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Inducing Voluntary Community Service in Undergraduates: The
Relative Contributions of Prior Experience, Coursework, and the
Dispositions of Empathy and Moral Development

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INDUCING VOLUNTARY COMMUNITY
SERVICE IN UNDERGRADUATES:
THE RELATIVE CONTRIBUTIONS OF PRIOR EXPERIENCE,
COURSEWORK, AND THE DISPOSITIONS OF EMPATHY AND
MORAL DEVELOPMENT

Susan M. Hudec

Program in Higher Education
Department of Administration, Leadership and Technology

Submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in
The Steinhardt School of Education
New York University
2002
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Signed  

Susan Mary Hudec

Date 1/29/02
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Professor James L. Bess, Chairperson  
Professor Gabriel Moran  
Professor Joel Westheimer

An Abstract of

INDUCING VOLUNTARY COMMUNITY SERVICE IN UNDERGRADUATES:
THE RELATIVE CONTRIBUTIONS OF PRIOR EXPERIENCE, COURSEWORK, AND THE DISPOSITIONS OF EMPATHY AND MORAL DEVELOPMENT

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Program in Higher Education  
Department of Administration, Leadership and Technology

Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the School of Education  
New York University  
2002
Abstract

In the past twenty years, higher education has been criticized for what is perceived to be a failure to create better citizens. As a result of this criticism, a variety of pedagogical and curricula innovations have been attempted. One of these innovations is service learning, a form of experiential learning, which engages students in activities that combine fulfillment of community needs and opportunities for promotion of student learning and development (Kendall, 1990). This study hypothesized that moral development and empathy would increase over the course of the required service learning experience in the first semester of college and that required service learning experience is related to students decision to continue in voluntary prosocial behavior. Using the Defining Issues Test of Moral Development (Rest, 1980) and the Jackson Personality Inventory scale of empathy (1994), the study investigated students' levels of postconventional moral development and empathy at the beginning and the conclusion of the required service learning experience. During the second semester, students were surveyed to determine if they had continued in voluntary service. The total sample size comprised 212 students; 129 females and 83 males. The mean age was 18. Data were analyzed using SPSS program. Survey results attempted to identify those factors that influence students' decision to continue in voluntary prosocial behavior. Findings from this study showed that high school voluntary service ($p < .00$), on-site faculty mentorship ($p <$
levels of empathy at the conclusion of the semester following the required service learning experience ($p < .00$) and levels of postconventional moral development at the conclusion of the first semester of college following the required service learning experience ($p < .00$) have a significant relationship to students’ decisions to continue in voluntary prosocial behavior.

A profile materializes suggesting that colleges who have employed service learning curriculum or are interested in introducing service learning curriculum must work on a reward system for faculty and student/faculty partnerships. A suggestion is made for voluntary service to be implemented prior to the last semester of the last year of high school. Recommendations for future research are also discussed.
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CHAPTER I
INTRODUCTION

Many observers of contemporary American society increasingly lament the apparent decline in voluntary, caring behavior among citizens. Speculation as to why this is so has been offered from diverse perspectives. Of particular relevance to this study is one that alleges that moral development and empathy among college students is not fostered in higher education. Efforts to correct this deficiency include the creation of a new dimension of the curriculum called "service learning," which requires students to engage in community service activities through the curriculum. While advocates of service learning emphasize the benefits, some analysts argue that this exposure will engender moral development and ultimately voluntary community service only among students who are already predisposed to be empathetic. Many institutions of higher education are responding to both social and educational concerns by encouraging what they feel to be mutually beneficial service learning partnerships between their institutions and their communities. As colleges and universities incorporate service learning as part of their curriculum, it has become apparent that very little research has been conducted to determine if required service learning coursework alone influences students to continue in voluntary service beyond the required college experience. The larger question is whether required service learning coursework aids higher education in its mission of creating "good citizens"
who continue in voluntary service partnerships with the community beyond the college experience.

It appears from the present study that the required service learning experience alone in the first semester of college might not influence students to continue in voluntary prosocial behavior. This study explored a number of additional variables that might influence those students involved in required service learning to continue in voluntary prosocial behavior following the required college service learning experience. In addition to the effects of voluntary service in high school, on-site faculty mentorship in the service learning experience, empathy as a trait, and states of moral development were also examined.

**Background of the Problem**

Since its inception with the founding of Harvard in 1636, higher education has been concerned with the development of students into responsible citizens (Rudolph, 1962). One of the principle goals of higher education has been to prepare students for active involvement in the community (Smith, 1994). Throughout the nineteenth century, moral philosophy was strongly reflected inside and outside the classroom. This focus on moral and ethical responsibilities continued through much of the twentieth century.

In the later part of the twentieth century, curriculum approaches to development of student character became less evident. Research shows this to
be a result of many structural and curricular transformations in post-secondary education (Pascarella, 1997). These transformations include the powerful emergence of universities focusing on research throughout the late twentieth century and the fragmentation of education through the development of academic disciplines.

With the onset of the twenty-first century, educators find themselves faced with the challenge of bringing the system of higher education to even greater levels of quality and effectiveness. While critics of higher education argue that the system is failing to prepare students for entry into society, they stress the importance of a well-rounded education (Stanton, Giles & Cruz, 1999). Recognizing that this failure is due not only to the system's inability to stimulate students' intellect, many educators believe that higher education also fails to promote humanism in college students. There is a need to return higher education to its initial purpose, preparing students for a life of good citizenship (Newman, 1985). While legislators as well as educators express a need for higher learning to focus on developing an ethic of caring among college students (Noddings, 1995), they note that many colleges and universities seem more interested in maintaining high enrollments than in the quality of instruction and learning (Astin, 1985). It is believed that higher education is losing its impact on society (Boyer & Hechinger, 1981), and there is a demand for a renewed focus on the development of responsible citizens (Delve, Mintz & Stewart, 1990).
Currently, institutions of higher education are addressing these calls to return to the original mission of developing well-informed, moral citizens. In order to reverse the course of declining civic commitment among the youth of America, many feel that it will require much more than increasing the amount of extracurricular activities and politically oriented clubs (Campbell, 2000). There is a need for American institutions of higher education to increase curricular substance and offer an experiential foundation for civic education (Guarasci, 2001). One answer, which has been found in the curriculum, is a pedagogical tool known as “service learning” (Sax & Astin, 1997). Service learning is an educational philosophy and practice that integrates academic course work with community service (Jacoby, 1996). It is a term used to identify a set of pedagogical practices that attempt to connect service experiences to specific spheres of knowledge for the dual purposes of mastering that knowledge and developing citizenship skills that support one’s active participation in democratic processes (Koliba, 2000). Service to the community is a way for institutions to address public perception that higher education exists for its own good (Ward, Wolf-Wendel, 2000). A combination of community service with a learning component under the supervision of a faculty member or student affairs professional, service learning sometimes provides academic credit and is a part of a course requirement (Rhoads, 1997). If properly constructed, service learning relates the service experience to the course work, requiring the students to reflect on their experiences through writings or class discussion (Sax & Astin, 1997). The recent interest in
service learning can also be understood as a response to three general critiques of institutions of higher education: lack of curricular relevance, lack of faculty commitment to teaching and lack of response to public needs (Kezar & Rhoads, 2001).

In order to foster good citizenship, “service learning” has been offered in many institutions of higher education. Advocates of service learning claim that students’ excessive preoccupation with self can be moderated if service learning is the focus of the curriculum. Planners hypothesize that the combination of academic course work and service will increase students’ levels of humanism and civic responsibility. Those in favor of service learning believe that it represents a powerful means of enhancing student development while at the same time affecting a primary institutional mission of rendering service to the community (Astin & Sax, 1998).

Realizing the responsibility for supporting the academic objectives of students, advocates claim that service learning makes students into “active participants” in projects that are intended to meet the needs of the community (Kahne & Westheimer, 1996). Through service learning, students’ awareness of concerns about problems and issues in the broader community can develop. Students increasingly come to believe that their actions will have an effect on society; they should then be more willing to act on their concerns. For students to walk in others’ shoes, they must first be aware of their own position in society and what it brings to the service relationship (Ward, Wolf-Wendel, 2000).
As an educational experience that encourages students to develop their social awareness, experiential learning also reinforces students’ sense of autonomy and initiative, and helps them to expand their intellectual and moral capacities (Dewey, 1938). As a form of experiential learning, service learning engages students in activities combined with structured opportunities intentionally designed to promote student learning and development. Learning takes place when students are engaged in actively solving real problems and when they can empathize with others (Rhoads, 1997).

An “experience” constitutes an event that takes place between an individual and what makes up that individual’s environment at the time. An individual is not fully integrated until one series of experiences is integrated with one another (Dewey, 1938). While educators must not only be concerned with the shaping of the experience for students, they must also be aware of what environmental factors are instrumental in promoting development and growth (Dewey, 1938). Believing that each experience prepares a person for later experiences of even more value, Dewey believes that education should be perceived in terms of experience. Educators must instill in each individual a sense that he or she can make a difference (Eyler & Giles, 1999). Students must have the opportunity to contribute and feel responsible. Experience is the most effective way for students to learn (Piaget, 1952, Dewey, 1938).

Although research has found that the more years an individual attends college, the higher the level of moral reasoning (Rest, 1988), certain
purposeful interventions seem to foster increased principled moral reasoning (Pascarella, 1997). Research shows that certain specific experiences may foster moral growth in an individual if they are accompanied by other experiences mutually reinforcing the pattern (Pascarella, 1997). A comparative study of students enrolled in an introductory psychology course designed to move students from conventional moral reasoning to principled moral reasoning, based on Kohlberg's Theory of Moral Development (See Appendix "A"), which defined three levels and six stages of moral development, found significant increases in conventional moral reasoning. However, students did not move to the principled stages of moral reasoning as intended (Boyd, 1976, 1980). On the other hand, Judith Boss conducted a study of two separate sections of a college ethics class. Both sections used discussion of real life dilemmas with one difference – one group was employed in a service learning component and the other group was not. The study, which used the Defining Issues Test (Rest, 1990), found significant increases in principled moral reasoning in the service group as compared to the non-service group (Boss, 1994). While Boss recommends further study to expand the list of possible antecedents that could explain the relationship between service learning and moral reasoning (1994), the positive results of her study indicate promise regarding this intervention. In this study, service learning proved to be a purposeful intervention that seemed to foster increased moral reasoning.
Prior research on service learning and students’ moral development offers useful information. However, additional research is necessary to determine if certain factors are significantly correlated with increases in students’ moral development. These factors include personal characteristics of the individual, demographics (e.g. SES, birth order, and financial needs) and other psychological or personality characteristics, such as empathy disposition. Environmental factors, which are related to the nature and quality of the service learning experience and support systems, must also be examined. Also, it is necessary to determine if service learning alone leads to increased levels of moral development and prosocial behavior or if they result from the combination of service learning and other personality traits or environmental factors.

In order for development to take place, there must be a readiness within the person, and the person must be stimulated to accept a challenge to the existing psychological balance (Sanford, 1962, 1967). Cognitive development describes students’ thinking processes from simple to complex and from concrete to abstract (Knefelkamp, Widick & Parker, 1978). Most cognitive developmental models are based at least partially on Piaget’s work that described how the underlying cognitive processes in a person develop chronologically (Reimer, Paulitto, & Hersh, 1983). A specific kind of cognitive development, moral development, is concerned with moral reasoning and not moral action or moral judgment (Kohlberg, 1975). Moral development relates to service learning in that moral dilemmas arise during
service involvement and can lead to complex moral reasoning through reflection.

According to some developmental theorists, however, the character trait of empathy lies at the heart of moral behavior and may be necessary for environmental influences to affect prosocial behavior (Feldman, 1999). Empathy has been defined as the emotional response that corresponds to the feelings of another person. The roots of empathy grow early and continue to grow throughout childhood into adulthood. Some theorists believe increasing empathy leads to increased moral development (Damon, 1988; Farver & Branstetter, 1994). Increased moral development can in turn lead to prosocial behavior (Feldman, 1999).

Both moral development and empathy disposition, as they may affect students' decision to continue in voluntary prosocial behavior, are important factors in considering the introduction of service learning at many colleges and universities. Other factors include voluntary service during high school and perceived faculty mentorship during the first semester of college.

Every president from John F. Kennedy to George W. Bush has emphasized the importance of voluntary service for young people. Only in recent years, however, has there been an increasing movement to encourage high schools to offer programs that provide opportunities for youth to get involved in service (Pugh, 1999). Voluntary community service is a type of prosocial behavior (Switzer, et al, 1995). A social learning perspective suggests that the extent to which individuals engage in voluntary prosocial
behavior depends largely on previous involvement in prosocial behavior (Switzer et al, 1995). Research has found that skills developed during adolescence may facilitate the acquisition of prosocial behavior (Magen & Aharoni, 1991). Programs that promote service to others as a positive social activity in early adolescence may contribute to long-term maintenance of the behaviors as the participants mature (Switzer, et al, 1995). Community service is becoming more prevalent in the lives of high school students in the United States today (Pugh, 1999). Proponents of required service in high school note that it facilitates social development in participants (Pugh, 1999). Students may be positive about participating in service out of a desire to help others. Voluntary service in high school has been identified as a possible initiator of voluntary prosocial behavior.

Another factor which has been identified as a possible initiative of voluntary prosocial behavior is on-site faculty mentorship. The term “mentor” has been used in higher education for years. Mentors seem to reveal to their protégés someone who has fulfilled the ambitions, which they yearn for, while offering support and assistance (Daloz, 1986). Mentors can provide vision by modeling the person whom the student wants to become (Daloz, 1986). Faculty mentors have a wider role than conventional faculty. They may or may not teach classes, but they inevitably engage in one to one instruction and are as a result more concerned than regular teachers with the individual learning needs and styles of their students (Thomas, Murrell & Chickering, 1982). Unless there is a formal process for assigning or recognizing
mentorship, the process remains largely invisible (Knox, 1984). In the service learning experience, some faculty take on the role of mentors and guide the students through the experience with much concern for their overall needs. They are involved in the experience from advisement to actual participation in the required service learning experience. This on-site faculty mentorship ultimately helped determine whether students were affected by the service learning experience and their decision to continue in voluntary prosocial behavior.

Statement of the Problem

This study determined what factors combined with the required service learning experience predict continuation in voluntary prosocial behavior. The effects of empathy disposition were examined to determine if levels of postconventional moral development and empathy at the beginning of the first semester of college, prior to the required service learning experience, were related to continuation in voluntary prosocial behavior. Also, the study examined the levels of postconventional moral development and empathy at the conclusion of the first semester of college, following the required service learning experience, to determine the relationship to continued voluntary prosocial behavior. The overall problem to be addressed was: What is the relationship between and among voluntary service prior to the college years, on-site faculty mentorship, level of empathy, stage of moral development and voluntary prosocial behavior?
Sub-problems:

1) What is the relationship between high school voluntary service in the last semester of college and voluntary prosocial behavior?

2) What is the relationship between on-site faculty mentorship and voluntary prosocial behavior?

3) What is the relationship between students' empathy level at the beginning of the first semester of college prior to the required service learning experience and voluntary prosocial behavior?

4) What is the relationship between the level of postconventional moral development at the beginning of the first semester of college prior to the required service learning experience and voluntary prosocial behavior?

5) What is the relationship between students' empathy level at the beginning of the first semester of college prior to the required service learning experience, the level of postconventional moral development at the beginning of the first semester of college and voluntary prosocial behavior?

6) What is the relationship between the level of postconventional moral development at the conclusion of the first semester of college, following the required service learning experience and voluntary prosocial behavior?

7) What is the relationship between the level of empathy at the conclusion of the first semester of college following the required service learning
experience, the level of postconventional moral development at the conclusion of the first semester of college and voluntary prosocial behavior?

Purpose and Significance of the Study

Educators are looking to service learning as the answer to the call for reform in higher education. Therefore, many institutions plan to involve students in service learning as part of the undergraduate curriculum in the twenty-first century. However, up until now, there has not been a great deal of published research on the impact of service learning on student development. There is little research in the literature regarding the effect of service learning combined with students' moral development and empathy levels on prosocial behavior.

The resulting information from this study is of great value to educators and administrators responsible for designing academic programs that meet the challenge of developing responsible citizens. Specifically, this type of information provides insight into the factors that combined with the required service learning experience influence students' decisions to continue in voluntary prosocial behavior beyond the required college service learning experience.

The study provides information as to the impact of service learning combined with empathy disposition, students' moral development on prosocial behavior. Furthermore, knowledge about how service learning and empathy disposition impact students' moral development is crucial to
assisting educators and college administrators with assessment and planning. The study provides guidelines for planning curriculum and designing strategies that create programs conducive to the enhancement of moral development and the cultivation of responsible citizens.

Limitations and Delimitations

Delimitations: The sample for this study is small and selected from a population whose response rate is likely to be very high. The type of higher education institution sampled, i.e., a small, private, liberal arts college in the northeastern section of the United States, limits the generalizability of the study. Other types of higher education institutions in different regions of the country might present different conditions to which the results of the study might not be applicable.

Limitations: The moral development and empathy levels that were observed were limited to one semester, from entrance into the college to the end of the first semester. The question as to whether the students continue in voluntary prosocial behavior beyond the first semester was determined by a survey administered near the end of the second semester. There is no way of knowing whether voluntary involvement in service will persist beyond this period.

The cultural and religious backgrounds of the students involved in the study were not explored. Personal characteristics such as birth order and
socio-economic status were also not examined. These factors may have played a role in students’ decisions to continue in voluntary prosocial behavior.

**Definition of Terms**

**Service Learning** - "...a form of experiential education in which students engage in activities ... community needs together with structured opportunities intentionally designed to promote student learning and development" (Jacoby, 1996).

**Prosocial Behavior** - voluntary behavior intended to benefit another, such as helping, sharing, and comforting behaviors (Eisenberg, 1982).

**On-site faculty mentorship** - the transfer of skills and knowledge and the encouragement of others to reach beyond previously assumed limits of understanding, perspective and will (Mitchell, 1998). Someone who guides, supports and counsels a student enabling them to navigate in the adult world (Kram, 1999). A faculty member who is involved in the required service learning experience from advisement to actual, hands-on, on-site participation in the required service learning experience.

**High school voluntary service** - a service that a student conducts at a school, community agency or organization where sometimes the student receives credit towards graduation (Pugh, 1999).

**Empathy** - a person’s emotional responsiveness toward other people.

**Moral Development** - the changes in people’s sense of justice and of what is right and wrong, and in their behavior related to moral issues (Kohlberg,
1969) such as fairness, justice, values, equity and humanism; personal and aesthetic values are usually not considered.

**Moral Reasoning** - "...the process by which a person arrives at a judgment of what is the moral thing to do in a moral dilemma" (Rest, 1990).

**Conceptual Framework**

This study explored the effects of service learning on students' moral development and on their decisions to continue in service beyond the curriculum experience. The theoretical framework that directs attention to these factors is derived from theories that explore the separate and joint effects of service learning, the trait of empathy and levels of moral development on prosocial behavior. More specifically, the research examines the effects of exposure to moral dilemmas in real life on changes in moral attitudes among students with varying levels of empathy.

The model for this study, presented in Figure 1 (see page 14), is adapted from the moral development theories of Piaget (1952), Kohlberg (1981), and Rest (1986). This model addresses the question of which factors promote increased levels of moral development and suggests that the service learning experience as part of the curriculum may lead to increased levels of moral development. It also suggests that service learning and high school voluntary service influence students' decisions to continue in service beyond the required curriculum experience, and that continuation in service will lead
to even higher levels of moral development. Another factor is the concept of on-site faculty mentorship during the first semester of college. Some faculty
TIME ONE

Empathy Time One

High School Voluntary Service

Postconventional Moral Development Time One

TIME TWO

Empathy Time Two

MENTORED COLLEGE LEVEL SERVICE LEARNING EXPERIENCE

Postconventional Moral Development Time Two

Voluntary Prosocial Behavior

TIME THREE

Controlling for Time I

CONCEPTUAL FRAMEWORK
members provide considerable structure and guidance. These faculty members work closely with students and provide one on one involvement in the required service experience. Predisposition to the trait of empathy was also examined to determine its influence on students’ decisions to continue in service. The study also explored the effects of the combination of service learning, the trait of empathy and moral development on voluntary prosocial behavior.

This section presents the conceptual rationale for this study starting with the concept of moral development, empathy and service learning, and including an explanation of other mediating factors, such as high school voluntary service and on-site faculty mentorship, that are hypothesized to have a relationship to students’ decisions to continue in voluntary prosocial behavior. The explanation of each factor includes the theoretical connection to these factors, supporting evidence in the literature that leads to the relationship between them, and finally the hypotheses relating to the variables.

Service Learning

Recently, higher education has been responding to the plea to return to its original mission of developing good citizens (Levine, 1998; Boyer, 1990). Some critics of academia felt that there was a large void between higher education and the real world and that that void must be filled (Kezar & Rhoads, 2001). One answer to this call may be found in the college curriculum, through a form of experiential learning – service learning.
Service learning is a form of experiential education which engages students in activities focused on the needs of the community, combined with structured opportunities designed to promote student learning and development (Jacoby, 1996).

A powerful pedagogical strategy, service learning inspires students to make significant connections between classroom learning and real life experiences. Research has found that service learning promotes civic responsibility and regard for social justice among college students (McHugh-Engstrom, Tinto, 1997). Many theorists believe that service learning influences students to become more socially responsible, more committed to serving their communities, more empowered, and more committed to their education. It also affords an additional means for achieving educational objectives (Astin, Sax, 1997). The use of service learning brings new life to classrooms, enhancing problem-solving skills, increasing student interest, and enhancing traditional methods of teaching and learning (Bringle & Hatcher, 1996). Service learning is an instructional technique designed to augment formal classroom education with real life experiences (Greene, Diehm, 1995). Researchers have found evidence that suggests that service combined with academic studies is an extremely effective teaching instrument (Boss, 1994; Cohen & Kinsey, 1994; Markus, Howard & King, 1993).

Described as a valuable instrument for two fundamental and interrelated reasons, service learning is both a practical experience, which enhances learning in the curriculum, and a tool which reinforces moral and
civic values inherent in serving others (Erlich, 1995). It presents a challenge to educators to devise ways to associate study and service so that the disciplines enlighten experience, and experience gives new meaning and dynamism to the disciplines (Eskow, 1980).

Research shows that there is a positive correlation between service learning and increased enhanced critical thinking skills, self-esteem, and increased levels of moral reasoning (Myers-Lipton, 1994; Markus, et al., 1993; Cram, 1998; Boss, 1994). In the literature on moral development, there is evidence that service learning as part of the undergraduate curriculum is positively related to moral development.

Voluntary Service in High School

Much of the research involving prosocial behavior focuses on the developmental, situational and psychological benefits (Eisenberg & Miller, 1987). Among adolescents, those who are involved in prosocial behavior have more positive self-concepts (Midlarsky & Hannah, 1985; Staub, 1979). Those adolescents who participate in voluntary service in high school may gain a sense of accomplishment and self-esteem, which could later contribute to feelings of personal control and self-identity (Pugh, 1999). This self-identity could lead to longer-term prosocial action (Switzer, Simmons, Dew, Regalski & Wang, 1995). Voluntary service as a positive social activity in high school may encourage altruistic behaviors and may also contribute to long-term maintenance of such behaviors as participants mature to adulthood.
Studies have found that civic engagement in adolescence is a predictor of future behaviors (Switzer, et al, 1995).

On-Site Faculty Mentorship

The contemporary perception of mentoring began to develop in the 1970s. In the 1980s, there was a call for more collectively accepted definitions of such terms as mentor, role model, sponsor and guide (Speizer, 1981). Even today, there is a concern for comprehensibility in using these terms (Smith, 1994). The goals of faculty mentorship can be reflected in effective teaching and socialization. Mentoring in educational settings can exist between faculty and students, administrators, faculty and faculty, students and other persons. Within the academy itself, mentors are found most frequently among the ranks of the faculty (Knox, 1984).

Mentoring can be divided into three categories: career, academic and developmental. Career mentoring is primarily concerned with employment advancement, with a focus on obtaining skills and mastering organizational structure. The educational needs of a student and one on one instruction are the focus of academic mentoring. The aspects of personal growth are considered by developmental mentoring. Students will emulate the person they wish to be like or desire to become. Developmental mentors will act as role models (Cannister, 1999).

Mentorship can be about teaching and guidance, and teaching is a critical factor in leadership (Mitchell, 1998). Mentorship is the ability to
transfer skills and knowledge and encourage others to reach beyond previously assumed limits of understanding, perspective and will (1998). An example of this would be the instructor who spends extra time with a promising student beyond the classroom experience. Mentorship can be a relationship between a young adult and an older, more experienced adult who supports, guides and counsels the young individual to navigate in the adult world (Kram, 1988). Some theorists have posited that faculty who act as mentors challenge students to higher levels of academic performance and encourage connectedness and involvement foster prosocial and moral development (Carlo, Fabes, Laible & Kuponoff, 1999). In this study, certain faculty acted as on-site faculty mentors from advisement of students to collaboration and actual hands-on participation in the service learning experience.

**Empathy and Prosocial Behavior**

An emotional response defined as other-oriented or concerned with the welfare of another person, empathy can motivate a coming to the aid of that person (Batson, Duncan, Ackerman, Buckley & Birch, 1981). It is the involuntary experiencing of another person’s emotional state (Hoffman, 1994). Empathy contributes to acts of comforting or helping a person in distress. Many researchers claim that the motivation is partly altruistic and that the goal is to benefit the person for whom the empathy is felt and not self-benefit (Batson, 1987). Several empirical findings are consistent with the idea
that empathetic arousal results in self-focused distress (Wood, Saltsberg & Godlsant, 1990). Since it is a response to cues regarding the state of another person, empathy depends greatly on the actor's cognitive development.

According to Hoffman (1994), empathetic distress is caused by distress cues from another person that combine with the immediate situation and one's own distress experiences from the past. A person makes an active effort to put him or herself in the place of another. An individual adopts alternative perspectives by placing him/herself in the situation of the person being observed.

Empathy may guide our moral judgments (Hoffman, 1994). Moral encounters contribute to the relationship between empathy and moral judgment. Many theorists propose that empathy is a moral emotion (Batson, et al, 1987). Hoffman (1994) argues that moral dilemmas may arouse empathy because they “involve victims – seen or unseen, present or future”

It has been suggested that empathy contributes to principles of justice through identification with victims. A possible cause of this may be that it occurs as a natural part of one's development during childhood. A person may have been socialized to be empathetic (Hoffman, 1994).

Some educational programs were found to promote increased empathy and prosocial behavior (Eisenberg, Wentzel & Harris, 1998). Service learning is believed by many to be one of those educational programs. Previous research with adults (Batson, Fultz & Shoenrade, 1987; Davis, 1983a) has provided strong evidence that empathetic concern is a predictor of prosocial
behavior. The personality trait of empathy is directly related to voluntary prosocial behavior.

**Theories of Moral Development**

Many developmental psychologists emphasize that development is a gradual, continuous process of growth and change, while others describe it as a series of stages each preceded by abrupt stimulation, moving an individual to the next stage. Individuals differ in timing and rates of development (Rice, 1997).

The cognitive perspective of development focuses on the methods that allow people to know, understand, and think about the world around them (Feldman, 1999). A person who has had great impact on the study of cognitive development is Jean Piaget (1952). He provided masterful descriptions of the process of intellectual growth during childhood (Feldman, 1999). He studied children's moral development in an attempt to understand how children orient themselves in the social world. According to Piaget (1952), the process of developmental change is an interactive one. An individual confronts a problem or dilemma, which causes cognitive conflict, and that encounter demands a change in the individual's thinking (Hood, 1986). An area with which Piaget dealt primarily was moral judgment. Piaget proposed a two-stage theory of moral development. Piaget's concept of a stage model for moral development and his observation that children make the transition from the first to the second stage of moral development is the basis for Kohlberg's
cognitive developmental theory of moral reasoning for adults (Kohlberg, 1969).

Lawrence Kohlberg differed from Piaget in his stages of moral development in that he described an adult level of moral reasoning based on moral principles. Kohlberg defined a sequence of three levels and six stages of moral reasoning from his study. (See Appendix “A” for Kohlberg’s Theory of Moral Development).

He defined moral development “in terms of stages” and as a “progressive movement toward basing moral judgment on concepts of justice,” adding that “the right of an individual to judge an act as wrong is to judge it as violating such a right” (Kohlberg, 1981). Believing that moral judgments concern the right and good of an action, he notes that not all judgments of good or right are moral judgments but that moral judgments tend to be universal, inclusive, and consistent (Kohlberg, 1981).

Socio-environmental influences favorable to moral judgment development should be influences that are characterized in cognitive-structural terms; an example of this is role-taking opportunities (Kohlberg, 1984). By role taking, Kohlberg means taking the perspective of another or becoming aware that others are in some way like themselves. The developmental changes in the social self are a reflection of the changes in conceptions of the social world.

A major critic of Kohlberg’s work, Carol Gilligan (1982), poses a counter view to that of Kohlberg, who developed his concept of stages and his
instrument for measuring stages of moral judgment through a study of an all-male sample. Gilligan, unlike Kohlberg and Piaget before him, contends that there are real differences between men and women and that it is unfair to attempt to fit women “into a male conception of the life cycle.” (Gilligan, 1982). Believing that women do not respond well to hypothetical moral dilemmas, she developed a three level model of moral development, which includes two significant transitions between levels, focusing on moral behavior of women. Her theory, which is based on another context of moral reasoning, one of care and responsibility, contrasts with Kohlberg’s justice and right context. She believes that both contexts are gender related and not gender based. While she does believe that her theory is parallel to Kohlberg’s, she does not contend that her theory should replace Kohlberg’s theory (Rice, 1997). Given the ambiguity inherent in this new conceptualization, the framework of moral development for this research was that of Kohlberg alone. Nonetheless, controversy concerning the universality of Kohlberg’s theory was taken into consideration in this study, which controlled for gender in the measurement of moral development.

Research has found that moral reasoning is associated with prosocial and moral behaviors in adolescence. Many theorists have suggested that experiences substantially affect prosocial behaviors in adolescence (Carlo, Fabes, Laibie & Kupanoff, 1999).
**Prosocial Behavior**

A voluntary behavior intended to benefit others, prosocial behavior is important to the quality of social interactions between individuals (Eisenberg, Fabes, 1991). A form of prosocial behavior, altruism, is a type of behavior intended to help others (Kail, 1998). The primary instigation of altruism is the need of others (Puka, 1994). This subgroup of prosocial behavior is of particular importance to the understanding of morality (Eisenberg & Miller, 1987). Social learning focuses on the influence of the environment on altruism. Research shows that individuals learn moral behavior by observing the behavior of others known as models. By observing the moral conduct of models, individuals are reminded of the norms of society and the importance of moral behavior (Bandura, 1977). The observation illustrates the connection between certain situations and specific types of behavior. There is an increased likelihood that the observer will continue this type of behavior in other similar situations (Bandura, 1977).

The literature on prosocial development addresses the relationship between moral development and prosocial behavior. It also makes note of the research on biological predisposition, genetic component for empathetic concern, cultural influences, familial structure, socioeconomic status, peers, and school environment influences on prosocial behavior. This study investigates the influence of required service learning in college combined with students’ levels of empathy and moral development, high school
voluntary service and on-site faculty mentorship on continued voluntary
prosocial behavior.

Research Hypotheses

The major hypotheses that this study proposes for research are:

1) The dependent variable, voluntary prosocial behavior in college, is related
to the following variables:

1a) Involvement in voluntary service during the last semester of high
school.

Rationale: Students in their mid and late teens are open to new values.
These new values are adopted when reinforced through behaviors that
reveal their strength
and that eliminate cognitive dissonance. Voluntary service enhances
the character development of high school students by involving them
in their communities and promoting a sense of caring for others
(Youniss, Mc Lellan & Yates, 1997). Voluntary service helps students
recognize their altruistic qualities (Conrad & Hedin, 1991, Billig,
2000). According to social approaches, the best predictor of prosocial
behavior in young people is whether they have received positive
reinforcement for acting in a morally appropriate way. When they
perform a good deed and are reinforced in a positive way for their
actions, they are more likely to engage in this behavior in the future
(Feldman, 1999). Hence, high school students exposed to volunteer
service and its rewards are likely to pursue activities that provide those rewards by participating in voluntary prosocial behavior.

1b) On-site faculty mentorship in the required service learning experience.

Rationale: The faculty member plays an important role in facilitating the coursework as well as the required service learning experience. Faculty members can act as mentors. Mentorship is the ability to encourage others to reach beyond previously assumed limits of understanding, perspective and will (Mitchell, 1998). A most significant factor in a positive required service learning experience is a faculty member who encourages class discussion and connects the required service learning experience to the course subject matter through related literature and lectures (Astin, Vogelgesang, Ikeda, & Yee, 2000). Acting as a mentor, the faculty member guides, supports and counsels the students (Mitchell, 1998). Mentors can provide vision by modeling the person whom the student wants to become (Daloz, 1986). Students may look to the faculty member as someone whom they aspire to be like (Daloz, 1986). They may realize that through this perceived faculty mentorship, the goal is not to become like the faculty mentor, but to become more fully himself or herself through the faculty mentor (1986). Hence, perceived faculty mentorship in the required service learning experience in the first semester of college
will more likely lead students to participate in voluntary service after the conclusion of the first semester of college.

1c) The level of empathy at the beginning of the first semester of college (time 1).

Rationale: Empathy has been described as one of the archetypal prosocial causes. Many theorists believe that empathy develops naturally and is to some extent present at every age and is something we all have (Eisenberg, 1982). Therefore, the level of empathy at the beginning of the first semester of college disregarding the level of empathy at the conclusion of the first semester of college affects students' decision to continue in voluntary prosocial behavior.

1d) The level of postconventional moral development at the beginning of the first semester of college (Time 1).

Rationale: Research shows that as young people mature and begin to make moral decisions on the basis of fairness and justice, they become more prosocial (Eisenberg & Shell, 1986). Some theorists believe that the environment in which a person is raised as a child can lead to higher levels of moral development in adolescence and that increased levels of moral development can lead to prosocial behavior (Feldman, 1998). Therefore, the level of postconventional moral development at the beginning of the first college semester will affect students' decision to continue in voluntary prosocial behavior following the conclusion of the first semester of college.
1e) The relationship between the level of empathy at the beginning of the first semester of college (Time 1) and the level of postconventional moral development at the beginning of the first semester of college (Time 1).

Rationale: Some individuals are more inclined to feel the emotions of others and are more morally developed to begin with and therefore, more inclined to help others. That is, it is the "combination" of both variables in either high or low levels that induces students to continue in voluntary prosocial behavior. Having "only" a high level of empathy without a corresponding high level of moral development is insufficient to influence students. Therefore, the relationship between the level of empathy at the conclusion of the first semester of college and the level of postconventional moral development at the beginning of the first semester of college will affect students' decisions to continue in voluntary prosocial behavior beyond the first semester of college.

1f) The level of postconventional moral development at the conclusion of the first semester of college (Time 2).

Rationale: Research shows that as young people mature and begin to make moral decisions on the basis of fairness and justice, they become more prosocial (Eisenberg & Shell, 1986). Therefore, the level of postconventional moral development at the conclusion of the first college semester will affect students' decision to continue in voluntary
prosocial behavior following the conclusion of the first semester of college.

1g) The level of empathy at the conclusion of the first semester of college (Time 2).

Rationale: The higher the students' levels of empathy at the conclusion of the first semester of college, following the required service learning experience, the more likely students will be inclined to continue in voluntary prosocial beyond the required service learning experience. Therefore, the level of empathy at the conclusion of the first semester of college will affect students' decision to continue in voluntary prosocial behavior.

2) The difference in the level of postconventional moral development at the conclusion of the first semester of college (Time 2) holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1).

Rationale: Research shows that students who engage in community service as a part of their course requirement make greater gains in moral development (Boss, 1994). Students who experience greater gains in postconventional moral development at the conclusion of the first semester of college, following the required service learning experience, will be more inclined to continue in voluntary prosocial behavior, regardless of their levels of postconventional moral development at the beginning of the first semester of college.
Therefore, there will be a greater gain in the level of postconventional moral development at the conclusion of the first semester of college regardless of the level of postconventional moral development at the beginning of the first semester of college for the students who continued in voluntary prosocial behavior.

3) The difference in the level of empathy at the conclusion of the first semester of college (Time 2) holding constant the level of empathy at the beginning of the first semester of college (Time 1).

Rationale: Students who experience greater gains in the levels of empathy at the conclusion of the first semester of college, following the required service learning experience, will be more inclined to continue in voluntary prosocial behavior, regardless of their levels of empathy at the beginning of the first semester of college. Therefore, there will be a greater gain in the level of empathy at the conclusion of the first semester of college regardless of the level of empathy at the beginning of the first semester of college for the students who continued in voluntary prosocial behavior.
CHAPTER II
REVIEW OF RELATED LITERATURE

This chapter offers a review of the literature on high school voluntary service and perceived faculty mentorship and their affect on later voluntary prosocial behavior. Also, literature regarding service learning was reviewed in relation to empathy and moral development and the variables, which are predicted to influence later voluntary prosocial behavior.

Service Learning– History and Role in Student Development

Since its inception, the role of American higher education has been defined as the development of “...individuals who can think and act morally” (Pascarella, 1997). Author and distinguished historian Frederick Rudolph (1962) noted that American higher education is rooted in the tradition of moral philosophy in both curricular and extracurricular activities. From the very beginning with the founding of Harvard in 1636, American higher education has been devoted to preparing students for active involvement in the community (Rudolph, 1962).

The Land Grant Act of 1862 fostered the link of higher education to service with relation to agriculture and industry. Our government also linked higher education to service during World War II with the recruitment of research universities to solve world problems (Rudolph, 1962). Interdisciplinary general education programs were instituted in the years following World War II in response to the shortfalls of liberal education
(Miller, 1988). The larger visualization of general education advocates has always been the emphasis on community (1988).

College students have long been involved in community service through student organizations. Public interest in service peaked in the 1960s with the introduction of the Peace Corps in 1961 by President John F. Kennedy. In 1965, VISTA- Volunteerism Service to America - was founded to combat problems in our own back yard. This program was established in answer to the Civil Rights Movement of the 1960s (Jacoby, 1996).

Service learning is based on John Dewey’s theory of education and experience (1938). Dewey believes that an educative experience allows students to develop their curiosity and intensifies their drive while developing their intellectual and moral dimensions (Dewey, 1938). He noted that “...education in order to accomplish the ends for both the individual learner and for society, must be based upon experience, which is always the actual life experiences of some individual” (1938). Dewey’s philosophy was that there should be no separation between curricular and co-curricular learning (Kezar & Rhoads, 2001). Noting that educators must not only be concerned with the shaping of the experience for students, he recommended that they must be aware of what environmental factors are conducive to valuable experiences that promote growth (Dewey, 1938). An experience according to Dewey is a transaction between an individual and what constitutes their environment at the time of the experience (1938). He believed that every experience prepares a person for later experiences of even more value.
Educators should see education in the premise of experience. Experience, according to Dewey, is not only a combination of the mind and subject matter. It is a continuous interchange involving a great number of energies (Dewey, 1955).

Internships and cooperative education have been defined as forms of experiential learning. Sigmon and William Ramsey at The Southern Regional Education Board in 1967 (Jacoby, 1996) first coined the term "service learning". Consequently, The National Center for Service Learning was established in 1969 through the Office of Economic Opportunity. This organization was "short lived" but many colleges continued community service involvement through networking outside of the federal agency (1996). Another agency, The National Society for Experiential Learning, was established in 1978. Studies conducted by Alexander Astin in the late 1970s and early 1980s found a decline in the morality of college students. In response to public concern about this decline in morality in 1985, Howard Squire, Donald Kennedy, Timothy Healy and Frank Newman (then presidents of Brown University, Stanford University, Georgetown University and the Education Commission of the States) founded Campus Compact. The mission statement of Campus Compact was to institutionalize service learning on college campuses (Morton, Troppe, 1996). Campus Compact consisted of twenty-three member schools in 1985 and today there are well over five hundred colleges and universities committed to community service through this organization (1996).
Campus Compact played an integral role in the passing of the National and Community Service Trust Act of 1990. From this act came the establishment of the federal Commission on National and Community Service under President Bush. Under the National and Community Service Trust Act of 1993, the Corporation for National and Community Service was established. This occurred during President Clinton’s first term of office. The Corporation for National and Community Service supports AmeriCorps, the national service program that links community service to higher education benefits (Morton & Troppe, 1996).

Campus Compact has found that while volunteerism has great intrinsic benefits, “it does not actually teach citizenship and many times does not have a place as an option or requirement in a college curriculum” (Morton & Troppe, 1996). In January 1995, The American Association of Higher Education and Campus Compact assembled the Colloquium on National and Community Service devised to deal with service learning in higher education today (Morton & Troppe, 1996).

An educational plan which emerged in the past ten years, service learning is based on the integration of academic course work and community service. It is hoped that this combination will increase students’ levels of humanism, moral development and awareness of civic responsibility. Many experts in the field of higher education have interpreted the pedagogy of service learning. Barbara Jacoby (1996) describes service learning as a form of experiential learning, which engages students in activities that focus on
human, and community needs. Combining them with structured opportunities, service learning is designed to promote student learning and development. The key concepts of service learning are reflection and reciprocity (Jacoby, 1996).

One of the ideals of service learning is to provide the means for students to make specific connections between the service experience and the course content. Service learning is an educational philosophy that promotes human growth and provides purpose, a social perception, an approach to the community, and a way of awareness of the environment (J.C. Kendall, 1988). The fundamental principle emphasizes experience for the common good rather than for personal advancement (Giles et al, 1991). It differs from volunteering in that students employ active reflection on their experience, and because community service learning is connected to the academic learning. Service learning puts emphasis on accomplishing tasks that meet community needs and that intentionally connect students with learning goals through reflection and critical analysis. It has also been defined as the process that enables students to learn and develop through active participation in carefully organized service experiences that meet needs of the community (Miller, 1994). Service learning is typically distinguished from community service and traditional civic education by integration of study with hands on activity outside the classroom through a collaborative effort to address a community problem (Erlich, 1999).
Service learning is a subset of experiential learning (Myers-Lipton, 1994). It is believed that all learning may be considered to have some experiential aspect to it. The difference between experiential education and other forms of education is that the learning process is a more active one (Meyers-Lipton, 1994).

A few pioneers in the movement note that service learning is a combination of community action combining the service being performed and efforts to learn from that action. Students should be able to connect what is learned to existing knowledge. It is also defined as the fulfillment of tasks that meet real human needs combined with intentional educational growth (Meyers-Lipton, 1994). When students are actively engaged in community problems, they understand that public involvement may have an effect on the lives of others in need (Guarasci, 2001). Research findings have been posited claiming the links between service learning and the cultivation of a sense of civic responsibility in learners (Koliba, 2000).

Many educators believe that service learning exemplifies a powerful movement towards the enhancement of student development during the undergraduate years. It fulfills a basic institutional mission of providing service to the community (Astin & Sax, 1998). While providing the opportunity for students to demonstrate abstract theory in the real world, service learning enriches traditional course work and improves the quality of the service provided by adding an intellectual underscore. Through service
learning, students are given practical experience in the real world (Astin & Sax, 1998).

Researchers have found evidence that suggests that service combined with academic studies is an extremely effective teaching instrument (Boss, 1994; Cohen & Kinsey, 1994; Markus, Howard & King, 1993). It is an instructional technique designed to augment formal classroom education with real life experiences (Greene & Diehm, 1995). Advocates believe that service learning is valuable as a form of practical experience because it enhances the college curriculum. It also reinforces the civic and moral values innate in serving others (Erlich, 1995). It presents a challenge to educators to devise ways to link study and service so that the disciplines illuminate and inform experience, and experience gives new meaning and energy to the disciplines (Eskow, 1980).

Many colleges and universities support and promote community partnerships, both in the form of extracurricular as well as curricular programs. Many students participate in extracurricular community service through various student organizations. Academic programs may also involve students in the community through clinicals, internships, co-op programs, field experience, and student teaching. These activities focus on professional development and not on the importance of service and civic responsibility (Bringle & Hatcher, 1996).

Service learning is not like voluntary service in that it is course work-based service experience. When meaningful service activities are related to
the course work, the best outcomes are produced through reflective writings and classroom discussion (Bringle & Hatcher, 1996). Advocates tout it as a powerful pedagogical strategy that promotes meaningful connections between content in the class work and real-life experiences. Advocates believe that through service learning, students experience increased levels of civic responsibility and regard for social justice (McHugh-Engstrom & Tinto, 1997). It is believed to enhance students’ sensitivity to moral issues and aids in overcoming negative stereotypes which block students’ interaction with diverse populations (Chickering, 1969). Despite a longstanding commitment to develop good citizens, there remains a tension between the educational and civic goals of service learning (Delli Carpini & Keeter, 2000).

Not all educators would agree that the development of good citizens should be a part of the mission of higher education (Delli Carpini & Keeter, 2000). Many embrace a teaching philosophy that dictates transmission of knowledge and cultivates a significant position rather than encouraging participation in service. For some educators, civic and political involvement can be viewed as unnecessary, ineffective and possibly harmful (Newman, 1985).

To investigate the relationship between student development theory and service involvement, Delve, Mintz and Stewart (1990) created a model that provides a conceptual framework for assessment of the developmental effects of service learning. The model defines the developmental process experienced by students who engaged in service learning. It outlines the
relationship between service learning and social responsibility. An instrument was designed by Cynthia Olney and Steve Grande to assess this model – the Scale of Service Learning Involvement. A study was conducted by Olney and Grande (1994) using the Scale of Service Learning Involvement (Olney & Grande, 1994), the Scale of Intellectual Development (Perry, 1981), Defining Issues Test (Rest, 1990) and the Measure of Moral Orientation (Lidell, Halpin and Halpin, 1992). The study showed there were no significant relationships found between service learning and student development with the Defining Issues Test (1990), Scale of Intellectual Development (1981) or the Measure of Moral Orientation (1992). The study shows that service learning has a positive effect on students’ social responsibility.

Research shows that service learning is positively related to increases in students’ civic responsibility, racial tolerance, international understanding (Myers-Lipton, 1994), critical thinking skills (Markus, et al, 1993) and self-esteem (Cram, 1998). Cram (1998) conducted a study of community college students enrolled in an undergraduate ethics class which consisted of one-third service learning students. The study showed increases in the levels of self-esteem but no significant increases in the levels of moral development in the service learning group as opposed to the non-service learning group. A study conducted of students enrolled in two different sections of an undergraduate ethics course by Judith Boss (1994) involved a significant difference in the sections, in that one section had a service component whereas the other did not. The students engaged in service learning as part of the curriculum showed
increases in the levels of moral reasoning as opposed to those not engaged in service. The findings of this study lend support to the work of Dewey and Kohlberg and their belief in the importance of out of class experience to moral development. The role of service learning is perceived by many to be an intrinsic part of the college learning experience focusing on moral development of college students. While research has found that some significant gains in moral reasoning are positively associated with college attendance, the combination of college attendance and community involvement fosters even greater increases in moral reasoning (Pascarella, 1997). The role of service learning is perceived by many to be an intrinsic part of the college learning experience focusing on moral development of college students.

**Voluntary Service in High School**

Much research has been conducted which focuses on the developmental, environmental and psychosocial benefits of voluntary prosocial behavior (Eisenberg & Miller, 1987; Dovidio, Gaertner & Clark, 1982). The focus of the interest in the area derives from the fact that prosocial behaviors, which are voluntary behaviors that benefit others many times promote a positive community environment (Eisenberg, 1982). Adolescents who engage in these behaviors are more socially adept, have a better rapport with their peers and have more positive self-concepts (Delve, Mintz, & Stewart, 1990). According to Rushton (1982), there are four processes
associated with prosocial behavior in adolescents: classical conditioning; observational learning; reinforcement learning and learning from instruction or preaching. Through voluntary service, adolescents acquire a sense of accomplishment that could lead to increased self-esteem and a strong sense of responsibility. They identify with the community and this may lead to continued prosocial action (Switzer, Simmons, Dew, Regalski & Wang, 1995).

Much of the research involving adolescent community service examines the difference between youth who volunteer and youth who do not volunteer. They differ in personality, attitude and behavior and have higher intrinsic religious orientations (Serow, 1989). Studies have suggested that volunteer and non-volunteer adolescents differ with respect to identity development (Hart & Fegley, 1995; Waterman, 1998). Non-volunteers many times neglect active reflection considering alternatives to identity related goals while volunteers adopt a strategy of active reflection (Pugh, 1999).

Adolescents must choose their role as a constituent of the larger society. They are exploring their identity. Research from a developmental perspective has given strong support to the argument that participation in community service in high school may facilitate identity development (Yates & Youniss, 1996). The process of identity development consists of at least three major components (Youniss & Yates, 1997). These include industry, social interactions and ideology (Youniss & Yates, 1997). According to Erikson (1968) the basis of identity is industry. Adolescents must first acquire
a sense of industry before they can work through their identity through action and performance. In society today, adolescents are many times not viewed as being capable of fruitful work and are forced to realize their identities in the context of school or extracurricular activities (Logan, 1985). Part two of the identity development process takes place within social interactions. Knowledge is based on reflection on personal experiences that occur in social interactions (Youniss and Damon, 1992). Adolescents’ social relationships are the second part of the process of identity development. They act but produce meaningful experiences through reflection on their actions in order to make sense of the past and anticipate the future (Furth, 1969). This reflection on personal experiences occurring during social interaction with one another increases knowledge (Youniss & Damon, 1992). Feedback about performance is provided by discussion and interaction. The same discussion and interaction can provide a better understanding of the world and their place in it (1992).

The third and final aspect of identity development is ideology. Ideologies are systems of belief that precede the individual and connect the individual’s identity to history (Youniss and Yates, 1997).

Many social learning theorists believe that previous learning history plays an important role in the extent to which adolescents continue to engage in prosocial behaviors. Students with a rich volunteer history may approach continued voluntary prosocial behavior differently than students with no volunteer history (Pugh, 1999). Therefore, the volunteer history of the student
should be examined as an important factor in the research on the impact of
service learning coursework on undergraduate students.

Faculty Mentorship

Most of the existing literature centers on business, adult development
and academia. Theoretical support for establishing mentoring relationships
can be found in theories of human development. Social learning theory
explains the philosophy of modeling and identification and embraces the
concept that when we see the behavior of a model being rewarded, we are
likely to imitate the behavior (Bandura, 1977, 1986). Bandura (1986) suggests
that social learning progresses in four steps. First, the observer perceives the
critical features of the model’s behavior. Second, the observer successfully
recalls the behavior. Third, the observer reproduces the behavior precisely.
Finally, the observer must be motivated to study and carry out the behavior
(Feldman, 1998). Social learning theory is learned through observation. In the
case of a student and faculty mentorship, a less experienced student may
acquire competence through being involved with a more experienced faculty
member.

A functional approach, identifying the stages of development that
students go through and development of corresponding models of mentoring
designed to meet students’ needs, has been taken by much of the research on
mentoring. Mentorship is about teaching and teaching is the most critical
factor in leadership. It is the ability to transfer skills and knowledge and
encourage others to reach beyond previously assumed limits of understanding, perspective and will (Mitchell, 1998). Not all models are effective in producing prosocial responses. Models viewed as highly competent or high in prestige are more effective than others (Bandura, 1977; Yarrow, Scott & Waxler, 1973).

Students are exploring their identity and need role models during their discovery years. Students may look to the faculty member as someone that they aspire to be like (Bandura, 1986). They may realize that through this perceived faculty mentorship, the goal is not to become like the faculty mentor, but to become more fully themselves through the faculty mentor (Bandura, 1986). Mentorship can be a relationship between a young adult and an older, more experienced adult who supports, guides and counsels the young individual to navigate in the adult world (Kram, 1986). They act as role model, teacher, advisor and guide to the inexperienced youth (Welch, 1996). Mentors provide challenging assignments, sponsor advancement, and foster exposure and visibility (Godshalk, Sosik, 2000). Through mentorship, students are put into increasingly challenging situations in order to develop practices of mind and instincts, while at the same time providing a seasoned person ready to lend a helping hand (Mitchell, 1998). It has been suggested that mentor development goes through a series of stages that mirror and operate in response to student stages of development (Caruso, 1996, Gray & Gray, 1985, Jaworski & Watson, 1994). Through faculty acting as role models, faculty mentoring may lead to voluntary prosocial behavior.
Higher Education Curriculum

During the 1980s, a great number of reports about post-secondary education called for dramatic change in undergraduate curriculum (Toombs & Tierney, 1991). Critics claimed that higher education was losing sight of its mission to create good, educated citizens. A few researchers saw an solid division between cognitive and affective learning and curricular and extracurricular learning (Kuh, 1996, King & Baxter Magdola, 1995, Love & Love, 1995). Boyer (1987) called for an integration of classroom knowledge and awareness and for a valuing of the larger community and society. The reforms made in the 1960s, followed by the declining resource problems of the 1970s and 80s and the changing perceptions about the mission and purpose of colleges and universities, contributed to the state of higher education in the 1990s (Toombs & Tierney, 1991). Critics felt that curriculum should be based on heritage, theme, competency, career, experience, students, values, and future.

Many believe that the amount covered in the curriculum should not matter as much as giving faculty time to reach students. Educators must concentrate on the development of the individual student and control their passion for dispensing knowledge. Colleges and universities must show that they believe the well-developed individual is the most promising candidate for entrance into society (Sanford, 1967).

According to Astin, “Students learn by becoming involved” (1985). He developed the theory of student involvement in 1985. The theory refers to
the amount of physical and psychological energy that the student devotes to the academic experience. The more the student is involved in the coursework, the more the student will learn.

Schaefli, Rest and Thoma (1985) conducted a review of fifty-one studies which assesses specific college experience associated with moral reasoning. The results showed that curriculum which emphasized discussion related to real life events promoted moral development. Programs in the humanities, social studies, literature, or contemporary issues do not include the practice of moral problem solving or personal development activities (Schaefli, Rest and Thoma, 1985). Dilemma discussion was found to cause stimulation of growth in students’ principled moral reasoning (1985).

Three key elements should be stressed in the learning process. The learning process should include the involvement of students in the surrounding community. The process should focus on problems to be solved. A collaboration between students and faculty is vital (Dewey, 1916). Advocates of service learning claim these elements are reflected in the pedagogy of service learning. Service learning is believed to promote community-based learning, problem-based learning and collaborative learning. Because service learning represents curricular reform, faculty involvement is essential to its long-term success and institutionalization (Zlotkowski, 1999).
Empathy

Empathy was first proposed by Titchener in 1909 to mean “to feel one’s way into.” It is a way of sharing one’s feelings by placing oneself psychologically in that person’s circumstance (Lazarus, 1991). Described as one of the quintessential prosocial motives (Hoffman, 1982), empathy is rooted in the distress response to the suffering of others. Research shows that there is a widespread tendency for people to respond empathetically to another’s distress (Hoffman, 1981). Many theorists believe that empathy develops naturally and is to some extent present at every age (Eisenberg, 1982). Psychoanalytic theorists believe that empathy develops as early as infant-caretaker interactions. The caretaker’s moods are transmitted to the child by touch, tone of voice and facial expressions (Mussen & Eisenberg-Berg, 1977). Lamb and Zakhireh (1997) examined attention to distress in a day care setting analyzing 45 nine to 27 month old children. The analysis revealed that caregivers play an important role in the socialization and development of prosocial behavior. An examination of the role of different emotions for children’s prosocial behavior on the basis of motivational-theoretical approach revealed that there was a significant relationship between empathy and distress.

Studies have found that infants and young children cry in response to someone else’s cry (Simner, 1971; Sagi & Hoffman, 1976). Hoffman (1982) believes that it is possible that the reactive cry of a child may contribute to empathetic distress later on. This is due to the frequent co-occurrence of
distress cues in others. Aronfeed (1976) believes that empathy is acquired early in life through conditioning or association. It is the continuation of a child's feelings of distress over another's feelings of distress.

Believing empathy to be a chief motive of altruism, Hoffman proposed a theory of growth and change in altruistic motivation in young children which focuses on the cognitive and affective aspects of empathy. He noted that "...empathetic reaction is an internal response to cues about affective states of someone else... and must depend heavily on the actor's cognitive sense of other as distinct from themselves" (Hoffman, 1975). According to Batson (1987), empathy results in altruistic other-oriented motives, such as the desire to reduce the stress of another. People who experience personal distress sometimes assist others.

Research suggests that empathy is a key factor in development of social understanding and prosocial behavior (Aronfeed, 1976, Piaget, 1932). Theorists have been concerned with the relation of empathy caused by personal distress and prosocial behavior, such as volunteerism (Carlo, et al, 1999). Some studies have found moderate relationships between empathy and prosocial behavior.

A number of theorists propose that empathy and role taking are critical factors that influence prosocial behavior. The results of the attempt to help another are sophisticated because of the role taking involved (Mead, 1934). Role taking has been defined as a cognitive process in which a person transfers themselves into another person's perspective enabling them to
experience what the other person is experiencing. There now exists a considerable body of evidence indicating that empathy is related to the altruistic behavior of adults (Eisenberg, et al, 1989). Eisenberg (1982) believes that imagining oneself in the other's place may produce an empathetic response because it has the power to evoke associations with real events in one's own past in which one may have actually experienced the emotion in question. Studies have found that empathetic affect may contribute to prosocial behavior (Litvak-Miller & McDougall, 1997).

Developmental Psychology and Moral Development

Since the time of Plato, philosophers have believed that in order to understand the problems of morality, one must know the "nature of man" (Wolman, 1982). Freud believed that moral valuation and conduct are necessary attributes of man (Freud, 1920). There was not much call for developmental studies before the late nineteenth century. In the 1890's, physiologist Wesley Mills noted the need for such developmental studies (Wolman, 1982). At this point in time, developmental research began to flourish and developmental psychology even had its own journals. In 1882, William Preyer published the first study of the nature of development from life before birth. In the time of Darwin's theory of evolution, there was a call for an analysis of human development from conception to old age. Another psychologist, Binet (1908) pioneered the study of experimental child
psychology, persevering in making developmental psychology a science of great value.

A premier figure in developmental psychology, G. Stanley Hall, the first professor of psychology in America, provided the foundation for the study of children and adolescents, studying them in everyday situations. A student of Hall's, John Dewey evolved a unique observation of education focusing on the dialectic between the individual and the environment as key to the nature of development (Wolman, 1982). Dewey proposed that the experiences of children in school aided in their intellectual and moral development, which in turn would create a better society (Dewey, 1916). He believed that there is a constant reorganizing of experience (Dewey, 1916). He originated the conceptual framework for development and education as a model for guiding teaching practices.

Another major advance, pioneered by Jean Piaget (1932), was the assessment of moral reasoning. Piaget observed the actions of children, recording their responses, and assessed changes in children's use of rules and regulations. From his observations, Piaget proposed a two-stage theory of moral development. Piaget's cognitive structural approach to developmental psychology has contributed to the area of moral development.

Building on Piaget's theory, Lawrence Kohlberg (1969) developed a cognitive developmental theory of moral reasoning. He outlined the differences in the stages of moral growth suggested by Dewey and Piaget by identifying and defining an adult level of moral reasoning, which is based on
moral principles. He developed a method of measuring moral thinking, the Moral Judgment Interview, and validated the moral development stage theory. James Rest, a former research associate of Lawrence Kohlberg, developed a written instrument based on Kohlberg's stage theory called the Defining Issues Test (Rest, 1987).

**Theories of Moral Development**

In this section, the cognitive-developmental approach to the study of moral development is discussed. The theories of Piaget, Kohlberg, Gilligan and Rest contribute to this approach.

A complex process that may be divided into four basic dimensions, physical, cognitive, emotional and social, the science of human development has slowly evolved over the years (Rice, 1997). Human development is a multidisciplinary science, which borrows from biology, physiology, medicine, education, psychology, sociology and anthropology (Baltes, 1987). For many years, psychologists have tried to separate the influences of heredity and environment (Himelstein, Graham & Weinter, 1991). Research has found that both heredity and the environment are important influences. Both nature (heredity, biological factors) and nurture (environment) influence development.

Many psychologists emphasize that development is a continuous process of growth and change (Rice, 1997), while others believe there are stage-like characteristics of development (Fischer and Silvern, 1985).
Theories of development may be arranged in five categories: psychoanalytic, learning, humanistic, cognitive and ethological theories.

Most cognitive developmental theorists have employed the work of Jean Piaget (1952). Exploring the development and growth of children, Piaget became interested in how children adapt in the social world. He observed children’s approach to problems and their attempt to solve these problems seeking to find the logic behind their answers (Rice, 1997). Through his observations of children, Piaget constructed his theory of cognitive development (Piaget, 1950, 1969). According to Piaget (1952), the process of developmental change is an interactive one where an individual encounters a problem or dilemma which causes cognitive conflict that demands a change in the individual’s thinking (Hood, 1986). He believed imitation and obedience were not adequate means of “internalized morality” (Kohlberg, 1958). One area with which Piaget dealt exclusively was moral judgment and the relation between cognition and affect (Reimer, Paolitto & Hersh, 1983).

Emphasizing that the development of moral judgment is a gradual cognitive process, Piaget believed that increased social relationships stimulated this development (Walker & Taylor, 1991). He believed modeling and obedience were not adequate means of internalizing morality (Kohlberg, 1958). He developed a two-stage theory of moral development of children noting that in the early stages, children are concerned with rules and authority. Rules must be obeyed without question. This early stage is known as the morality of constraint – the stage of moral reason. Through social interaction,
children learn the morality of cooperation and progress to the stage of moral relativism. In this stage of moral development, rules are no longer absolute and can be altered by social consensus (Gabennesch, 1990; Helwig, Tisek & Turiel, 1990).

A lasting contribution of the work of Piaget, the concept of moral reasoning is the concept that moral reasoning progresses through a sequence of stages driven by cognitive development and social interaction. A theory that builds on this stage approach to moral development is Lawrence Kohlberg’s Theory of Moral Reasoning (Reimer, Paolitto & Hersh, 1983).

Interested in the reasoning used to justify a decision more than the decision itself, Kohlberg conducted studies through interviews of three groups of males, ages ten, thirteen and sixteen (Kohlberg, 1975). He differed from Piaget in that he described an adult level of moral reasoning based on moral principles (Reimer, Paolitto & Hersh, 1983).

Kohlberg analyzed children’s, adolescents’ and adults’ responses to a number of moral dilemmas. From this study, he identified three levels of moral reasoning, each level divided into two stages. He believed that across the six stages, the basis for moral reasoning shifts. In the earliest stages, the pre-conventional level, moral reasoning is based on promised reward or threat of punishment. An individual has reached the more advanced post-conventional level when moral reasoning is based on a personal moral code which is unaffected by society’s expectations (Rice, 1997). Most adults and older adolescents are at stage three or four in the conventional level where
moral decision making is based on society's norms and what is expected by others (Stewart & Pascal-Leone, 1992). Longitudinal studies have shown that an individual becomes more advanced in moral reasoning over time or they remain at the same level. Regression to a lower stage does not occur (Walker & Taylor, 1991). Family and peer interaction aid in the development of moral reasoning.

The Moral Judgment Interview was developed as an instrument in the assessment of Kohlberg's stages of moral development. He used hypothetical moral dilemmas which required the respondent to make judgments. Kohlberg and his associates developed a scoring system based on answers to a series of questions following each dilemma. Responses were judged according to the stage of moral reasoning fitting the responses. The scores were obtained through a match of each unit with stage criteria to form a global development score and stage score. The procedure is time consuming, difficult, and requires intense training of both the people conducting the interviews and those rating the data.

As an educational objective in relation to developmental acceleration, an educator should be interested in avoiding stage retardation more than in stage acceleration (Kohlberg, 1981). Moral development is not age specific, but is individual. There are periods between stages for movement from one stage to the next. To avoid retardation, stimulation must be present in these periods where the possibility for development is still open. Although there is no direct correlation between age and developmental stage, research shows
that most traditional age college freshmen are at the "conventional" level of moral reasoning. Studies have found that college contributes significantly to moral development, thereby predicting that a great proportion of upperclassmen should be at the "post-conventional" stage as compared with their peers who do not attend college.

A former associate of Lawrence Kohlberg at Harvard, James Rest devised an instrument based on Kohlberg's stages of moral development called the Defining Issues Test or DIT. This test has two forms, the long form, which includes six hypothetical moral dilemmas, and the short form, which includes three hypothetical dilemmas. The system of scoring this instrument provides an objective measure of principled moral thinking and of stages based on respondents' selection of issues following each dilemma (Cram, 1998). The DIT is a reformulation of Kohlberg's six-stage scheme. Rest's definitions of some of the stages differ slightly. He notes that between the two schemes there are minor differences (Rest, 1987).

Kohlberg has been criticized for claiming that his sequence of stages is universal. He maintains that people in all cultures progress through the six stages (Kohlberg, 1975). Research has found that moral reasoning in other cultures is not described well by Kohlberg's theory beyond the earliest stages (Snarey, 1985). A colleague of Kohlberg's, Carol Gilligan, also questions the applicability of Kohlberg's theory. Arguing that Kohlberg's emphasis on justice applies to males more than females, Gilligan believes that female reasoning on moral issues is rooted in concern for others (Gilligan, 1982). She
contends that there are real differences between men and women and that it is unfair to attempt to fit women into "the male conception of the life cycle" (Gilligan, 1982). In her research using Kohlberg's Heinz dilemma, Carol Gilligan found that young women were more concerned with the relationship between Heinz and his wife (Jacoby, 1996). Arguing that "...a justice perspective draws attention to problems of inequality and oppression and holds up an ideal of reciprocity and equal respect," she feels that, "a care perspective...holds up an ideal of attention and response to need" (Gilligan & Attannucci, 1988). These are two moral orders, one not to treat others unjustly and the other not to turn away from someone in need. Kohlberg, who at first seemed to regard his six-stage theory as applicable to all kinds of moral problems, seemed to have changed his position in a debate with Carol Gilligan (Rest, 1990). He acknowledged the limit of his scope of justice in that it did not deal with dilemmas of special relationships such as family and friends nor pertain to groups of which an individual is a member.

Carol Gilligan proposed a developmental progression in which individuals gain greater understanding of caring and responsibility (1982). She challenged the rationalist model of Kohlberg (Spohn, 2000) and developed a theory based on the ethic of care, emphasizing care (helping in need) over justice (treating people fairly). There has been controversy over the universality of Kohlberg's theory and many researchers have found his theory is not suited for all individuals beyond the first stages (Muuss, 1988; Skoe & Gooden, 1993). However, some research has found that Gilligan's claim that
males and females differ on the basis of moral reasoning is unsupported. Some studies have found males and females to reason about moral issues similarly (Walker, 1995), while others have identified some basic differences in how men and women perform a common social activity, which reveal that Carol Gilligan's gender differences can be relevant to empirical, interaction level occurrences (Wolfinger, Rabow & Newcomb, 1999). Research shows that males and females think about moral issues in terms of care and relationships. Justice and care serve equally as the basis for moral reasoning. Some researchers believe that many times the nature of the problem determines the essence of moral reasoning (Smetana, Kellen & Turiel, 1991).

Role of Moral Development in College

Research has found that a college education promotes advancement to a higher level of moral reasoning (Rest, 1988; Pascarella & Terenzini, 1991). Another discovery through research has been that when students are confronted with moral issues outside the classroom, there is very little carry over of moral reasoning from the classroom (Rest, 1988). Research has found that when confronted with moral issues outside the classroom setting, students will many times revert to earlier stages of moral reasoning (Gardner, 1991). Many theorists believe that by the end of their college years, students will conform to society's standards rather than become independent thinkers (Pascarella & Terenzini, 1991).
Because people dwell in groups, morality arises from social conditions and the actions of one person can affect others. Providing guidelines for dealing with how conflicts in human interests are settled to the benefit of people in these groups is a basic function of morality. People reflect on their social experiences enabling them to develop a better sense of the social world (Rest, 1988).

According to John Dewey (1939) and Lawrence Kohlberg (1971), true experience in confronting moral issues, especially out of the classroom setting, is important for moral development. Rest (1984) conducted a study of students' moral development and found that student involvement in service projects, dilemma discussion interventions and reflective reading and writing contribute to moral education in college. He notes that these types of gains in moral reasoning will carry over to other experiences in a student's life.

A study conducted by Norma Hahn (1985) shows social disequilibrium rather than cognitive disequilibrium contributes to increases in moral development. She argues that there should be more emphasis on the effect of the emotional interactive experience of moral social conflict on moral development. A more recent longitudinal study of college students reported changes in moral development from freshman to senior year (McNeel, 1994b). The study determined that the college experience seems to foster moral development through re-examination of students' thoughts about the moral basis of society. An important characteristic of college is promoting moral development in critical reflection (1994b).
Prosocial Behavior, Moral Reasoning and Empathy

Prosocial behavior is frequently defined as a voluntary behavior that is intended to benefit others with no particular benefit to self (Kail, 1998). Helping, sharing and comforting are considered prosocial behaviors. These behaviors are motivated by expectation of rewards, social approval or desire to reduce one’s own distress. Altruistic behaviors are considered prosocial behaviors, which are motivated by sympathy for another or empathy and individual desire to “adhere to internalized moral principles” (Eisenberg, 1992).

Prosocial activism involves a significant moral cognitive component as well as empathetic motivation (Eisenberg & Fabes, 1991). A child is socialized into a parent’s ideology and empathetic affects at an early age (Bethlehem, 1963). It is believed that activism begins in adolescence, at which time the development of empathetic affects may have progressed considerably. Empathetic response to another’s distress starts with a simple “innocent bystander” model. One encounters someone in pain and generates empathetic affects (Hoffman, 1987). Empathetic affects should arouse through mediation of language and role taking. The victim need not be present. One must only be informed about the victim. It is believed that empathetic affects are not an adequate substitute for moral principles (Hoffman, 1987).

Social learning theorists note that individuals learn moral behavior by observation of others’ behavior. These others are called models (Bandura,
An individual's choice of moral reasoning is influenced by his or her values and goals, which in turn are based in part on the individual's socialization history (Eisenberg, 1982). We are taught moral principles (justice, responsibility) and we internalize them as values and act accordingly. The prosocial motivating force is our sense of moral obligation, duty, or expected guilt and shame. One may identify two different sources of sense of obligations – social expectations and self-expectations.

There has been relevance of empathetic distress to altruism. Empathetic distress is assumed to force the support of a motive to help others. Several studies have reported high altruism scores among children with more advanced levels of moral judgment as measured by Kohlberg's procedures (Harris, Mussen & Rutherford, 1976; Rubin & Schneider, 1973). One of these studies found a measure of moral judgment to be significantly related to generosity and helpfulness (Rubin & Schneider, 1973). Another study found a positive relationship between prosocial behavior (generosity, helpfulness and empathy) and volunteerism (Bar-Tal & Raviv, 1979). Still another study of prosocial behavior and gender found females to be more generous than males (Moore & Underwood, 1981). Peer acceptance was identified as a direct predictor of prosocial behavior in adolescents (Carlo, Fabes, Laible & Kupanoff, 1999).

While research has found little relationship between performance on intelligence tests and predisposition to prosocial behavior, it has been suggested that judgments and reasoning can be affected by an individual's
tendency toward prosocial behavior (Mussen & Eisenberg, 1977). Most research on moral judgment has focused on moral dilemmas and the concept of justice. Higher scores on the Defining Issues Test (DIT) have been associated with various prosocial behaviors, two of these being "community involvement" and "civic responsibility" (Rest, 1986b). The Defining Issues Test (DIT) has also found significant correlations with moral development and prosocial measures in some studies (Rest, Narvaez, Bebeau, & Thoma, 1999).

A critic of Kohlberg, Nancy Eisenberg (1982) believes that Kohlberg's theory of moral reasoning is unrealistic. Eisenberg notes that Kohlberg's dilemmas involve breaking laws or rules and disobedying authority. Real life moral dilemmas according to Eisenberg are based on choice between self-interest and the needs of others (Eisenberg, et al., 1995). Eisenberg developed a theory of Prosocial Reasoning (1982). Her studies of prosocial moral reasoning focused on moral dilemmas and the conflict an individual faces between their needs and those of others placing minimal attention to rules, authority and formal obligations (Eisenberg, 1986).

There is evidence that moral reasoning is associated with prosocial and moral behaviors in adolescence. Higher modes (e.g. needs oriented) of moral reasoning are related to prosocial behaviors (Carlo, Koller, Eisenberg, Da Silva & Frolich, 1996, Eisenberg, Carlo, Murphy & Van Court, 1995). A study of individuals ages 17-20 investigating the relation of prosocial moral reasoning to prosocial behavior, including the relation of empathy to prosocial behavior as a secondary goal, found evidence of an increase in several modes
of moral reasoning (Eisenberg, Carlo, Murphy & Van Court, 1995). There was a higher overall reasoning level found in the females in comparison to the males in the study. Eisenberg & Fabes, (1991) proposed a model of prosocial and moral development that identifies temperamental dimensions relevant to those behaviors. These theorists have suggested that self-regulatory and physiological arousal processes are associated with prosocial and moral outcomes in children. Other theorists have suggested that experiences substantially affect prosocial behaviors in adolescence (Carlo, Fabes, Laibile & Kupanoff, 1999).
CHAPTER III
RESEARCH METHODS

This study examined the effects of on-site faculty mentorship, empathy levels, levels of postconventional moral development, on the decision to continue in voluntary prosocial behavior of undergraduate students. A questionnaire was administered to students at the beginning of the first semester of college (Time 1) and at the conclusion of the first semester of college (Time 2) to determine levels of empathy and postconventional moral development. The age, gender, ethnicity and involvement in high school voluntary service were also determined by ancillary questions in the questionnaire. In the spring of the second semester of the first year of college, another brief questionnaire was mailed to the same students to determine their decision to continue in voluntary prosocial behavior. Eleven hypothetical relationships were examined within a multivariate conceptual framework.

Population and Sample

The population for the study represented the traditional aged (18- to 25- years of age), full-time undergraduate students attending four-year, private colleges in the United States. The study employed a sampling frame of convenience (Frankfort-Nachmias and Nachmias, 1994) drawn from the students enrolled in a freshmen year program at a small, liberal arts college in the northeastern part of the United States. The sample was representative of the population in age, gender, race and ethnicity as reported in a study of
national norms by Sax, Astin, Korn, Mahoney (1998). The freshman class, all of whom were enrolled in the freshmen year program, consisted of 480 students from which a sample of 285 students was selected; the entire sample was enrolled in a required service learning course. All students participating in the study were randomly assigned to ten Learning Communities of 20-30 students each. This total sample size of $N = 285$ yields statistical power greater than .80 sufficient to detect moderate effects in both logistic regression analysis and analysis of variance at a .05 level of significance (Cohen, 1988).

Response Rates

Initially, 285 students were administered the questionnaire in the beginning of the first semester of college. Of those students, 244 responded to the second questionnaire administered at the conclusion of the first semester of college. Of the original 285 students, 212 responded to the final, brief questionnaire, which was mailed to all 285 students. The Dillman (Salant & Dillman, 1994) method for survey research was utilized to maximize the number of returns. What follows is a chronology and description of the process involved in obtaining data for the study.

1) At the beginning of the first semester of college, the initial questionnaire was administered to the 285 students in the ten learning communities. A letter of explanation (see Appendix “B”) was attached to the questionnaire explaining the questionnaire, the study and the fact that all information was confidential and the study was strictly
voluntary. The completed questionnaires were left in a drop box placed at the rear of the classroom and later retrieved by the researcher.

2) At the conclusion of the first semester of college, the second questionnaire was administered to the same learning communities. Due to attrition and absence, there were 244 responses to the second questionnaire. A letter explaining the questionnaire (see Appendix “B”), study and the fact that the information provided was strictly confidential and voluntary accompanied the questionnaires. These questionnaires were also left in a drop box in the rear of the classroom and later retrieved by the researcher.

3) In the second semester of the first year of college, a third, brief questionnaire (see Appendix “C”) was mailed to each of the original 285 students involved in the study to determine whether or not the students decided to continue in voluntary prosocial behavior. The Dillman method (Salant & Dillman, 1994) was utilized to maximize the response rate. Of the original 285 students, 212 responded to all three questionnaires.

Demographic Data

Of the 285 students who participated in the first questionnaire, 179 (62.8%) were female, 106 (37.2%) were male; 195 (68.4%) were residents, 90 (31.6%) were non-residents; 233 (81.8%) were Caucasian/white, 16 (5.6%)
were African American/Black, 1 (.4%) was American Indian/Alaskan Native, 9 (3.2%) were Asian/Pacific Islanders, 13 (4.6%) were Latino/Latina/Hispanic, 13 (4.6%) were other; 243 (85.3%) were 18 years of age, 35 (12.3%) were 19 years of age, 3 (1.1%) were 20 years of age, 3 (1.1%) were 21-25 years of age and 1 (.4%) was above 25 years of age.

Of the 285 students who participated in the first questionnaire, 244 participated in the second questionnaire. Of those 244 students 149 (61.1%) were female, 95 (38.9%) were male; 171 (70%) were residents, 73 (30%) were non-residents; 201 (82.4%) were Caucasian/White, 14 (5.7%) were African American/Black, 1 (.5%) was American Indian/Alaskan Native, 7 (2.1%) were Asian/Pacific Islanders, 9 (3.6%) were Latino/Latina/Hispanic, 12 (4.9%) were other; 204 (83.7%) were 18 years of age, 34 (13.9%) were 19 years of age, 3 (1.2%) were 20 years of age, 3 (1.2%) were 21-25 years of age.

Of the 244 students who participated in the second questionnaire, 212 participated in the third and final questionnaire. Of those 212 students 129 (60.8%) were female, 83 (39.2%) were male; 143 (67.5%) were residents, 59 (32.5%) were non-residents; 177 (83.5%) were Caucasian/White, 14 (6.1%) were African American/Black, 1 (.5%) was American Indian/Alaskan Native, 6 (2.8%) were Asian/Pacific Islanders, 9 (3.3%) were Latino/Latina/Hispanic, 8 (3.8%) were other; 181 (85.4%) were 18 years of age, 26 (12.3%) were 19 years of age, 2 (.9%) were 20 years of age, 3 (1.4%) were 21-25 years of age.
Measurement of Variables

There were four variables to be measured in this research: (1) empathy disposition, a continuous measurement on a scale of 0 to 20; (2) involvement in voluntary service in high school, a nominal measurement of 0 = no involvement and 1 = yes there was involvement; 3) on-site faculty mentorship, a nominal measurement of 0 = no faculty involvement in the service learning experience and 1 = yes, there was faculty involvement in the service learning experience; 4) level of moral development, a continuous measurement on a scale of 0 to 95; and (5) continuing voluntary prosocial behavior, a nominal measurement of 0 = no continuing prosocial behavior and 1 = yes, there was continuing voluntary prosocial behavior. Operationalization of the variables was accomplished by means of reproduction of two published instruments (for which permissions had been secured) and 4 demographic questions. Continuation in voluntary prosocial behavior was determined by means of a brief questionnaire (see Appendix “C”), which was mailed to all of the students involved in the study on or about April 1, 2000.

The Measurement of Empathy

The empathy subscale of the Jackson Personality Inventory-Revised (JPI-R) (1994) was selected to measure the variable of empathy for this research. The Jackson Personality Inventory Questionnaire (JPI) (1970) was developed "to provide in one convenient form, a set of measures of personality reflecting a variety of interpersonal cognitive and value
orientations likely to have important implications for a person's functioning. The measures were derived from contemporary research in personality and social psychology" (Jackson, 1994). The Jackson Personality Inventory-Revised is the revised version of the original JPI and was designed as was the original primarily for normal populations. The JPI-R incorporates 300 true/false statements representing 15 scales. For the purpose of this study, a modified version of the JPI-R was used. The study will use the 20-item scale of Empathy only.

A number of studies have been undertaken with the original JPI that have a bearing on its structural properties and validity. "Judgment about the nature of personality scale content is evidenced by the results from multidimensional scaling studies showing correlations in the range of .98 to .99 between scale values of personality items derived from different sets of judges with respect to the trait being measured" (Jackson, 1994). Because the scales on the JPI-R are identical to the original JPI with the minor exceptions to the Traditional Values Scale, reliability calculations apply to the current version as well. Alpha reliability for the scale of empathy, according to Jackson (1977), ranges from .78 to .92 suggesting adequate scale homogeneity.
Involvement in High School Voluntary Service

This variable was measured by assigning a value of “1” to students in groups engaged in voluntary service in high school and “0” to students not engaged in voluntary service in high school.

On-Site Faculty Mentorship

This variable was measured by assigning a value of “1” to faculty members who participated in the service learning experience with the students and acted as mentors and “0” to faculty members who did not participate in the service learning experience with the students and did not act as mentors.

Moral Development

The Defining Issues Test (DIT) (Rest, 1987) was used to operationalize the variable, level of moral development. The purpose of the DIT is to determine the criteria people use as reasoning when resolving a moral situation. The DIT comes in two versions with either a three-story or six-story moral dilemmas. The three-story version was used in this study in consideration of time. Subjects were asked to determine what they would do when faced with each of three moral dilemmas. First, subjects make a global recommendation about what should be done from three choices. Second, subjects are asked to answer 12 questions about each dilemma indicating the degree to which they feel each is important for making a decision — from
great importance to no importance. Third, respondents are asked to choose the four most important items among the twelve.

Test-retest reliabilities for the DIT have ranged from .70 to .80 (DIT Manual) over a time period of three weeks to four months. Cronbach coefficient alpha reliability estimates for the six-story DIT has been reported in the high .70's and low 80's depending on the index and sample (Rest, Mitchell, Narvaez and Thoma, 1999). Cronbach's Alpha reliability estimates for the three-story DIT have been reported in the high 60's to mid 70's depending on the index and the sample (1999). The consistency of DIT findings between the 1970s and 1990s show that the DIT has remained unchanged so that a record of validity and generality could be established over the years during a full cycle of research. There are well over 400 published articles and books on the DIT (Rest, Narvaez, Bebeau & Thoma, 1999).

Measurement of Voluntary Prosocial Behavior

A final, brief survey (Appendix "C") was administered that included 2 questions about the nature and amount of prosocial behavior, which was measured by assigning a value of "1" to those students who continued in voluntary prosocial behavior and "0" to those students who did not continue in voluntary prosocial behavior.
Ancillary Questions

Several additional questions in the initial survey were asked for exploratory purposes. These included questions about current involvement in social and economic organizations.

Data Collection Procedure

Permission to survey the freshmen class was obtained from the Office of the Provost of the college. The researcher distributed the copies of the questionnaire (see Appendix “B”) to the Learning Community sample. Also included was a letter explaining the study and informing students of the confidentiality of the study and that the study is strictly voluntary.

Each questionnaire was individually identified by number only for the purpose of linking data collected in the three time frames listed below.

Piloting the Questionnaire Prior to Administration to the Sample

Both the DIT and the JPI-R were used in the pilot test. The respondents in the pilot study were asked to indicate any ambiguities or uncertainties about the study and the time needed to complete the questionnaire (Salant & Dillman, 1994). The pilot test was conducted with 10 students who were not a part of the sample but represented the population.
Administration of the Questionnaire to the Sample

The first administration of the questionnaire (See Appendix "B") took place during the week of September 27, 1999.

The second administration of the questionnaire was conducted during the week of November 29, 1999.

A third and final brief survey (see Appendix "C") was conducted by mail during the week of April 1, 2000.

Data Analysis

Statistical analysis of the data was conducted by means of the Statistical Package for the Social Sciences (SPSS, 1998). Initially, the characteristics of the sample were described in terms of the means, correlations and standard deviations and skewness of the dependent and independent variables.

Statistical Treatment

Chi-square statistics were employed to determine the significance of the relationships between voluntary prosocial behavior and:

1a) Voluntary service during the last semester of high school

1b) Perceived faculty mentorship during the first semester of high school

Logistic regression was utilized to determine the significance of the relationship between voluntary prosocial behavior and:

1c) The level of empathy at the beginning of the first semester of college
1d) The level of postconventional moral development at the beginning of the first semester of college (Time 1)

1f) The level of postconventional moral development at the conclusion of the first semester of college (Time 2)

1g) The level of empathy at the conclusion of the first semester of college (Time 2)

Spearman’s rho correlation was utilized to determine the significance of the relationship between voluntary prosocial behavior and:

1e) The level of empathy at the beginning of the first semester of college (Time 1) and the level of postconventional moral development at the beginning of the first semester of college (Time 1).

2) An analysis of co-variance (ANCOVA) was utilized to determine the significance of the relationship between voluntary prosocial behavior and the difference in the level of postconventional moral development at the conclusion of the first semester of college (Time 2) holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1).

3) An analysis of co-variance (ANCOVA) was utilized to determine the significance of the relationship between voluntary prosocial behavior and the difference in the level of empathy at the conclusion of the first semester of college (Time 2) holding constant the level of empathy at the beginning of the first semester of college (Time 1).
Human Subjects

A revised, completed draft of the questionnaire was presented to the University's Human Subjects Committee for approval before conducting the pilot study, pre and post-test.
CHAPTER IV
FINDINGS

The findings presented below are related to the following specific hypotheses, which guided the research. They address the influence of high school voluntary service, faculty mentorship in the service learning experience, empathy levels, and postconventional moral development on the decision to continue in voluntary prosocial behavior of undergraduate college students. All of the above hypotheses are reiterated first, then the findings for each are discussed in detail.

Hypotheses 1

The dependent variable, voluntary prosocial behavior in college is related to the following independent variables:

1a) Involvement in voluntary service during the last semester of high school.

1b) On-site faculty mentorship in the required service learning experience in the first semester of college.

1c) The level of empathy at the beginning of the first semester of college (Time 1)

1d) The level of postconventional moral development at the beginning of the first semester of college (Time 1).

1e) The relationship between the level of empathy at the beginning of the first semester of college (Time 1) and the level of postconventional
moral development at the beginning of the first semester of college (Time 1).

1f) The level of postconventional moral developmental at the conclusion of the first semester of college (Time 2).

1g) The level of empathy at the conclusion of the first semester of college (Time 2).

**Hypothesis 2**

The difference in the level of postconventional moral development at the conclusion of the first semester of college (Time 2), holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1)

**Hypothesis 3**

There is a difference in the level of empathy among the students who continue in voluntary prosocial behavior at the conclusion of the first semester of college (Time 2), holding constant the level of empathy at the beginning of the first semester of college (Time 1).

A discussion of these findings follows in Chapter V.

**Hypothetical Predictors of Voluntary Prosocial Behavior**

Involvement in voluntary service during the last semester of high school was hypothesized to have a direct relationship to voluntary prosocial behavior. Other predictors of voluntary prosocial behavior include on-site
faculty mentorship during the required college service learning experience, levels of empathy, and levels of moral development.

The first set of findings relate to hypothesis 1, which focuses on the relationship between the dependent variable, voluntary prosocial behavior, and the independent variables, voluntary service in the last semester of high school, faculty mentorship, empathy levels at the beginning and the end of the first semester of college, and level of postconventional moral development at the beginning and end of the first semester of college.

**Hypothesis 1a**

Involvement in voluntary service during the last semester of high school is related to voluntary prosocial behavior in college. The rationale for this hypothesis was that the experience of service in high school years would engender a disposition toward helping that would carry to the college years.

This hypothesis was confirmed. A chi-square analysis revealed that voluntary service in the last semester of high school was found to be an important predictor of voluntary prosocial behavior ($\chi^2 = 55.58$, df = 1, $p = .001$).
Table 4.1
The Relationship of Voluntary Service During The Last Semester of High School To Voluntary Prosocial Behavior

<table>
<thead>
<tr>
<th>Voluntary Prosocial Behavior in the Second Semester of College</th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>8 (10%)</td>
<td>75 (90%)</td>
<td>83 (100%)</td>
</tr>
<tr>
<td>No</td>
<td>79 (61%)</td>
<td>50 (39%)</td>
<td>129 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>125</td>
<td>212</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chi-Square Value</th>
<th>Degrees of Freedom</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>55.58</td>
<td>.00</td>
</tr>
</tbody>
</table>

As the data reported in Table 4.1 show, students who were involved in voluntary service during the last semester of high school were more likely to continue in voluntary prosocial behavior in the second semester of college. That is, of the students who continued in voluntary prosocial behavior, 75 (90%) had been involved in voluntary service in the last semester of high school and 8 (10%) were not involved in voluntary service during the last semester of high school. Of the students who did not continue in voluntary prosocial behavior, 79 (61%) were not involved in voluntary service during
the last semester of high school and 50 (39%) were involved in voluntary service during the last semester of high school. In other words, of the 83 students who continued in voluntary prosocial behavior in the second semester of college, over 90% of those students had been involved in voluntary service in high school. While voluntary service in high school does not always result in voluntary prosocial behavior in college, in fact, 75 (60%) of the 125 who were involved in high school voluntary service continued in voluntary prosocial behavior in the second semester of college. It would appear, therefore, that high school experience in volunteering plays an important role in predisposing students to continue in voluntary prosocial behavior.

Hypothesis 1b

On-site faculty mentorship in the required service learning experience during the first semester of college is related to voluntary prosocial behavior. The rationale for this hypothesis was that, acting as mentors, the faculty members guide, support and counsel the students (Mitchell, 1998). Faculty mentors encourage discussion and connect the service learning experience to the course through literature, lecture, and hands-on involvement with the students (Astin, Vogelgesang, Ikeda, Yee, 2000).

The hypothesis was confirmed. A chi-square analysis revealed that on site faculty mentorship in the required service learning experience was a significant predictor of voluntary prosocial behavior ($\chi^2 = 37.7$, df = 1,
Therefore, students who are involved in required service learning experience in the presence of a faculty mentor in the first semester of college are more likely to continue in voluntary prosocial behavior.

Table 4.2

The Relationship of On-Site Faculty Mentorship in Required Service Learning Experience to Voluntary Prosocial Behavior

<table>
<thead>
<tr>
<th>On Site Faculty Mentorship</th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>36 (43%)</td>
<td>47 (57%)</td>
<td>83 (100%)</td>
</tr>
<tr>
<td>No</td>
<td>108 (84%)</td>
<td>21 (16%)</td>
<td>129 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>68</td>
<td>N=212</td>
</tr>
</tbody>
</table>

Chi-Square Value Degrees of Freedom Significance
Pearson 37.7 1 .00

As the data reported in Table 4.2 show, on-site faculty mentorship in the required service learning experience is positively related to voluntary prosocial behavior. Of the students who continued in voluntary prosocial behavior, 47 (57%) were involved in groups where faculty acted as on-site
mentors and were involved in the required service learning experience, contrasted with only 36 (43%) who were involved in groups where faculty did not act as on-site mentors and were not involved in the required service learning experience. Of the students who did not continue in voluntary prosocial behavior, only 21 (16%) were involved in groups where faculty acted as on-site mentors and were involved in the required service learning experience and 108 (84%) were in groups where faculty did not act as on-site mentors and were not involved in the required service learning experience during the first semester of college. It would appear that on-site faculty mentorship in the service learning experience during the first semester of college plays an important role in encouraging students to continue in voluntary prosocial behavior. Of the 68 students who were involved in groups where faculty acted as on site mentors and were involved in the service learning experience during the first semester of college, 47 (69%) continued in voluntary prosocial behavior. However, it appears that on-site faculty mentorship in the service learning experience during the first semester of college may not always influence students to continue in voluntary prosocial behavior.

**Hypothesis 1c**

Level of empathy at the beginning of the first semester of college (Time 1) is related to voluntary prosocial behavior. The rationale for this hypothesis was that some individuals are more inclined to consider a person in
need and to feel the emotions of another and therefore become more involved in voluntary prosocial behavior.

This hypothesis was not confirmed. Logistic Regression revealed empathy at Time 1 was not a significant predictor ($B = -.02$, $p = .67$) of voluntary prosocial behavior.

As the data show in Table 4.3, the hypothesis was not confirmed. It appears, therefore, that empathy at the beginning of the first semester of college (Time 1) is not related to voluntary prosocial behavior.

Table 4.3

| The Relationship Between Voluntary Prosocial Behavior and Empathy Time 1 |
|-----------------------------|------------------|----------------|----------------|
|                              |                  |                |                |
| Logistic Regression          |                  |                |                |
| Empathy Time 1              | -.02             | .05            | .18            | .67            |

Hypothesis 1d

Level of postconventional moral development at the beginning of the first semester of college (Time 1) is related to voluntary prosocial behavior. The rationale for this hypothesis was that research shows that as young people mature, they begin to make decisions on the basis of fairness and justice and become more prosocial (Eisenberg & Shell, 1986).
This hypothesis was not confirmed. Logistic Regression revealed postconventional moral development at Time 1 was not a significant predictor ($B = -.01, \ p = .61$) of voluntary prosocial behavior. As the data show in Table 4.4, the hypothesis was not confirmed. It appears, therefore, that the level of postconventional moral development at the beginning of the first semester of college (Time 1) is not related to voluntary prosocial behavior.

Table 4.4

<table>
<thead>
<tr>
<th>The Relationship Between Voluntary Prosocial Behavior and Postconventional Moral Development Time 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistic Regression</td>
</tr>
<tr>
<td>Postconventional Moral Development</td>
</tr>
<tr>
<td>Time 1</td>
</tr>
<tr>
<td>$B$</td>
</tr>
<tr>
<td>-.01</td>
</tr>
</tbody>
</table>

Hypothesis 1e

The relationship between level of empathy at the beginning of the first semester of college (Time 1) and level of postconventional moral development at the beginning of the first semester of college (Time 1) is related to voluntary prosocial behavior. The rationale for this hypothesis was that some individuals are more inclined to feel the emotions of others and are more morally developed to begin with and therefore, more inclined to help
others. That is, it is the "combination" of both variables in either high or low levels that induces students to continue in voluntary prosocial behavior. For example, Having "only" a high level of empathy without a corresponding high level of moral development is insufficient to influence students. Other combinations of high and low degrees of empathy and postconventional moral development are possible, but this hypothesis addressed only the condition of high or low levels of empathy and postconventional moral development. The hypothesis was not confirmed. Spearman's rho correlation revealed no significant relationship between empathy and moral development at the beginning of the first semester of college (Time 1) for the students who continued in voluntary prosocial behavior (r = .14, p = .06). Similarly, there was no significant relationship between empathy and moral development at the beginning of the first semester of college (Time 1) for the students who did not continue in voluntary prosocial behavior (r = .12, p = .14). It appears, therefore, that the relationship between the level of empathy at the beginning of the first semester of college (Time 1) and the level of postconventional moral development at the beginning of the first semester of college (Time 1) is not related to students' decisions to continue in voluntary prosocial behavior.

As the data show in Table 4.5, the hypothesis was not confirmed for both the students who continued in voluntary prosocial behavior and the students who did not continue in voluntary prosocial behavior.
Table 4.5

Relationship Between Empathy Time 1 and Postconventional Moral Development Time 1 and Voluntary Prosocial Behavior

Spearman's rho Correlation

<table>
<thead>
<tr>
<th>Voluntary Prosocial Behavior</th>
<th>Significance (1 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes N=83</td>
<td>$r = .14$</td>
</tr>
<tr>
<td>No  N=129</td>
<td>$r = .12$</td>
</tr>
</tbody>
</table>

Hypothesis 1f

Level of postconventional moral development at the conclusion of the first semester of college (Time 2) is related to voluntary prosocial behavior. The rationale for this hypothesis was that the greater the gain in the students' levels of postconventional moral development at the conclusion of the first semester of college, the more likely they would be inclined to continue in voluntary prosocial behavior.

This hypothesis was confirmed. Logistic Regression revealed significance ($p < .001$). Postconventional moral development at the conclusion of the first semester of college (Time 2) was found to be a significant predictor of voluntary prosocial behavior ($B = .05$, $p = < .001$). It appears, therefore, that the level of postconventional moral development at the
conclusion of the first semester of college (Time 2) plays an important role in students’ decisions to continue in voluntary prosocial behavior.

As the data show in Table 4.6, the hypothesis was confirmed.

Table 4.6

<table>
<thead>
<tr>
<th>The Relationship Between Voluntary Prosocial Behavior and Postconventional Moral Development Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistic Regression</td>
</tr>
<tr>
<td>Postconventional Moral Development Time 2</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>.05</td>
</tr>
</tbody>
</table>

Postconventional moral development at the conclusion of the required service learning experience during the first semester of college was found to be a significant predictor of voluntary prosocial behavior (B = .05, p =< .001). Logistic Regression revealed that in this sample, the higher the score, the more likely the student was to continue in voluntary prosocial behavior. For each unit of increase in score, the likelihood of continuing in voluntary prosocial behavior increased. According to guidelines by Munro (1997), the Beta coefficient of .05, which was determined by Logistic Regression, was placed in a formula to calculate the likelihood of continuing in voluntary prosocial behavior. Log, which equals the number 2.718, was raised to the power of Beta. The likelihood of continuing in voluntary prosocial behavior was derived on a scientific calculator: Log (.05 x # of points of interest). For
example, a 30-point gain in score of postconventional moral development could result in the student with a score of 76 being 3.86 times more likely to continue in voluntary prosocial behavior than a student with a score of 46. A 50-point gain in score of Postconventional Moral Development could result in the student with a score of 76 being 9.49 times more likely to continue in voluntary prosocial behavior than a student with a score of 26.

Hypothesis 1g
Level of empathy at the conclusion of the first semester of college (Time 2) is related to voluntary prosocial behavior. The rationale for this hypothesis was that students who are more empathetic at the conclusion of the first semester of college, following the required service learning experience, are more likely to continue in voluntary prosocial behavior.

This hypothesis was not confirmed. Logistic Regression analysis revealed empathy at Time 2 was not a significant predictor (B = .05, p = .33) of voluntary prosocial behavior.

As the data show in Table 4.7, the hypothesis was not confirmed.

Table 4.7
The Relationship Between Voluntary Prosocial Behavior and Level of Empathy Time 2

<table>
<thead>
<tr>
<th>Logistic Regression</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
</tr>
<tr>
<td>Empathy Time 2</td>
</tr>
</tbody>
</table>
Hypothesis 2

The difference in the level of postconventional moral development at the conclusion of the first semester of college (Time 2) holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1) is related to voluntary prosocial behavior. The rationale for this hypothesis was that the greater the gain in students' levels of postconventional moral development, the more likely they will be to continue in voluntary prosocial behavior. Research shows that students who engage in service as a part of their course requirement make greater gains in moral development (Boss, 1994).

This hypothesis was confirmed. ANCOVA was used to control for postconventional moral development at the beginning of the first semester of college (Time 1) and revealed a significant difference in postconventional moral development at the conclusion of the first semester of college (Time 2) between the students who continued in voluntary prosocial behavior and the students who did not continue in voluntary prosocial behavior at Time 2 (F = 38.88, df=1, p= < .001). It appears, therefore, that there is a greater difference in the level of postconventional moral development at the conclusion of the first semester of college (Time 2), holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1) for the students who continued in voluntary prosocial behavior. The mean score for the students who did continue in voluntary prosocial behavior at the beginning of the first semester of college was 27.20
(SD 15.22) and at the conclusion of the first semester of college were 34.09 (SD 16.36). The mean score for the students who did not continue in voluntary prosocial behavior at the beginning of the first semester of college (Time 1) was 24.16 (SD 14.35) and at the conclusion of the first semester of college (Time 2) was 24.52 (SD 13.23). The gain in the moral development for those who continued in voluntary prosocial behavior was 6.8, while it was only .36 for those who did not continue in voluntary prosocial behavior.

As the data show in Table 4.8, the hypothesis was confirmed for the students who continued in voluntary prosocial behavior and for the students who did not continue in voluntary prosocial behavior. Table 4.9 shows the mean and standard deviation of the level of postconventional moral development scores for the beginning and the conclusion of the first semester of college (Time 1 and Time 2). It is clear that the extent of growth in moral development during the first semester of college has a significant effect on whether students continue in voluntary prosocial behavior.

Table 4.8

The Relationship of Difference in the Level of Postconventional Moral Development Time 2 to Voluntary Prosocial Behavior

| ANCOVA |
|---|---|---|---|
| Sum of Squares | df | Mean Square | F |
| 6735.79 | 1 | 6735.79 | 38.88 | .00 |
Table 4.9

Differences in Mean and Standard Deviation Postconventional Moral Development Scores for Time 1 and Time 2 for Those Students Who Continued and Those Students Who Did Not Continue in Voluntary Prosocial Behavior

<table>
<thead>
<tr>
<th>Voluntary Prosocial Behavior</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Difference in Mean Time 1 and Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes N=83</td>
<td>Mean 27.20 (SD 15.22)</td>
<td>Mean 34.09 (SD 16.36)</td>
<td>Mean 6.8</td>
</tr>
<tr>
<td>No N=129</td>
<td>Mean 24.16 (SD 14.35)</td>
<td>Mean 24.52 (SD 13.23)</td>
<td>Mean .36</td>
</tr>
</tbody>
</table>

**Hypothesis 3**

The difference in the level of empathy at Time 2 (at the conclusion of the first semester of college) holding constant the level of empathy at Time 1 (at the beginning of the first semester of college) is related to voluntary prosocial behavior. The rationale for this hypothesis was that the greater the gain in the levels of empathy at the conclusion of the first semester of college, the more likely students will be to continue in voluntary prosocial behavior. Empathy results in a desire to reduce the stress of others (Batson, 1987). The
personal satisfaction that arises from this act fosters continued involvement in helping others (Conti & Amabile, 1999).

This hypothesis was supported. ANCOVA was used to control for empathy at Time 1 and revealed a significant difference in empathy at the conclusion of the first semester of college (Time 2) between the students who continued in voluntary prosocial behavior and the students who did not continue in voluntary prosocial behavior at the conclusion of the first semester of college (Time 2) \( (F = 146.77, \text{ df}=1, p < .001) \). Therefore, there will be a greater difference in the level of empathy at the conclusion of the first semester of college (Time 2) holding constant the level of empathy at the beginning of the first semester of college (Time 1) for the students who continued in voluntary prosocial behavior. The mean score for empathy for the students who continued in voluntary prosocial behavior at the beginning of the first semester of college (Time 1) was 12.92 (SD 3.94) and at the conclusion of the first semester of college (Time 2) was 14.06 (SD 3.65). The mean score for the students who did not continue in voluntary prosocial behavior at the beginning of the first of college (Time 1) was 12.58 (SD 3.77) and at the conclusion of the first semester of college (Time 2) was 13.12 (SD 3.71).

As the data show in Table 4.10, the hypothesis was confirmed. Table 4.11 shows the mean and standard deviation of the empathy scores for Time 1 and Time 2 for the students who continued in voluntary prosocial behavior and for the students who did not continue in voluntary prosocial behavior.
Table 4.10

The Relationship of the Difference in the Level of Empathy Time 2 to Voluntary Prosocial Behavior

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1218.94</td>
<td>1</td>
<td>1218.94</td>
<td>146.77</td>
</tr>
</tbody>
</table>

Table 4.11

Mean and Standard Deviation for Time 1 and Time 2 for Those Students Who Continued in Voluntary Prosocial Behavior
And for Those Students Who Did Not Continue in Voluntary Prosocial Behavior

<table>
<thead>
<tr>
<th>Voluntary Prosocial Behavior</th>
<th>Empathy Time 1</th>
<th>Empathy Time 2</th>
<th>Difference in Mean Between Time 1 and Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes N=83</td>
<td>Mean 12.92</td>
<td>Mean 14.06</td>
<td>Mean 1.14</td>
</tr>
<tr>
<td></td>
<td>(SD 3.94)</td>
<td>(SD 3.65)</td>
<td></td>
</tr>
<tr>
<td>No N=129</td>
<td>Mean 12.58</td>
<td>Mean 13.12</td>
<td>Mean .54</td>
</tr>
<tr>
<td></td>
<td>(SD 3.77)</td>
<td>(SD 3.71)</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER V
DISCUSSION

Many institutions of higher education are attempting to address the call to return to the original mission of developing well-informed, moral citizens. All over the country, colleges and universities are introducing or contemplating introducing a service learning curriculum to their students. Advocates of service learning have emphasized the benefits. According to supporters, service learning prepares students to become more caring and responsible citizens – who will serve society. Very little research has been conducted to find if service learning is really worthwhile and if required service learning influences students to continue in voluntary prosocial behavior beyond the college experience. In other words, further research is necessary to see if required service learning actually influences students to “give back” to society through voluntary service.

Further study is necessary to determine whether or not required service learning influences students to continue in voluntary prosocial behavior beyond the college experience. The present study explores the variables which influenced those students involved in required service learning to continue in voluntary prosocial behavior in the semester following the required service learning experience. Of a sample of 212 students, only 83 students decided to continue in voluntary prosocial behavior while 129 did not following the required service learning experience. Since all freshmen were required to enroll in first semester service learning, there is no way of knowing whether
the percentage who did continue in service in the second semester in this study was greater or lesser than the percentage for a group of students who had not had the first semester "treatment". Nevertheless, the fact that fewer than 40% of this sample continued in service work in the second semester casts some doubt on the efficacy of the service learning experience as an impetus for change in behavior. It is possible with this sample, however, to identify factors other than the first semester service learning experience that are related to continuation in voluntary prosocial behavior. As previously stated, to do this, it is necessary to determine what factors combined with the required service learning experience discriminated among students who did not continue in voluntary prosocial behavior. These research findings could have great implications for curricular policy in higher education.

This chapter presents a discussion of the results of the data analysis presented in the previous chapter. The significant outcomes of this research are considered in terms of the hypothesized relationships. As previously indicated, the study explored the effects of required service learning experience of undergraduate students in the first semester of college, the levels of empathy, and of postconventional moral development on their decisions to continue in voluntary prosocial behavior. Originally, four key factors were considered as significant components that affect students' decisions to continue in voluntary prosocial behavior. These were the level of empathy at the beginning of the first semester of college and at the conclusion of the first semester of college and the level of postconventional moral
development at the beginning of the first semester of college and at the conclusion of the first semester of college. Other factors examined were the effect on voluntary prosocial behavior of voluntary service in high school and on-site faculty mentorship. Nine hypotheses were tested to examine the influence on the decision of undergraduate students to continue in voluntary prosocial behavior of high school voluntary service, on-site faculty mentorship in the service learning experience, empathy levels at the beginning and at the conclusion of the first semester of college and postconventional moral development levels at the beginning and at the conclusion of the first semester of college.

Summary of the Findings

As previously stated, of the 212 freshmen participating in the entire study, 83 continued in voluntary prosocial behavior beyond the first semester of college, following the required service learning experience. The majority of the students 129, did not continue in voluntary prosocial behavior beyond the first semester of college, following the required service learning experience.

It appears that required service learning experience alone in the first semester might not influence most students to continue in voluntary prosocial behavior in the second semester of college. The additional independent variables found to be directly related to voluntary prosocial behavior for the students who continued in voluntary prosocial behavior were voluntary service during the last semester of high school, on site faculty mentorship
during the required service learning experience, the difference in the level of empathy at the conclusion of the first semester of college, and the level of postconventional moral development at the conclusion of the first semester of college. These independent variables were found to be significant predictors of voluntary prosocial behavior: voluntary service during the last semester of high school \((p < .00)\), on site faculty mentorship during the required service learning experience \((p < .00)\), the difference in the level of postconventional moral development at the beginning of the first semester of college and at the conclusion of the first semester of college \((p = .00)\), the level of postconventional moral development at the conclusion of the first semester of college \((p = .00)\), and the level of empathy at the conclusion of the first semester of college \((p = .00)\). The level of empathy at the beginning of the first semester of college \((p = .67)\), the level of postconventional moral development at the beginning of the first semester of college \((p = .61)\), and the relationship between the level of empathy at the beginning of the first semester of college and the level of postconventional moral development at the beginning of the first semester of college \((p = .06)\) were not found to be significant predictors of voluntary prosocial behavior.

While the findings may be generalized to the population from which this sample was drawn, the conclusions may not be true in all cases. Further study is recommended in different types of institutions of higher education with different populations.
The first set of findings are related to hypothesis 1, which focused on the relationship between the dependent variable voluntary prosocial behavior and the independent variables voluntary service in the last year of high school, on site faculty mentorship in the first semester of college, empathy levels at the beginning and at the conclusion of the first semester of college, and postconventional moral development at the beginning and at the conclusion of the first semester of college.

**Hypothesis 1a**

Involvement in voluntary service in the last year of high school is related to voluntary prosocial behavior.

As the findings reported in Chapter IV indicated, voluntary service in the last year of high school was found to be an important predictor of voluntary prosocial behavior ($x^2 = 55.58, \text{df} = 1, \ p < .001$). The implications of this outcome are substantial, particularly in consideration of the importance that has been assigned to voluntary service in high school and its relationship to continuation in voluntary service (Pugh, 1999).

The fact that voluntary service in the last year of high school is related to voluntary prosocial behavior is an outcome that is well supported in the literature. Many social learning theorists believe that previous learning history plays an important role in the extent that adolescents continue to engage in prosocial behaviors (Rushton, 1982). A social learning perspective suggests that the extent to which individuals engage in voluntary prosocial behavior
depends largely on previous involvement in prosocial behavior (Switzer, et al, 1995). Programs that promote service to others as a positive social activity in adolescence may contribute to long-term maintenance of the behaviors as the participants mature (1995). According to Perry (2000), there has been a surge of volunteerism in high schools. In 1999, a record 75% of college freshmen arrived on campus as experienced volunteers (2000). In the present study, of the 212 students involved in the study, 125 had experienced voluntary service in high school (59%, see Table 4.1). Research has found that through voluntary service, adolescents acquire a sense of accomplishment that could lead to increased self-esteem and a strong sense of responsibility. They identify with the community and this may lead to continued prosocial action (Switzer, Dew, Regalski & Wang, 1995). A study conducted by Alexander Astin in 1994 found that more than 70 percent of students who entered college in the fall of 1994 were involved in voluntary service in high school. The present study found that of the 212 students involved in the study, 75 of the 83 or 90% of the students who continued in voluntary prosocial behavior had been involved in high school voluntary service. This is a significant number of students who were predisposed to voluntary service before the required service learning experience. The previous experience in high school combined with the required service learning experience may have influenced those students to continue in voluntary prosocial behavior.

The finding of this study supports Pugh’s (1999) statement that students with a rich volunteer history may approach continued voluntary
prosocial activity differently than students with no volunteer history. Given the finding from this and previous studies that high school volunteerism is an important predictor of continuing voluntary prosocial behavior, it would appear important to address the dispositions of the students who did not engage in voluntary service in high school, yet who did go on to volunteer their service in the second semester of college. The role of service learning in college may be critical for these students as it may represent their first exposure to the socialization effects of social service. While it would probably be unwise to deny students opportunities for freshman year service learning experience if they had already been involved in the experience in high school, it is important to identify those students who were not involved in voluntary service in high school in order to create special programs that will make the college service learning experience especially meaningful for them.

According to Fabes, et al (1999), one notable context that is likely to effect prosocial development in adolescence are the growing opportunities to engage in extracurricular activities. Voluntary service in high school was an extracurricular activity that effected prosocial behavior in this study. However, the present study does not support the belief of advocates that required service learning in college alone influences students to continue in voluntary service. There are other factors involved. Introducing voluntary service into the schools at an early age may foster a change in values for students. Since voluntary service in high school influences students to continue in voluntary prosocial behavior in later years, the question arises as
to why the required service learning experience in college did not influence a higher percentage of students to continue in voluntary prosocial behavior in the second semester. Perhaps the difference is that the service in high school was voluntary and the service learning experience in the first semester of college was "required". Unfortunately for this study, data were not collected on whether the voluntary service high school service by the subjects in this study was actually voluntary or required. Many high schools require a certain amount of service hours of students in order for them to graduate from high school. Critics of required service in high school feel that if students are mandated to do service, they do not learn anything of value from the service (Times, 2001). These same critics believe that students view the required service as a chore and not as a rewarding experience for the community as well as themselves. It is possible that despite the required service learning experience in college, those students who did not have forced, mandated experience in service learning in high school and who did not continue in voluntary prosocial behavior in the second semester (39%, see Table 4.1) were so negatively predisposed by their prior mandatory high school service experience that they were unable to benefit from the required service learning experience in college.

Clearly, there is a need to study the effects of voluntary service versus mandated service. Nevertheless, in contradistinction to prior research, high school service learning, whether voluntary or not, in this study was significantly related to voluntary prosocial behavior in the second semester of
college. That is, a much higher percentage of students with voluntary service in high school than without continued in voluntary prosocial behavior (see Table 4.1). It may be that the required service learning in the first semester of college is a critical reinforcement of the high school experience that produces continued volunteerism in many students. As noted above, without the high school preparation, the required service learning experience in college may be wasted.

In sum, in the present study, voluntary service in the last semester of high school helped determine whether students were affected by the service learning experience and was a factor in their decision to continue in voluntary prosocial behavior.

Hypothesis 1b

On-site faculty mentorship in the required service learning experience in the first semester of college is related to later voluntary prosocial behavior.

As previously reported in Chapter IV, this hypothesis was confirmed. The relationship was significant, $p \leq .001$, indicating in the present study that on-site faculty mentorship in the required service learning experience during the first semester of college is significantly related to voluntary prosocial behavior.

A relationship between on-site faculty mentorship in the required service learning experience during the first semester of college and voluntary prosocial behavior was predicted in this study. It was believed that on site
faculty mentorship provides challenging assignments, sponsors advancement and fosters exposure (Goodshalk & Sosik, 2000). More importantly, mentors can provide new insights and attitudes for students by modeling the person whom the student wants to become or contemplates becoming (Daloz, 1986). The faculty-student interactions outside of the classroom have shown to be consistently influential in student growth (Love & Guthrie, 1999). The importance of on site faculty mentorship for service learning experiences, therefore, has great implications in higher education. Active faculty participation in acts of compassion and aid act as models for students to follow in their own continued prosocial behavior. The finding from this study supports Bandura’s (1977) research that individuals learn altruistic behavior by observation of the behavior of others who act as models. In this study, the faculty acted as models fostering prosocial behavior.

One of the main sources of learning in service learning is the feeling of connectedness and commitment to the community (Eyler & Giles, 1999). Many theorists feel that faculty who encourage involvement in the service learning experience foster prosocial behavior and moral development among their students (Carlo, et al, 1999). Through service learning, the faculty are able to be involved in the learning process beyond the classroom experience. Service learning offers potential to invigorate faculty teaching by providing the precise type of environment likely to create more productive and meaningful engagement between faculty, students and the community (Howard, 1998, Zlotkowski, 1999). The service learning experience and
coursework alone do not cultivate the connectedness and commitment to social service. The latter would not evolve without a supportive and dedicated faculty mentor, who truly believes in the value of service learning. In other words, service learning requires what good learning always requires: interaction and mentoring of an innovative teacher who can help students bridge the gap between good intentions and good results (Garber & Heet, 2000). These theories support the finding of this study. The present study has found on-site faculty mentorship to be a significant predictor of students' decision to continue in voluntary prosocial behavior, a finding which has great implications for higher education and for society (p < .001. See Table 4.2).

Given the demonstrated importance of faculty mentorship in service learning, it is crucial for institutions of higher education to develop ways to reward faculty for their participation in this activity. As an innovative pedagogical strategy in need of evaluative findings, service learning offers a potential to link teaching and research in clear and expository ways. This benefit may be possible only if institutions are willing to broaden their definitions of scholarship (Kezar & Rhoads, 2001). Hink & Brandell (2000) feel that consideration must be provided for faculty mentorship roles, and rewards must be institutionalized for participating in the service learning experience. Institutions of higher education should provide ongoing professional development and support for those faculty members who engage in and find value in the service learning experience. According to Zlotkowski (1995) if service learning is to have a future in higher education, faculty must
see it as a viable, intellectual and discipline-relevant pedagogy. Perhaps a reward system should be in place for faculty who act as on-site mentors in the required service learning experience. These rewards may include promotion, tenure status, a reduction in other teaching hours, or simply a monetary award for continuing the mentorship. This will doubtless encourage other faculty members to follow suit. Without institutional support, faculty may feel as if they are taking time away from other professional responsibilities and may be less inclined to be involved in service learning (Morton, 1996).

The importance of faculty involvement needs to be addressed in the literature on and in the practice of service learning. Because of the value of on-site faculty mentorship, advocates of service learning at colleges and universities in the process of institutionalizing service learning need more understanding of faculty mentors. It is necessary to understand and know what the faculty think about service learning in order to encourage more faculty members to become involved in the service learning process. This type of initiative will develop ethical character and community responsibility in students as well as provide an avenue for students and faculty to collaborate on research, while setting an example for others in the global community. Eyler & Giles (1999) note that students involved in service learning programs will form tight faculty connections. Those faculty connections have been shown to be important predictors of student personal and academic development (Eyler & Giles, 1999). Close student-faculty relationships are an independent predictor of many positive outcomes following the service
learning experience (Eyler & Giles, 1999). It appears that if faculty are included in decision-making and rewarded for involvement in service learning, their involvement will be likely to contribute to the success of service learning.

The results of this study have implications for educational policy and practice. Most mentoring, in the past, has been incidental to the classroom experience and has been carried out on a one-to-one basis. The model of experiential education presented here places on-site faculty mentoring both inside and outside the classroom. It confirms that mentoring does not need to be on a one-on-one basis only. It can be practiced with groups of students. Educators concerned with students’ overall development and not just with academics will find the results of this study promising. The task of training these faculty mentors must be taken seriously. On-site faculty mentors proved to have a significant impact on the lives of these students.

On-site faculty mentorship helped determine whether students were affected by the service learning experience and was a factor in their decision to continue in voluntary prosocial behavior.

**Hypothesis 1c**

The level of empathy at the beginning of the first semester of college (time 1) is related to voluntary prosocial behavior.

As the findings in Chapter IV indicated, the level of empathy at the beginning of the first semester of college (Time 1) was not found to be a
predictor of voluntary prosocial behavior. The findings indicate that there is no significant relationship between the level of empathy at the beginning of the first semester of college (Time 1) and voluntary prosocial behavior ($p = .67$). The hypothesis was, therefore, not confirmed.

Hoffman (1991) has suggested that the roots of empathy begin to grow at infancy and that in the preschool years this growth continues, leading children to become more prosocial throughout life (Damon, 1988, Farver & Branstetter, 1994). According to Hoffman, by late childhood and early adolescence, children can empathize with those in need. Eisenberg & Miller (1987) believe that the empathy that develops by early adolescence yields positive relations between empathy and prosocial behavior. Research has found that by the age of 2, children begin to demonstrate the rudiments of empathy, an emotional response that corresponds to the feelings of another person (Zahn-Waxler, Robinson & Emde, 1992). Many theorists believe that children and adolescents naturally experience empathetic orientation where they consider the needs of another and how their actions will make them feel in response to these needs (Eisenberg, et al., 1995).

The present study did not find that students' empathy levels were a predictor of continuation in voluntary prosocial behavior. Students with a higher level of empathy at the beginning of the first semester of college did not continue in voluntary prosocial behavior in the second semester of college at a greater rate than those students with lower levels at the beginning of the first semester of college. It is possible that the students must reach a threshold
level of empathy before a commitment is made to continued voluntary prosocial behavior. At the time of students' arrival at college, they may not yet have reached this threshold. By the conclusion of the first semester of college, following the required service learning experience, the students may have reached this level. The service learning experience and college attendance may be influential in this decision.

Because this finding is counterintuitive, or contrary to the belief of the researcher and to Eisenberg & Miller's (1987) theory that empathy is related to prosocial behavior, a replication of the study is recommended – especially one that might identify variables that obscure the hypothesized relationship proposed for this research.

**Hypothesis 1d**

The level of postconventional moral development at the beginning of the first semester of college (Time 1) is related to voluntary prosocial behavior.

As the findings in Chapter IV indicated, the level of postconventional moral development at the beginning of the first semester of college (Time 1) was not found to be a predictor of voluntary prosocial behavior. The findings indicate that there is no significant relationship between the level of postconventional moral development at the beginning of the first semester of college (Time 1) and voluntary prosocial behavior \((p = .61)\).

The hypothesis was not confirmed. The research findings of Whiting and Edwards (1988) suggest that socialization practices and cultural
environments promote prosocial motives. Eisenberg, Carlo, Murphy & Van Court (1995) conducted a study of individuals age 17-20 and found a relationship between increased moral reasoning and prosocial behavior. Eisenberg (1986) believes that young adolescents experience a transition period which promotes prosocial tendencies. According to Eisenberg (1986), as young people mature, they begin to make decisions on the basis of fairness and justice and become more prosocial. Fabes (1999) believes that moral behavior increases with age and adolescents would show more prosocial behavior than they did as children. In other words, maturity would be a predictor of postconventional moral development leading to voluntary prosocial behavior. This study did not support this belief or the previous research.

Research indicates that moral reasoning is influenced by social and personal variables (Damon, 1988, Gibbs, 1991, Turiel, 19994). It is believed that these influences include parental norms and peer relationships (Kruger, 1992). Many theorists suggest that parents promote moral standards in children through modeling acceptable moral practices and by discipline (Hoffman, 1987). A study conducted by Boyes and Allen (1993) found parental discipline style to be related to moral reasoning scores of college students. This study did not examine the influence of parents or peer relationships on postconventional moral development or voluntary prosocial behavior. Future research should be conducted to determine if these factors combined with required service learning coursework are related to higher
levels of postconventional moral development and voluntary prosocial behavior.

The findings of the present study may not reflect the possibility that in fact socio-economic status may be skewing the findings. If the study had controlled for socio-economic status, a relationship may indeed have been found between postconventional moral development and voluntary prosocial behavior. Further study should be conducted to determine the influence of socio-economic and cultural background on empathy levels and decision to continue in voluntary prosocial behavior. Research shows that students from a low socio-economic background develop differently than students from a middle to high socio-economic background. Studies have shown that much of this may be due to environmental factors such as poverty levels, health, and family involvement in schooling (Garbarino et al., 1992; Grolnick & Slowiaczek, 1994). Students from lower socio-economic backgrounds may not feel as empathetic towards the service learning experience population because they could be less advantaged. Assumptions of homogeneity in these variables, given the fairly homogeneous socio-economic status of the sample population, prevented the researcher from collecting data related to the socio-economic status of the sample population. Future research should attempt to include in the sample a broader, more diverse group, in order to test the influence of these variables.

In the present study, the level of postconventional moral development at the beginning of the first semester of college (Time 1) prior to the required
service learning experience was not a factor in the decision to continue in voluntary prosocial behavior. According to research, students with higher levels of moral development have a strong sense of moral obligation, yet this study found that the students with higher levels of moral development were no more likely to continue in voluntary prosocial behavior than those with lower levels of moral development. It is possible that, as with levels of empathy, a threshold level of moral development must be reached by the students before the commitment is made to engage in voluntary prosocial behavior. By the conclusion of the first semester of college, following the required service learning experience, the students may reach this level of moral development. The service learning experience combined with college attendance may influence their decisions. The reasoning is confirmed in hypothesis 1f, which is discussed below.

Because the finding of this study is counterintuitive, or contrary to the belief of the researcher, a replication of this study is recommended. The study did not find the students’ level of maturity at the beginning of the first semester of college to be a predictor of higher levels of postconventional moral development leading to voluntary prosocial behavior. It is possible that there were factors influencing those students who continued in voluntary prosocial behavior other than the levels of postconventional moral development at the beginning of the first semester of college, such as voluntary service in high school, socio-economic status, and cultural background.
Hypothesis 1e

The relationship between the level of empathy at the beginning of the first semester of college (Time 1) and the level of postconventional moral development at the beginning of the first semester of college (Time 1) is related to voluntary prosocial behavior.

As the findings in Chapter IV indicated, the relationship between the level of empathy at the beginning of the first semester of college (Time 1) and the level of postconventional moral development at the beginning of the first semester of college was not found to be a predictor of voluntary prosocial behavior. The findings indicate that, for this sample, there was no significant relationship between level of empathy at the beginning of the first semester of college (Time 1) and the level of postconventional moral development at the beginning of the first semester of college (Time 2) for both the students who continued in voluntary prosocial behavior ($p = .06$) and for the students who did not continue in voluntary prosocial behavior ($p = .14$).

The hypothesis was not confirmed. The present study did not find that the combination of empathy and postconventional moral development in either high or low levels at the beginning of the first semester of college (Time 1) influences students to continue in voluntary prosocial behavior (Feldman, 1998). Hoffman (2000) suggests that given empathy's prosocial qualities and its congruence with caring, empathy should make positive contributions to prosocial moral reasoning and judgment. These positive contributions, according to Hoffman, would motivate continued prosocial action (1991).
In the present study, the combination of empathy and postconventional moral development at the beginning of the first semester of college was believed to be related to voluntary prosocial behavior. This combination, in the present study, was not related to students’ decisions to continue in voluntary prosocial behavior. That is, the combination of empathy and postconventional moral development levels of students, whether high or low on both, is not likely to result in continuing voluntary prosocial behavior. The relationship between the levels of empathy and postconventional moral development at the beginning of the first semester of college will have no effect on whether a student continues in voluntary prosocial behavior or not.

Perhaps the level of empathy at the conclusion of the first semester of college (Time 2) and postconventional moral development at the conclusion of the first semester of college (Time 2) following the required service learning experience do affect students’ decisions to continue in voluntary prosocial behavior. The possibility is considered in hypothesis 1g, which is discussed below.

Hypothesis 1f
The level of postconventional moral development at the conclusion of the first semester of college (Time 2) is related to voluntary prosocial behavior.

As indicated in the findings in Chapter IV, the hypothesis was confirmed. There is a significant relationship between the level of postconventional moral development at the conclusion of the first semester of
college (Time 2) following the required service learning experience and voluntary prosocial behavior ($p \leq .001$). In this study, the level of postconventional moral development at the conclusion of the first semester of college (Time 2) is related to voluntary prosocial behavior.

The finding supports the belief that as an individual becomes more advanced in moral development over time, he/she becomes more prosocial (Walker & Taylor, 1991). According to Erlich (1999), moral development reinforces the elements of character that lead to ethical behavior. Service learning is believed to promote moral development and is a powerful source for expanding morality and promotion of prosocial action (Erlich, 1999). Research has indicated that required service learning experience as a part of the college course work fosters postconventional moral development (Boss, 1994) and can lead to continuation in voluntary prosocial behavior. In addition, the variance in levels of development is now greater, and those who have grown in moral development are more likely to continue in voluntary prosocial behavior. The findings of this study support this research.

This finding could have a considerable impact on higher education curriculum policy and could be very significant for those institutions of higher education that have implemented or are planning to implement a service-learning curriculum. Students who were involved in service learning coursework in the present study, and who continued in voluntary prosocial behavior experienced significant differences in the level of postconventional moral development. Service learning coursework and experience appear to be
related to levels of postconventional moral development and on the decision to continue in voluntary prosocial behavior.

Further research is needed to determine whether those students will continue in voluntary prosocial behavior beyond the college years and if they experience significant differences in levels of postconventional moral development throughout college and beyond. If these students do continue in voluntary prosocial behavior beyond the college years and experience significant differences in the levels of postconventional moral development, this could have a great impact on society. It is very possible that service learning, combined with voluntary high school service and faculty mentorship, could affect postconventional moral development and could be a factor in creating good, moral citizens who give back to society.

In the present study, the levels of postconventional moral development at the beginning of the first semester of college were not found to be related to continuation in voluntary prosocial behavior. There is the probability that something happened during that first semester of college to influence the students’ levels of postconventional moral development, since the level of postconventional moral development at the conclusion of the first semester of college was found to be significantly related to voluntary prosocial behavior. It is possible that the required service learning experience or something else influenced the levels of moral development during the first semester of college.
Hypothesis 1g

The level of empathy at the conclusion of the first semester of college (Time 2) is related to voluntary prosocial behavior.

In the present study, empathy levels at both the beginning and the conclusion of the first semester of college were not found to be related to students' decisions to continue in voluntary prosocial behavior, even though intuition and prior research has shown that empathy is related to prosocial behavior (Hoffman, 1981; Eisenberg & Miller, 1987).

As indicated in the findings in Chapter IV, the hypothesis was not confirmed. The level of empathy at the conclusion of the first semester of college (Time 2) was not a significant predictor of voluntary prosocial behavior ($p = .33$). This finding in contrast to previous studies does not support the belief that through the required service learning experience, students are more empathetic through role taking and that empathy results in altruistic other-oriented motives (Batson, 1989). Some theorists believe that empathy is a chief motivator of prosocial behavior (Hoffman, 2000). This study does not support Eisenberg's (1982) theory that empathy and role taking are critical factors that influence prosocial behavior.

The finding is also in contrast to research (Hoffman, 1981, Eisenberg & Miller, 1987) that found that when people witness others in distress, this fosters increased levels of empathy and altruistic acts. According to Brown (1998), empathy is one of the personal benefits students realize through service learning. Through service learning, students were exposed to people in
need. This exposure should motivate empathetic distress, which should in turn lead to prosocial behavior (Hoffman, 2000).

Some critics believe that if service is required, students do not learn anything of value from the service (Times, 2001). Since the service learning experience was required, students may not have chosen to get genuinely emotionally involved in the experience. Studies have shown that many times people do not experience empathetic motivation and a desire to continue in altruistic behaviors because they fear the emotional cost and time investment (Shaw, Batson & Todd, 1994). The students involved in this study may have feared the emotional cost and did not wish to invest the time in continuing in voluntary prosocial behavior. It may well be that, as a group, the students experienced “pluralistic ignorance” (Latane & Darley, 1970), that is, if no one else was getting involved, they did not feel the experience was important.

Many theorists believe that required service learning is related to civic responsibility and student development (Eyler & Giles, 1999). Students will feel more connected to the community and feel more empathetic towards those in need. From this learned experience, they would want to continue in service beyond the experience. Research shows that when exposed to people in distress, people will respond empathetically to these victims (Rawls, 1985). People will put themselves in the place of the person or persons in distress, which would evoke empathetic distress (Hoffman, 2000). The present study does not support these theories.
This finding could be important to institutions of higher education that are implementing or are considering implementing service learning curriculum on their campus. One of the missions of service learning curriculum is to encourage students to commit to lifelong learning and service to others (Jacoby & Assocs., 1996). The type of service learning experience needs to be rethought because it may not have encouraged empathetic distress and voluntary prosocial behavior.

As stated previously, this study did not find the level of empathy at the conclusion of the first semester of college (Time 2) following the required service learning experience to be a significant predictor of voluntary prosocial behavior.

**Hypothesis 2**

The difference in the level of postconventional moral development at the conclusion of the first semester of college (Time 2), holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1), is related to voluntary prosocial behavior.

As indicated in the findings in Chapter IV, the hypothesis was confirmed. The study results revealed a significant relationship between the level of postconventional moral development at the conclusion of the first semester of college (Time 2), holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1), and voluntary prosocial behavior ($p = .001$). The amount of growth in
postconventional moral development between the beginning of the first semester of college (Time 1) and the conclusion of the first semester of college (Time 2) was related to voluntary prosocial behavior. By holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1), the researcher was able to measure the growth in postconventional moral development between the beginning and the conclusion of the first semester of college for the students who continued in voluntary prosocial behavior and the students who did not continue in voluntary prosocial behavior.

In the present study, the students enrolled in required service learning coursework during the first semester of college who continued in voluntary prosocial behavior following that first semester of college (Time 2), experienced significant growth in the level of postconventional moral development, which was not experienced by the students who did not continue in voluntary prosocial behavior following the first semester of college (Time 2).

Love & Guthrie (1999) believe that interpersonal influences on cognitive development appear to be external factors that influence the process of development. Making commitments and enacting value are part of one’s entire life (1999). The students in this study who continued in voluntary prosocial behavior experienced growth in the level of postconventional moral development at the conclusion of the first semester of college. Those who experienced the most growth, not necessarily the highest levels, were more
likely to continue in voluntary prosocial behavior following the required service learning experience during the first semester of college. Because of this growth in postconventional moral development, they may have made a commitment to continued service. This study supports Erlich's (1999) belief that service learning not only has an impact on moral character, it is linked to continued concern for the community. The finding supports the literature that states that moral development does not necessarily begin early on in life, but can be a result of intrinsic motivation (Gruber, 1999).

The finding supports the research that students who engage in service as part of their course requirement make greater gains in postconventional moral development (Boss, 1994) and are more inclined to continue in voluntary prosocial behavior. It also supports Gorman's (1982) study, which found that students enrolled in service learning coursework showed significant increases in moral reasoning. Erlich (1999) believes that service learning has a profound impact on moral character and helps students think about themselves in relation to others, inspiring commitment to service. Some theorists believe that involvement in activities with supportive groups plays an important role in moral development for life (Colby & Damon, 1992) and that the service learning communities provide a supportive group environment for the students.

This finding could have a great impact on higher education curriculum. Advocates of service learning believe that it may provide students with a program of involvement that promotes a sense of reciprocal learning
(Eyler & Giles, 1999). That is, both the students and the community benefit from this involvement. This may also have an impact on society. Further longitudinal studies should be conducted to determine if service learning has an impact on moral development and voluntary prosocial behavior beyond the college years.

According to Pascarella and Terenzini (1991), attending college alone fosters growth in moral development. A study by Rest and Associates (1978) found that levels of postconventional moral development increased as students progressed from junior high school to high school to college.

**Hypothesis 3**
The difference in the level of empathy at the conclusion of the first semester of college (Time 2) holding constant the level of empathy at the beginning of the first semester of college (Time 1) is related to voluntary prosocial behavior.

As indicated in the findings in Chapter IV, the hypothesis was confirmed. The findings revealed a significant relationship between the difference in the level of empathy at the conclusion of the first semester of college (Time 2) holding constant the level of empathy at the beginning of the first semester of college (Time 1) and voluntary prosocial behavior ($p \leq .001$). The amount of change in empathy between the beginning of the first semester of college (Time 1) and the conclusion of the first semester of college (Time 2) was related to voluntary prosocial behavior. By holding
constant the level of empathy at the beginning of the first semester of college (Time 1), the researcher was able to measure the change in empathy between the beginning and the conclusion of the first semester of college for both the students who continued in voluntary prosocial behavior and the students who did not continue in voluntary prosocial behavior.

The finding supports Hoffman’s (1978) belief that empathy precedes and fosters prosocial motivation. Hoffman claims that empathy requires putting oneself in another’s place and imaging how he or she feels, which is known as role taking. This idea dates back to Hume (1751/1957), who alleged that when a person imagines himself or herself in another’s place, this evokes empathetic arousal.

Studies have found that required service learning experience fosters a change in empathy levels and an empathetic reaction to the needs on the part of others (Mc Carthy & Tucker, 1999). A study by Penner, Fritzsche, Craiger & Friefeld (1995) found that empathetic college student volunteers were more likely to put in more hours at shelters for the homeless. Empathy results in the desire to reduce the stress of others (Batson, 1987). The personal satisfaction that arises from this act fosters continued involvement in helping others (Conti & Amabile, 1999).

This finding may have a great impact on higher education. If rate of growth in empathy is related to continuation in voluntary prosocial behavior, as this research shows, then colleges and universities must find curricular and extracurricular means to facilitate empathy growth. It is possible that service
learning may perform that function. During the time between the beginning and conclusion of the first semester of college (Time 1 and Time 2), the students in this sample were enrolled in required service learning experience. A longitudinal study is recommended to determine if the students continue in voluntary prosocial behavior beyond the college years and if this is due to the required service learning experience and if this required service learning experience fosters further difference in empathy levels.
CHAPTER VI
SUMMARY, CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

Advocates of service learning voice strong and many times conflicting views of the mission of service learning and of its value to society. Some proponents believe service learning will lead to social change while others seek to institutionalize service learning. Many believe it will help students obtain better knowledge of the world they live in. Others believe it will lead students to change the world.

The present study has a number of implications for those institutions of higher education that have implemented or are considering implementing service learning curriculum. In this final chapter, the significance of this study will be discussed in terms of theory, practice and suggestions for future research. The fact that some of the hypothesized relationships between variables and voluntary prosocial behavior were confirmed provides important information for future researchers in the area of service learning. In particular, the research demonstrated a confirmation of the hypothesis which predicted a relationship between voluntary service in the last semester of high school and continued voluntary prosocial behavior, and also demonstrated support of the hypothesis which predicted a relationship between on-site faculty mentorship and continued voluntary prosocial behavior. The research also confirmed the hypothesized relationships between the level of empathy at the conclusion of the first semester of college (Time 2) and continued voluntary prosocial
behavior, and between the level of postconventional moral development at the
conclusion of the first semester (Time 2) and continued voluntary prosocial
behavior.

The outcomes of this research raise a number of issues about service
learning coursework, its effects on levels of empathy and postconventional
moral development of undergraduate students, and their decision to continue
in voluntary prosocial behavior. The study also found statistically significant
relationships between both voluntary service in high school and on-site faculty
mentorship to continued voluntary prosocial behavior. The findings of this
study offer some valuable information for higher education policy.

The service learning literature lacks studies that examine the
relationships of voluntary service in high school, on-site faculty mentorship,
empathy levels, and postconventional moral development levels on the
decision to continue in voluntary prosocial behavior. This study was designed
to investigate these relationships.

The theoretical implications of this research raise some large issues for
the study of the effects of required service learning coursework on continued
voluntary prosocial behavior in particular. These include the possibility that
the suggestion by many theorists and advocates of service learning that
service learning has positive implications for students may not be true for all
students. The study also notes the importance of voluntary service in high
school, on-site faculty mentorship during the required service learning
experience, the level of empathy, and the level of postconventional moral
development following the required service learning experience, to students' decision to continue in voluntary prosocial behavior beyond the required service learning experience.

**Summary of the Findings**

Of the 212 freshmen participating in the entire study, 83 (39%) students continued in voluntary prosocial behavior beyond the first semester of college, following the required service learning experience. However, 129 (61%) did not continue in voluntary prosocial behavior beyond the first semester of college, following the required service learning experience. The present study found the significant factors which influenced those students who continued in voluntary prosocial behavior beyond the first semester of college-required service learning experience.

The present study found additional independent variables which were directly associated with voluntary prosocial behavior for the students who continued beyond the first semester of college, following the required service learning experience. The independent variables which were found to be significant included voluntary service during the last semester of high school ($p = .001$, see Table 4.1), on-site faculty mentorship during the required service learning experience ($p = .001$, see Table 4.2), the difference in the level of empathy at the conclusion of the first semester of college ($p = .001$, see Table 4.10), and the level of postconventional moral development at the conclusion of the first semester of college ($p = .001$, see Tables 4.6, 4.8).
The level of empathy at the beginning of the first semester of college before the required service learning experience and the level of postconventional moral development at the beginning of the first semester of college before the required service learning experience were not found to be significant predictors of voluntary prosocial behavior.

Conclusions and Implications

Based on the data reported in this study, the following important conclusions were drawn regarding the influence of the independent variables on students' decisions to continue in voluntary prosocial behavior following the required service learning experience during the first semester of college. Implications for higher education and professional practice are discussed for each conclusion.

1. Voluntary service in the last semester of high school has a significant influence on students' decision to continue in voluntary prosocial behavior following the required service learning experience during the first semester of college ($p = .001$, See Table 4.1). The conclusion is based on the fact that of the 212 students who completed the study, 83 (39%) students continued in voluntary prosocial behavior during the second semester of college and 75 (90%) of those students were involved in voluntary service during the last semester of high school. The remaining 8 (10%) of those students who continued were not involved in voluntary service during the last semester of high school. Of the 129 (61%) students
who did not continue in voluntary prosocial behavior, 50 (39%) of those students were involved in voluntary service during the last semester of high school. The remaining 79 (61%) of those students who did not continue in voluntary prosocial behavior beyond the required service learning experience were not involved in voluntary service during the last semester of high school.

Many theorists believe that adolescents who are involved in voluntary service during their high school years and have a rich volunteer history may approach service differently than those students who were not involved in voluntary service in high school (Pugh, 1999). Voluntary service is believed to be a positive social activity in high school, which may encourage altruistic behaviors and may also contribute to long-term maintenance of such behaviors as participants mature to adulthood.

Studies have found civic engagement in adolescence to be a predictor of future behaviors (Switzer, Simmons, Dew, Regalski & Wang, 1995). The present study supports these theories. The study found that voluntary service during the last semester of high school plays an important role in students' decisions to continue in voluntary prosocial behavior following the required service learning experience during the first semester of college.

Voluntary service in high school combined with the required service learning experience has important implications for higher education. Studies have found that there has been substantial growth in the number of
students involved in voluntary service in high school (Shumer, Cook, 1999). A study of 204 sampled high schools conducted by Newmann and Rutter in 1985 found that 900,000 high school students were enrolled in voluntary service (Newmann & Rutter, 1985). In 1997, Maloy and Wohlleb conducted a follow-up study and found that number had increased to 6,181,797 (Maloy & Wohlleb, 1997). There seems to be a significant increase in interest in voluntary service by adolescents during their high school years. As found in the present study, voluntary service during the last semester of high school combined with the required service learning experience during the first semester of college influences students' decisions to continue in voluntary prosocial behavior. Because of its relation to continued voluntary prosocial behavior, voluntary service in high school should be encouraged and support for voluntary service should begin well before the last semester of high school. Students involved in voluntary social service in high school should be rewarded. This type of service combined with required service learning in college may lead even more students to continue community service beyond their college years.

2. On-site faculty mentorship during the first semester of college required service learning experience is significantly related to voluntary prosocial behavior ($p = <.001$, See Table 4.2). This conclusion is based on the fact that of the 212 students who completed the study, 83 (39%) of those students continued in voluntary prosocial behavior beyond the required
experience during the first semester of college. Of those students, 47 (57%) were involved in groups where faculty members acted as on-site mentors. This contrasted with the fact that only 36 (43%) of those students who continued in voluntary prosocial behavior beyond the required service learning experience during the first semester of college were not involved in groups where the faculty members acted as on-site mentors. Of the 129 students who did not continue in voluntary prosocial behavior following the first semester of college required service learning experience, 108 (84%) were not involved in groups where faculty acted as on-site mentors. The remaining 21 (16%) were involved in groups where faculty acted as on-site mentors. Many theorists believe faculty mentorship to be an important factor.

3. The level of postconventional moral development at the conclusion of the first semester of college (Time 2) is related to voluntary prosocial behavior ($B = .05, p = < .001$, see Table 4.6). As reported in Chapter IV, a statistically significant relationship was found between the level of postconventional moral development at the conclusion of the first semester of college (Time 2) and voluntary prosocial behavior.

Many theorists believe that moral development reinforces the elements of character that lead to ethical behavior (Walker & Taylor, 1991). Service learning is believed by many to promote moral development and prosocial action (Erlich, 1999). Research has found that required service learning experience fosters postconventional moral
development and can lead to continuation in voluntary prosocial behavior (Boss, 1994).

This could have great implications for higher education curriculum. The students who were involved in service learning coursework in the present study who experienced significant differences in the level of postconventional moral development continued in voluntary prosocial behavior. There is the probability that something occurred during the first semester of college. It appears that the required service learning experience may have influenced those students' levels of postconventional moral development and that those students with significant difference in moral development chose to continue in voluntary prosocial behavior.

Interestingly, no statistically significant relationship was found between the level of postconventional moral development at the beginning of the first semester of college (Time 1) and voluntary prosocial behavior. As reported in Chapter IV, this finding does not support Eisenberg's theory that as young people mature, they automatically become more prosocial. In other words, maturity would have been a predictor of postconventional moral development leading to voluntary prosocial behavior. The fact that the level of postconventional moral development at the beginning of the first semester (Time 1) prior to the required service learning experience was not related to voluntary prosocial behavior and that the level of postconventional moral development at the conclusion of the first semester of college (Time 2) following the required service
learning experience was significantly related to voluntary prosocial behavior, should point to the influence of the required service learning experience on the level of postconventional moral development and voluntary prosocial behavior.

4. The difference in the level of postconventional moral development at the conclusion of the first semester of college (Time 2), holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1), is significantly related to voluntary prosocial behavior \((F = 38.88, df=1, p = .001\), see Table 4.8). As reported in Chapter IV, there is a statistically significant difference in the amount of growth in postconventional moral development between the beginning (Time 1) and the conclusion (Time 2) of the first semester of college, holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1), for the students who continued in voluntary prosocial behavior. There was no statistically significant difference in the amount of growth in postconventional moral development between the beginning (Time 1) and the conclusion (Time 2) of the first semester of college, holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1), for the students who did not continue in voluntary prosocial behavior. By holding constant the level of postconventional moral development at the beginning of the first semester of college (Time 1), the research was able to measure the change in postconventional moral
development between the beginning (Time 1) and the conclusion (Time 2) of the first semester of college. It is the belief of many service learning advocates that service learning has a strong impact on moral character (Erlich, 1999) and that moral development does not necessarily begin early on in life, but can be a result of intrinsic motivation (Gruber, 1999). The present study supports these theories.

This finding could have a great impact on higher education curriculum. From the present study, it appears that service learning involvement has an influence on growth in postconventional moral development and continued voluntary prosocial behavior. According to theorists, involvement in service learning promotes a sense of reciprocal learning; that is, both students and the community benefit from this involvement (Eyler & Giles, 1999). The present study found that the required service learning experience fostered growth in moral development for those students who continued in voluntary prosocial behavior.

5. The difference in the level of empathy at the conclusion of the first semester of college (Time 2), holding constant the level of empathy at the beginning of the first semester of college (Time 1), is related to voluntary prosocial behavior \( (F = 146.77, \text{df}=1, p < .001, \text{see Table 4.10}) \). As reported in Chapter IV, a statistically significant difference was found in the level of empathy at the conclusion of the first semester of college (Time 2), holding constant the level of empathy at the beginning of the
first semester of college (Time 1), for those students who continued in voluntary prosocial behavior. There was no statistically significant difference found in the level of empathy at the conclusion of the first semester of college (Time 2), holding constant the level of empathy at the beginning of the first semester of college (Time 1), for those students who did not continue in voluntary prosocial behavior. By holding constant the level of empathy at the beginning of the first semester of college (Time 1), the researcher was able to measure the change in the level of empathy between the beginning (Time 1) and the conclusion (Time 2) of the first semester of college.

Hoffman (1978) believes that empathy precedes and fosters prosocial motivation. He claims that empathy requires stepping into another's place and imagining how that person feels, which is known as role taking. Other theorists claim that empathy results in the desire to reduce the stress of others (Batson, 1987). Research has found that empathetic college student volunteers continue to volunteer longer hours (Penner, Fritzsch, Craiger & Frield, 1995). The present study supports these theories and findings.

This finding could have great implications for higher education. From the present study, required service learning experience appears to have a significant influence on growth in empathy and continued voluntary prosocial behavior. Interestingly, no statistically significant relationship was found between the level of empathy at the beginning of the first
semester of college (Time 1) and voluntary prosocial behavior. As reported in Chapter IV, this finding does not support Hoffman's (1991) theory that the roots of empathy begin to grow naturally at infancy, continuing to grow throughout life, promoting prosocial behavior (Damon, 1988; Farver & Beanstetter, 1994). The theory that empathy develops during adolescence yielding positive relations between empathy and prosocial behavior (Eisenberg & Miller, 1987) is also not supported by the present study.

There was also no statistically significant relationship found between the level of empathy at the conclusion of the first semester of college (Time 2) and voluntary prosocial behavior. This finding does not support the research that shows empathy to be related to prosocial behavior (Hoffman, 1981; Eisenberg & Miller, 1987).

In the present study, the relationship between the combination of the level of empathy and the level of postconventional moral development at the beginning of the first semester of college (Time 1) and voluntary prosocial behavior was not found to be statistically significant. The combination, whether high or low, on both the level of empathy and the level of postconventional moral development at the beginning of the first semester of college did not influence students' decisions to continue in voluntary prosocial behavior.
Recommendations

The following recommendations for higher education are based on the data presented in the study:

1. Educational institutions need to actively ensure that voluntary service programs are readily available for high school students. A recommendation is that a concerted effort be made to introduce voluntary service to students long before the last semester of the senior year of high school. Since voluntary service in the last semester of high school combined with the required service learning experience had such an influence on students' decisions to continue in voluntary prosocial behavior, voluntary service should be introduced in elementary school and continued throughout high school. This may influence more students to continue in voluntary service beyond the required college experience. Moreover, since previous research has found civic engagement in adolescence to be a predictor of future behaviors (Switzer, Simmons, Regalski & Wang, 1995), this practice must be introduced at an early age and promoted if meaningful learning through service learning and continued voluntary prosocial behavior are to become a reality. More and stronger service learning links should be cultivated between elementary, secondary and higher education. It has become evident that the quality of students' experience prior to
their college years will shape their attitude toward required service learning in college (Jacoby, 1996).

2. Faculty must act as both teachers and role models in the required service learning experience in order to promote continued voluntary prosocial behavior beyond the required college experience. There is a strong call for faculty to develop ways to support and promote participation in service beyond the requirements of their courses. A recommendation is made for faculty to conscientiously integrate the service learning curricula and involve themselves in the experience, working closely with students. This on-site faculty mentorship will encourage students to become more involved in the required service learning experience, to reflect upon the experience and to apply what they learn to future practice. Many theorists believe that faculty mentorship supports student development (Pascarella & Terenzini, 1991, Astin, 1991). Eyler and Giles (1999) suggest that service learning provides opportunities for students and faculty to work closely together as peers on community projects. The research of Jackson, Boostrom & Hansen (1993) supports the fact that moral development occurs in school intentionally through the curriculum and through all that students experience relative to their interactions with and to values invoked by their teachers. This interaction aids in the effectiveness of service learning. This
recommendation supports Zlotkowski's (1995) claim that in order for service learning to have a future in higher education, faculty must see its importance and be actively involved in the service learning experience with students. Institutions of higher education need to initiate a reward system in recognition of those faculty members who provide on-site faculty mentorship to students during the required service learning experience. Because the recruitment and development of a key group of faculty who are involved in service learning are a major means of developing colleges and universities committed to being engaged in their communities, gaining a better understanding of faculty's roles in service learning would be advantageous to those institutions.

3. Because the significance of role-taking opportunities to moral growth and increased empathy levels, which are related to continued voluntary prosocial behavior, it is recommended that these types of opportunities be integrated in all service learning experiences. Many theorists (Hoffman, 2000; Jones, 2000, Reimer, Lickona, 1991, Paolitto & Hersh, 1990) support the importance of providing ongoing opportunities for role-taking in order to stimulate moral growth. Providing such opportunities for students would promote the success of required service learning.

4. Because of the relevance of moral development to continued voluntary prosocial behavior, institutions of higher education need
to make a concerted effort to ensure that they provide fulfilling service learning experiences where positive moral factors are present to the students enrolled in required service learning coursework. Thus, a recommendation is made for service learning directors, faculty, and students to work closely together in deciding which service learning projects will be made available to the students enrolled in required service learning coursework, and that these projects promote moral development and continued voluntary prosocial behavior.

Further Research Implications

The theoretical issues presented in the previous sections raise a number of implications for research about the relationships of high school voluntary service, on-site faculty mentorship in the required service learning coursework, empathy levels, and levels of postconventional moral development to voluntary prosocial behavior. More research is indicated regarding when voluntary service should begin in high school and whether voluntary service learning experience has a more significant relationship to increased empathy and postconventional moral development levels and voluntary prosocial behavior than required service learning experience. Also, the nature of the conditions that foster on-site faculty mentorship must be determined and faculty involvement in the required service learning experience must be promoted. Institutions of higher education who have
implemented or are considering implementing required service learning coursework need a better understanding of the importance of faculty involvement.

In general, future research should attempt to include in the sample a richer, more diverse population, in order to test the influence of the variables. By testing a more diverse sample, the study could yield richer data and may reveal that the hypothesized relationships may exist between socio-economic status, cultural background, and gender. There is also a need to study the long-term effects of service learning on voluntary prosocial behavior. A longitudinal study should be conducted of those students who were involved in required service learning coursework and continued in voluntary prosocial behavior following the required service learning experience to determine if they continued in voluntary prosocial behavior in the years following graduation from college.

A Final Note

While higher education seems to be taking steps toward responding to the needs of society, advocates of service learning education must respond to future changes in the student population and in the educational environment. Through the lens of survey research, it is discovered that voluntary service in high school, on-site faculty mentorship, postconventional moral development, and empathy levels following the required service learning experience have a significant effect on students' decisions to continue in voluntary prosocial
behavior beyond the required service learning experience. Service learning advocates believe that service learning promotes reciprocal learning (Eyler & Giles, 1999), that is, that it is beneficial to students, community and institutions of higher education. Further study is necessary to determine these benefits.

Recently, there has been a stronger interest in service learning curriculum by the current United States Government administration. To revamp national service programs and expand service opportunities for Americans, Senators McCain and Bayh have proposed “The Call To Service Act of 2001” on December 10, 2001. The bill will eliminate the tax on post service education awards and lift caps on the amount of funding allowed to go directly to national non-profit organizations. This would also allow non-profit organizations to apply for grants from AmeriCorps, the national service organization expanding participation in the AmeriCorps program. The goal of this bill is to make national service available to every young person, allowing more communities to benefit from service (McCain & Bayh, 2001). The passing of this bill can dramatically influence the national service movement in this country. The McCain-Bayh bill would also require the United States Education Department to release an annual report to Congress identifying which colleges and universities are not in compliance. Failure to provide service opportunities to students could jeopardize the federal financial aid (Green, 2002).
The success of service learning depends on the institutions of higher education involving the participants fully in the service learning experience. The present study points to the need for a stronger connection between elementary and high school voluntary service and higher education service learning and to the promotion of on-site faculty mentorship in the service learning experience.


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APPENDIX A
KOHLBERG'S THEORY OF MORAL REASONING

LEVEL

Level 1

Preconventional morality: At this level, the creative interests of the individual are considered in terms of rewards and punishments.

Level 2

Conventional morality: At this level, people approach moral problems as members of society. They are interested in pleasing others by acting as good members of society.

Level 3

Postconventional morality: At this level, people use moral principles which are seen as broader than those of any particular society.

STAGE

Stage 1

Obedience and punishment orientation: At this stage, people stick to rules in order to avoid punishment, obedience occurs for its own sake.

Stage 2

Reward orientation: At this stage rules are followed only for a person's own benefit.

Stage 3

"Good boy morality: Individuals at this stage show an interest in maintaining the respect of others and doing what is expected of them.

Stage 4

Authority and social-order-maintaining morality: People at this stage conform to society's rules and consider that "right" is what society defines as right.

Stage 5

Morality of contract, individual rights, and democratically accepted law: People at this stage do what is right because of a sense of obligation to laws which are agreed upon within society. They perceive that laws can be modified as part of changes in an implicit social contract.

Stage 6

Morality of individual principles and conscience: At this final stage, a person follows laws because they are based on universal ethical principles. Laws that violate the principles are disobeyed.
APPENDIX B

Letter of Explanation

September 23, 1999

Dear Student:

Attached to this letter you will find a relatively short, easy-to-complete, and we hope "interesting" questionnaire about some of your attitudes and feelings. We are requesting this information as part of a pilot, research study that could have important implications for how colleges and universities design their curriculums. As you may know, many parents and other members of the American society have voiced worries about how well colleges are preparing students for their lives after graduation. The data from this study will contribute to the information needed to address this problem.

All of the data collected will be completely confidential. Each questionnaire has an identification number, which will be used for coding purposes only. No individual data will EVER be released to anyone, and no information will in any way become part of your college record. So, please be completely honest in your responses.

You will have more than enough time to complete the questionnaire, so take your time, but please be sure to answer all questions. When the questionnaire is complete, please return it to the student assigned to collect it. Also attached is a brief, questionnaire requesting your comments about the survey we are planning. Please complete this survey since it is of vital importance to the researchers. Please note that participation in this pilot study is strictly voluntary. If you have any questions, feel free to call me, Susan Hudec, doctoral candidate, New York University at (718) 390-3421.

We will be grateful for your help in this research.

Sincerely,

Susan M. Hudec
Project Director
Pilot Survey

QUESTIONNAIRE ABOUT YOU, YOUR FEELINGS & YOUR OPINIONS ABOUT SOCIAL ISSUES

Your comments on the questionnaire:

The questionnaire instructions were clearly written and easy to understand:

☐ Yes  ☐ No

Comments

The questionnaire was easy to understand:

☐ Yes  ☐ No

Comments

The amount of time it took to complete the entire questionnaire was:


Did you feel this was a fair amount of time or too time consuming:

Comments

Additional Comments:

Thank you
Dear Student:

Attached to this letter you will find a relatively short, easy-to-complete, and we hope "interesting" questionnaire about some of your attitudes and feelings. We are requesting this information as part of a research study that could have important implications for how colleges and universities design their curriculums. As you may know, many parents and other members of the American society have voiced worries about how well colleges are preparing students for their lives after graduation. The data from this study will contribute to the information needed to address this problem.

All of the data collected will be completely confidential and your participation is strictly voluntary. If you do not wish to participate in the study, you may simply leave the room. There is no penalty for not participating. Each questionnaire has an identification number, which will be used for coding purposes only so that we can send you a follow-up questionnaire toward the end of the year. Your name will never appear on the questionnaire itself, no individual data will EVER be released to anyone, and no information will in any way become part of your college record. So, please be completely honest in your responses.

The questionnaire should only take about fifteen minutes to complete. You will have more than enough time to complete the questionnaire, so take your time, but please be sure to answer all questions. When all students have finished, one of you will be asked to volunteer to collect the questionnaires, put them in an envelope and return them to me.

We are very grateful for your help in this research. If you would like to receive a copy of the report of the overall results of study, please do not hesitate to write me, Susan Hudec, doctoral candidate at New York University's School of Education, Program in Higher Education, 59 Fairway Lane, Staten Island, New York 10301 or call me at (718) 390-3421. If you have any questions regarding the research or your rights, please feel free to call me.

Sincerely,

Susan M. Hudec, Project Director
Consent Form

I agree to participate in the research and complete the questionnaire, About You, About Your Feelings, Your Opinions About Social Issues. I have read the attached letter and understand that my participation in the study is strictly voluntary.

I understand that I may withdraw my consent any time after signing this form should I choose to do so.

______________________________
Signature

______________________________
Print your name

______________________________
Date

Questionnaire “About You, Your Feelings & Social Issues”
PART ONE

ABOUT YOU...

1) What is your age?

2) Gender?

   □ Male   □ Female

3) What is your ethnic background?

   □ Caucasian/White  □ African American/Black
   □ American Indian or Alaskan Native
   □ Asian or Pacific Islander  □ Latino, Latina/ Hispanic
   □ Other (please specify ________________________)

4) A) Are you a resident student?

   □ Yes   □ No

5) A) How many hours of volunteer service did you do per week in your last semester of high school?

   ________________________

7) What type of service are you involved in?

   1) Hospital  3) School  5) Environmental
   2) Religious Institution  4) Political  6) Other

   7) NA
Part Two
About your Feelings....

Please circle True or False for the following statements.

1) I am not a very emotional person.  
   True
   False

2) I try to keep my feelings toward people rather neutral.  
   True
   False

3) I tend to get strongly attached to people.  
   True
   False

4) I don’t really care if my friends follow my advice or not.  
   True
   False

5) I am often sentimental where my friends are concerned.  
   True
   False

6) I tend to get quite involved in other people’s problems.  
   True
   False

7) I don’t waste my sympathy on people who have caused their own problems.  
   True
   False

8) I am so sensitive to the moods of my friends that I can almost feel what they are feeling.  
   True
   False

9) I would feel discouraged and unhappy if someone I knew
lost a job. True

10) I rarely get upset when other people make fools of themselves. True

11) I never get too upset about other people's misfortunes. True

12) I would like to spend a great deal of time helping the less fortunate. True

13) I am quite affectionate towards people. True

14) I get embarrassed for a speaker who makes a mistake. True

15) I think I could keep myself from worrying if a friend became ill. True

16) When I talk about someone I like very much, I have a very hard time hiding my feelings. True

17) I try to keep out of other people's problems. True

18) I have no patience with someone who is just looking
for a shoulder to cry on.  

False

19) I usually feel very sad when a movie has an unhappy ending.  

True

False

20) I prefer not to spend a lot of time worrying about a person whose condition can't be helped.  

True

False

ID No. (number assigned to cover of the questionnaire booklet)
Part Three
Your Opinions About Social Issues....

This questionnaire is aimed at understanding how people think about social issues. Different people often have different opinions about questions about right and wrong. There are no “right” answers in the way you think about several problem stories. The paper will be fed through a computer to find the average for the whole group and no one will see your individual answers.

In this questionnaire you will be asked to give your opinions about several stories. Here is an example story.

Frank Jones has been thinking about buying a car. He is married, has two small children and earns an average income. The car he buys will be his family’s only car. It will be used mostly to get to work and drive around town, but sometimes for vacation trips also. In trying to decide what car to buy, Frank Jones realized that there were a lot of questions to consider. Below there is a list of some of these questions. If you were Frank Jones, how important would each of these questions be in deciding what car to buy?

Instructions for part A: (SAMPLE QUESTION)

On the left hand side check one of the spaces by each statement of a consideration. (For instance, if you think that statement #1 is not important in making a decision about buying the car, check the space on the right.)

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<th>Great</th>
<th>Much</th>
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<td>X</td>
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<tr>
<td>1. Whether the car dealer was in the same block as where Frank lives. (Note that in the sample, the person taking the questionnaire did not think this was important in making a decision.)</td>
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| X |
| 2. Would a used car be more economical in the long run than a new car. (Note that a check was put in the far left space to indicate the opinion that this is an important issue in making a decision about buying the car.) |

<p>| X |
| 3. Whether the color was green, Frank’s favorite color. |</p>
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<tr>
<th></th>
<th></th>
<th>X</th>
<th>4. Whether the cubic inch displacement was at least 200. (Note that if you are unsure about what &quot;cubic inch displacement&quot; means, then mark it &quot;no importance.&quot;)</th>
</tr>
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<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td>5. Would a large, roomy car be better than a compact car.</td>
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<td>X</td>
<td>6. Whether the front connibilies were differential. (Note that if a statement sounds like gibberish or nonsense to you, mark it &quot;no importance.&quot;)</td>
</tr>
</tbody>
</table>

**Instructions for part B: (Sample Question)**

From the list of questions above, select the most important one of the whole group. Put the number of the most important question on the top line below. Do likewise for your 2\(^{nd}\), 3\(^{rd}\), and 4\(^{th}\) most important choices. (Note that the top choices in this case will come from the statements that were checked on the far left - hand side — statement #2 and #5, were thought to be very important. In deciding what is the most important, a person would re-read #2 and #5, and then pick one of them as the most important, then put the other one as the "second most important," and so on.)

**Most Important:**

**Second Most Important:**

**Third Most Important:**

**Fourth Most Important:**
Heinz And The Drug

In Europe a woman was near death from a special kind of cancer. There was one drug that the doctors thought would save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. He paid $200 for the radium and charged $2000 for a small dose of the drug. The sick woman’s husband, Heinz, went to everyone he knew to borrow the money, but he could only get together $1000, which was half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, “No, I discovered the drug and I’m going to make money from it.” So Heinz got desperate and began to think about breaking into the man’s store to steal the drug for his wife.

Should Heinz steal the drug? (Check one)

_________ Should steal it __________ Can’t decide __________ Should not steal it

Importance:

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1. Whether a community’s laws are going to be upheld.

2. Isn’t it only natural for a loving husband to care so much for his wife that he’d steal?

3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?

4. Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers.

5. Whether Heinz is stealing for himself or doing this solely for someone else.
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<th>6. Whether the druggist’s rights to his invention have to be respected.</th>
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<td>7. Whether the essence of living is more encompassing than the termination of the dying, socially and individually.</td>
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<td>8. What values are going to be the basis for governing how people act towards each other?</td>
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<td>9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects his rich anyhow.</td>
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<td>10. Whether the law in this case is getting in the way of the most basic claim of any member of society.</td>
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<td>11. Whether the druggist deserves to be robbed for being so greedy and cruel.</td>
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<td>12. Would stealing in such a case bring about more total good for the whole of the society or not.</td>
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From the list of questions above, select the four most important:

Most important: ________
Second Most Important: ________
Third Most Important: ________
Fourth most important: ________

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Escaped Prisoner

A man had been sentenced to a prison for 10 years. After one year, however, he escaped from prison, he moved to a new area of the country, and took on the name of Thompson. For 8 years he worked hard, gradually he saved enough money to buy his own business. He was fair to his customers, gave his employees top wages, and gave most of his own profits to charity. Then one day, Mrs. Jones, an old neighbor, recognized him as the man who escaped from prison 8 years before, and whom the police had been looking for.

Should Mrs. Jones report Mr. Thompson to the police and have him sent back to prison? (Check one)

- [ ] Should report him
- [ ] Can't decide
- [ ] Should not report him

Importance:

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1. Hasn’t Mr. Thompson been good enough for such a long time to prove he isn’t a bad person?

2. Every time someone escapes punishment for a crime doesn’t that just encourage more crime?

3. Wouldn’t we be better off without prisons and the oppression of our legal systems?

4. Has Mr. Thompson really paid his debt to society?

5. Would society be failing what Mr. Thompson should fairly expect?

6. What benefits would prisons be apart from society, especially for a charitable man?

7. How could anyone be so cruel and heartless as to send Mr. Thompson to prison?

8. Would it be fair to all prisoners who had to serve out their full sentences if Mr. Thompson was let off?

9. Was Mrs. Jones a good friend to Mr. Thompson?

10. Would it be a citizen’s duty to report an escaped criminal, regardless of the circumstances?
| 11. How would the will of the people and the public good best be served? |
| 12. Would going to prison do any good for Mr. Thompson or protect anyone? |

From the list of questions above, select the four most important:

Most important: 

Second Most Important: 

Third Most Important: 

Fourth most important:  

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ID No. (number assigned to cover of questionnaire booklet)

Newspaper

Fred, a senior in high school, wanted to publish a mimeographed newspaper for students so that he could express many of his opinions. He wanted to speak out against the war in Viet Nam and to speak out against some of the school’s rules, like the rule forbidding boys to wear long hair.

When Fred started his newspaper, he asked his principal for permission. The principal said it would be all right if before every publication Fred would turn in all articles for the principal’s approval. Fred agreed and turned in several articles for approval. The principal approved all of them and Fred published two issues of the paper in the next two weeks.

But the principal had not expected that Fred’s newspaper would receive so much attention. Students were so excited about the paper that they began to organize protests against the hair regulation and other school rules. Angry parents objected to Fred’s opinion. They phoned the principal telling him that the newspaper was unpatriotic and should not be published. As a result of the rising excitement, the principal ordered Fred to stop publishing. He gave as a reason that Fred’s activities were disruptive to the operations of the school.

Should the principal stop the newspaper? (check one)

_____ Should stop it    _______ Can’t decide    _______ Should not stop it

Importance:

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<th>Great</th>
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<th>Some</th>
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<tbody>
<tr>
<td>1. Is the principal more responsible to the students or to the parents?</td>
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<td>2. Did the principal give his word that the newspaper could be published for a long time, or did he just promise to approve the newspaper one issue at a time?</td>
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<td>3. Would the students start protesting even more if the principal stopped the newspaper?</td>
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<td>4. When the welfare of the school is threatened, does the principal have the right to give orders to students?</td>
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<tr>
<td>5. Does the principal have the freedom of speech to say “no” in this case?</td>
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</table>
6. If the principal stopped the newspaper would he be preventing full discussion of important problems?

7. Whether the principal’s order would make Fred lose faith in the principal.

8. Whether Fred was really loyal to his school and patriotic to his country.

9. What effect would stopping the paper have on the student’s education in critical thinking and judgments?

10. Whether Fred was in any way violating the rights of the others in publishing his own opinions.

11. Whether the principal should be influenced by some angry parents when it is the principal that knows best what is going on in school.

12. Whether Fred was using the newspaper to stir up hatred and discontent.

From the list of questions above, select the four most important:

Most important:__________

Second Most Important:__________

Third Most Important:__________

Fourth most important:__________

Please be sure you have answered all questions.

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APPENDIX D

Letter of Explanation

April 1, 2000

Dear Student:

In the fall semester of this year, you participated in a research study that could have important implications for how colleges and universities design their curriculums. The attached follow-up survey is a part of that study.

Please take the time to complete the attached, brief survey and return it to your advisor. The information you provide is of vital importance to the study. Once again, all data will be kept confidential. Each survey has an identification number, which will be used for coding purposes only. No individual data will ever be released to anyone and no information will ever become part of your college record. As stated in the previous letter, please note that participation is strictly voluntary. If you do not wish to participate in the study, you simply do not have to complete the survey. If you wish to receive a copy of the report of the overall study, please feel free to write me, Susan Hudec, doctoral candidate at 59 Fairway Lane, Staten Island, New York 10301 or call me at (718) 390-3421. If you have any other pertinent questions regarding the research or your rights, please feel free to call Dr. Jim Bess, Committee Chairperson at New York University (212) 998-5658 or contact the New York University Office of Sponsored Programs, Committee on Activities Involving Human Subjects at (212) 998-2121.

We thank you for your help with this important research.

Sincerely,

Susan M. Hudec
Project Director
Final Survey

FOLLOW-UP SURVEY
More About You.....

ID No. – (number assigned to cover of the questionnaire booklet will be the same)

1) Were you involved in volunteer service this past semester?
   □ Yes  □ No

If you answered yes to question 1, please answer the following:

2) A) What type of service were you involved?
   □ Hospital  □ School
   □ Religious Institution  □ Political
   □ Environmental  □ Other

Describe briefly:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2) B) Approximately how many hours per week on average did you spend in your volunteer service?

________________________________________________________________________

2) C) Do you do voluntary service every week or sporadically?

________________________________________________________________________

2) D) How many different projects have you been involved in during the semester?

________________________________________________________________________