, 1986; McGoldrick & Carter, 1999; Walsh & Scheinkman, 1989). Living with a host family in a foreign country, with a different language and culture, presents the student with an assortment of difficult situations, which are opportunities to differentiate.

**Hofstede’s Individualism Index**

While on the surface it seems that the dynamics of interaction are similar worldwide and therefore this theory of change could be applied to multiple cultures, it is not always so. Multicultural research consistently demonstrates that attributions differ significantly among
cultures (Albert, 1983; Albert & Ha, 2004; Leong & Kim, 1991; Salzman, 1990). This researcher recognizes that Bowen's theory may not fit with all cultures and cautions against applying it to individuals and families from cultures that value an extremely different worldview. While many countries share similarities with the culture found in the United States, many more do not. Therefore, a researcher should recognize and expect that differentiation may be viewed as an undesirable process in many parts of the world. It should also be pointed out that other cultures do not function with the same emotionality versus rationality construct and collectivity versus individuality construct. An awareness of cultural differences assists with accounting for variance and anticipating differences among participants who study abroad in cultures similar to the United States compared with participants who study in countries with differing cultures. A researcher would be wise to familiarize him/herself with another culture before placing constraints on individuals or families from that culture.

Given that differentiation calls for a balance of togetherness and connectedness with individuality and autonomy, it seems natural to examine differences which may result, in part, due to one living in a society that values collectivism or one that values individualism. Hofstede (1980, 2001) theorized and researched various aspects of culture dynamics across countries and developed a model of five dimensions of national cultures. One of the five dimensions relates to individualism and collectivism. Hofstede (2001) draws upon Triandis’ notion that in order to avoid confusion, one should distinguish between individualism and collectivism on an individual level and a societal level. Triandis (1995) suggests using the terms “idiocentric” and “allocentric” for the individual level and “individualist” and “collectivist” for the societal level (p. 5). Hofstede notes that his model is intended for use on a national or societal level, rather than an individual level.
For purposes of this study, the researcher utilized Hofstede’s identification of countries as “low” and “high” on the individualism index. Hofstede (2001) uses the following descriptions to portray countries which are low on the individualism index: “Collectivity orientation, Emotional dependence of individual on institutions and organizations, Emphasis on belonging: membership ideal, ‘We’ consciousness, and Identity based in the social system” (p. 227). On the high end of the individualism index, Hofstede uses the following phrases to describe the culture: “Self-orientation, Emotional independence of individual from institutions or organizations, Emphasis on individual initiative and achievement: leadership ideal, ‘I’ consciousness, Identity is based in the individual” (p. 227). Hofstede’s (2001) research has yielded an individualism score for each country ranging from 0-100. Countries with a score lower than 50 are considered to have “low” individualism, whereas countries with a score above 50 are considered “high” on the individualism dimension. No countries involved in this study had a score of 50; all countries involved in this study had scores either above or below 50. Australia, with a score of 90, had the highest score on the individualism index, while Ecuador, with a score of eight, had the lowest.
CHAPTER III

Method

In following section, the author describes the sampling procedures, data gathering techniques, measures, and means of analysis that were utilized in this study.

Methodology

Experimental methods best address the quantitative research questions of this study. When addressing the purpose of experimental methods, Lyness and Sprenkle (1996) state “experimental research seeks to name and classify phenomena, verify hypotheses, and make deductions from data, and it strives to be objective” (p. 241). The ideal experimental design controls for variance and compares equal groups (Keppel, 1982; Kerlinger, 1986; Winer, Brown & Michels, 1991).

Participants

The target number of participants for this study was 226 American (United States) high school students studying abroad through AFS for one academic year, and 144 American (United States) high school students studying abroad for one semester through AFS. The target number of participants was derived from the equation: \( n = \frac{N}{1 + N(e)^2} \) (Yamane, 1967) with the researcher’s desire for a 95 percent confidence level, a five percent confidence interval (\( e = .05 \)), and an estimation that 550 American high school students will study abroad with AFS for one academic year, and 230 American high school students will study abroad with AFS for one semester during the academic year of the research study. The eligible age range is 15-18 for studying abroad with the AFS high school program. Students are not required to have any foreign language knowledge before departing for the host country.
According to Bowen theory (1978) individuals will befriend others with a similar level of 
differentiation. Therefore the control group consisted of friends without study abroad experience 
who were nominated by AFS participants. The target number for control group participants was 
226. The target number for the control group was derived from a power analysis (Cohen, 1988; 

Procedure

Throughout this study, the researcher worked closely with AFS to gather data. An AFS 
representative sent an invitation email (See Appendix B) with a link to the Differentiation of Self 
Inventory (DSI)(see Appendix A) to all students registered to study abroad with AFS in 2007. 
The invitation email requested participation, contained notification that completing the 
questionnaire signifies parental consent and participant assent, and provided notification that 
participation is voluntary. Mirroring other studies with exchange students (Herman, 1996; Juhasz 
& Walker, 1988; Lathrop, 1999; Thomlison, 1991), this study administered the posttest upon 
completion of the overseas experience. As with the pretest, AFS sent an email invitation (See 
Appendix C) with a link to the posttest questionnaire (DSI).

Upon completion of the online questionnaire, AFS students were asked to invite one 
friend who was not studying abroad to take the survey. Students invited friends by sending the 
survey link via email. An AFS representative tracked control group participation and sent a 
posttest email invitation (see Appendix D) directly to control group participants.

Measures

The goal of data collection is to gather information that will ultimately assist in making 
deductions about the research questions and hypotheses. A vital step in this process is choosing a 
measure which accurately reflects the phenomenon being studied and relates back to the
overarching theory guiding the study (Dickey, 1996). The measure must also demonstrate appropriate levels of reliability and validity (Dickey, 1996). This author used an existing self-report questionnaire, the Differentiation of Self Inventory (DSI), to address the research questions regarding differentiation. The DSI has demonstrated both construct validity and internal consistency reliability.

Bowen Theory (Bowen, 1978) provides an excellent framework for understanding an individual’s development within the context of a system, or family. What Bowen Theory (1978) does not offer is a measure to assess one’s development. Among the components of personal development, Skowron and Friedlander (1998) mention that differentiation of self “is the personality variable most critical to mature development and the attainment of psychological health” (p. 235). Although Bowen (1978) developed a scale to assist in determining an individual’s level of differentiation, Kerr and Bowen (1988) point out that the scale of differentiation is primarily theoretical and not designed as a scale to place individuals in an exact level of differentiation.

The Differentiation of Self Inventory. Skowron and Friedlander (1998) developed a scale, the Differentiation of Self Inventory (DSI), to make Bowen’s theory more measurable. The full scale is a 43-item self-report questionnaire that assesses one’s level of differentiation. It includes four subscales: emotional reactivity (“I am very sensitive to being hurt by others”), I position (“I usually do not change my behavior simply to please another person”), emotional cutoff (“I need to distance myself when people get too close to me”), and fusion with others (“I try to live up to my parents expectations”) (Skowron & Friedlander, 1998). The DSI is a 6-point Likert scale ranging from “not at all true of me” (1), to “very true of me” (6) (Skowron & Friedlander, 1998). The researchers designed these four components of the scale to capture the essential elements of
self differentiation. To ensure that the developed questions and subscales are consistent with Bowen Theory (1978), two experts of Bowen Theory (1978) reviewed the questions and the definitions of the subscales. Construct validity was established by correlating the DSI to scales that were predicted by Bowen Theory to relate to differentiation (Skowron & Friedlander, 1998). Skowron and Friedlander (1998) found a full scale reliability of (.88), and test-retest correlations of (.88) and (.89). Creating the DSI was a three-part study including the development and validation of the scale involving three research studies. These studies showed the DSI to be a valid measure with four distinct subscales (Skowron & Friedlander, 1998). Confirmatory factor analyses support the DSI's four-factor structure (Knauth, Skowron, Elizabeth, & Escobar, 2006; Skowron, Holmes, & Sabatelli, 2003).

Adding to the research, Knauth and Skowron (2004) conducted a study that examined the ability to use the DSI with adolescents 14 to 19 years old. The results indicate that the DSI full scale demonstrated good internal consistency reliability, with a Cronbach's alpha coefficient of (.84). The researchers then ran a factor analysis which yielded a six-factor structure, representing the multiple features of the DSI items among adolescents. This analysis yielded six factors (one’s own emotional reactivity, maintaining a clear identity, hypersensitivity to others, seeking emotional distance, emotional dependence on others, reactive distancing from close friend) that are encompassed within the original four DSI subcategories. Construct validity was obtained supporting the factor structure of the original DSI (Knauth & Skowron, 2004). The original four factor solution was not observed in the study, but due to the good internal consistency reliability of the DSI full scale, Knauth and Skowron (2004) endorse using the DSI full scale with adolescent populations. Knauth and Skowron (2004) point out that it was necessary to re-word some of the DSI items to gear the scale to an adolescent audience. Changing “spouse/partner” to
“closest friend” and “intimate relationship” to “really close relationships” are examples of such modifications to the DSI (Knauth & Skowron, 2004, p. 164). An adapted version of the DSI was utilized in this study; several items were systematically removed to increase the value of Cronbach’s alpha.

Analysis

Within a quantitative framework one can ask and statistically answer questions regarding the predictability of a dependent variable and the variance among group means (Shoemaker et al., 2004). This does not mean that one can prove truth, but rather that one can show the likelihood of something being true (Dickey, 1996). Quantitative methods allow the researcher to determine to which level results are statistically significant. Levels of significance are important because they assist in establishing standards for research across disciplines. Typically acceptable results are at the (.05) level of significance or below, which refers to the 95 percent confidence interval (Pedhazur, 1982). This means that the researcher is able to determine the accuracy of the results. Dickey (1996) states that the 95 percent confidence interval “indicates that if the same differences between and within groups were found 100 times, your assertion that your hypothesis is supported would be correct about 95 times out of that 100 trials for similar samples” (p. 201).

This study was a non-equivalent, control group, experimental, pretest-posttest design. The DSI, as revised by Knauth and Skowron (2004) for use with adolescents, was used to evaluate accurately the level of differentiation of self among adolescents. The pretest allowed the researcher to control for preexisting abilities.

The researcher entered the data into Statistical Package for the Social Sciences (SPSS) once results from the initial questionnaires arrived. Initial analyses included descriptive statistics (i.e., means and standard deviations) and analyses of variance (ANOVA) among groups in terms
of gender and host country’s level of individualism. The ANOVA served to establish a baseline for analyses of covariance (ANCOVA) as well as to demonstrate the initial differences among groups. After the researcher collected the posttests, he obtained descriptive statistics and studied the data by conducting ANCOVA, with the DSI posttest as the dependent variable, gender, host country’s level of individualism and length of program as independent variables, and the DSI pretest as a covariate. These analyses provided sufficient output to compare the mean changes in levels of differentiation of the three groups (two treatment groups and one control) and to examine changes among gender and host country. This also allowed the researcher to examine treatment effects between the length of time spent abroad and gender and host country’s level of individualism. The researcher controlled for alpha error by running ANCOVA through a General Linear Model. The computer program SPSS was capable of running ANOVA, ANCOVA, simple linear regression as well as multiple regression analyses. Additionally, the researcher utilized two qualitative questions to gather information to assist with the discussion of results. The two questions were: Do you feel that studying abroad with AFS was a significant life experience? and Please describe any situations you experienced while studying abroad with AFS that you feel were particularly valuable in learning about yourself and others.

**Assumptions**

ANOVA and ANCOVA adhere to correlational techniques. There are three main assumptions of correlational (Pearson $r$) research techniques, linearity, homoscedasticity, and normality (Nunnally & Bernstein, 1994; Pedhazur, 1982). The variables reflect bivariate normal distribution when all three assumptions are met (Snyder & Mangrum, 1996). Snyder and Mangrum (1996) point out that great levels of nonlinearity, heteroscedasticity, and skewness are typically required to “greatly effect the magnitude of $r$ or its interpretation” (p. 312). When clear
violations are observed, the researcher should use a different method of analysis. This researcher was unaware of any reason such methods of analysis should not be utilized in this study.

**Reliability**

Reliability relates to the ability to replicate the findings of a research study (Howell, 2002). Snyder and Mangrum (1996) refer to sample size and “fishing expeditions” as factors that relate directly to issues of reliability. When sample sizes are not large enough, or when groups are unequally weighted, results are unstable and therefore unreliable (Snyder & Mangrum, 1996). To control for issues with the sample size, this researcher kept in mind the subject-to-variable ratio, and increased the sample size as the number of variables increased. This researcher also addressed the issues of “fishing expeditions” by clearly specifying the independent, dependent, and control variables prior to data analysis. Additionally, this researcher avoided this pitfall by clearly identifying the analyses that were used and outlined possible conclusions before examining the data. Cross-validation is another technique researchers use to reduce “the likelihood of attributing meaningfulness to chance findings” (Snyder & Mangrum, 1996, p. 332). This researcher addressed these concerns by using a large sample and by examining variables predicted by theory and shown by previous research to be significant, and by clearly detailing the analyses and hypotheses before beginning the study.

**Validity**

Four main forms of design validity exist: statistical conclusion, construct, internal, and external. Design validity is distinct from measurement validity, and is concerned with the validity of the conclusions one may draw from the research findings (Howell, 2002). Howell, (2002) points out that statistical conclusion validity includes Type I and Type II errors and power of the statistical test. Construct validity deals with how much the measured variable is related to
the presumed construct (Lehman, 1991). Internal validity examines the extent to which the independent variable is responsible for the significant differences observed for the dependent variable. Lehman (1991) points out that researchers should be mindful of and control for the following threats to internal validity: history, testing, maturation, instrumentation, regression towards the mean, mortality, diffusion, compensatory rivalry, and resentful demoralization. External validity refers to the generalizability of the research findings to other populations. Researchers control for threats to external validity by monitoring treatment attributes, treatment settings, multiple treatment interference, and pre- and posttest sensitization (Lehman, 1991). This researcher controlled for validity by using a measure, the DSI, which has demonstrated construct validity (Knauth & Skowron, 2004), was mindful of threats to internal validity and used the 95 percent confidence interval (Pedhazur, 1982) as a statistical level of significance to avoid Type I and Type II errors.

Ethical Considerations

AFS assisted with the dissemination of questionnaires which presented an ethical concern. Due to the relationship with AFS, there could have been pressure to report results that favor a study abroad experience, and AFS in particular. Additionally, this researcher hoped, for both personal and professional reasons, that the results would reveal that a study abroad experience is beneficial to the differentiation process. This research is of professional interest because it is for a dissertation, and the researcher has personal interest in the study abroad experience because he once participated in an AFS program. Therefore, the researcher took the following measures to assure proper validity and reliability.

First, the researcher openly addressed the bias throughout the project. This served to keep the researcher, the participants, and the readers mindful of such biases. Additionally, the
researcher developed this study based upon a close examination of previous study abroad literature and well-established Bowen Theory (1978), which provided a strong theoretical framework from which to operate. Basing the current research study on Bowen Theory (1978) also provided a lens through which results were interpreted. To further assist in controlling for the researcher’s biases, the researcher only used measures that are statistically deemed valid and reliable. Valid and reliable measures make faulty interpretations more difficult. Finally, the researcher identified the research questions and the statistical analyses prior to gathering data. The research questions were based on previous literature and Bowen Theory (1978), and the analyses were determined by the measurement.
CHAPTER IV

Results

In this chapter, the results of the study are presented and discussed. This chapter includes descriptive statistics, analyses of variance (ANOVA), and analyses of covariance (ANCOVA), and results of the analyses for each of the research hypotheses. Results were obtained by conducting ANCOVA, with the DSI posttest as the dependent variable, gender, country of study and length of program as independent variables, and the DSI pretest as a covariate. Treatment effects between the length of time spent abroad and gender and host country’s level of individualism are also discussed.

Pretest

Descriptive Statistics

Descriptive statistics on the pretest data revealed that 105 males and 330 females participated in the study and that 186 individuals elected not to complete the question pertaining to gender. It was also revealed that 127 students were participating in the semester abroad program, 305 in the full year, and 168 were not studying abroad. Students indicated that they would be studying abroad in one of 38 different countries. These countries were categorized according to Hofstede’s (1980, 2001) cultural research which determines a country’s level of individualism. For the purposes of this study, countries were determined to be either “high individualism,” a score above 50 on Hofstede’s individualism index (19 countries), or “low individualism,” a score below 50 on Hofstede’s individualism index (19 countries). Pretest and posttest group means for the DSI and the four subscales can be found in Table 1.
Table 1

*Cell means for length of study abroad experience, gender of participant, and host country by Hofstede’s individualism index, on the full scale DSI, emotional reactivity subscale, I position subscale, emotional cutoff subscale, and fusion with others subscale.*

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<thead>
<tr>
<th>Source</th>
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<th>EC</th>
<th>FO</th>
</tr>
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<tr>
<td></td>
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<td>Post</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
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<tr>
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Table 1 (continued).

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<th>EC</th>
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<td>Pre</td>
<td>Post</td>
<td>Pre</td>
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<td>Total</td>
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</table>

Note. ER = emotional reactivity subscale; IP = I position subscale; EC = emotional cutoff subscale; FO = fusion with others subscale; Low = countries low on Hofstede’s individualism index; High = countries high on Hofstede’s individualism index.

Inter-item Correlation

Preliminary analysis also included inter-item correlations for the four subscales on the Differentiation of Self Inventory (DSI) as determined by Knauth and Skowron (2004). The DSI subscales include: emotional reactivity, I position, emotional cutoff, and fusion with others. Inter-item correlations were measured using Cronbach’s alpha coefficient. Cronbach’s alpha measures how well a set of items measures a single unidimensional latent construct (Nunnally & Bernstein, 1994). Inter-item correlation analysis revealed the following Cronbach’s alpha: emotional reactivity (.78), I position (.73), emotional cutoff (.79), fusion with others (.66). Cronbach’s alpha was also calculated for the DSI full scale. Inter-item correlation analysis revealed a Cronbach’s alpha (.85) for the DSI full scale. To increase the value of Cronbach’s
alpha, one item was omitted from the emotional reactivity and the I position subscales, two items were omitted from the emotional cutoff subscale, and three items were omitted from the fusion with others subscale. Items were also omitted from the full scale to increase Cronbach’s alpha.

**Analysis of Variance**

One analysis of variance (ANOVA) was completed for the DSI full scale, and one for each subscale, the dependent variables in the study. One ANOVA was run for each dependent variable to control for alpha error. The analysis was computed with the DSI full scale, and the four DSI subscale scores as the dependent variables and with length of study abroad experience, gender of student, and level of individualism of host country as fixed factors. Table 2 includes degrees of freedom and significance levels for each variable on the full scale DSI and the four subscales.

**Full scale DSI.** With regard to the pretest full scale DSI, there was no significant interaction effect between the variables length of study abroad experience and gender of student $F(1,406) = .081, p>.05$; length of study abroad experience and level of host country’s individualism $F(1,406) = .211, p>.05$; gender of student and level of host country’s individualism $F(1,406) = .854, p>.05$; or length of study abroad experience and gender of student and level of host country’s individualism $F(1,406) = .792, p>.05$.

As there were no significant interaction effects between variables, there is no need for an analysis of simple effects. An interpretation of the three main effects revealed length of study abroad experience was not significant as indicated by $F(1,406) = .081, p>.05$, which indicates that there was no statistically significant difference between students studying abroad for one academic semester, one academic year, and those not studying abroad in regard to the full scale DSI.
The main effect of gender was significant as indicated by $F(1,406) = 13.02, p<.05$, which indicates that there was a statistically significant difference between males and females in regards to the full scale DSI.

The main effect of level of host country’s individualism was not significant as indicated by $F(1,406) = 2.13, p>.05$, which indicates that there was no statistically significant difference between students studying in countries with high individualism and students studying in countries with low levels of individualism with regard to the full scale DSI.

*Emotional reactivity.* With regard to the pretest emotional reactivity subscale, there was no significant interaction effect between the variables length of study abroad experience and gender of student $F(1,406) = .694, p>.05$; length of study abroad experience and level of host country’s individualism $F(1,406) = .033, p>.05$; gender of student and level of host country’s individualism $F(1,406) = .018, p>.05$; or length of study abroad experience and gender of student and level of host country’s individualism $F(1,406) = .674, p>.05$.

As there were no significant interaction effects between variables, there was no need for an analysis of simple effects. An interpretation of the three main effects revealed length of study abroad experience was not significant as indicated by $F(1,406) = .067, p>.05$, which indicates that there was no statistically significant difference between students studying abroad for one academic semester, one academic year, and those not studying abroad in regards to emotional reactivity.

The main effect of gender was significant as indicated by $F(1,406) = 16.90, p<.05$, which indicates that there was a statistically significant difference between males and females in regard to emotional reactivity.
The main effect of level of host country’s individualism was not significant as indicated by $F(1,406) = .973, p>.05$, which indicates that there was no statistically significant difference between students studying in countries with high individualism and students studying in countries with low levels of individualism with regard to emotional reactivity.

*I position*. With regard to the pretest I position subscale, there was no significant interaction effect between the variables length of study abroad experience and gender of student $F(1,406) = .533, p>.05$; length of study abroad experience and level of host country’s individualism $F(1,406) = .023, p>.05$; gender of student and level of host country’s individualism $F(1,406) = .486, p>.05$; or length of study abroad experience and gender of student and level of host country’s individualism $F(1,406) = .079, p>.05$.

Again, there were no significant interaction effects between variables, so there was no need for an analysis of simple effects. An interpretation of the three main effects revealed length of study abroad experience was not significant as indicated by $F(1,406) = 2.18, p>.05$, which indicates that there was no statistically significant difference between students studying abroad for one academic semester, one academic year, and those not studying abroad in regard to I position.

The main effect of gender was significant as indicated by $F(1,406) = 5.28, p<.05$, which indicates that there was a statistically significant difference between males and females in regard to I position.

The main effect of level of host country’s individualism was not significant as indicated by $F(1,406) = 2.65, p>.05$, which indicates that there was no statistically significant difference between students studying in countries with high individualism and students studying in countries with low levels of individualism with regard to I position.
*Emotional cutoff.* With regard to the pretest emotional cutoff subscale, there was no significant interaction effect between the variables length of study abroad experience and gender of student $F(1,406) = .340, p>.05$; length of study abroad experience and level of host country’s individualism $F(1,406) = .833, p>.05$; gender of student and level of host country’s individualism $F(1,406) = 1.46, p>.05$; or length of study abroad experience and gender of student and level of host country’s individualism $F(1,406) = 1.08, p>.05$.

Once more there was no need to analyze simple effects as there were no significant interaction effects between variables. An interpretation of the main effect revealed length of study abroad experience was not significant as indicated by $F(1,406) = 1.02, p>.05$, which indicates that there was no statistically significant difference between students studying abroad for one academic semester, one academic year, and those not studying abroad in regard to emotional cutoff.

The main effect of gender was not significant as indicated by $F(1,406) = .705, p>.05$, which indicates that there was no statistically significant difference between males and females in regard to emotional cutoff.

The main effect of level of host country’s individualism was not significant as indicated by $F(1,406) = .299, p>.05$, which indicates that there was no statistically significant difference between students studying in countries with high individualism and students studying in countries with low levels of individualism in regard to emotional cutoff.

*Fusion with others.* With regard to the pretest fusion with others subscale, there was no significant interaction effect between the variables length of study abroad experience and gender of student $F(1,405) = .287, p>.05$; length of study abroad experience and level of host country’s individualism $F(1,405) = .000, p>.05$; gender of student and level of host country’s
individualism $F(1,405) = 1.28, p>.05$; or length of study abroad experience and gender of student and level of host country’s individualism $F(1,405) = .037, p>.05$.

An interpretation of the three main effects revealed length of study abroad experience was not significant as indicated by $F(1,405) = 2.34, p>.05$, which indicates that there was no statistically significant difference between students studying abroad for one academic semester, one academic year, and those not studying abroad in regard to fusion with others.

The main effect of gender was significant as indicated by $F(1,405) = 17.47, p<.05$, which indicates that there was a statistically significant difference between males and females in regard to fusion with others.

The main effect of level of host country’s individualism was not significant as indicated by $F(1,405) = 1.15, p>.05$, which indicates that there was no statistically significant difference between students studying in countries with high individualism and students studying in countries with low levels of individualism with regard to fusion with others.

Table 2

*Analysis of Variance for Full Scale DSI and Four Subscales*

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<td>Host country by Hofstede’s ind. (H)</td>
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<td>L X H</td>
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<td>G X H</td>
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<td>.26</td>
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<tr>
<td>L X G X H</td>
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</table>

*Note. *$p$ < .05. **$p$ < .01.*
Posttest

Descriptive Statistics

Descriptive statistics on the posttest data revealed that 51 males and 212 females participated in both parts of the study. All individuals indicated their gender on the posttest survey. It was also revealed that of these students, 69 students participated in the semester abroad program, 119 in the full year, and 75 were not studying abroad. Of the students studying abroad, 65 students studied in a country determined to be low on Hofstede’s individualism index, and 123 studied in a country determined to be high on Hofstede’s individualism index. See Table 3 for degrees of freedom and significance values for each variable on the posttest full scale DSI and subscales.

Analysis of Covariance

One analysis of covariance (ANCOVA) was completed for the DSI full scale, and one for each subscale, the dependent variables in the study. As with ANOVA, one ANCOVA was run for each dependent variable to control for alpha error. The analysis was computed with the DSI full scale posttest, and the four DSI subscale posttest scores as the dependent variables and with length of study abroad experience, gender of student, and level of individualism of host country as fixed factors and the DSI full scale and subscale pretest scores as covariates.

Full scale DSI. The DSI full scale pretest was a significant covariant as demonstrated by \( F(1,252) = 170.1, p<.01 \). With regard to the posttest full scale DSI, there was a significant interaction effect between the variables length of study abroad experience and gender of student when controlling for initial differences \( F(1,252) = 3.92, p<.05 \). There was no significant interaction effect between the variables length of study abroad experience and level of host country’s individualism \( F(1,252) = .021, p>.05 \); gender of student and level of host country’s
individualism $F(1,252) = 2.18, p>.05$; or length of study abroad experience and gender of student and level of host country’s individualism $F(1,252) = 2.43, p>.05$.

An analysis of simple effects was necessary given the interaction effect between the variables length of study abroad experience and gender. An analysis of simple effects revealed that there was no statistically significant difference between male and female academic year abroad participants in terms of increases in levels of differentiation as measured by the DSI full scale. The analysis did however show that male participants in the semester group ($M = 4.56, SD = .532$) increased significantly in terms of levels of differentiation as measured by the DSI full scale over female participants in a semester abroad group ($M = 4.06, SD = .546$), $F(1,67) = 7.34, p<.01$. The analysis of simple effects further showed a statistically significant increase for male students in the control group ($M = 4.14, SD = .486$) over female students in the control group ($M = 3.85, SD = .477$) $F(1,72) = 3.97, p = .05$ with regard to levels of differentiation as measured by the DSI full scale.

Furthermore, the analysis of simple effects revealed that female students experience differing levels of differentiation depending on whether they study abroad for one year, one semester, or not at all. To further assess this statistically significant difference, Tukey’s post hoc analysis was run. The post hoc analysis demonstrated that female students who studied abroad for an academic year ($M = 4.15, SD = .472$) and female students who studied abroad for one semester ($M = 4.06, SD = .546$) experienced statistically significant increases in levels of differentiation as measured by the DSI full scale over female students who did not study abroad ($M = 3.85, SD = .477$) $F(2,212) = 7.12, p<.01$. The post hoc analysis did not reveal statistically significant differences between female students studying abroad for one semester or one year in terms of increases in levels of differentiation. The analysis of simple effects did not reveal
statistically significant differences in terms of increases in differentiation among male participants studying abroad for one year, one semester and those not studying abroad.

As there were no significant interaction effects between the other variables, there was no need for an analysis of simple effects. An interpretation of the main effects revealed length of study abroad experience was not significant as indicated by $F(1,252) = 1.99, p>.05$, which indicates that when preexisting conditions are accounted for, there was no statistically significant difference between students who studied abroad for one academic semester, one academic year, and those who did not study abroad in regard to the full scale DSI.

The main effect of gender was not significant as indicated by $F(1,252) = 1.42, p>.05$, which indicates that there was no statistically significant difference between males and females in regard to the full scale DSI when accounting for preexisting conditions.

The main effect of level of host country’s individualism was not significant as indicated by $F(1,251) = .598, p>.05$, which indicates that there was no statistically significant difference between students who studied in countries with high individualism and students who studied in countries with low levels of individualism with regard to the full scale DSI when the DSI pretest is used to account for preexisting conditions.

*Emotional reactivity.* The emotional reactivity pretest was a significant covariant as demonstrated by $F(1,252) = 222.8, p<.01$. With regard to the emotional reactivity subscale, there was no significant interaction effect between the variables length of study abroad experience and gender of student when controlling for initial differences. $F(1,252) = 2.04, p>.05$; length of study abroad experience and level of host country’s individualism $F(1,252) = 1.27, p>.05$; gender of student and level of host country’s individualism $F(1,252) = .764, p>.05$; or
length of study abroad experience and gender of student and level of host country’s individualism $F(1,252) = 3.23, \ p > .05$.

As there were no significant interaction effects between variables, there was no need for an analysis of simple effects. An interpretation of the main effects revealed length of study abroad experience was not significant as indicated by $F(1,252) = 2.98, \ p > .05$, which indicates that when preexisting conditions are accounted for, there was no statistically significant difference between students who studied abroad for one academic semester, one academic year, and those who did not study abroad in regard to emotional reactivity.

The main effect of gender was significant as indicated by $F(1,252) = 2.98, \ p < .01$, which indicates that there was a statistically significant difference between males and females in regards to emotional reactivity when accounting for preexisting conditions. Specifically, this indicates that the change in mean score for males ($M = 4.05$) was statistically significantly higher than the change in mean score for females ($M = 3.73$) on the emotional reactivity subscale.

The main effect of level of host country’s individualism was not significant as indicated by $F(1,252) = .038, \ p > .05$, which indicates that there was no statistically significant difference between students who studied in countries with high individualism and students who studied in countries with low levels of individualism with regard to emotional reactivity when accounting for preexisting conditions.

_I position._ The I position pretest was a significant covariant as demonstrated by $F(1,252) = 120.3, \ p < .01$. With regard to the I position subscale, there was no significant interaction effect between the variables length of study abroad experience and gender of student when controlling for initial differences. $F(1,252) = 3.19, \ p > .05$; length of study abroad experience and level of host country’s individualism $F(1,252) = .011, \ p > .05$; gender of student and level of host
country’s individualism $F(1,252) = .809, p>.05$; or length of study abroad experience and gender of student and level of host country’s individualism $F(1,252) = .874, p>.05$.

As there were no significant interaction effects between variables, there was no need for an analysis of simple effects. An interpretation of the main effects revealed length of study abroad experience was not significant as indicated by $F(1,252) = .654, p>.05$, which indicates that when preexisting conditions are accounted for, there was no statistically significant difference between students who studied abroad for one academic semester, one academic year, and those who did not study abroad in regard to I position.

The main effect of gender was not significant as indicated by $F(1,252) = .349, p>.05$, which indicates that there was no statistically significant difference between males and females in regard to I position when accounting for preexisting conditions.

The main effect of level of host country’s individualism was not significant as indicated by $F(1,251) = .258, p>.05$, which indicates that there was no statistically significant difference between students who studied in countries with high individualism and students who studied in countries with low levels of individualism with regard to I position when accounting for preexisting conditions.

*Emotional cutoff.* The I position pretest was a significant covariant as demonstrated by $F(1,252) = 155.3, p<.01$. With regard to the emotional cutoff subscale, there was no significant interaction effect between the variables length of study abroad experience and gender of student when controlling for initial differences. $F(1,252) = 2.62, p>.05$; length of study abroad experience and level of host country’s individualism $F(1,252) = .325, p>.05$; gender of student and level of host country’s individualism $F(1,252) = .683, p>.05$; or length of study abroad
experience and gender of student and level of host country’s individualism \( F(1,252) = 1.41, p > .05 \).

As there were no significant interaction effects between variables, there was no need for an analysis of simple effects. An interpretation of the main effects revealed length of study abroad experience was not significant as indicated by \( F(1,252) = .389, p > .05 \), which indicates that when preexisting conditions are accounted for, there was no statistically significant difference between students who studied abroad for one academic semester, one academic year, and those who did not study abroad in regard to emotional cutoff.

The main effect of gender was not significant as indicated by \( F(1,252) = .433, p > .05 \), which indicates that there was no statistically significant difference between males and females in regards to emotional cutoff when accounting for preexisting conditions.

The main effect of level of host country’s individualism was not significant as indicated by \( F(1,251) = .321, p > .05 \), which indicates that there was no statistically significant difference between students who studied in countries with high individualism and students who studied in countries with low levels of individualism with regard to emotional cutoff when accounting for preexisting conditions.

\textit{Fusion with others}. The fusion with others pretest was a significant covariant as demonstrated by \( F(1,250) = 93.5, p < .01 \). With regard to the fusion with others subscale, there was no significant interaction effect between the variables length of study abroad experience and gender of student when controlling for initial differences. \( F(1,250) = .321, p > .05 \); length of study abroad experience and level of host country’s individualism \( F(1,250) = .175, p > .05 \); gender of student and level of host country’s individualism \( F(1,250) = .822, p > .05 \); or length of study
abroad experience and gender of student and level of host country’s individualism $F(1,250) = 1.87, p>.05$.

As there were no significant interaction effects between variables, there was no need for an analysis of simple effects. An interpretation of the main effects revealed length of study abroad experience was not significant as indicated by $F(1,250) = .012, p>.05$, which indicates that when preexisting conditions are accounted for, there was no statistically significant difference between students who studied abroad for one academic semester, one academic year, and those who did not study abroad in regard to fusion with others.

The main effect of gender was significant as indicated by $F(1,250) = 4.49, p<.05$, which indicates that there was a statistically significant difference between males and females in regards to fusion with others when accounting for preexisting conditions. Specifically, this indicates that the change in mean score for males ($M = 3.52$) was statistically significantly higher than the change in mean score for females ($M = 3.20$) on the fusion with others subscale.

The main effect of level of host country’s individualism was not significant as indicated by $F(1,250) = 1.22, p>.05$, which indicates that there was no statistically significant difference between students who studied in countries with high individualism and students who studied in countries with low levels of individualism with regard to fusion with others when accounting for preexisting conditions.
### Table 3

**Analysis of Covariance for Full Scale DSI and Four Subscales using Pretest as the Covariate**

<table>
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<th>Measure and variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
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<tbody>
<tr>
<td><strong>DSI—Full Scale</strong></td>
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<tr>
<td>DSI full scale pretest</td>
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<td>.00</td>
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<td>.44</td>
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<td>.88</td>
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<td>.09</td>
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<td>.01</td>
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<td><strong>DSI—Emotional Cutoff</strong></td>
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<td>G X H</td>
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Table 3 (continued).

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<td>Fusion with others pretest</td>
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<td>.92</td>
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<td>.04</td>
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</table>

*Note. *p < .05. **p < .01.
CHAPTER V

Discussion

The results of this study support, in part, the hypothesis that a study abroad experience leads to a statistically significant increase in level of differentiation as measured by the DSI full scale, and the four DSI subscales. Specifically, the results of this study indicate that female students who study abroad for either one semester or one academic year experienced increased levels of differentiation over female students who did not study abroad. Results do not support the hypothesis that students who study in host countries which have been identified as individualist will differ significantly with regard to increases in level of differentiation from students who study in host countries which have been identified as collectivist. The results of this study do support the hypothesis that students will experience statistically significant differences by gender with regard to increases in differentiation on the full scale DSI if they studied abroad for one semester or were in the control group. Results further support the hypothesis that students will experience statistically significant differences by gender with regard to increases in differentiation on the emotional reactivity subscale and the fusion with others subscale. This study however did not provide support for the hypothesis that gender differences will exist on a statistically significant level on the emotional cutoff subscale, the I position subscale, or the DSI full scale for students in the academic year group.

Length of Study Abroad Experience

Results indicate that there is a statistically significant difference in terms of differentiation between groups of females who either studied abroad for one year or one semester, and females who did not study abroad. Namely, female students who studied abroad experienced significantly higher levels of differentiation than did females who did not study
abroad. It is noteworthy that male students who studied abroad did not experience this same increase in differentiation over the male control group. This speaks to the differences in the ways that males and females undertake the process of differentiating. Scholars examining gender differences in identity development assert that identity development may be more complex for females than it is for males (Archer, 1989, 1994; Gilligan, 1979). Keep in mind that on the emotional reactivity subscale and the fusion with others subscale, males experienced a significant increase in levels of differentiation over females. At the same time, males in the control group appear to differentiate at a similar level to those studying abroad for one year and one semester. Given this, it seems that there is something intrinsic in a study abroad experience that facilitates differentiation for females.

Researchers examining gender differences with identity development have noted that girls are often steered toward domestic activities while boys are encouraged to seek activities outside the home (Fagot, Rodgers, & Leinbach, 2000; Ruble, Martin, & Berenbaum, 2006). Additionally, parents often place tighter restrictions on adolescent females than on adolescent males. Santrock (2007) notes that parents often allow male children a later curfew and less supervision than they allow female children. Therefore, it is likely that a study abroad experience is one of the first opportunities females have to experience a heightened sense of independence and self reliance. One female student states, “I had to make things happen for myself and I learned the most about myself in my year than I ever had before.” Another female student indicated that it was particularly valuable to learn “that I am capable on my own.” Another female student sums it up with her comment, “I learned about myself more in these 6 months than I have throughout my 17 years of life.” All of these factors help explain what a study abroad
experience provides for adolescent females and how this contributes to an increase in level of differentiation in females who studied abroad.

Sociolinguist Tannen (1990) agrees with feminist scholars (Apter, 1990; Chodorow, 1978; Gilligan, 1979; Knudson-Martin, 1994; Lyons, 1983) and asserts that females are relationally oriented, and they often discover more about themselves through relationships with others. It is likely that a study abroad experience assists female students in forming relationships in a way that a year in one’s home country does not. Specifically, during a study abroad experience females receive independence from their family of origin and experience more freedom while continuing to seeking connection with others. Researchers have established that an environment that encourages both individuality and connectedness is advantageous to the development of adolescent identity (Grotevant & Cooper, 1985, 1998). One student described the freedom she felt to define herself while studying abroad. She noted a sense of freedom in standing for “my opinions without anyone really there to judge me based on past experiences.” Females who studied abroad seem to have experienced heightened independence while at the same time continuing to seek connection with others. Another female student indicated that she learned a great deal about her “capabilities to learn and change” by adapting to life with a host family. Another female student commented on the freedom from family patterns she experienced while living abroad, “Just basically the fact that I didn't have my biological mother controlling my every move, making decisions on my own and realizing that I am actually capable of making good choices independently.” Therefore, it is likely that females who study abroad demonstrate significant increases in levels of differentiation while males do not, because males do not experience drastic differences in levels of freedom and they approach
relationships similarly at home and abroad, whereas females experience a greater discrepancy between freedom at home and freedom abroad.

Another possibility lies with males’ desire for connection. Since it has been established that both individuality and connection with others are necessary for the ideal development of adolescent identity (Grotevant & Cooper, 1985, 1998), and it appears that males have similar levels of individuality at home and abroad, it is reasonable to conclude that a change in connection is necessary for males to experience increases in levels of differentiation during a study abroad experience. While females lacked freedom to individuate in their home country, males lacked a significant change in their style of relating to others while abroad. Once females were provided increased independence, through a study abroad experience, they increased their levels of differentiation. Conversely, males did not experience a significant change in levels of connectedness and therefore did not increase their levels of differentiation.

There are several trends worthy of noting despite the fact that not all changes in levels of differentiation were deemed statistically significant. Mean changes among groups in this study support previous study abroad literature which indicates that those who study abroad experience increases on the measured variable (Gurman; 1989; Hansel & Grove, 1986; Kauffmann, 1983; Pyle, 1981; Thomlison, 1991). Specifically, results from this study indicate that the semester abroad group experienced the greatest mean change on the DSI full scale, the emotional reactivity subscale, the I position subscale, and emotional cutoff subscale. This suggests that those who studied abroad for one semester benefit more in terms of increasing levels differentiation than do those who study abroad for one academic year and those who do not study abroad.
As Juhasz and Walker (1998) noted in their study, it is also possible that students who study abroad for an academic year develop a more objective view of themselves and their relationships with others. If this is the case, it is likely to have an effect on the academic year participants’ DSI scores. One student who studied abroad for the academic year indicated that she learned not only about herself, but she also learned how to view situations more objectively. Students such as this one may have responded differently on the posttest because they came to view themselves and the reality of their interactions with others more objectively. As in the study conducted by Juhasz and Walker (1998), objective responses can appear negative when in fact they demonstrate a heightened understanding of oneself and one’s relationships.

Additionally, non-significant results indicate that the semester abroad group and the academic year group both experienced increases in differentiation on the emotional cutoff subscale while the control group experienced decreases in differentiation. Increases on the emotional cutoff subscale indicate an ability to maintain connection with others and overcome concerns related to togetherness (Skowron & Friedlander, 1998). Therefore, it is likely that students who study abroad will experience an increased capacity to remain connected with peers and family members in moments of heightened stress and anxiety, while those in the control group are likely to distance themselves from others during stressful situations.

Female study abroad participants demonstrated a significant increase in level of differentiation as measured by the DSI full scale; however, male study abroad participants did not. Differentiating is a difficult task (Bowen, 1978). Results from this study suggest that a study abroad experience is not what Kerr & Bowen (1988) refer to as an “unusual life experience” considerable enough, at least for male participants, to create significant change in one’s basic level of differentiation (p. 98). However, adolescent females who study abroad for a semester or
for a year are likely to experience greater connections in their relationships with others, and have a greater ability to balance individuality and connectedness than females who do not participate in a study abroad experience. This demonstrates that a study abroad experience is an “unusual life experience” capable of creating a shift in one’s level of differentiation for females.

While the results of this study do not support the hypothesis that a study abroad experience increases level of differentiation for male participants over male students in the control group, Kerr and Bowen point out that one’s level of differentiation is “well established” by adolescence and “usually remains fixed for life” (p. 98, 1988). Kerr and Bowen also state their belief that to be successful in increasing one’s level of differentiation one must be self-sufficient and live autonomously from one’s family of origin. While a study abroad experience provides a physical home away from home, it is likely that male study abroad participants did not experience a heightened sense of self sufficiency or emotional autonomy from their family of origin. This supports gender theorists’ notion that males are commonly awarded freedoms earlier than females (Santrock, 2007) and therefore the independence within a study abroad experience is less of a radical change from life in their country of origin.

Research indicates that a study abroad experience may be a significant life experience (Billigmeier & Forman, 1975; Herman, 1996; Lathrop, 1999; Nash, 1976; Pace, 1959; Pfnister, 1972, Stavig, 1966). Study abroad participants’ responses to the qualitative questions in this study suggest the same. Of the students who studied abroad and completed the posttest, 99.8 percent indicated that studying abroad with AFS was a significant life experience. Only one out of 188 students who studied abroad and completed the posttest indicated that studying abroad was not a significant life experience. Given the lack of statistical difference in male participants, this study indicates that not all significant life experiences lead to a change in one’s level of
differentiation. It also suggests that an unusual life experience considerable enough to produce an increase in level of differentiation differs for males and females. Such results provide meaningful data about how difficult it is to make a differentiating move, as well as raise questions related to the types of experiences significant enough to assist both males and females with differentiating.

Furthermore, it is possible that there is a fundamental difference between students who would choose to participate in a study abroad experience and students who would prefer to stay in their home country. While this researcher controlled for initial differences in terms of levels of differentiation, this does not assess differences playing into one’s decision to study abroad.

**Gender Differences**

The results of this study revealed several significant gender differences with regard to increasing levels of differentiation. The gender differences that were revealed indicate that male students experienced significant increases in certain aspects of differentiation that females did not. Specifically, results indicate that the male participants increased their levels of differentiation on a statistically significant level with regard to emotional reactivity and fusion with others. Additionally, results indicate that in the control group and the semester abroad group, males experienced significant increases in differentiation over females on the full scale DSI. Nonetheless, not all aspects of differentiation that were examined showed a statistically significant difference in gender, which supports previous study abroad research examining gender differences in adolescent development (Herman, 1996).

The emotional reactivity subscale assesses one’s pattern of responding to situations with reactive emotional responses (Skowron & Friedlander, 1998). The higher one scores on the emotional reactivity subscale, the more likely one is to respond to situations with greater thoughtful intent behind one’s actions, and less emotional reactivity. Responses from male
participants indicate a significant increase from the pretest to the posttest in their ability to make purposeful decisions and to respond to others with less emotional reactivity. While responses from female participants did indicate an overall increase in mean score on the emotional reactivity subscale, the increase was not statistically significant. One explanation for such results, which is supported by gender scholars, is that males have more difficulty than do females recognizing and identifying their emotions, and therefore male participants had a greater potential for change (Ruble, Martin, & Berenbaum, 2006). Furthermore, these results support gender scholars’ assertion that males have more difficulty regulating their emotions than females (Eisenberg, Spinrad, & Smith, 2004). Consequently, a study abroad experience is beneficial to male students’ development of an increased ability to regulate emotions.

The fusion with others subscale measures emotional enmeshment with others, particularly one’s parents (Skowron & Friedlander, 1998). The higher one scores on the fusion with others subscale, the greater one’s ability to avoid triangles and to maintain a sense of self while in relationship with others. Scores on the fusion with others posttest indicate that males perceived themselves as becoming more differentiated than did females. Interestingly, not only did both males and females experience a statistically significant difference with regard to changes in level of fusion with others, but males consistently indicated a lesser degree of fusion while some female groups indicated an increased degree of fusion with others. Specifically, responses from female semester group students studying in countries with low individualism and female academic year students studying in countries with high individualism indicate an increase in levels of fusion with others. These results, namely males distancing themselves from others and females striving for connection with others, are consistent with gender research (Archer, 1989; Gilligan, 1997; Tannen, 1999).
To more fully understand the meaning of such results, it is helpful to consider the feminist critique of Bowen Theory (1978) and differentiation. Many scholars (Archer, 1989; Apter, 1990; Chodorow, 1978; Gilligan, 1979; Knudson-Martin, 1994; Lyons, 1983; Tannen, 1990) point out that males and females engage in differing processes when forming their identity. Specifically, scholars postulate that while males strive to establish themselves by separating from others, females often engage in close relationships to seek increased self-understanding (Archer, 1989; Gilligan, 1979; Tannen, 1990). Results from this study demonstrate that while females in the semester group, academic year group, and control group report higher degrees of “fusion with others” on the posttest than they reported on the pretest, none of these groups experienced a decrease in levels of differentiation on the full scale DSI. In fact, many female students described a heightened confidence in themselves by overcoming the initial difficulties of living in a foreign country and forming relationships with others. One female student stated “creating new relationships…was intimidating at the beginning, however, after overcoming my challenge I have gained confidence that will lead me through a life of rewardment [sic] and happiness.” Another female student stated:

The first moment I understood a joke in the language of my host country was by far my most significant moment abroad. It showed a deeper, fuller understanding of the italian language, and I [sic] allowed me to connect on a whole new level with the native speake [sic].

On the other hand, a male participant stated his approach to addressing initial difficulties “featured a lot of turning inward, and silence. This allowed me to restart, in a way, on my sense of self.” Such comments support the feminist critique that males and females may approach differentiating in distinct ways. While males were turning inward for a fuller understanding of self, females were joining and connecting with others.
This also calls attention to results which indicate that increased levels of fusion with others did not interfere with females’ ability to increase overall levels of differentiation, while decreased levels of fusion with others did not lead to significant increases in levels of differentiation for males. This supports Kerr and Bowen’s (1988) notion that individuality and togetherness are at opposite ends of a relational continuum which are both important to the development of increased differentiation. While males were becoming less fused, it is possible that they were also losing meaningful connectedness with others and moving beyond the midpoint of the continuum to the individuality end. On the other hand, females maintained connection with others while continuing to develop a sense of self, bringing individuality and togetherness into greater balance. It is also likely that the fusion with others subscale is a more accurate measure of connectedness than fusion. Johnson, Thorngren, and Smith (2001) point out that the fusion with others subscale is unclear about the distinction between healthy levels of connection and unhealthy levels of fusion.

Overwhelmingly, both male and female study abroad participants reported developing a greater sense of independence because of their experience living abroad. When describing the significance of studying abroad, one female student said, “The whole experience, being away from everything I ever knew. It made me learn a new language, meet new friends, and become a more independent and mature person.” A male student commented, “I really learned to be truly independent and got to learn about and submerge myself in another culture.” A female student noted, “I learned how to live more independently without my parents there.” Yet another student stated, “Staying in another country for such a long time at such a young age made me become a very independent yet open person.” Another female student added, “the most important thing is you learn to be independent and to cope within a completely new environment.” A male student
said that studying abroad, “made me more independent.” While these are not all the students’ comments related to increased perceptions of independence, they capture the essence of additional comments. Such responses support the notion that a study abroad experience increases the level of independence for participants. It also demonstrates that while males and females both perceive an increase in levels of independence while studying abroad, this increase in independence does not seem to be a factor in raising male participants’ levels of differentiation the way it is a factor for females. At the same time, such comments shed light on the discrepancy between perceived self changes and measured changes in levels of differentiation.

**Host Country’s Level of Individualism**

The absence of statistically significant differences among students who studied in countries with high levels of individualism and countries with low levels of individualism lends itself to interpretation. It seems logical that students studying abroad in countries with high levels of individualism might experience increases on the I position subscale, while students studying abroad in countries determined to be high in levels of collectivism may experience decreases on the fusion with others subscale. However, this is not the case. One possible reason lies in what scholars (Hofstede, 2001; Triandis, 1995) refer to as a fundamental difference between individualism on an individual level and on a cultural level. While host students may reside for several months in a country that has been determined to be high in terms of individualism, host families may have values that differ from the cultural norm. Therefore, it is difficult to filter the possible differing effects of a host family and a host culture on one’s level of differentiation.

Another plausible rational for the lack of statistically significant differences among students who studied in individualist countries and collectivist countries relates to the grouping of countries as high or low on the individualism index. While some grouping of countries was
statistically necessary, many countries were moderately collectivist or moderately individualist. For instance, Spain has an individualism score of 51 and Argentina has an individualism score of 46. However, because Spain’s score is above 50, and Argentina’s score is below 50, Spain was in the same grouping as Australia, which has an individualism score of 90, and Argentina was in the same grouping as Ecuador which has a score of eight. This led to a lack of polarization, which likely played a role in the non-significant results.

Another possible reason for this is that many students sought friendships with other AFS students which could have led to a lack of engagement with the culture of the host country. Both male and female students reported that a significant experience during their study abroad involved the “AFS camps” where students gathered to learn the foreign language and “planned AFS activities.” A male student commented that it was significant to “connect well with other AFS students.” Another male participant commented, “meeting my best friend who lives very near to me in the States” was an important experience. It is understandable that study abroad participants would identify with other foreign exchange students more than students from the host country. However, this is likely to be a contributing factor to the reason country of study is a non-significant factor for study abroad participants in raising their level of differentiation.

An additional interpretation is that the results of this study confirm theorists’ notions that increasing one’s level of differentiation is extremely difficult (Bowen, 1978; Hanes Meyer, 1998; Kerr & Bowen, 1988; Schnarch, 1997). Results from this study suggest that living in a culture different from one’s own where values and beliefs are questioned, may not, in itself, be enough to significantly increase an adolescent’s level of differentiation. One female student indicated having her “values judged” was a significant part of her study abroad experience. Another participant noted, “While living in a host family with a value system and a power structure vastly
different from that of my natural family, I began to realize what a large part my family's values and the balance of power between my parents play in my life.” While having one’s values judged and learning to formulate one’s own beliefs is beneficial to the development of individuality, there is no statistical connection between increasing one’s level of differentiation and developing these skills in a country that values individualism versus one that values collectivism. This speaks to the purpose and intent necessary to make differentiating moves.

Limitations

There are several noteworthy limitations in the study. As with many longitudinal studies, a large number of participants dropped out between the pretest and posttest. While there were no statistically significant differences, as measured by the DSI, among the students who dropped out of the study and the students who completed the pretest and the posttest, dropout nonetheless led to a smaller sample size. For a more detailed description and analysis of attrition in this study, see Appendix E.

A further limitation of the study related to longitudinal research is maturation. In this study, not only does time elapse, but the sample is comprised of adolescent males and females who are engaged in the developmental process of becoming mature adults. Therefore, it is likely that adolescents’ ongoing task of becoming adults is playing into the results captured in this study.

Additionally, the sampling utilized convenience sampling from one foreign exchange program. While the study consisted of three groups, one of which was a control group, there was not a comparison of study abroad programs. These sampling methods limit the generalizability of the findings to other foreign exchange programs.
Another limitation of the study is sample size. While the total number of participants who completed both the pretest and the posttest is \( n = 263 \), there was a disproportionate difference among genders. Specifically, the study was comprised of fewer male participants \( n = 51 \) than female participants \( n = 212 \). Additionally, the control group The uneven sample size may have contributed to the significance or lack of significance of the results of this study.

Furthermore, this study was quantitative in nature, and therefore lacks the depth of participant responses inherent in qualitative research. While this researcher did include two qualitative questions to assist with interpretation of results, it is clear that students had a great deal to say about their experience. It is likely that a mixed method, or qualitative research study would further add to the current body of literature as well as to the understanding of the process of differentiation while studying abroad.

Moreover, this researcher desired a diverse sample of participants. However, the researcher purposefully excluded common categorizations of diversity such as race, ethnicity, and socio-economic status, with the goal of avoiding statistical difficulties related to small sample size. Future research could include these factors in the study to further the current understanding in the field.

Another limitation of this study relates to the difficulty in assessing the motivation that leads individuals to study abroad. It is likely that there is a fundamental difference between adolescent students who choose to study abroad and those who do not. While this researcher accounted for differences in levels of differentiation, he did not account for motivational differences leading some students to choose a study abroad experience and others to choose to remain in their home country. Future researchers could examine this concept of motivation in their studies to assist with understanding some of the more fundamental differences in choosing...
to go abroad versus choosing to remain home, and how this decision plays into the development one experiences during that year.

Additionally, there are limitations related to the measure utilized in this study. In this study, the fusion with others subscale had a low Cronbach’s alpha coefficient (.66). Furthermore, while females who studied abroad experienced more fusion with others, their overall DSI score increased. Other researchers (Jenkins, Buboltz, Schwartz, & Johnson; 2005; Johnson, Thorngren, & Smith; 2001) have also noted difficulties with the fusion with others subscale. Given the low Cronbach’s alpha coefficient, and that females who experience an overall increase in level of differentiation in this study also experience more “fusion with others” it is likely that the scale is measuring connectedness, a healthy level of connection, rather than fusion, a problematic level connectedness. Given the increasing number of concerns with the fusion with others subscale, it has been revised (Skowron & Schmitt, 2003). This author is unaware of research assessing applicability of the revised fusion with others subscale with adolescents. Therefore, further research determining applicability of the use of the revised subscale with adolescents seems indicated.

Another concern related to measures deals with the dichotomous grouping of countries as either high on Hofstede’s individualism index or low on Hofstede’s individualism index. Utilizing Hofstede’s individualism index scores assisted in providing a theoretical and empirical basis for grouping countries for statistical purposes. However, creating two categories based on the individualism index score of countries as either above or below 50 seems to negate commonalities of countries in the 40 to 60 point midrange.
Implications for Practice and Future Research

Bowen (1978) suggests that differentiating is a difficult task. Results from this study suggest that a study abroad experience is an event significant enough to assist female participants in raising their levels of differentiation. Additionally, results indicate that while male students who study abroad experience increases in levels of differentiation, these increases are not significantly greater than the increases experienced by male peers who remain in the United States. Therefore, it is clear that gender differences exist with regard to the process of differentiating.

It is likely that females experience increases in levels of differentiation while studying abroad because they experience a heightened amount of freedom and individuality while abroad that they do not typically experience in the United States. On the other hand, it is likely that males did not experience these same increases in levels of differentiation while studying abroad because they do not experience radical differences in levels of freedom while living abroad compared with the freedoms they have in the United States. Additionally, as males experience decreases in level of fusion with others, it is likely that they continue seeking relationships in a similar fashion while living abroad. As a result, a study abroad experience does not provide males a drastic contrast to life in the United States the way it does for females. Marriage and family therapists are urged to acknowledge these gender differences and incorporate them into their work with clients and future research.

The field of marriage and family therapy can further benefit from this study by encouraging adolescent females to continue seeking meaningful connections with others, without concern that this will interfere with the development of individuality. Additionally, marriage and family therapists are encouraged to begin drawing more clear distinctions between fusion with
others and appropriate levels of connectedness. Furthermore, marriage and family therapists can call for appropriate ways for females to experience a heightened sense of autonomy within the family of origin as this seems to be a contributing factor in the development of differentiation. Moreover, marriage and family therapists can encourage families to consider age appropriate levels freedoms given to both male and female children.

Study abroad organizations can use this information to help understand some of the differences in a study abroad experience for male and female participants. Specifically, male participants from the United States may not perceive an increase in level of autonomy and freedom compared to with their experience in the United States. Assuming that adolescents are striving to have more independence, it may be beneficial to structure activities to heighten participants understanding of autonomy and the freedom they will be experiencing during the study abroad program. Additionally, it may be helpful to build into the study abroad program activities that promote a healthy level of autonomy for males.

Additionally, as connection is an important piece of differentiating, it may be beneficial for study abroad organizations to examine the ways study abroad participants are connecting with the host family and others in the host country. It is likely that students who are continuing to remain overly connected to friends and family in their home country are having difficulty connecting to those around them in their host country. Staying connected despite vast distances is easier than ever in today’s world. With social networking sites, instant messaging programs, and email, students could spend several months abroad without actively engaging the culture in which they are living. It seems appropriate for study abroad organizations to examine their participants’ usage of social networking programs and correlations to difficulty engaging appropriately in the foreign culture.
Studying abroad in an individualist country versus a collectivist country does not play a significant role in yielding greater increases in levels of differentiation. Therefore, changing one’s living environment from one which values being fused with others to one that values individuality is, in itself, unlikely to be beneficial in increasing differentiation. Differentiation is a difficult process that requires thoughtful intent. So, it is likely that the purposeful addition of an educational component related to differentiation and family patterns and values could aid study abroad participants in increasing their levels of differentiation. This educational component could part of the pre-departure orientation curriculum or part of the mid-year orientation.

Furthermore, the combination of quantitative data with the qualitative questions pertaining to studying abroad being a significant life experience demonstrates the inconsistency in one’s perception of change and measurable change. This suggests that one should keep in mind that adolescents may genuinely view themselves and their abilities differently than they report or are able to demonstrate with prolonged action. When working with adolescent clients, marriage and family therapists are encouraged to keep in mind their tendency to overstate their abilities. Additionally, marriage and family therapists are urged to consider that this discrepancy may not be a blatant attempt at defiance, but a disconnect between adolescents’ abilities and their perceptions of themselves.

Additionally, this study provides a springboard for future research. Future research may examine the impact of a study abroad experience for family members who remain in the home country. Charting adolescents’ individual changes from a Bowen perspective is a necessary beginning for future research examining the effects of studying abroad on other members within the exchange student’s family. Unlike other studies that have examined personal growth of individuals as a result of study abroad, viewing the process through a Bowenian lens facilitated
the practice of evaluating the effects of study abroad on larger systems, including families. Due
to the nature of systems, the behavior of every member in a system is related to the behavior of
the other members in the system (Bateson & Jackson, 1964; Bertalanffy, 1968; Nichols &
Schwartz, 2001). Therefore, individuals are affected by the functioning of others in their systems
or families. This study provides the theoretical basis for further research examining relational
changes as a result of studying abroad.
References


*Host Family Handbook.* (2002). (Available from AFS Intercultural Programs USA, 231 East Baltimore Street, 15th Floor, Baltimore, MD 21202)


Appendices

Appendix A

Differentiation of Self Inventory

(Skowron & Friedlander, 1998)

These are questions concerning your thoughts and feelings about yourself and relationships with others. Please read each statement carefully and decide how much the statement is generally true of you on a 1 (not at all) to 6 (very) scale. If you believe that an item does not pertain to you (i.e., you do not currently have really close relationships, or one or both of your parents are deceased), please answer the item according to your best guess about what your thoughts and feelings would be in that situation. Be sure to answer every item and try to be as honest and accurate as possible in your responses.

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<tr>
<th>Statement</th>
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<tr>
<td>1. People have remarked that I'm overly emotional.</td>
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<td>2. I have difficulty expressing my feelings to people I care for.</td>
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<td>3. I often feel inhibited around my family.</td>
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<td>4. I tend to remain pretty calm even under stress.</td>
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<td>5. I’m likely to smooth over or settle conflicts between two people whom I care about.</td>
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<td>6. When someone close to me disappoints me, I withdraw from him or her for a time.</td>
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<td>7. No matter what happens in my life, I know that I’ll never lose my sense of who I am.</td>
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<td>8. I tend to distance myself when people get to close to me.</td>
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<td>9. It has been said (or could be said) of me that I am still very attached to my parent(s).</td>
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10. I wish that I weren’t so emotional.

11. I usually do not change my behavior simply to please another person.

12. My closest friend could not tolerate it if I were to express to him or her my true feelings about some things.

13. Whenever there is a problem in my relationship, I’m anxious to get it settled right away.

14. At times my feelings get the best of me and I have trouble thinking clearly.

15. When I am having an argument with someone, I can separate my thoughts about the issue from my feelings about the person.

16. I’m often uncomfortable when people get too close to me.

17. It’s important for me to keep in touch with my parents regularly.

18. At times, I feel as if I’m riding an emotional roller coaster.

19. There’s no point in getting upset about things I cannot change.

20. I’m concerned about losing my independence in really close relationships.

21. I’m overly sensitive to criticism.

22. When my closest friend is away for too long, I feel like I am missing a part of me.

23. I’m fairly self-accepting.

24. I often feel that my closest friend wants too much from me.

25. I try to live up to my parents’ expectations.

26. If I have had an argument with my closest friend, I tend to think about it all day.

27. I am able to say no to others even when I feel pressured by them.

28. When one of my relationships becomes very intense, I feel the urge to run away from it.
29. Arguments with my parent(s) or sibling(s) can still make me feel awful. 1 2 3 4 5 6
30. If someone is upset with me, I can’t seem to let it go easily. 1 2 3 4 5 6
31. I’m less concerned that others approve of me than I am about doing what I think is right. 1 2 3 4 5 6
32. I would never consider turning to any of my family members for emotional support. 1 2 3 4 5 6
33. I find myself thinking a lot about my relationship with my closest friend. 1 2 3 4 5 6
34. I’m very sensitive to being hurt by others. 1 2 3 4 5 6
35. My self-esteem really depends on how others think of me. 1 2 3 4 5 6
36. When I’m with my closest friend, I often feel smothered. 1 2 3 4 5 6
37. I worry about people close to me getting sick, hurt, or upset. 1 2 3 4 5 6
38. I often wonder about the kind of impression I create. 1 2 3 4 5 6
39. When things go wrong, talking about them usually makes it worse. 1 2 3 4 5 6
40. I feel things more intensely than others do. 1 2 3 4 5 6
41. I usually do what I believe is right regardless of what others say. 1 2 3 4 5 6
42. Our relationship might be better if my closest friend would give me the space I need. 1 2 3 4 5 6
43. I tend to feel pretty stable under stress. 1 2 3 4 5 6

Differentiation of Self Inventory Subscale Composition (underlined means reverse scored):
   Emotional Reactivity: 1, 6, 10, 14, 18, 21, 26, 30, 34, 38, 40
   I Position: 4, 7, 11, 15, 19, 23, 27, 31, 35, 41, 43
   Emotional Cutoff: 2, 3, 8, 12, 16, 20, 24, 28, 32, 36, 39, 42
   Fusion With Others: 5, 9, 13, 17, 22, 25, 29, 33, 37
Appendix B

Invitation Email

Dear Student:

I am writing to invite you to participate in an educational research project. I am conducting the study as part of my doctoral degree requirements at Virginia Polytechnic Institute and State University. AFS is also part of the project. I am interested in the relational changes you might experience because of studying abroad with AFS. This topic is interesting to me because I also studied abroad with AFS. In many ways, my time in Switzerland changed the way I interact with friends and family members. Now, I am interested in learning about other students’ experiences. For my study I will compare your changes (and other AFS students) to the changes a friend experiences (and friends of other AFS students). That’s right, when you finish the survey, you can send it to a friend who is not studying abroad. Sending the survey to a friend will help me make the comparisons.

I am inviting you to take a questionnaire called the Differentiation of Self Inventory. This will help me collect information for my dissertation. You will not be penalized if you do not want to participate. You may quit taking the survey at anytime without penalty. But, if you do want to help, all the information you submit will be kept confidential by using coding numbers. I will make the results available to you through AFS upon completion of my dissertation. If you would like to help me, click on the following link to take the survey. The survey takes most people around 20 minutes to complete.

I would be happy to talk with you about any questions you have about this research project. You may call me at home (614) 440-2613. Thank you for your help in this important research project. Your participation will help me with my dissertation, and help AFS continue excelling as a study abroad organization.

Sincerely,

Tony Issenmann, M.A.
Switzerland Returnee 1997-1998
Appendix C

Posttest Invitation Email

Dear Student:

Welcome back! I hope your AFS year was even better than you expected. In case you do not remember, you participated in the first half of my study before you left on your adventures. My research project is designed to study the relational changes you might have experienced while studying abroad with AFS. You completed the Differentiation of Self Inventory (DSI) before you left for your host country. Now the time has come to complete the inventory one last time. This will show what changes took place.

Just to remind you, your participation in the project is voluntary, and all information you submit will be kept confidential through the use of coding numbers. You may quit taking the survey at anytime without penalty. Like last time, follow the link if you would like to take the survey. The survey takes most people around 20 minutes to complete. I will make the results available to you through AFS upon completion of my dissertation.

I would be happy to talk with you about any questions you might have regarding this research project. You may call me at home (614) 440-2613.

Thank you for your help in this important research project. Your participation will not only help me conduct this research, but will also help AFS continue excelling as a study abroad organization.

Sincerely,

Tony Issenmann, M.A.
Switzerland Returnee 1997-1998
Appendix D

Posttest Invitation Email
(Control Group)

Dear Student:

In case you do not remember, several months ago you participated in the first half of my study. You were asked to be part of the study by one of your friends who studied abroad with AFS. My research project is designed to look at the way you view yourself and your relationships with others. You completed the Differentiation of Self Inventory (DSI) once, and now it is time to take the survey one more time. Taking the survey again will show what changes took place.

Just to remind you, your participation in the project is voluntary, and all information you submit will be kept confidential through the use of coding numbers. You may quit taking the survey at anytime without penalty. Like last time, follow the link if you would like to take the survey. The survey takes most people around 20 minutes to complete. I will make the results available to you through AFS upon completion of my dissertation.

I would be happy to talk with you about any questions you might have regarding this research project. You may call me at home (614) 440-2613.

Thank you for your help in this important research project. Your participation will not only help me conduct this research, but will also help AFS continue excelling as a study abroad organization.

Sincerely,

Tony Issenmann, M.A.
Switzerland Returnee 1997-1998
Appendix E

Attrition

As with any longitudinal research study, researchers expect that some participants will drop out. This study was not different. Possible reasons for drop out in this study include loss of interest in the research study, lack of time to commit to completing the posttest, change in relationship between AFS student and nominated friend in the control group, and change of email address. Although it is difficult to determine the number of males and females who dropped out of the study due to the high number of individuals (186) who did not specify their gender on the pretest, we can be certain that at least 54 male participants and 118 female participants dropped out. With regard to length of study abroad experience, 186 academic year participants, 58 academic semester participants, and 93 control participants participated in only the pretest portion of the study.

An analysis of variance (ANOVA) was run to determine group differences between those who dropped out of the study and those who completed both the pretest and posttest. For these analyses, the researcher utilized the pretest scores on the full scale DSI, and the four subscales. An interpretation of the ANOVA run with the full scale DSI revealed no statistically significant differences in those who dropped out of the study and those who completed the study as evidenced by $F(1,598) = 2.70, p>.05$. Similarly, an interpretation of the ANOVA revealed no statistically significant differences in those who dropped out of the study and those who completed the study with regard to the emotional reactivity subscale as evidenced by $F(1,598) = 3.33, p>.05$. An interpretation of the ANOVA run with the I position subscale revealed no statistically significant differences in those who dropped out of the study and those who
completed the study as evidenced by $F(1,598) = .165, p>.05$. An interpretation of the ANOVA run with the emotional cutoff subscale revealed no statistically significant differences in those who dropped out of the study and those who completed the study as evidenced by $F(1,598) = 2.0, p>.05$. An interpretation of the ANOVA run with the fusion with others subscale revealed no statistically significant differences in those who dropped out of the study and those who completed the study as evidenced by $F(1,597) = .019, p>.05$. 