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The Impact of Service-Learning on General Education Outcomes at a Community College in Virginia

Sonya Lisette Landas
Old Dominion University

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THE IMPACT OF SERVICE-LEARNING ON GENERAL EDUCATION OUTCOMES AT A COMMUNITY COLLEGE IN VIRGINIA

BY

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A Dissertation Submitted to the Faculty of Old Dominion University in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

COMMUNITY COLLEGE LEADERSHIP

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July 2012

Approved by:

Dr. Alan Schwitzer, Director

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ABSTRACT

THE IMPACT OF SERVICE-LEARNING ON GENERAL EDUCATION OUTCOMES
AT A COMMUNITY COLLEGE IN VIRGINIA

Sonya Lisette Landas
Old Dominion University, 2012
Director: Dr. Alan Schwitzer

Service-learning is an instructional method designed to cultivate interaction between students and their communities in order to improve the learning process. Although there is a wealth of information available pertaining to the development and implementation of service-learning in higher education, evidence supporting the impact of service-learning on general education outcomes at a community college is minimal. The current study investigated the impact of service-learning on two general education outcomes at a local community college: critical thinking and personal growth (measured by two subtasks on the Student Developmental Task and Lifestyle Assessment). The researcher used an Analysis of Variance with repeated measures to assess the impact of service-learning on critical thinking skill. A Multivariate Analysis of Variance with repeated measures was used to assess the impact of service-learning on personal growth. Although the findings indicated a positive impact on critical thinking skill, they did not indicate a significant impact on personal growth. Possible explanations, limitations, implications, and recommendations are discussed.
ACKNOWLEDGEMENTS

You may know someone who has completed a dissertation or you may have completed one yourself. You may be in the process right now. I write this to encourage you to stay with it to the end. There are far too many ABD’s (all but dissertation) out there. It has taken me six years to complete this project. During the process I have gotten married, blended our families, and had two more children. If I can finish with all of that going on (not to mention the normal ups and downs that come with life in general) you can finish too, but you probably cannot do it on your own. This project was only completed because I had a tremendous amount of support and encouragement from many different people in my life. I would like to take the opportunity to articulate my appreciation here.

I would like to express my sincere gratitude to my committee members. Without their continued support and encouragement, this dissertation would not have been completed. Thank you, Dr. Alan "Woody" Schwitzer, for believing in my ability to accomplish this tremendous task, for always being there to encourage me when I had questions, and for providing leadership through what felt like a very dense forest at times. Thank you, Dr. Lonnie Schaffer, for your wonderful insight into higher education, community colleges, and service-learning. Thank you for sharing your passion and experience with me on this journey. Thank you, Dr. Molly Duggan, for helping me refine my writing skills and for keeping me on my toes as I wrote. Thank you, Dr. Christine Ward, for joining our team near the end and assisting me as I worked through the interpretation of my statistical analyses.

I am also extremely thankful for my family. I could not have persevered through this project without them. To my wonderful husband, Jim, thank you for spending extra time with the kids and letting me seclude myself somewhere to write. To my oldest son, Evan, thank you
for giving me a reason to press on and hope for a better future for us. I always said, “this too shall pass,” and the day has finally come! To my parents, Mike and Chris Bernat, thank you for believing in me and encouraging me to press on. You have played a big part in teaching me the value of education. I would also like to thank my sister, Regina, for finding ways to lift me up in the dark times that I sometimes faced. You were always there to remind me to take things in stride.

I owe many thanks to my Forefront family. There have been many people to come into this family for a short while and only a few that have remained consistent over the years. I could not have completed this project without the stable foundation a group of people that continued to pray for me. I would like to give special thanks to Kevin Coward. Without your professional support and continuous encouragement, this project would never have started. Thank you for following the call that God has put out in front of you. You will always be “the wise one” to me. I would also like to thank John Adams, Libby Cutshall, Kelly Gibson, Amy McNamara, and Holly Mercier. Over the years you have put up with me as I offered up yet another prayer request to help me get through my dissertation. Thank you! We can mark that one off the list. Our prayers have finally been answered!

Last, but definitely not least, I thank God for this project and for the continued strength and perseverance He has provided to get me through. Psalm 55:22 reads, “cast your cares on the Lord and He will sustain you…” He has certainly sustained me and I could not have finished without faith in Him. No matter where you are in journey, God will be with you (Exodus 15:13). He will meet your every need (Phillipians 4:19) even when you feel like giving up (2 Corinthians 12:9). He promises ever-lasting joy (John 15:11). So do not even think about giving up, just keep pressing on and rely on the strength around you.
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CHAPTER I
INTRODUCTION

A primary focus of higher education in America has always been student learning (Prentice & Robinson, 2010). Course grades and cumulative grade point averages have been used as indicators in the past; however, Prentice and Robinson note that in last half of the 20th century and into the 21st century, the validity of these methods has been called into question. In 1983 the National Commission on Excellence in Education published the report, A Nation at Risk, that brought awareness to higher education and inadequate attention to teaching and learning outcomes (in Boggs, 2011). As educators continue to seek valid measures of student learning outcomes, one suggestion has been to use a common method of instruction and individual instructional techniques to develop an assessment that could be used in courses across campuses, such as service learning (Prentice & Robinson).

Service-learning is an instructional method that infuses community service within academia. It is designed to foster interaction between students and their communities in order to enhance the learning process (Eyler, Giles, & Braxton, 1997; Morgenstern et al., 2008; Prentice & Robinson, 2010). In 2007 Campus Compact, a national coalition of college presidents dedicated to promoting campus based community service, reported over 1,190 members representing six million students in higher education. In addition, the coalition raised over $13 million in funding to support the development and implementation of community service, civic engagement, and service-learning in 2006 (Campus Compact, 2007). Service-learning has become a national phenomenon impacting the lives of millions of students, educators, and communities. It continues to gain recognition, popularity, and financial support (Prentice, Robinson, & McPhee, 2003).
Although most of the literature on service-learning is collected from four-year students and institutions, there is a significant effort to develop and sustain community college service-learning as well. Community colleges operate in every state and enroll approximately 50% of students entering college (Boggs, 2011; Cohen & Brawer, 2003). Approximately 71% of community colleges integrated service-learning into their curriculum in 2004 and another 19% reported an interest in developing service-learning (Prentice et al., 2003). Although community college service learning is currently implemented, little is known regarding its impact on student goals and learning outcomes. The purpose of the current dissertation is to further investigate the impact of service-learning on general education learning outcomes, a common thread to the community college curriculum.

Background

In 1990 President Bush signed the National and Community Service Act to restore a commitment to community service (Kozeracki, 2000). Three years later President Clinton signed legislation forming The Corporation for National and Community Service (CNS), an umbrella organization that has since lead to the funding of several national programs such as AmeriCorps and Learn and Serve America (Kozeracki; Learn and Serve America, 2008). These significant events increased attention on the efforts to integrate civic engagement into education through community service and service-learning (Kozeracki).

Service-learning

Service-learning is an instructional method based on John Dewey's pedagogy of experiential learning (Furco, 1996; Giles & Eyler, 1994). Community service is integrated into the curriculum and connected to course material so students gain meaningful experiences while simultaneously applying what they are learning to solve real social issues (Eyler et al., 1997).
Reflective techniques such as journaling and group discussion are an integral part of service-learning and help facilitate connections between academia and social needs (Armstrong, 2006). In contrast to other forms of experiential education, service-learning strives to balance student needs with community needs so both benefit from the service provided (Furco).

A significant amount of literature is available regarding development and implementation of successful service-learning. Bringle, Hatcher, and Games (1997) focus on motivational factors of service-learning faculty and the need for institutional support and development initiatives. Faculty must integrate various opportunities for reflection and discussion such as small groups (Rice & Stacey, 1997), journal assignments (Armstrong, 2006; Bolin, Khramtsova, & Saarnio, 2005), and group discussion (Armstrong, 2006) to enhance service-learning. Jurgens and Schwitzer (2002) describe the process of designing, implementing, and evaluating a service-learning component in human service education. Olson (2002) describes the integration of service-learning in an online English composition course and the value of service-learning in fostering discussion in distance education. Although educators have been practicing service-learning as far back as the 1950's, the majority of the literature is based on development and implementation rather than its effectiveness (Kozeracki, 2000).

Statement of Problem 1

Research indicates that service learning has a positive influence on college student development. Eyler, Giles, Stenson, and Gray (2001) summarized the research pertaining to service-learning in higher education between 1993 and 2000. The majority of the research conducted during that time was conducted at the university level of higher education and focused on personal growth, especially in the area of civic responsibility (Astin & Sax, 1998). According to Marcari, Maples, and D’Andrea (2006) personal growth includes areas such as interpersonal
skills, social and cultural awareness, spiritual beliefs, moral reasoning, and emotional understanding. Researchers also report that service-learning has a positive effect on interpersonal development, the ability to work well with others, leadership and commitment (Eyler et al.; Goddard & Gribble, 2004; Prentice & Robinson, 2010). Students who participate in service-learning as part of a college course experience more benefits than students who participate in traditional volunteer community service (Prentice & Robinson, 2010; Smith, 2008).

The benefits of participation in service-learning are not as clear for non-traditional students, such as community college students. Community colleges are the “largest, most accessible, and fastest-growing sector of [American] higher education” (Boggs, 2011, p. 2). According to Boggs (2011) “community colleges provide access to higher education to the most diverse student body along every demographic dimension” (p. 6). Community college students are generally older than university students, but have less academic preparation (Boggs, 2011; Cohen & Brawer, 2003). In addition, community college students are more likely to have more obligations in addition to academics such as work and family, and often pursue educational goals on a part-time basis (Cohen & Brawer). Needs and goals of community college students differ greatly from those of four-year university students. There is still a lot to be learned about the impact of service-learning on community college student development and learning.

Statement of Problem 2

Another large portion of the research summarized by Eyler et al. (2001) examined the effects of service-learning on academic success. Several studies based on reports from students and faculty members indicate that service-learning has a positive effect on academic learning. Others indicate that service-learning has a positive effect on academic outcomes when complexity of understanding, problem analysis, critical thinking, and cognitive development
were used to demonstrate success (Eyler et al.). However, when objective measures such as student grades and grade point averages are used to measure academic success, the results are inconclusive (Eyler et al.; Prentice & Robinson, 2010).

One approach to assessment is to focus on general education outcomes. Unlike the learning outcomes based on specific disciplines or course objectives, general education outcomes reflect a general body of knowledge, attitude, and skill that are based on an institution's particular goals and mission (Cohen & Brawer, 2003; Duesterhaus, 2008). General education outcome goals are a significant factor related to the community college curriculum. A significant number of community college students (60-70%, depending on the location) are enrolled in general education programs (Cohen & Brawer, 2003). Whether students are completing an academic program or workforce development, a general education curriculum is typically included. As with so many other factors related to education, general education is often difficult to define and assess. The current study will utilize Bloom's taxonomy, a widely used method of identifying types and levels of learning. Two domains of Bloom's taxonomy were used to identify general education learning outcomes to be assessed. The learning domains were the cognitive or knowledge domain (i.e. critical thinking skill) and the affective or attitudinal domain (i.e. personal growth).

Purpose of the Current Study

The purpose of this study is to examine the effects of community college service-learning on general education learning outcomes. Although national efforts are maintained to develop and implement service-learning in community colleges, the amount of literature supporting its effectiveness at this level of education is minimal. Furthermore, the extent that literature addresses the effect of service learning on general education learning outcomes is missing. The
current study will use a pre- and post-test quasi-experimental design to assess the effect of service-learning on two general education learning outcomes that relate to the learning domains of Bloom's taxonomy at the community college level.

Overview of Methodology

Two general education outcome variables will be examined to gain further understanding of the impact of service-learning when implemented at the community college level. Service-learning will take place at one of three partnering agencies in the community: Kids Cafe and the Boys and Girls Club of Southeastern Virginia (Kids Cafe), People in Need (PIN), and the Judeo Christian Outreach Center (JCOC). Approximately 400 students enrolled in introductory psychology at a community college located in southeast Virginia will participate in the study. Data will be collected during the spring, summer, and fall sessions 2009 and 2010.

Students will provide background information pertaining to demographics as well as prior academic experience. The general education criteria based on the learning domains of Bloom's taxonomy studies will be critical thinking and personal growth. Critical thinking will be measured using a critical thinking assessment adapted from Longview Community College's Critical Thinking Across the Curriculum Project (1996). Personal growth will be analyzed using two tasks from the Student Developmental Task and Lifestyle Assessment: the Developing Autonomy Task and the Establishing and Clarifying Purpose Task. The study's variables and measures will be administered using an online course management system, Blackboard. See Table 1 for a summary of all variables, measures, and statistical tests.
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Definition of Terms

The following terms will be used in this study:

*Blackboard* is an online course management tool designed so that students and teachers can interact through distance education.

*Bloom’s Taxonomy* is a classification system of three learning domains: cognitive, affective, and psychomotor. The system was first developed to enhance communication between educators regarding curriculum development and assessment. Within each domain, higher levels of learning are dependent on the mastery of lower levels skills and knowledge.

*Community colleges* are institutions of higher education that often have different meanings based on where they are located. American community colleges are often referred to as two-year colleges or junior colleges, and typically offer two-year programs in workforce development, associate degree studies, or transfer education. In addition, community colleges are known for their open-door policies and public access regardless of educational background, socio-economic status, ethnicity, or gender.

*Community partners* work with the college as part of the relationship maintained through service-learning. Community partners are typically non-profit organizations serving the community by assisting populations in need such as the homeless, the elderly, and youth at risk for social and personal problems.

*Critical thinking* is generally defined as the ability to recognize credible information and resources using careful examination and evaluation. Students demonstrate critical thinking skills by applying reason in order to classify various degrees of credibility, validity, and reliability of claims drawn from available information. Critical thinking also entails the ability to analyze and appraise the significance of debatable issues. Students with critical thinking skills use practical
evidence to question and support conclusions and generalizations inferred from data. For the purpose of the current study, critical thinking skills will be assessed using the Critical Thinking Assessment adapted from Longview Community College's Critical Thinking Across the Curriculum Project (1996).

*General education* typically refers to a set or core of courses that improve critical thinking, self-awareness, values, and acceptance of diverse cultures (Cohen & Brawer, 2003; Duesterhaus, 2008). The requirements of general education depend on an institution's mission statement and vary from one institution to another, but they are typically developed around the question, "What knowledge, attitudes, or skills should students have upon graduation from your institution?" Since the sample population in this study is coming from TCC, the general education requirements from TCC will be used. They are communication, critical thinking, cultural and social development, quantitative reasoning, and scientific reasoning.

*Personal growth* is typically demonstrated through interpersonal skill, social and cultural awareness, spiritual beliefs, moral reasoning, and emotional understanding (Marcari et al., 2006). Bloom's taxonomy refers to this type of learning as the "affective" or "attitudinal" domain. Tidewater Community College defines personal growth as an individual that "strives for physical well-being and emotional maturity." In this study, personal growth will be assessed using two subtasks of the Student Development Task and Lifestyle Assessment: development of purpose and academic autonomy.

The *Student Developmental Task and Lifestyle Assessment* is "an assessment tool and procedure that educational practitioners can use with young adult college students to facilitate development of life purpose, mature interpersonal relationships, and academic autonomy as well as the establishment of healthy lifestyles" (Winston, Miller, & Cooper, 1999, p. 7).
Service-learning is generally defined as a pedagogy in which community service is integrated into the curriculum to enhance learning and development. Service objectives are designed to balance the benefits for students and community partners. In addition, students participate in structured activities such as guided reflection and group discussion to foster a connection between service experience and course objectives. For the purpose of this study, service-learning will be integrated into the curriculum of an introduction to psychology course. Students will choose where to participate in service from three locations: the People in Need Ministry, the Judeo Christian Outreach Ministry, and the Boys and Girls Club.

Site supervisors are the main contact person associated with community partners. Site supervisors are responsible for students while they are completing service activities.

Non-service-learning courses are courses that do not incorporate service-learning into the curriculum. Teaching and learning methods that may be used in non-service-learning courses include lecture, class exercises, homework assignments, projects, and group discussion.
Research Questions

Two overarching researching questions guide this study. Each question and a corresponding hypothesis are as follows:

RQ1. Is there a difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning?

H₀₁ There is no significant difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.

RQ2. Is there a difference between personal growth outcomes (measured by autonomy and purpose) of students who participate in service-learning courses versus students who participate in courses without service-learning?

H₀₂ There is no significant difference between the personal growth outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.

Relationship to Community College Leadership

As authority figures and representatives of publicly supported institutions, community college leaders have a responsibility to demonstrate effective teaching and learning practices. The rise in tuition and other costs has led legislatures and appointed officials to demand assessment of learning outcomes to substantiate the increase in financial support (Boggs, 2011; Cohen & Brawer, 2003). Assessment of learning outcomes is a difficult task, especially for community colleges, due to the significant number of variables that impact the teaching and
learning environment. A range of educational goals is reflected in the diversity of the student population including developmental education, academic preparation, and workforce development (Boggs, 2011; Cohen & Brawer). Community college leaders must demonstrate that the institutions they represent are meeting the needs and goals of the community. The current study will enable leaders within the community college system to make better decisions regarding whether or not service-learning should be implemented into the curriculum and to what degree the college should support such initiatives.

Conclusion

Colleges and universities have an obligation to be accountable for the teaching and learning they offer. In a time of economic strife and hardship, tuition increases and other rising costs have the public, legislators, and accrediting agencies demanding assessment of learning outcomes to substantiate more financial support (Boggs, 2011; Cohen & Brawer, 2003; Prentice et al., 2003; Prentice & Robinson, 2010). In order to enhance academic success, educators implement a variety of teaching and learning methods. One such method is service-learning. Although service-learning began to develop in the 1960's, it was reinvigorated in the 1990's with the signing of the National and Community Service Act in 1990 and the National and Community Service Trust Act of 1993 (Kozeracki, 2000). Service-learning continues to develop as an instructional method within American higher education. A wealth of literature is available describing recommended strategies and practices to develop successful programs. In addition, the literature indicates that service-learning has positive effects on discipline specific learning outcomes within four-year institutions and universities. Very little is known if the effects of service-learning are different when implemented into the unique setting of community colleges. The purpose of the current study is to gain a better understanding of how community college
service-learning affects general learning outcomes. Resulting information will enable educators to make better decisions regarding the support and implementation of service-learning within the community college system.
CHAPTER II
LITERATURE REVIEW

This chapter provides an in-depth review of the current research on service-learning in American higher education. Service-learning is differentiated from other forms of experiential learning such as internships, community service, and volunteerism. The prevalence of service-learning within American higher education is discussed as well as the populations typically served. Research based on case study analyses is presented on best practices, development, and implementation of service-learning. Several studies regarding the benefits of service-learning to the off-campus community, institutions, and students will also be discussed.

More information is needed in two areas regarding the effectiveness of service-learning to improve student learning outcomes. First, the majority of research addresses data gathered from four-year institutions and universities. The distinct characteristics of community college students and curricular goals are yet to be studied. The author discusses community college uniqueness as well as implications on the effectiveness of service-learning in this environment. Second, research previously conducted generally defines student learning outcomes using academic content that is course specific. Providing a general education is one of the primary objectives of the community college. One of the goals of this study is to investigate the effects of service-learning on general education learning outcomes as defined by Bloom's taxonomy. Application of Bloom's taxonomy is discussed as well as how the taxonomy can be used to define general education learning outcomes. The researcher also describes how service-learning enhances learning in each of the domains of the taxonomy. The goal of the current study is to investigate the effectiveness
of service-learning on general education learning outcomes within a community college setting.

Service-learning

The ideal method of teaching engages students in the learning process through active participation. One such technique is service-learning. Although the term “service-learning” has been around since the late 1960s, there is still ambiguity over its definition. Giles and Eyler (1994) emphasize the importance of John Dewey’s work in defining service-learning. John Dewey’s Experiential Learning Theory (ELT) describes the transformation of stagnant knowledge into dynamic knowledge and noteworthy service (Eyler, et al., 1997; Kolb, 2001). In other words, Dewey pointed out that learning is useless unless it leads to action that enhances the quality of life. Experiential education intertwines two major components of learning: experience and citizenship (Giles & Eyler; Morgenstern et al., 2008; Prentice & Robinson, 2010). When students interact with the environment an experience has been gained. In order for the experience to be useful, students must be given the opportunity to reflect on the interaction, asking themselves how the experience could be applied to other situations (Giles & Eyler).

The active and reflective nature of service learning fits nicely with the experiential learning model developed by David Kolb. Kolb (2001) describes ELT as a unique combination of Dewey's philosophical approach, Lewin's social psychology, and Piaget's cognitive-developmental genetic perspective. Kolb's model of ELT describes two conflicting related modes of grasping experience: Concrete Experience (CE) and Abstract Conceptualization (AC). In addition, Kolb's model describes two conflicting related modes of transforming experience: Reflective Observation (RO) and Active Experimentation (AE).
Figure 1 depicts a four stage learning cycles based on these modes. First, observation or concrete experience provides a basis for reflective observation. Then, these reflections are incorporated into abstract concepts for which new implications can be drawn.

According to Kolb's model of learning, for each learning situation the learner must continually choose which learning abilities he or she will apply. In grasping experience, some people tend to prefer concrete experience, tangible, observable evidence, relying on the senses in order to perceive a concrete reality. Other people tend to prefer abstract rationalization, thinking, analyzing, or planning rather than relying on the senses. Similarly, in transforming or processing information, some people prefer reflective observation in which they sit back and watch others experiences first rather than jumping right into the experience as those who prefer active experimentation. In each learning situation they must choose which mode of grasping and transforming to use. For example, one cannot learn to
play the piano by both actively participating in playing the piano and reading about how the piano functions at the same time. The individual must choose one over the other. The patterns or ways that individuals choose to grasp and transform information are referred to as "learning styles" (Kolb, 2001, p. 4). There are four possible learning styles generated from Kolb's learning cycle. They are Diverging, Assimilating, Converging, and Accommodating. Kolb's model of experiential learning encompasses the situation in which the learner interacts with his or her environment in order for learning to occur. Service-learning creates a situation in which learning occurs as well as a useful situation to apply one's knowledge to do something meaningful.

Morgenstern et al. (2008) shared the belief that the process of gaining knowledge and experience should reach beyond the limits of the classroom into society through citizenship of students. The term service-learning thus becomes an interaction between service (i.e. experience applied to social issues) and learning (i.e. experience resulting in a deeper understanding of a situation). Service-learning is designed to meet the needs of the community as well as enhance the curriculum by providing situations in which students can apply material and develop a broader understanding of how their actions can benefit society (Furco, 1996; Giles & Eyler; Morgenstern et al.).

*How does service-learning differ from other forms of experiential learning?*

*Furco's Model of Experiential Learning*

Service-learning has had a number of different definitions based on various perspectives of educational researchers and practitioners (Furco, 1996). In the late 70's, Robert Sigmund (Sigmund, 1979, in Furco) developed a "reciprocal learning" definition of service-learning in which both the provider and recipient of service benefit from service
activities. Furco expanded on that definition by developing a typology to differentiate between various experiential learning methods such as volunteerism, internships, community service, field education, and service-learning. In doing so, Furco is able to distinguish service-learning from other forms of experiential learning, allowing educators to be more consistent when communicating research and practice involving its development, implementation, evaluation, and revision. To represent the continuum of each type of experiential method of teaching and learning, Furco depicts a representation of his typology in Figure 2. In order to further understand the defining characteristics, each form of experiential education is discussed below.

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Recipient  BENEFICIARY  Provider
Service    FOCUS     Learning

SERVICE-LEARNING
COMMUNITY SERVICE  FIELD EDUCATION
VOLUNTEERISM  INTERNSHIP
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Figure 2. Distinction among service programs (Furco, 1996)

*Volunteerism.* Activity in which the focus is mainly service, and the beneficiary is primarily the recipient of service, is called volunteerism (Furco, 1996). An example of volunteerism is a school-based activity where students participate in collecting canned goods for a local food bank. The focus is on the service (i.e. collecting canned goods) and the primary recipients are those served by the food bank. Although students may unintentionally benefit from the experience, the goal is to raise food for the needy. If students continue with the activity and begin to focus more on the process of running a non-profit organization, the
activity begins to merge towards the center of the continuum and becomes similar to community service and maybe even service-learning.

*Community Service.* Community service describes activities where the main focus is still on the service being provided as well as the intended recipient, but there is more room for students to benefit from the activity as well (Furco, 1996). For example, if students collected food and then presented it to needy families during the holidays, the focus is still on the service (i.e. collecting food) and the primary beneficiary is still the recipient (i.e. the needy families), but students are more likely to benefit by observing how their service directly impacts the lives of others.

*Internships.* On the other side of Furco’s (1996) continuum are internships. An internship’s main focus is on the learning that occurs when students gain hands-on experience. The primary beneficiaries are the students themselves. Students are provided an opportunity to apply information gained in particular programs. Internships can be paid or unpaid and take place in for-profit organizations or non-profit organizations. Students are primarily motivated to reach personal and academic goals. Internships are designed to benefit the students by focusing on their need to engage in quality learning experiences.

*Field Experience.* Field experience enables students to participate in service activities that are related to the academic studies, but are not fully integrated into the curriculum (Furco, 1996). The service activity is designed to enhance student learning, but there is also an emphasis on the service being provided. Many programs assign field education to enhance student skills, but the recipient of the service is also important. For example, nursing programs that require students to provide services to various health care organizations to sharpen student skills are utilizing field education. The primary objective is
to provide students an environment to implement what they have learned, but the organization in which they serve are also benefiting from the experience.

Service-Learning. Furco (1996) suggests service-learning differs from other forms of experiential education by its intention to balance the benefits to students with the benefits to service recipients. There is an equal emphasis on both the learning that occurs as well as the service provided. In order to achieve this balance, instructors must design courses that integrate service-learning into the curriculum. The academic content must relate specifically to the service activities. For example, students in an English Composition course could apply writing skills by visiting local retirement centers, spending time with the elderly population living there, and writing autobiographies of their lives. The retirement center’s community benefits by the attention and focus students give when working with residents. Students benefit by practicing their writing skills through creating the autobiographies. Both student participants and community participants benefit through service-learning. The emphasis on who benefits from the service as well as the focus on service or learning are the underlying factors. Furco’s model represents a continuum of experiential learning methods with service-learning at the top, with the intention of balancing both of these factors.

Purdue's Model of Experiential Learning

Purdue University Calumet (PUC) is a recognized leader in experiential learning and education (2012). There are seven categories of experiential learning pedagogies that students can participate in. They are undergraduate research, cooperative education, cultural immersion, design projects, internships, practicum, and service-learning (see Figure 3).
Some of the benefits of experiential learning are that it provides a new and creative approach to teaching and mentoring students for faculty, gives students the opportunity to apply what they are learning in a real-world setting that is outside of the classroom, and affords community partners the opportunity to share their expertise while improving their organization (PUC, 2012). Each category of experiential education is briefly described below.

**Undergraduate research.** According to PUC (2012), undergraduate research occurs when students produce new knowledge by creating a scholarly article or document.

**Cooperative education.** Cooperative education refers to a structured plan of education where students alternate between full-time classroom study with paid, supervised training with progressive responsibility for an organization in their field of study (PUC, 2012).

**Cultural immersion.** Cultural immersion refers to an intense travel experience in
which students are presented academic material while also experiencing meaningful situations in order to increase cultural appreciation (PUC, 2012).

*Design projects.* According to PUC (2012) design projects are problem solving activities that provide supervised students experience in a particular course.

*Internship.* An internship occurs when students combine practical experience with a structured learning experience to support the development of academic and career goals (PUC, 2012).

*Practicum.* A practicum refers to "a supervised clinical lab, work or service experience done by a student to make a connection between theory and practice of a particular discipline" (PUC, 2012).

*Service-learning.* According to PUC (2012), service-learning occurs when students participate in a structured community experience to reach specific learning objectives. The learners also contribute in active collaboration that builds on the resources of the campus community such as knowledge, expertise, and skills.

Purdue University Calumet (2012) is recognized as a leader in experiential education. It is one of few institutions that require at least two courses in experiential education as a part of the undergraduate curriculum.

*Service-learning and Higher Education*

Even though the practice of experiential learning and service-learning extends back at least half of a century, the current state of the literature is still in the “honeymoon” phase. According to Kozeracki (2000), the honeymoon state refers to a stage when literature centers on the guidelines and processes of innovative teaching and learning methods, such as service-learning, but provides little consistent evidence regarding its effectiveness. In regards to
service-learning specifically, the extent of literature available addresses two main areas: 1) development and implementation of service-learning programs and 2) the impact of service-learning on various constituents in four-year institutions and universities.

**Development and Implementation**

Several organizations promote, support, and assess service-learning across the country. The American Association of Community Colleges (AACC), Learn and Serve America, and Campus Compact are three professional organizations that endorse the pedagogy. The AACC hosts a service-learning clearinghouse which provides information regarding best practices, educator’s responsibilities, common misconceptions, and benefits. Learn and Serve America is a program of the Corporation for National and Community Service which provides training, research, effective practices, and grants to support the facilitation of service-learning in K-12 schools, community groups, and higher education (Learn and Serve America, 2008). Campus Compact is an organization of college presidents working together for the advancement of service-learning. A significant amount of the literature currently available regarding service-learning has been a by-product of these organizations. Information and best practices have been compiled from case studies ranging from service-learning pedagogy (Armstrong, 2006) to alternative education programs in secondary school (Nelson & Eckstein, 2008) to help guide and direct development and implementation of effective service-learning. Publications such as the Advanced Service-Learning Toolkit, Indicators of Engagement, and Reflection Resources are some of the resources available through Campus Compact (2007).

Different types of service-learning are currently used in higher education. To investigate the effectiveness of various methods, Armstrong (2006) compared the level of
psychosocial development among three different pedagogies of service: academically based
service-learning, co-curricular service, and an alternative spring break service-learning.
Armstrong defines academically based service-learning as service that is incorporated into
the curriculum. Co-curricular service describes situations in which students are participating
in community service activities while enrolled in college courses, but the service is not part
of the college curriculum. Students who participated in alternative spring break service-
learning traveled to another location for a weeklong trip to complete service. As previously
discussed, service-learning is a type of instruction based on experiential education in which
students participate in reflective activities that connect community needs with structured
opportunities to enhance learning and development.

Using the Student Developmental Task and Lifestyles Assessment (SDTLA) to
measure psychosocial development, Armstrong's (2006) results indicate that academically
based service-learning does not produce significantly different scores when compared to a
control group. In addition, when compared to the two other forms of service-learning,
academically based service-learning yielded the least amount of difference in psychosocial
development. Armstrong reports several concerns regarding his findings, concluding
although academically based service-learning was not effective in this study, it has the
potential to enhance student development if done with the following criteria in mind. First,
educators must design the service experience as part of the curricula. In other words, rather
than just “tacking on” a service project to existing course requirements, faculty must
integrate the service in a way that connects and enhances the course objectives. Second,
social and affective development should be incorporated as one of the criteria for service-
learning in order to increase awareness and reflection in this area. Third, there should be an
emphasis on the role of community when participating in service-learning. The context of community produces powerful learning experiences for students that may not otherwise take place in an individual context. Finally, faculty should be trained on the importance of reflection, reciprocity and mutuality within the service-learning experience in order to enhance academically based service-learning.

Following similar guidelines, Nelson and Eckstein (2008) developed and integrated service-learning into a Discipline Alternative Education Program (DAEP). The program targeted youth between sixth and twelfth grade that had been identified as "at risk" students because they engage in disruptive behavior that threatened the learning process for themselves and others. Students who participated in service-learning competed for funding for various service projects. They had to identify a social need or concern, research the issue, propose possible solutions for the problem, and defend their proposals to a committee of teachers and administrators. The winner of the competition received funding for their project and participated in the implementation of their proposed solution. Findings suggest an increase in self-awareness and empowerment in at-risk students as a result of their service-learning experience. Administrators also reported an observable difference in student behavior commenting on improved maturity level and ability to articulate the desire to complete their projects. Through participation in service-learning, at-risk students were able to make effective social change, thus developing a positive self-image rather than the poor self-image that the "at-risk" label is typically associated with (Nelson & Eckstein). In addition, students enhanced communication skills through writing and presenting their projects.
Nelson and Eckstein (2008) created a model for investigating the effects of service-learning when implemented with at-risk youth. The unique characteristics of at-risk youth increase the need for researchers to investigate the impact of service-learning on specific learning outcomes for this particular population. Studying how service-learning impacts the learning outcomes of various target populations, such as "at-risk" students, may lead to more effective approaches to developing and integrating the pedagogy.

Off-Campus Community Benefits

The off-campus community includes anyone impacted by service-learning, but the literature typically focuses on community agencies partnering with an institution through service-learning. The 2010 annual service statistics reported by Campus Compact indicate that the top ten issues addressed by student service were K-12 education (88%), hunger (83%), tutoring (83%), poverty (83%), environment/sustainability (82%), housing/homelessness (82%), mentoring (81%), health care/general (80%), reading/writing (77%), and senior services (73%). It is important to note that these numbers do not represent service-learning alone. They also include campus-based service in which students participate in community service that is not integrated into the curriculum. Of the 1,000+ members of Campus Compact, the organization reported 382 million hours of service were provided to the community during the 2009-2010 academic year, an estimated $7.96 billion in community service provided by their students (Campus Compact, 2010).

Participation in service-learning often creates a renewed sense of community and a spirit of civic responsibility (Bringle, Hatcher, & Games, 1997; Eyler et al., 2001; Olson, 2002; Prentice & Robinson, 2010). The experiences gained outside the classroom in settings where critical thinking skills are needed and applied broaden student perspectives (Eyler et
Students report that service learning has increased their persistence to reach higher educational goals and given them the self-confidence needed to pursue even more challenging career choices than they had before the service experience (Prentice & Robinson, 2010). Students begin to identify with their communities and continue to foster development by staying civically engaged after their service-learning projects have ended (Eyler et al.).

Service-learning students provide additional resources to help community agencies with the workload. According to Learn and Serve America (2005), 90% of community agencies indicate that students provided through service-learning improve their ability to serve clients and the community. Sixty-eight percent are able to take on new projects because of the service students provided them. Service-learning increases human resources by providing talented, energetic and enthusiastic college students to meet educational, human, safety and environmental needs.

Institutional Benefits

Service-learning also benefits the academic institution in many ways. College exposure within the community increases as a result of service-learning (Olson, 2002; Rice & Stacey, 1997). There is also an opportunity for partnerships to develop between community agencies and educational institutions. Learning opportunities that provide constant change and the possibility for growth develop (Eyler et al., 2001; Morgenstern et al., 2008). Opportunities to relate while working on a common goal often strengthen relationships between students and faculty members (Morgenstern et al.). Service-learning can invigorate the classroom for teaching faculty by diverting the tendency to utilize more traditional methods of teaching, such as lecture (McCarthy & Corbin, 2003; Morgenstern et al.; Rice & Stacey). Not only does service-learning reinvigorate teaching faculty, it also seems to
motivate students. Prentice and Robinson (2010) led focus groups with students and teachers that indicated service-learning increases student retention and persistence. Student reports indicate that retention increased because it provided experiences for real-life consequences for students (Prentice & Robinson). In addition, students agreed that service-learning brought added “stimulation and passion” to a course (Prentice & Robinson, p. 8). Service-learning also increases the awareness of current societal issues as they relate to academic areas of interest (Eyler et al.; Prentice & Robinson; Morgenstern et al.). The benefits of service-learning to the academic institution are numerous.

**Student Learning Benefits**

*Enhance cultural competencies.* Developing social and cultural competence is a process involving the appreciation of cultural diversity as well as defining one’s own cultural identity. Cultural competence refers to the ability to integrate culturally diverse experience, knowledge, and attitude into everyday living (Schim et al., 2003). Goddard and Gribble (2004) indicate that service-learning enables students to acknowledge how cultural variation and awareness can impact interpersonal relationships, professional behavior, and communication. Immersive service-learning experiences, such as alternative spring break experiences, are especially powerful in creating an environment that cannot be replicated in a traditional classroom (Armstrong, 2006). Armstrong indicates that participation in service-learning challenges students to think of the world differently by incorporating culturally diverse experiences into the learning environment.

Social and cultural competence becomes more important as the opportunity to engage in multi-cultural experiences grow. The U.S. Census reveals that minority groups continue to increase. Currently, the two largest minority groups are African Americans (13%) and
Hispanics or Latinos (15%, U.S. Census). Wilson (in Altbach, Gumport, & Johnstone, 2001) reports that the rise in technology and advancement of distance learning has expanded the learning environment beyond the geographical boundaries of the American culture. In addition to ethnic diversity, students must also develop a cultural understanding of marginalized groups such as women, low socio-economic groups, homosexuals, and people with disabilities (Schim et al., 2003). Students must be culturally competent to effectively communicate with people in our diverse culture. In order to plan and incorporate successful service-learning, more research is needed to investigate how cultural and social diversity among the student population impacts the service-learning experience.

*Personal growth.* Research purports students must make adjustments to the academic environment and interpersonal relationships to successfully transition into college (Schwitzer, Ancis, & Brown, 2001). Marcari et al. (2006) describes this area as “personal growth” and includes interpersonal, social, physical, spiritual, cultural, moral, and emotional development. College students are increasingly less traditional than they were thirty to forty years ago: undergraduate students are more likely to enter college later in life, attend school part-time, hold part-time or full-time jobs while in school, have dependents other than a spouse while in school, be single parents, and maintain financial independence (Marcari et al.). Service-learning enhances personal growth by facilitating interpersonal relationships between students, faculty, and peers (Eyler et al., 2001).

Students engaging in service-learning experience academic success, satisfaction with college, and intellectual development (Prentice & Robinson, 2010), which aid in successful transition into college and retention (Schwitzer et al.). Students also report that service-learning builds character and motivation to attain educational goals (Prentice & Robinson).
Prentice and Robinson report that students see value in service-learning through a new exposure to a wider variety of job possibilities than they previously knew existed in their academic major. In addition, having these experiences helped students confirm future career choices (Prentice & Robinson).

Jurgens and Schwitzer (2002) evaluated the design and implementation of service-learning in human service education. Specifically, the researchers investigated the degree and type of relationships between various process factors (i.e. instructor support and program information/structure), a student factor (i.e. level of goal-directedness), and student outcome measures (i.e. career goal attainment, content learning, self-learning, and professional performance) in service-learning. Using the Goal Instability Scale, the Teacher Support subscale of the Classroom Environment Scale, and self-report measures of student and supervisor perceptions, Jurgens and Schwitzer demonstrate a positive influence of service-learning on students’ development of professional skills, career directedness, professional performance, content knowledge, and self-concept. In addition, Jurgens and Schwitzer indicate that service-learning could be limited by developmental factors, such as goal-directedness. When students measure high in goal-directedness, they report needing less support from instructors and/or peers to experience a positive service-learning outcome. However, when students measure low in goal-directedness, they report needing more support from instructors and/or peers. With this in mind, it is critical for educators to consider student development level when integrating service-learning (Armstrong, 2006; Jurgens & Schwitzer).

Students in community colleges are less prepared for academia than students in four-year institutions and universities (Cohen & Brawer, 2003). Community college students
need a substantial amount of institutional support for successful service-learning to take place (Robinson & Barnett, 1996). In addition, community colleges report insufficient funding for support is the primary challenge faced when attempting to sustain service-learning as part of the curricula (Robinson & Barnett). Further research should be conducted to determine if service-learning will yield positive results when implemented at the community college level.

*Communication skills.* Service-learning improves communication skills, which are increasingly viewed as the most important skills for achieving success in professional and personal life (Prentice & Robinson, 2010; Marcari, et al., 2006; Tucker et al., 1998). Through service participation, reflection and small group activities students discuss their service experiences and how they relate to the curriculum (Bringle et al., 1997; Prentice & Robinson, 2010; McCarthy & Corbin, 2003; Olson, 2002; Rice & Stacey, 1997).

Tucker et al., (1998) conducted a study to investigate how service-learning impacts communication skills across the business curriculum. Students enrolled in business management courses partnered with a Junior Achievement program and the public school system for their service-learning project (Tucker et al.). Their assignment was to prepare and teach a lesson on economics to elementary school children. In addition, students videotaped their presentations, composed news releases, wrote reflection papers, and sent thank you notes to their assigned elementary teachers. Students reported more confidence in the classroom and an increased ability to communicate clearly and effectively (Tucker et al.). An overwhelming positive response from students was revealed upon completion of the project. One student wrote:

"The benefits to integrating service and academic learning were evident. It takes students out of the traditional classroom setting into a setting that deals
with people outside their major. It helps students relearn and apply what they have been taught in the classroom. It allows students to network with people who they may have never met otherwise" (p. 93).

The authors note this type of learning could not be replicated in any other setting, had it not been for service-learning.

Although the findings by Tucker et al. (1998) indicate a positive impact on communication skills, the data was collected through self-report measures from the students themselves. Self-report measures can often lead to biased results due to the tendency to want to provide feedback that is desirable from the social point of view, otherwise known as social desirability (Orcher, 2005). In addition, participants may be influenced by the positive feelings elicited by helping others and may not be providing accurate information regarding communication skill. Further research should be conducted using an objective tool to measure the development of communication skills as a result of service-learning.

**Enhancement of academic knowledge.** Although enhancing academic knowledge is one of the primary goals of service-learning, the research on its impact is mixed. Astin et al. (2000) conducted a longitudinal study to assess student development as a result of service-learning participation. Eleven different outcome measures were assessed, including three academic outcomes: grade point average, writing skills, and critical thinking skills. Benefits were strongest for academic outcomes, especially writing skills, in comparison to the development of values, self-efficacy, leadership, choice of career, and plans to participate in service after college. In a similar study, Shastri (1999) compared grades on quizzes, exams, and homework assignments of service-learning students and non-service learning students. Results show slight differences in homework grades with service-learning students scoring
higher than non-service learning students. However, results comparing grades on quizzes and exams were not significant. Furthermore, Parker-Gwin and Mabry (1998) investigated the impact of service-learning on academic outcomes using student ratings of their analytic and problem-solving skills, critical thinking ability, awareness of social problems, and awareness of civic duty. Results indicate that participation in service-learning did not have a significant impact on academic outcomes. The mixed research results regarding the impact of service-learning on academic outcomes demonstrate the need for further research in this area.

Service-learning in Community Colleges

Background of American Community Colleges

Community colleges have been a significant part of American higher education since the early 1900s (Cohen & Brawer, 2003). According to Reuben and Perkins (2007) many new public higher education institutions were created to accommodate growth in enrollment following World War II. In 1947 there were 242 public two-year colleges (Reuben & Perkins). According to the American Association of Community Colleges (AACC), there are currently 1,167 American community colleges (AACC, 2011). Community colleges offer a wide variety of opportunities including transfer education and occupational/technical training to a diverse population of students. They are the largest, most accessible, and fastest-growing institutions in American higher education, therefore they play an essential role when increasing the standard level of educational attainment (Boggs, 2011).

Throughout the history of American community colleges, the primary goal to provide educational opportunities to everyone regardless of age, academic skill, or socio-economic status has remained the same (Cohen & Brawer, 2003). This open-door policy sets community colleges apart from other institutions of higher education. According to the
AACC (2011), there are approximately 12.4 million community college students. More than half are pursuing their education part-time (60%). The average age of community college students is 28 years and the majority (58%) are female (AACC, 2012). Community college students are more likely to identify themselves as ethnic minorities (45%), first generation college students (42%), and employees (70% of full-time students are also employed at least part-time, 87% of part-time students are employed at least part-time). Cohen and Brawer also report that the majority of community college students are less academically-prepared and have a lower socioeconomic background than students enrolled in four-year institutions and colleges. Community college students come to college with a wide range of skills and abilities and have very different educational goals. According to Boggs (2011), community colleges provide an open door to the most diverse population of students across every demographic dimension possible.

Besides the two pronged mission statement and diverse student population, community colleges are set apart from their four-year counterparts by basing themselves on a student-centered learning model (Boggs, 2011). In 1983, the National Commission of Excellence in Education published *A Nation at Risk* which scrutinized American higher education for a lack of focus and attention on student learning outcomes (Boggs). In response, later that year the AACC published a report: *Building Communities: A Vision for a New Century* in which the commission called on community colleges to be “the nation’s premier teaching institutions and stated that quality should be the hallmark of the movement” (in Boggs, p. 5). Later, in 2000, the AACC published a related analysis, *The Knowledge Net*, in which institutions were encouraged to shift from a teacher-centered paradigm to a learner-centered paradigm. As a result, the learning paradigm served as a foundation to promote
practices such as collaborative learning, learning communities, focus on learning outcomes, and better use of technology.

Community College Service Learning

Cohen and Brawer (2003) indicate community colleges led the way for community service by offering cultural and recreational activities for the local community in the early twentieth century. Kozeracki (2000) suggests this connection and interest in the local community established a natural environment for service-learning. In fact, Kozeracki indicated the concept of service-learning was popular among community colleges as far back as 1988 when the Commission on the Future of Community Colleges recommended "that all community colleges encourage a service program at their institution, one that begins with clearly stated educational objectives," and "that students participating in service programs be asked to write about their experience and to explore with a mentor and fellow students how it is related to what they have been studying in the classroom" (Commission on the Future of Community Colleges, 1988, p.12). According to Peirce and Green (1992) community colleges are ideal for community-based programs, such as service-learning, because they have a history of reaching out to under privileged populations such as ethnic minorities, women, and people with low socio-economic status.

Two organizations that provide information and funding to community colleges for developing and integrating service-learning into the curriculum are the Community College National Center for Community Engagement (CCNCCE) and the AACC Service Learning Clearinghouse (Robinson & Barnett, 1996). Previously called Campus Compact: Community College Center, CCNCCE is a source of information and funding to community college members of Campus Compact. The AACC Service Learning Clearinghouse was
established as part of the Learn and Serve America grant from the Corporation for National and Community Service. In addition, the clearinghouse contains information pertaining to funding resources and program information. Both organizations have supported the research and development of service learning in community colleges for more than a decade.

In 1995 the AACC conducted a national survey of over 1,100 community colleges to determine the level of involvement in service learning (Robinson & Barnett, 1996). Results indicate 80% of respondents were interested in service-learning (either by using the methodology or expressing a desire to do so). Results from a follow-up survey administered in 2003 show that 90% of respondents either offer service-learning (71%) or are interested in offering service-learning (19%) at their institution (Prentice, Robinson, & McPhee). The number of courses with a service option grew from 10% in 1996 to 18% in 2003. The average number of faculty teaching courses with service learning components at individuals colleges also grew from five or fewer in 1996 to 20 in 2003. The changes from 1996 to 2003 not only provide evidence that service-learning is prevalent in community colleges; it also indicates that it is rapidly growing.

Although service-learning has been reported across the curriculum, there are six curricular areas where service-learning is significantly more prevalent than the others (Prentice et al., 2003). According to Prentice et al., these six areas include social science (72%), humanities (54%), English (53%), health (52%), science (49%), and education (49%). The types of service-learning activities range from tutoring to animal care. The majority of projects included tutoring, mentoring, childcare, health care, senior companionship/care, and homeless services. Although a significant proportion of community colleges report the integration of service-learning, only 43% of the respondents indicated a separate service-
learning center or office exists to organize programs and maintain connections with community partners. According to Robinson and Barnett (1996), faculty members cite support and funding as the two most significant obstacles for successful community college service-learning.

Model of Implementation

Connolly et al. (2004) describes model service-learning integrated into the nursing curriculum at Northern Virginia Community College (NVCC). As a result of service-learning experience, students learn about nursing, acquire an appreciation for healthy living, develop an awareness of diverse health needs, and practice communication and nursing skills. Through service-learning students addressed an important social issue (i.e. the lack of affordable health care).

Although this is an exemplary model of service-learning in health care, it is a one-shot case study based on self-report data and should not be used to establish a cause and effect relationship between service-learning and learning outcomes (Ocher, 2005). In order to establish a valid cause and effect relationships the researcher must compare the measurement of an outcome variable in an experimental group to the measurement of the same variable in a control group. By controlling or manipulating the independent variable and controlling all other variables, the researcher can make valid statements regarding the influence of the independent variable on the dependent variable.

Impact on Community College Learning Outcomes

The research regarding the impact of community college service-learning is inconclusive. Cuthrell (2004) studied the impact of service-learning on student learning outcomes and used a pre/post-test measure and final grades to demonstrate academic success.
Although significant differences were found between the two conditions using the pre- and post-test scores, there was no significant difference between the conditions when analyzing final grades. Cuthrell identified several confounding variables upon completion of the study. Students who participated in service-learning had an average of two years of academic experience, were older and possibly more mature, and enrolled in a night class leaving more flexibility for daytime schedules. The students in non-service-learning condition were new to college, significantly younger, and enrolled in day classes. Both courses required students to participate in a service activity. The addition of several guided reflection activities used to make relevant connections between service and course material distinguished the service-learning component (i.e. the experimental group) from the non-service-learning component (i.e. the control group). Although there are number of confounding variables in Cuthrell's study, the results are consistent with other studies of the impact of service-learning on academic learning outcomes (Astin et al., 2000). The inconclusive findings demonstrate the need for additional research in this area.

General Education

Focusing on general education rather than specific course goals and objectives is an alternative method used to define student learning outcomes (Prentice & Robinson, 2010). General education typically refers to a set or core of courses that improve critical thinking, self-awareness, values, and acceptance of diverse cultures (Cohen & Brawer, 2003). Although the requirements of general education vary from one institution to another, educators developing a general education curriculum rely on the same guiding question: "What knowledge, attitudes, and skills should graduates from this institution possess upon completion of their educational goals, regardless of their specific field of study?"
Background

The original mission of higher education in America was to provide a liberal education based on a European model of classical education (Duesterhaus, 2008). This model emphasizes the importance of an educational foundation that encourages an appreciation for learning, critical thinking, and a desire to improve society. During the latter half of the eighteenth century more practical education began to emerge as the need for trained professionals in business and American schools grew (Cohen & Brawer, 2003; Duesterhaus, 2008). Political issues to create agricultural colleges led to the development and passing of the Morrill Act of 1862, which funded the development of land-grant institutions to teach military tactics, agriculture, and engineering (Morrill Land-Grant Colleges Act, 2009). By the beginning of the twentieth century the mission of American higher education had shifted away from providing the traditional liberal education to providing vocational and practical education.

Revitalization of liberal education began to take place in the middle of the twentieth century and gave rise to the concept currently known as general education (Cohen & Brawer, 2003; Duesterhaus, 2008). In 1947, President Truman commissioned a group of educational and civic leaders to address federal policy on higher education (Reuben & Perkins, 2007). Upon examination of the functions and purpose of higher education, the Presidential Commission on Higher Education noted the importance of vocational and technical training, but also recognized the importance of an educational environment conducive to developing citizenship and social understanding (Cohen & Brawer, 2003; Duesterhaus, 2008; Reuben & Perkins, 2007). The Commission proposed that all types of institutions, whether liberal arts or vocationally oriented, adopt a general education program designed to instill the qualities
and characteristics necessary for citizens in a democratic society (Reuben & Perkins, 2007; Schrum, 2007).

Johnson, Ratcliff, and Gaff (2004) conducted a survey study in which information was gathered from 278 chief administrative officers who participated in the revision of general education programs from four-year colleges and universities. Sixty-two of the respondents indicated the requirements for general education were determined based on the institution's mission statement. Most general education programs include courses in English, Math, and American or Western Civilization. In addition, some institutions added criteria in lab sciences, such as biology or chemistry; social sciences, such as sociology or psychology; political science; and foreign languages. Unlike the learning outcomes based on specific course objectives, general education outcomes reflect a general body of knowledge, attitude, and skill that reflect the particular goals and mission of an institution.

**Defining General Education Learning Outcomes: Bloom's Taxonomy**

One approach for defining and assessing general education learning outcomes is to use Bloom's taxonomy of learning domains. In 1956 a group of educators and researchers, lead by Benjamin Bloom, identified three areas of learning in an attempt to create a hierarchy of development from the most basic levels to the most complex (Clark, 2004; Manton, et al., 2004). The taxonomy describes learning in three domains: cognitive, affective, and psychomotor. There have been several versions and revisions of the taxonomy created to reflect societal and educational changes (Clark; Krathwohl, 2002)). The cognitive or "knowledge" domain focuses on mental manipulation skills such as remembering, understanding, and evaluating (Baviskar, 2007; Clark; Manton, et al., Redding, 2008; Reeves, 1990). The affective domain focuses on concepts that reflect personal "attitude"
such as value, emotion, and belief (Bolin et al., 2005; Clark; Foote, 1998; Redding). The final domain, the psychomotor domain, is currently referred to as "skill" and refers to the development of abilities such as communication and the use of technology (Clark; Morgenstern et al., 2008). Each area of the taxonomy is further delineated into a hierarchy of levels that can be used to assess development within each learning outcome domain.

The Cognitive Domain

Application of Bloom’s taxonomy centers primarily on the cognitive domain, particularly when dealing with undergraduate students (Baviskar et al., 2007; Krathwohl, 2002). There are six levels of the cognitive domain: 1) remembering; 2) understanding; 3) applying; 4) analyzing; 5) evaluating; and 6) creating (Krathwohl). Studies suggest educators emphasize the basic levels of the cognitive domain by presenting large amounts of factual information through lecture rather than enhancing more complex thought through application of material (Baviskar; Bolin et al.; Manton et al.). In addition, the literature tends to focus on the application of the cognitive domain as it applies to specific course content rather than general knowledge.

The Affective Domain

While the cognitive domain has received much attention in educational literature, research regarding assessment of the affective domain is less prevalent. As previously noted, the affective domain focuses on educational attitude or behaviors that reflect developing values, beliefs, and emotions. There are five levels students progress through as they develop strong, positive attitudes as a result of their educational experience: 1) reception; 2) response; 3) value; 4) organization; and 5) characterization (Bolin et al., 2005; Clark, 2004; Reeves, 1990). By neglecting this domain and how it relates to academia, students fail to see
the value of information. Students do not understand how education is relevant and tend to ask questions like, "Why do I have to learn about this?" or "When will I ever have to know this in the real world?" Without meaning and value, students lack motivation and interest to learn (Bolin et al.).

*Journal writing.* In an effort to balance the cognitive and affective domains, Bolin et al. (2005) utilized student journal assignments to make a connection between course content and the world beyond the walls of an institution. According to Bolin et al. the journals are a vital source of feedback that help students organize and connect their personal lives with course materials. Students report that journal writing is an important aspect of the course because it helps them understand why learning the material is vital. Addressing development of the affective domain through instruction has a positive influence on student motivation and perception of the course, two important factors in learning and retention.

*The Psychomotor Domain*

The final domain, the psychomotor domain includes a wide range of skills demonstrated with speed, precision, and proficiency (Clark, 2004; Morgenstern et al., 2008). The original domain focused on manual and physical skills acquired through observational learning and practice. It was often left out of the literature because these skills were not considered relevant to higher education unless learning occupational or technical skills (Baviskar, 2007). However, the latter half of the 20th century brought about a revolution in information technology that changed the world dramatically (Wilson, in Altbach et al., 2001). Emphasis on computer competencies, information literacy, and communication skills emerged as general education requirements in many institutions. The psychomotor domain is
relevant in current educational settings and should be included when assessing general education learning outcomes.

Summary

Bloom's taxonomy can be used to describe different areas and levels of learning. The three domains help to clearly identify and assess the knowledge, attitudes, and skills that develop as a result of general education. The majority of literature pertaining to higher education focuses on cognitive development; however, there is evidence that research is also needed on affective and psychomotor development (Baviskar, 2007; Bolin et al., 2005; Reeves, 1990). Furthermore, research should be conducted to examine the impact of current teaching and learning methods, such as service-learning, on all three domains.

Service-learning and General Education

A recent study by Morgenstern et al. (2008) demonstrated how service-learning can impact the areas of Bloom's taxonomy when integrated into physical science course at a four-year institution. The ultimate goal of the course's service-learning assignment was for science students to progress through each level of Bloom’s taxonomy while participating in a building retrofit project to increase comfort, lower energy bills, and lower greenhouse-gas emissions by advancing the building's insulation and performing other low cost improvements. Upon completion of the project, students enhanced their knowledge regarding physical science and understood how to apply science to real issues, such as home improvement. In addition, students reported the project broke the “gloom and doom” (p. 21) of science that environmental topics typically elicit, which indicated their attitudes toward science had changed. Service-learning also introduced and cultivated skills that students could use beyond the classroom. The retrofit project demonstrates how service-learning can
be applied to maximize development in the three areas of Bloom's taxonomy, specifically in the area of physical science. Research should be conducted to investigate the impact of service-learning on general education rather than learning outcomes related to specific course content.

In 2006 Learn and Serve America awarded a three year grant to the AACC to fund the AACC’s Community Colleges Broadening New Horizons through Service Learning grant (Prentice & Robinson, 2010). Thirteen colleges participated in a national competition for the grant. The AACC measured student learning outcomes across the curriculum for students from the Horizons’ grantee colleges. Students who participated in service learning (i.e. service-learners, SL) were compared to students who did not participate in service-learning (i.e. non-service-learners, NSL). Results were collected using a Likert-style survey, a student focus group, and a faculty focus group. Although there was no difference between the two groups of students regarding self-reported grade point average, there was a significant difference in student learning outcomes with regard to the survey results. Service-learning students scored significantly higher on all six of the learning outcomes, except one: global understanding and citizenship. Overall, service-learning participation was a predictor of increased student learning outcomes (Prentice & Robinson).

Current Study: Asking Research Questions about the Influences of Community College Service-Learning on two types of General Education Outcomes: Critical Thinking and Personal Growth

Based on John Dewey’s pedagogy of experiential education, service-learning is a method of teaching and learning that utilizes communal experiences to enhance citizenship and promote democracy (Giles & Eyler; Morgenstern et al., 2008; Prentice & Robinson,
Although there are several different types of experiential education, the literature indicates that service-learning balances the needs of the community and the student (Furco, 1996), students engage in structured community experience, and participate in a collaborative effort to build the resources of the educational institution (PUC, 2012). Although there is a wealth of information available on the development and implementation of service-learning, there is little evidence regarding the effectiveness of service-learning, particularly at the community college level of higher education. The literature investigating the impact that service-learning has on student learning outcomes tends to focus on course specific academic content learning, relies heavily on self-report measures, and occurs in four-year institutions and universities (Astin et al., 2000).

Community colleges are also an important constituent involved with service-learning. They are the largest, most accessible, and fastest-growing institutions in American higher education (Boggs, 2011). Although scant research explores the impact of service-learning in community colleges, the research indicates community college service-learning opportunities continue to grow. In 2003 approximately 70% of community colleges offered service-learning and another 20% were interested in offering it at their institution (Prentice, Robinson, & McPhee). The research regarding the impact of service-learning on academic outcomes has typically focused on specific course learning outcomes and has been inconclusive (Astin et al., 2000; Cuthrell, 2004). An alternative method to defining student learning outcomes is to use general education outcomes (Prentice & Robinson, 2010). Unlike the learning outcomes based on specific course objectives, general education outcomes reflect a general body of knowledge, attitude, and skill that mirror the particular
goals and mission of an institution (Johnson, Ratcliff, & Gaff, 2004) and develop skills necessary for a democratic society (Reuben & Perkins, 2001; Schrum, 2007).

The current dissertation study will extend the knowledge-base by investigating the impact of community college service-learning on general education learning outcome variables at a community college in Virginia. The general education outcomes defined by this institution include communication, critical thinking, cultural and social understanding, information literacy, personal development, quantitative reasoning, and scientific reasoning. Due to the limited parameters of this study, measuring the impact of service-learning on all seven learning outcomes was not feasible, therefore the researcher applied Blooms' taxonomy to identify two general education outcomes that were related to the course content and service-learning research. The current study investigated the relationships between service-learning and two general education learning outcomes: critical thinking and personal growth. Understanding the relationship between service-learning and general education will enable educators to make better decisions regarding the development and implementation of service-learning at the community college level.
CHAPTER III

METHOD

As previously discussed, much of the research addressing the impact of service-learning on various learning outcomes has been conducted using students from four-year institutions and universities. The differences between community colleges and other institutions in higher education are important and should be considered when determining the effectiveness of any teaching and learning tool. Service-learning requires students to participate in activities beyond the limits of time allotted for classes as well as during hours that may not be suitable to the community college student’s schedule. In addition, community college students are typically entering college for the first time and on the lower levels of Bloom’s cognitive domain. This may adversely affect the impact service-learning has in a community college because students are not prepared for the higher levels of cognition involved. It is possible service-learning will not be as effective if implemented in a community college setting. In addition, the majority of literature available regarding the impact of service-learning on general education outcomes is minimal. Therefore, the goal of the current study is to assess the relationship between community college service-learning and two general education outcome variables: critical thinking and personal growth.

This chapter includes the research questions and hypotheses; research design; descriptions of each measurement tool; a description of the research setting, conditions, and participants; procedure and data collection; and ethical protection of participants.

Research Questions and Hypotheses

Two overarching research questions guide this study, and each question has a corresponding hypothesis:
1. Is there a difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning?

H₀₁ There is no significant difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.

2. Is there a difference between personal growth outcomes (measured by autonomy and purpose) of students who participate in service-learning courses versus students who participate in courses without service-learning?

H₀₂ There is no significant difference between the personal growth outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.

Research Design

This study used a nonequivalent control group design to assess the impact of service-learning on student learning outcomes. The study was nonequivalent because participants were not randomly assigned to experimental and control conditions. This was a practical decision based on the convenience of the available sample. Collection of pre-test and post-test scores from each group allowed the researcher to draw conclusions regarding a cause and effect relationship between service-learning and learning outcome measures. Differences in data collected from each condition before and after the service-learning experience were compared so any differences could be attributed to service-learning. One of the major objectives of the community college mission is to provide students with a general education; therefore, the research focused on the development of general education learning outcomes in
order to demonstrate service-learning is an appropriate teaching and learning method for community colleges. Furthermore, the current study focused on critical thinking and personal growth specifically because they are in the context of psychology and are particularly relevant to the participants course of study. In addition, there has been significant attention on service-learning and personal development (Eyler et al., 2001; Jurgens & Schwitzer, 2002; Prentice & Robinson, 2010).

Instrumentation

**Critical Thinking Assessment**

The Critical Thinking Assessment (see Appendix A) will be used to assess critical thinking at the beginning and end of each semester. Most instruments developed to measure critical thinking are designed to assess the general population. The Critical Thinking Assessment was developed specifically for community college students and it is for this reason that the instrument was chosen for the current study (LCC, 1996). This is a local instrument, for which content validity will be established through the review of several community college psychology instructors. The instrument will include 15 highly face-valid items adapted from Longview Community College's Critical Thinking Across the Curriculum Project (1996). The items were designed to assess critical thinking. Participants will demonstrate their ability to distinguish objective information from inferences, analysis of correlations, and understand operational definitions. Scores will be calculated based on the number of correct responses as well as the number of unique responses regarding correlational analysis, and operational definitions. The assessment will yield an overall score representing the participants' critical thinking ability as well as three scores on each subscale.
(i.e. objective inferences, correlations, and operational definitions). The assessment will be delivered and scored using Blackboard.

*Student Developmental Task and Lifestyle Assessment*

Personal growth will be measured using the Student Developmental Task and Lifestyle Assessment (SDTLA, see Appendix B). According to Winston, Miller, and Cooper (1999) the SDTLA was originally designed to assess the social-emotional development of college students between the ages of 17 and 24 years; however, age is not significantly correlated with performance scores. The SDTLA is the measure of choice for measuring personal growth of college students and therefore widely used (Armstrong, 1996; Winston, Miller, & Cooper, 1999). The development of an online version of the assessment has also made it more convenient and accessible. It is for these reasons that the SDTLA was used in the current study. This assessment will measure developmental accomplishments in the following three tasks: Establishing and Clarifying Purpose Task, Developing Mature Interpersonal Relationships Task, and Developing Autonomy Task. Each developmental task is broken down into subtasks. A subtask is a more specific component of the larger developmental task. They are independent concepts that share common attributes as other subtasks within the larger developmental task area. Participants will obtain scores on each of the three tasks as well as the individual subtasks; however, for the purposes of this study only scores on the Establishing and Clarifying Purpose Task and the Developing Autonomy Task will be analyzed. Descriptions of each task and subtask are as follows.

*Establishing and Clarifying Purpose Task (PUR)*

The Establishing and Clarifying Purpose Task is comprised of four subtasks: Educational Involvement, Career Planning, Lifestyle Planning, and Cultural Participation.
Students who achieve high scores on this task have established clear educational goals and actively participate in the educational process (i.e. Educational Involvement). Students who receive high scores in this area have examined their professional strengths and limitations, allowing them to identify career paths they value and are committed to (i.e. Career Planning). They have established a personal direction in their lives and have incorporated personal, ethical, and religious values, as well as future plans for their families into their objectives (i.e. Lifestyle Planning). High scores on this developmental task also indicate the student is open to cultural experiences that are both traditional, such as attending plays and ballets, as well as non-traditional, such as new or different ethnic celebrations (i.e. Cultural Participation).

*Developing Autonomy Task (AUT)*

The Developing Autonomy Task is composed of four subtasks: Emotional Autonomy, Interdependence, Academic Autonomy, and Instrumental Autonomy. High scores on this task indicate the student is confident in their ability to make good decisions and do not rely on continuous reassurance from others (i.e. Emotional Autonomy). He or she is able to organize and structure their life to fulfill daily needs and meet responsibilities without direction or support from others (i.e. Instrumental Autonomy). They are also able to utilize their time efficiently and implement effective study methods to meet academic goals and expectations (i.e. Academic Autonomy). Finally, students with high score on the AUT task understand the importance of civic responsibility and contribute to their communities accordingly (i.e. Interdependence).
Reliability

The SDTLA uses two methods to estimate reliability: test-retest reliability and internal consistency. The test-retest estimation found high correlations clustered around .80 \((p<.01, \text{Winston et al., 1999})\). High test-retest reliability indicates that scores for individual students should not change significantly after a short period of time (Marcari et al. 2006). Winston et al. report Chronbach's alpha ranging from .62 to .88, indicating the SDTLA has a high degree of internal consistency.

Validity

To determine validity, Winston et al. (1999) used a number of scales to compare each task and subscale. For the Establishing and Clarifying Purpose Task a total of six scales were correlated ranging from \(r=.33\) to \(r=.53\). The Developing Autonomy task was correlated with two other scales: the Georgia Autonomy Scales (GAS) and two scales from the College Student Questionnaire (CSQ, Peterson & Reisser in Winston et al.). The correlation coefficients reported were .56 \((n=56, p<.01)\), .37 \((n=45, p<.01)\), and .39 \((n=52, p<.01)\) respectively. The SDTLA was based on student development theory and supported by the validity studies (Wachs & Cooper, 2002).

The SDTLA will be available and administered through Blackboard. The assessment consists of 140 true or false items in which participants respond based on their personal experiences (Winston et al., 1999). Each item describes “activities, attitudes, and feelings” that cover a broad scope of development (ASU; Wachs & Cooper, 2002). Participants will receive an overall score for each task as well as scores on subtasks and subscales. The assessment takes about 45 minutes to complete.
Research Setting

This study takes place at Tidewater Community College (TCC), a multi campus community college located in Southeastern Virginia. Enrolling approximately 38,000 students each year, TCC is one of largest community colleges in the nation. The college has four main campuses located in both rural and industrial areas. In addition to associate degree programs, the college also offers a number of career studies programs such as Health Professions, Truck Driving, and Public Service Technology. Student demographics are similar to those found in the general community college population. The college's Office of Institutional Effectiveness reported approximately 62% of the student population during the 2007-2008 academic year were female. Roughly 77% of students that same year were enrolled in courses part-time (less than 12 credit hours). The average age was 28 years, and approximately 22% of students identified themselves as ethnic minorities.

Experimental Conditions

Upon completion of Introduction to Psychology I, students should be able to demonstrate an understanding of the basic theories, principles, concepts, and research studies presented. Each course involved in this study will cover the following content areas: sensation/perception, learning, memory, motivation, emotion, and stress. The course objectives for all introductory psychology courses will be the same. Standard course materials such as course syllabi, the Internet, Blackboard, computer labs, and textbooks will be used in the delivery of each course. All instructors will use the same textbook, *Psychology: Core Concepts* by Zimbardo, Johnson, and Weber (2008). Other materials may include notebooks, paper, and writing utensils.
Service-learning Agencies

Service-learning opportunities will be available for students with three community partners. Throughout the semester students will serve a minimum of four times at one of three partnering agencies: Kids Café and the Boys and Girls Club of Virginia Beach, PIN Ministries, and/or the Judeo Christian Outreach Center.

*Kids Café and the Boys and Girls Club of Southeastern Virginia.* Kids Café and the Boy and Girls Club of Southeastern Virginia work together to provide a free, nutritious evening meal in a safe and supportive environment for children in the public school system. Volunteers are needed for food preparation and serving, interaction with children, assistance with homework, instruction on life skills, and clean up. Although there are several sites throughout the surrounding community, students will choose between two sites that have partnered with the college through service-learning in the past. The two sites students will choose between are the South Rosemont Site in Virginia Beach and Brighton Rock AME Zion Baptist Church in Portsmouth.

*People In Need.* The People in Need (PIN) Ministry provides clothing, food, medical care, hygiene supplies, and a faith-based program for people in need. Volunteers are needed to sort donated items, assist with meal preparation and service, to interact with people during mealtimes, and help clean up. Students can choose to serve at the warehouse located off Birdneck Road in Virginia Beach or at the meal site on 16th Street at the oceanfront.

*Judeo Christian Outreach Center.* The Judeo Christian Outreach Center (JCOC) provides shelter and meals for homeless individuals (Dick Powell, personal communication, November 25, 2007). Volunteers and members of various organizations such as churches, synagogues, and civic groups in the community carry out the mission. Help is needed to
serve meals, interact with people, clean up in the dining hall, and provide assistance to the center as they provide substance abuse counseling, job skills training, and GED preparation. The center is located in Virginia Beach approximately 15 miles from the college campus.

**Participants**

The current study used a sample population of 317 students above the age of 18 years to represent an average total enrollment of 38,000 students at the college. Full-time psychology faculty were approached with an extra credit opportunity for their students if they chose to participate. Of the nine full-time psychology faculty members at the college, five chose to participate. All but one faculty member offered extra credit to their students if they chose to participate in the study. The final faculty member was also the service-learning faculty member and required participation as one of the course objectives. Although students were required to participate, their data was only used if they consented to be part of the study by signing the informed consent statement. Students from approximately 32 courses participated in the study between the Summer session of 2010 and the Summer session of 2011. Students self-selected the condition in which they participated depending on the course they chose to enroll in. The experimental group comprised 28.7% (N=91) of the total population and participated in service-learning throughout the duration of one semester. The remaining participants (71.3%, N=226) were in the control group and did not participate in service-learning.

**Demographic Characteristics**

Of the initial 317 participants, 259 provided information pertaining to demographics. Approximately half (47.9%) of the participants were between the ages of 18 and 25 years. A slight majority (52.1%) of the participants were over the age of 25 years. A majority of the
participants identified themselves as "white or Caucasian" (57.9%) or "black or African American" (25.5%). A small percent identified themselves as "Hispanic" (5%), "Asian or Pacific Islander" (4.6%), "bi-racial" (2.5%) "Native American" (0.4%), or "other" (3.5%). A majority of the participants identified themselves as "female" (75.7%). The remaining 24.3% identified themselves as "male." Approximately 52.9% (n=137) of participants reported that they had never been married. Twenty-nine (11.2%) indicated that they were married at one point, but no longer married and 35.9% (n=93) indicated that they were currently married.

*Employment Background*

Over half of the participants (64%) reported working in addition to completing college courses. Twenty five (11.5%) reported working 0-10 hours per week, 40 participants (18.4%) reported working 20-30 hours per week, 43 participants (19.8%) reported working 30-40 hours per week, and 32 participants (14.7%) reported working more than 40 hours per week. Ten participants (4.6%) reported being in the military.

*Academic Background*

A majority of participants identified themselves as either first year freshman (50.2%) or second year sophomores (33.6%). A small percentage of participants identified themselves as third year juniors (6.6%), fourth year seniors (2.3%), or in their fifth year of college (7.3%). The majority of freshman indicated they had completed four weeks or more of their college curricula (74.5%). The remaining 25.5% indicated that they had completed less than four weeks of college. Eighty participants (36.7%) identified themselves as transfer students. About half (n=110, 50.5%) of the participants indicated they were currently enrolled in 7-12 credit hours. A smaller number indicated they were currently enrolled in 0-6 credit hours (n=43, 19.7%) or more than 12 credit hours (n=65, 29.8%). The majority of
participants (57.6%) identified themselves as day students while 34.1% identified themselves as online students and only 8.3% identified themselves as night students. The demographic characteristics of the participants can be found in Table 2.

Table 2

**Demographic Statistics of Participants (N=259)**

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<th>Variable</th>
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<tr>
<td>18-25 years</td>
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<td>over 25 years</td>
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<td><strong>Ethnicity</strong></td>
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<td>5%</td>
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Table 2 continued.

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<tr>
<td>Never married</td>
<td>137</td>
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<tr>
<td>No longer married</td>
<td>29</td>
<td>11.2%</td>
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<tr>
<td>Currently married</td>
<td>93</td>
<td>35.9%</td>
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<th>Employment Status</th>
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<tr>
<td>Not employed</td>
<td>93</td>
<td>36%</td>
</tr>
<tr>
<td>worked 0-10 hours per week</td>
<td>25</td>
<td>11.5%</td>
</tr>
<tr>
<td>worked 20-30 hours per week</td>
<td>40</td>
<td>18.4%</td>
</tr>
<tr>
<td>worked 30-40 hours per week</td>
<td>43</td>
<td>19.8%</td>
</tr>
<tr>
<td>worked more than 40 hours per week</td>
<td>32</td>
<td>14.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Military</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>4.6%</td>
</tr>
<tr>
<td>No</td>
<td>249</td>
<td>96.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class Status</th>
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</thead>
<tbody>
<tr>
<td>Freshman (1st year)</td>
<td>130</td>
<td>50.2%</td>
</tr>
<tr>
<td>Sophomore (2nd year)</td>
<td>87</td>
<td>33.6%</td>
</tr>
<tr>
<td>Junior (3rd year)</td>
<td>17</td>
<td>6.6%</td>
</tr>
<tr>
<td>Senior (4th year)</td>
<td>6</td>
<td>2.3%</td>
</tr>
<tr>
<td>5th year</td>
<td>19</td>
<td>7.3%</td>
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<table>
<thead>
<tr>
<th>Freshman</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 4 weeks</td>
<td></td>
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</tr>
<tr>
<td>4 weeks or more</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2 continued.

| Transferring | Yes  | 80   | 36.7% |
|              | No   | 179  | 63.3% |

| Current Enrollment | 0-6 credit hours | 43 | 19.7% |
|                   | 7-12 credit hours | 110 | 50.5% |
|                   | more than 12 credit hours | 65 | 29.8% |
| Type of Student   | Day             | 149 | 57.6% |
|                   | Night           | 88  | 34.1% |
|                   | Online          | 22  | 8.3% |

Service Background

Two hundred and twenty two participants provided information pertaining to prior experience with service learning. A large percentage (n=120, 81.1%) of participants indicated they have participated in some type of service prior to participating in the study. Of that percentage, 75 (33.8%) indicated they had volunteered service, 21 (9.5%) indicated they had done community service, 6 (2.7%) indicated they had done an internship, 14 (6.3%) indicated they participated in field experience, and 4 (1.8%) indicated they have previously participated in service learning. Another 6.9% (n=15) of participants indicated they were currently enrolled in service learning courses other than the one included in the study. Of the 222 reporting service learning information 91 (41.7%) indicated they were currently
participating in service learning for their psychology course. Fifty nine (62.1%) participated with People in Need Ministries, 28 (29.5%) participated with Judeo Christian Outreach Center, and 8 (8.4%) participated with Kids Cafe and the Boys and Girls Club. Information pertaining to service background is summarized in Table 3.

Table 3

_Service Background Statistics of Participants (n=222)_

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Service Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>75</td>
<td>33.8%</td>
</tr>
<tr>
<td>Volunteerism</td>
<td>21</td>
<td>9.5%</td>
</tr>
<tr>
<td>Community Service</td>
<td>6</td>
<td>2.7%</td>
</tr>
<tr>
<td>Internship</td>
<td>14</td>
<td>6.3%</td>
</tr>
<tr>
<td>Field Experience</td>
<td>4</td>
<td>1.8%</td>
</tr>
<tr>
<td>Service Learning</td>
<td>74</td>
<td>33.3%</td>
</tr>
<tr>
<td>Missing Data</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

_Service Learning Agencies_

<table>
<thead>
<tr>
<th>Service Learning Agencies</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>People in Need Ministries (PiN)</td>
<td>59</td>
<td>62.1%</td>
</tr>
<tr>
<td>Judeo Christian Outreach Center (JCOC)</td>
<td>28</td>
<td>29.5%</td>
</tr>
<tr>
<td>Kid's Cafe and Boys and Girls Club</td>
<td>8</td>
<td>8.4%</td>
</tr>
<tr>
<td>Missing Data</td>
<td>127</td>
<td>57.2%</td>
</tr>
</tbody>
</table>
Procedure and Data Collection

The researcher ran a pilot study during the Spring 2010 session, prior to actual data collection. The service-learning faculty member met with partnering agencies to discuss service needs and opportunities for students before classes began. The Agency Letter of Agreement (see Appendix C) to participate in service-learning was completed at that time. Agency approval was necessary for participation in the study.

At the beginning of the semester students enrolled in participating sections of Introduction to Psychology I were also enrolled in a Blackboard course site developed for this study. Blackboard is a web-based course management system designed to enable students and faculty to interact via the Internet. During the first two weeks of the semester, students had the opportunity to acclimate to their new schedules as well as make changes if needed. The researcher attended each course and provided preliminary information regarding the study during the third week of classes. Students had the opportunity to ask questions and receive feedback from the researcher at this time. Service-learning students received written descriptions of the partnering agencies including descriptions of services needed (see Appendix D) as well as any risk that may be involved with each population. They were also provided detailed instructions regarding the service-learning project requirements which included journal assignments and a group project that was presented at the end of the semester. An Acknowledgement of Risk Form (see Appendix E) was collected from each student who participated in service-learning.
Pre-test Administration

At the end of the third week of the semester participants met with the researcher in an on-campus computer lab during regularly scheduled class time. The following list of steps describes the pre-test process.

1. Consent forms and instructions - participants were given a consent form (see Appendix F) upon entering the computer lab. Once the participant completed the consent form, the researcher collected it and handed the participant an instruction sheet (see Appendix G). The instruction sheets were identical excluding the order of each assessment.

2. Access Blackboard - participants used the identification number and password provided by the college to access Blackboard.

3. Background information survey - The background information survey was designed to collect specific information regarding participants' age, ethnic background, number of credits completed, number of current credits taken, marital status, number of dependent children, and number of employment hours each week. Participants answered questions presented through the use of the survey function on Blackboard. See Appendix H for items on the background information survey.

4. Measure outcome variables - In order to obtain pre-test scores, students completed the two outcome measures in a random order indicated on their instruction sheet. The SDTLA was accessed using an external link to the testing website. The Part I (i.e. observation or inference) of the Longview Community College Critical Thinking Assessment and the SDTLA were scored automatically. Part II (i.e. correlations) and Part III (Operational Definitions) of the Critical Thinking Assessment were scored by
the experimenter upon submission. Upon completion of both measures participants were thanked for their participation and dismissed. Total testing time took no longer than 60 minutes.

Course of Experiment

Throughout the semester, participants completed the requirements outlined in the course syllabus provided by each faculty member. Service-learning students set up an initial meeting with the site supervisor of the community partner of their choice and completed a Student-Agency Agreement (see Appendix I). Arrangements were made by the service-learning faculty to schedule as few meetings as possible in order to respect the limited availability of site supervisors. If participants were enrolled in a service-learning course and chose not to participate, they were advised to enroll in another course. Service-learning participants completed a minimum of four service experiences throughout the semester. In addition, service-learning participants participated in reflection activities (journaling and group discussions) following each service experience to make necessary connections between service and academic content. During the last week of the course, participants made a small group presentation to the class describing their service experiences, how they applied course material to their experiences, and additional information they learned about themselves, the community, and/or the specific population they served.

Post-test Administration

During the final week of the semester, students met with the researcher in an on-campus computer lab to complete post-test analyses. The procedure of the post-test analysis was as follows:
1. Instructions - Participants were given an instruction sheet upon entering the computer lab. Although the same instructions from the pre-test condition were used, students received the instructions for the post-test in random order.

2. Access Blackboard - Participants used the identification number and password provided by the college to access Blackboard.

3. Measure outcome variables - As with the pre-test condition, participants completed the two outcome measures according to their instruction sheet. Part I of the Critical Thinking Assessment and the SDTLA were scored automatically. Part II and Part III of the Critical Thinking Assessment were scored upon submission by the researcher.

4. Follow-Up Interview - Participants who participated in service learning were asked to complete a short follow-up interview (see Appendix J) to gather information about their service learning.

5. Wrapping up - Upon completion of all measures participants were given a form to debrief them and thank them for their participation. In addition, they had the opportunity to leave feedback for the researcher on the debriefing form. Total testing time took no longer than 60 minutes.

**Ethical Protection of Students**

A Darden College of Education Human Subjects Research Committee from Old Dominion University approved the current study to ensure there was no to minimal psychological or physical harm to students during their participation in the study (see Appendix K for a copy of the Application for Exempt Research). All identifying information was kept confidential and secure during data collection. Once data collection was complete an anonymous recoding system was applied to all identifying information. All results and
findings were reported as a group. No individual findings are reported. Individual course grades were not used as part of the data in this study. Participants also had the option to withdraw from the study at any time. Participation in the study had no impact upon course grade.

Data Analysis

The statistical software SPSS for Windows was used to analyze the data. The data file consisted of numerous items condensed into four variables: the independent variable (i.e. instructional methodology) and two dependent variables (i.e. the critical thinking overall score and the SDTLA overall score, also known as personal growth, which was comprised of two subscales: Establishing and Clarifying Purpose Task, and Developing Autonomy Task). An analysis of variance (ANOVA) with repeated measures procedure was used to determine whether instructional methodology had a significant impact on critical thinking skills. A multivariate analysis of variance (MANOVA) procedure was conducted to determine if there was a significant difference in personal growth between students who participated in service-learning and students who did not participate in service-learning. It was necessary to use a MANOVA to examine the personal growth indicator as there were more than one dependent variables that comprised personal growth. These two dependent variables, the establishing and clarifying purpose task and the developing autonomy task, may be related to one another, but cannot simply be combined. As well as identifying whether changes in the independent variables had a significant effect on the dependent variables, the MANOVA also sought to identify the interactions among the independent variables and the association among dependent variables, if any (Salkind, 2004; Spicer, 2005). In addition, pre-planned univariate analyses of variance follow-up tests were conducted to determine which, if any, of the
personal growth variables were influenced by instructional methodology. Effect sizes for each variable were also determined. Independent and dependent variables (i.e. outcome measures) and statistical tests are included in Table 1 (see p. 9).
CHAPTER IV

RESULTS

The purpose of this study was to examine the impact of service learning on two general education outcomes at a community college. The two general education outcomes measured were critical thinking skills, and personal growth assessed through autonomy and purpose. Research questions and respective null hypotheses are below.

1. Is there a difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning?

H₀₁ There is no significant difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.

2. Is there a difference between personal growth outcomes (measured by autonomy and purpose) of students who participate in service-learning courses versus students who participate in courses without service-learning?

H₀₂ There is no significant difference between the personal growth outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.

An Analysis of Variance (ANOVA) with repeated measures was used to address research question one (RQ1). A Multivariate Analysis of Variance (MANOVA) with repeated measures was used to address research question two (RQ2). A pre-planned follow-up univariate Analysis of Variance (ANOVA) was used to examine differences on the two subscales (autonomy and purpose) that comprise personal growth.
Data Analysis

Data Screening

Data was screened to prepare dependent variables for multivariate statistical analyses. To condense individual scores into overall scores, average scores on each dependent measure were used for analysis. Only cases with less than 15% missing values were included in the analysis, resulting in n=125 cases in the sample population. For cases with less than 15% missing values, missing values were replaced with the mean score for each variable. A small to moderate number of extreme values were replaced with minimum or maximum values for each variable. There were two to three extreme values in six of the 12 conditions and five to eight extreme values in two of the 12 conditions. All outliers were transposed to the highest or lowest score depending on whether the outlier was extremely high or extremely low.

There were three extremely low values for the service learners (SL) on the Establishing and Clarifying Purpose Task Pre-Test condition. These three extreme values were transposed to reflect the minimum non-extreme value for this condition (minimum non-extreme = 2.28). There were two extremely low values for the non-service learners (NSL) on the Establishing and Clarifying Purpose Task pre-test condition. These two values were transposed to reflect the minimum non-extreme value for this condition (minimum non-extreme = 2.34). There was also one extremely high value for the NSL on the Establishing and Clarifying Purpose Task pre-test condition. This extreme value was transposed to reflect the maximum non-extreme value for this condition (maximum non-extreme = 3.15). There were three extremely low values for the NSL on the Establishing and Clarifying Purpose Task post-test condition. These three extreme values were transposed to reflect the minimum non-extreme value for this condition (minimum non-extreme = 2.32). There were two extremely low
values for the NSL on the Developing Autonomy Task post-test condition. These two extreme values were transposed to reflect the minimum non-extreme value for this condition (minimum non-extreme = 2.16). There was one extremely high value for the SL on the Critical Thinking pre-test condition. This extreme value was transposed to reflect the maximum non-extreme value for this condition (maximum non-extreme value = 11.9). There were two extremely high values for the NSL on the Critical Thinking pre-test condition. These two extreme values were transposed to reflect the maximum non-extreme value for this condition (maximum non-extreme value = 11.10). There was one extremely high value for the SL on the Critical Thinking post-test condition. This extremely high value was transposed to reflect the maximum non-extreme value for this condition (maximum non-extreme value = 9.8). There were five extremely low values for the NSL on the Critical Thinking post-test condition. These five extremely low values were transposed to reflect the minimum non-extreme value (minimum non-extreme value = 1.20). There were eight extremely high values for the NSL on the Critical Thinking post-test condition. These eight extreme values were transposed to reflect the maximum non-extreme value (maximum non-extreme value = 6.50). After screening for missing data and outliers, 50 SL (n=50) cases and 75 NSL (n=75) cases were included in the final statistical analysis.

Mahalanobis' Distance was run on the data to determine if there were any multivariate outliers within each group. Mahalanobis' Distance did not exceed the critical value of chi squared ($\chi^2 = 149.449$; Mertler & Vannatta, 2001), therefore the test indicated that there were no multivariate outliers.
Scatter plot matrices were examined for multivariate normality and linearity. All scatter plots were elliptical in shape; therefore, no additional tests for univariate normality were performed.

*Analysis of Variance (ANOVA) with Repeated Measures and Multivariate Analysis of Variance (MANOVA) with Repeated Measures*

ANOVA with repeated measures and MANOVA with repeated measures were conducted to determine what differences, if any, existed between the outcome scores from participants in the service learning condition and the outcome scores from participants in the non-service learning condition. Outcome scores represented the amount of change, if any, that occurred between the pre- and post-test conditions. For RQ1, ANOVA was used because the critical thinking score was the single dependent variable. It was necessary to run MANOVA for RQ2 because there were two related outcome variables that could not be distinctly separated (autonomy and purpose which comprised personal growth). Interaction effects and between- and within-subjects contrasts were examined as pre-planned comparisons. "PrePost" was identified as the within-subjects factor, with Pre and Post representing the two levels. Within-subjects tests reveal whether personal growth outcome scores significantly increased from the pre-test condition to the post-test condition. Service learning and NSL were identified as the between subjects factors. Between subjects tests reveal whether SL scores are significantly different from NSL scores on each personal growth outcome score. Group by Pre-Post interactions were examined to determine whether the change in scores on each outcome measure of personal growth for the SL condition was significantly different than the change in scores for the NSL condition. These analyses were run as two-tailed tests.
Findings

Data analysis was conducted to address the research questions and corresponding null hypotheses. Results of the analysis are listed as they pertain to the research questions and hypotheses.

Research Question One (RQ1)

1. Is there a difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning?

H₀₁ There is no significant difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.

Research question one was addressed by hypothesis one. Hypothesis testing involved an examination of overall group differences between participants in the service-learning (SL) conditioning and participants in the non-service learning (NSL) condition along the critical thinking variable using analysis of variance (ANOVA) with repeated measures analysis. The independent variable was teaching/learning method (SL vs. NSL) and the dependent variable was critical thinking measured with the Longview Community College Critical Thinking Assessment. The overall scale score was used as the single measure of critical thinking.

Box’s Test of Equality of Covariance indicated that homogeneity of variances could not be assumed (p = .000), therefore Pillai’s Trace, a more robust test statistic, was used to determine significance. ANOVA with repeated measures results indicated that there was a significant difference between the SL group and the NSL group with regard to the critical thinking variable (Pillai’s Trace = .087, $F_{(1, 123)} = 11.656, p = .001$, partial $\eta^2 = .087$). This
small to moderate effect size indicates that 8.7% of the variation in critical thinking scores can be attributed to instructional methodology (i.e. service learning). The within-subjects analysis revealed there was a significant difference within the groups from the pre-test condition to the post-test condition (Pillai's Trace: .036, $F_{(1, 123)} = 4.584$, $p = .034$, partial $\eta^2 = .036$). In other words, 3.6% of the variation in the critical thinking scores can be attributed to the test implementation time (i.e. pre vs. post test). According to Cohen (1988) this is a small effect size. Examination of mean scores for each group indicated the critical thinking scores of the SL increase slightly from a mean score of 3.88 ($SD = 2.26$) to 4.16 ($SD = 1.95$). However, the mean score for the NSL group decreased from 4.75 ($SD = 2.33$) to 3.56 ($SD = 1.07$) from the pre-test to the post-test condition. Based on these results, the null hypothesis is rejected; there is a significant difference between the SL and NSL groups from pre- to post-assessment. Results must be interpreted with caution due to the difference in group size (SL n = 50; NSL n = 75).

**Research Question Two (RQ2)**

2. Is there a difference between personal growth outcomes (measured with autonomy and purpose) of students who participate in service-learning courses versus students who participate in courses without service-learning?

$H_02$ There is no significant difference between the personal growth outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.

In order to address RQ2, a MANOVA with repeated measures was conducted. Because the groups are being compared in question two, homogeneity of variance was tested.
Box's M did not reveal a significant value ($p = .940$) indicating that homogeneity of variance between the groups could be assumed. Therefore, Wilk's $\Lambda$ was used to test for significance. The independent variable was instructional methodology (SL vs. NSL) and the dependent variable was personal growth measured with the Establishing and Clarifying Purpose Task (PurpTask) and the Developing Autonomy Task (AutTask).

MANOVA with repeated measures test results reveal there was a significant difference on the overall personal growth measure (which represents the combined autonomy and purpose variables) between the SL group and the NSL group ($F(1, 123) = 7.392, p = .008$, partial $\eta^2 = .057$). This effect size indicates 5.7% of the variation in personal growth scores can be attributed to instructional methodology (i.e. service learning). Examination of group means indicates SL participants scored higher on the personal growth measure ($M = 2.707$, $SD = .020$) than NSL participants ($M = 2.636$, $SD = .017$). Tests of within-subjects effects show that there was not a significant difference between pre- and post-tests on the PurpTask (Wilk's $\Lambda = .974 F(1, 123) = 3.300, p = .072$, partial $\eta^2 = .026$). However, there was a significant difference between pre- and posts-tests on the AutTask (Wilk's $\Lambda = .262, F(1, 123) = 346.044, p = .000$, partial $\eta^2 = .738$). The effect size indicates that 73.8% of the variability in combined personal growth can be attributed to changes in AutTask scores from the pre-test condition to the post-test condition. Means for each variable and condition can be found in Table 4. The results indicate there was not a significant interaction effect for AutTask between groups (Wilk's $\Lambda = .976, F(1, 123) = 3.081, p = .082$, partial $\eta^2 = .024$). Likewise, there was not a significant interaction effect for PurpTask between groups either (Wilk's $\Lambda = .991, F(1, 123) = 1.110, p = .294$, partial $\eta^2 = .009$). Based on these results, the null hypothesis was rejected. Participants in the SL group scored significantly higher than
participants in the NSL group on the combined personal growth variable. Although significant differences were found within groups on the combined Personal Growth Scale, results must be interpreted with caution. It appears that there were existing group differences that may have led SL to be different from NSL. Since there was not a significant interaction effect between groups and AutTask or PurTask (Wilk's $\Lambda = .993, F_{(1, 123)} = .923, p = .339$, partial $\eta^2 = .007$), it is not clear if the change in SL pre-test to post-test scores were significantly different from the change in NSL pre-test to post-test scores. The significant difference within the AutTask indicate that there was a change from the pre-test to post-test condition for combined groups, but it does not indicate that the difference was due to the independent variable. Table 5 presents a summary of the MANOVA with repeated measures results.

Table 4

Means and Standard Deviations for Personal Growth Tasks

<table>
<thead>
<tr>
<th></th>
<th>NSL</th>
<th>SL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>(SD)</td>
<td>(SD)</td>
</tr>
<tr>
<td>Developing Autonomy Task Pre-Test</td>
<td>2.4855</td>
<td>2.5043</td>
</tr>
<tr>
<td></td>
<td>(.16967)</td>
<td>(.15913)</td>
</tr>
<tr>
<td>Developing Autonomy Task Post-Test</td>
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<td>2.5563</td>
</tr>
<tr>
<td></td>
<td>(.16077)</td>
<td>(.18170)</td>
</tr>
<tr>
<td>Establishing and Clarifying Purpose Task Pre-Test</td>
<td>2.7780</td>
<td>2.8795</td>
</tr>
<tr>
<td></td>
<td>(.21518)</td>
<td>(.19036)</td>
</tr>
<tr>
<td>Establishing and Clarifying Purpose Task Post-Test</td>
<td>2.7862</td>
<td>2.8884</td>
</tr>
<tr>
<td></td>
<td>(.22523)</td>
<td>(.21609)</td>
</tr>
</tbody>
</table>
Table 5

*Results of MANOVA with Repeated Measures (1, 123)*

<table>
<thead>
<tr>
<th>Effect</th>
<th>Wilk's $\Lambda$</th>
<th>$F$</th>
<th>Sig.</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within Subjects Developing Autonomy Task</td>
<td>.262</td>
<td>346.044</td>
<td>.000</td>
<td>.738</td>
</tr>
<tr>
<td>Developing Autonomy Task Between Groups</td>
<td>.976</td>
<td>3.081</td>
<td>.082</td>
<td>.024</td>
</tr>
<tr>
<td>Within Subjects Establishing and Clarifying Purpose Task</td>
<td>.974</td>
<td>3.300</td>
<td>.072</td>
<td>.026</td>
</tr>
<tr>
<td>Establishing and Clarifying Purpose Task Between Groups</td>
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<td>1.11</td>
<td>.294</td>
<td>.009</td>
</tr>
<tr>
<td>Interaction Between the Developing Autonomy Task and the Establishing and Clarifying Purpose Task</td>
<td>.993</td>
<td>.913</td>
<td>.341</td>
<td>.007</td>
</tr>
<tr>
<td>Interaction Between Developing Autonomy Task and Establishing and Clarifying Purpose Task Between Groups</td>
<td>.993</td>
<td>.923</td>
<td>.339</td>
<td>.007</td>
</tr>
</tbody>
</table>

*Significant at $p < 0.05$ level*

**Summary**

Two research questions and two corresponding null hypotheses were addressed in this study. The null hypothesis for RQ1 was rejected while the null hypothesis for RQ2 was accepted. The null hypotheses for both questions are as follows:

$H_{o1}$ There is no significant difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.

$H_{o2}$ There is no significant difference between the personal growth outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning.
CHAPTER V
CONCLUSION

Summary of Research

Student learning has always been at the forefront of goals for American higher education (Prentice & Robinson, 2010). Historically, course grades and cumulative grade point averages have been used as indicators of student success. These methods have been called into question and emphasis has been placed on institutions of higher education to seek better measures of student learning outcomes (Boggs, 2011; Prentice & Robinson). One suggestions has been to utilize common teaching methodology, such as service-learning, to develop a common method of assessment to be used across disciplines.

Service-learning is an instructional methodology that incorporates and connects student service with student learning (Eyler et al., 1997; Morgenstern et al., 2008; Prentice & Robinson, 2010). In addition, reflective techniques such as journaling and group discussion are used to help facilitate connections between academia and social needs (Armstrong, 2006). There is a significant amount of literature regarding the implementation and development of service-learning at four-year institutions (Kozeracki, 2000) and very little available regarding its effectiveness at the community college level. Therefore, the current study focused on the impact of service-learning at the community college level. In addition, the current study was designed to assess general education learning outcomes, which extend across disciplines rather than a particular course of study.

General education learning outcomes reflect a general body of knowledge, attitude, and skill that are based on an institutions particular goals and mission (Cohen & Brawer, 2003; Duesterhaus, 2008). Depending on the location, approximately 60-70% of community
college students are enrolled in general education programs (Cohen & Brawer, 2003).

General education is often difficult to define and therefore difficult to assess. The current study focused on two domains of learning from Bloom’s taxonomy, a widely used method of identifying types and levels of learning. They are the cognitive or knowledge domain (i.e. critical thinking) and the affective or attitudinal domain (i.e. personal growth).

The purpose of the current study was to investigate the impact of service-learning on general education learning outcomes. The specific general education learning outcomes studied were critical thinking measured by the Critical Thinking Assessment developed at Longwood Community College and personal growth measured by the Developing Autonomy Task and Establishing and Clarifying Purpose Task on the SDTLA. Examination of these variables was organized around two research questions. This final chapter summarizes and discusses important findings pertaining to each of the research questions examined. This chapter also presents limitations of the current study, recommendations for future research, and implications for community college constituents.

Conclusions Drawn From Research Findings

RQ1. Is there a difference between the critical thinking outcomes of students who participate in service-learning courses versus students who participate in courses without service-learning?

Enhancing academic knowledge is one of the primary goals of service learning; however, research on the impact of service-learning on academic knowledge has been inconclusive (Astin et al., 2000; Parker-Gwin & Mabry, 1998; Shastri, 1999). An alternative method of evaluation has been to focus on general education outcomes, such as critical thinking, rather than specific discipline or course objectives (Prentice and Robinson, 2010).
According to Eyler et al. (2001), research indicates that service-learning has a positive impact on academic outcomes when complexity of understanding, problem analysis, critical thinking, and cognitive development were used to demonstrate success. Therefore, consistent with the research findings, in the current study it was hypothesized that service-learning would have a positive impact on critical thinking ability.

Results of the current study suggest a positive relationship between service-learning and critical thinking ability. However, examination of mean scores indicate that although critical thinking ability increased for SL, it decreased slightly for NSL. These findings may be interpreted as consistent with the previous findings that were inconclusive. The relationship in this study, however, was significant, which could also support the findings that service-learning has a positive impact on critical thinking ability.

One explanation for the decrease in critical thinking ability among the NSL may be that the NSL had covered or were currently covering the topic of critical thinking in their psychology courses while the SL had not covered it prior to completing the pre-test assessments. In addition, it is possible that participating in service-learning placed an emphasis on critical thinking throughout the semester, therefore having a positive impact on their critical thinking abilities. If the NSL were not exposed to a curriculum that continued to focus on developing critical thinking skills, the information introduced to them at the beginning of the semester would be likely to fade by the post-test assessments. This could have lead to the NSL scoring higher on the critical thinking pre-test assessment and lower on the post-test assessment, while the SL scores indicate that critical thinking developed over the semester.

RQ2. Is there a difference between the personal growth outcomes (measured with
autonomy and purpose) of students who participate in service-learning courses versus students who participate in courses without service-learning?

A second general education outcome positively impacted by service-learning is personal growth (Eyler et al., 2001; Jurgens & Schwitzer, 2002; Prentice & Robinson, 2010). Jurgens and Schwitzer report that the success of service-learning could be limited by developmental factors, such as goal directedness. Compared to students enrolled in four-year institutions and universities, community college students are less prepared for academia (Boggs, 2011; Cohen & Brawer, 2003). Therefore, the current study investigated the relationship between community college service-learning and personal growth, measured with the Developing Autonomy Task and the Establishing and Clarifying Purpose Task from the SDTLA.

Results of the current study suggest a positive relationship between SL and NSL on the overall personal growth measure (which represents the combined autonomy and purpose variables). However, the results did not indicate whether or not the SL and NSL scores on the overall personal growth measure changed from the beginning of the semester to the end of the semester. When individual subtask were analyzed, the results of the current study suggest that scores on the Developing Autonomy Task increased; however, the results did not indicate a significant difference between the SL and the NSL on this task. The results of the current study also suggest that scores on the Establishing and Clarifying Purpose Task did not change significantly between the pre-test and post-test conditions. In addition, the current study did not find significant differences between the SL scores and the NSL scores on the Establishing and Clarifying Purpose Task. Therefore, the null hypothesis for RQ2 was accepted. There was not a difference between the personal growth outcomes (measured with
autonomy and purpose) of students who participated in service-learning courses versus students who participated in courses without service-learning.

Previous research has yielded inconsistent results regarding the impact of service-learning on personal growth and psychosocial development. The results from the current study are consistent with Armstrong’s (2006) findings that academically based service does not produce significant changes in development; however, other studies indicate that service-learning has a positive impact on personal growth and development (Eyler et al., 2001; Prentice & Robinson, 2010). Studies that report a positive impact on personal growth and development rely heavily on self-report measures rather than implementing an objective measure, such as the SDTLA. In addition, previous studies have typically been conducted at four-year institutions and universities. Personal-growth may have been impacted by the diversity and lack of preparedness of the community college students who participated in the current study, rather than by the service-learning variable exclusively.

Limitations and Delimitations

Limitations

This was a limited study. The design and the context were limited in several ways. This has an influence on the conclusions to be drawn, recommendations made, and implications suggested. It is important to recognize the research limitations in this study because it is possible that they confounded to data. In other words, there was no control over the limitations listed below. It is possible that the limiting variables were correlated with either the independent variable (service-learning) or the dependent variable (personal growth and critical thinking skills). The limitations confound or limit the validity of the results. Due to the limitations, the findings that were gathered may not have been completely dependent
on the independent variable alone. There were five limitations to the current study. They are selection bias, researcher bias, differential attrition, obtrusive measurement, and practice effects.

Selection Bias

Selection bias is a limitation of internal validity for this study because participants self-selected the service-learning condition or non-service-learning condition. If differences found between the experimental and control groups were actually due to differences between the two groups rather than the independent variable (i.e. service-learning), the results would not reflect the impact of service-learning on learning outcomes. Although selection bias could be a weakness of this study, a pre- and post-test design was used to analyze the differences within groups rather than simply between group differences. Use of background information also indicated whether or not the groups were dissimilar.

Researcher Bias

Researcher bias or experimenter bias is also a limitation of the current study because the researcher was also the faculty member integrating service-learning into the curriculum. The researcher may have inadvertently influenced the experiences of the participants in the experimental group. Although pre-test and post-test scores minimized the effects of research bias, there was still a possibility the outcome scores were influenced by the researcher as well as service-learning, rather than exclusively the latter.

Differential Attrition

Another limitation for this study is differential attrition. Students who choose not to complete service-learning had the opportunity to drop the course and enroll in one without a service-learning requirement. In addition, those who chose to stay in the course after service-
learning was introduced may have stayed because they wanted to participate in service-learning. Differential attrition was accounted for using pre-test scores to establish similarity between groups.

**Obtrusive Measurement**

Obtrusive measurement is another possible limitation of this study. Participants were required to complete lengthy assessments at the beginning and end of the semester. In order to limit the negative effect of student attitudes and willingness to participate, the researcher arranged testing with course instructors during regularly scheduled class time. Students were also able to complete their assessments at all four campuses of the college to limit any inconveniences driving to other campuses might have caused. In addition, feedback forms were collected upon completion of the study to indicate any discomfort or inconvenience experienced by the participants.

**Practice Effects**

Practice effects were accounted for with different versions of each assessment. Participants completed each assessment twice. The SDTLA is designed and implemented by Appalachian State University and was outside the control of the experimenter. The pre-test and the post-test were identical and it is possible that participants experienced practice effects that may have impacted their post-test responses. The CTA was monitored and controlled by the experimenter. A different version of the assessment was given for the post-test condition than the pre-test condition. It is still possible for the participants to have experienced a practice effect that may have impacted their responses in the post-test condition. Future studies should measure the practice effects and statistically remove it from the analysis.
There were several limitations to the current study. It is important to recognize the limitations because they influence the conclusions and recommendations for future research. Selection bias, researcher bias, differential attrition, obtrusive measurement, and practice effects can be accounted for and measured in future research which would increase the validity of the research findings.

**Delimitations**

This study has several delimitations. Delimitations are the factors that define the boundaries of a research study and are determined by the researchers choices to include and/or exclude certain variables. It is important to recognize the delimitations of this study because they limit the generalizability of the results. Delimitations can be design variables or research variables. There were four delimitations that threatened the generalizability of the current research. They are general education outcomes, student variables, faculty variables, and service-learning variables.

**General Education Outcomes**

There are a plethora of general education outcomes defined within American Higher Education. It was not possible for the researcher to investigate the relationship between service-learning and all of the general education outcomes that have been defined. According to Cohen and Brawer (2003) general education curricula are typically defined and dependent on the goals and mission of an institution. Tidewater Community College (TCC) defined seven general education outcomes that were in line with their goals and mission. It was not feasible for the researcher to investigate the relationship between service-learning and all seven of the general education outcomes defined by TCC. Due to time constraints and limited resources, the researcher applied the concepts from Bloom's taxonomy to identify
two general education outcomes that are closely related to service-learning. The current study focused on critical thinking and personal growth. Although it is not feasible at this time to investigate the effects of service-learning on additional general education criteria, future research in this area is recommended.

**Participant Variables**

There were several participant variables that were not accounted for in the current study. Previous experience with some type of service activity was relatively high with 81.1% (n=120) of the participants having had experience with service prior to participation in the current study. In addition, participant age, sex, marital status, employment status, class status, current enrollments, and type of student were not controlled or statistically accounted for. Future research should either control for these variables or include them in the statistical analysis and account for their impact using an Analysis of Covariance.

**Faculty Variables**

There are several faculty variables that should have been measured and accounted for in the current. As noted by Armstrong (2006) and Jurgens and Schwitzer (2002), the role of the faculty member is critical for high levels of engagement in service-learning. The faculty member should have had training in how to design and integrate service-learning into the curriculum (Armstrong). The faculty members experience and training with service-learning should have been assessed to indicate whether he or she was qualified to incorporate service-learning into the curriculum. It is also very important for the faculty member to provide assistance and guidance for students, especially when goal directedness is low (Jurgens & Schwitzer). Measuring faculty support of students may yield important evidence regarding the impact of service-learning on attaining general education outcome goals.
Service-Learning Variables

A final delimitation of the current study is that only one type of service-learning was used. A one-shot case study with service provided to the homeless community in Virginia Beach integrated into the curriculum of psychology courses was the only type of service-learning studied. As discussed previously, service-learning can take many different forms, such as an alternative spring break or as part of a broader experiential education curriculum that may include internships, volunteerism, and cultural immersion. In addition, service-learning can be implemented into almost any area of the curriculum. The model of service-learning utilized in this study was a one-shot course. There was no way to control whether or not participants were involved with other types of experiential learning such as volunteering or participating in service-learning in other courses. Although it was beyond the scope of this study, future research should include this data.

The delimitations of the current study should be taken into account in future research. Delimitations define what general education outcomes, participant variables, faculty variables, and type of service-learning that was consciously included in or excluded from the scope of this study. It is important to recognize the delimitations of this study because they limit the generalizability of the results. Delimitations can also limit the replication of research and practical application of the research.

Recommendations and Implications

Recommendations

Recommendations for future research focus largely around the limitations of the current study. Selection bias is a limitation of the internal validity of the current study because participants self-selected into which condition they were in. Differential attrition is
another limitation of the current study because students who did not want to participate in service-learning had the opportunity to drop the course and enroll in another one without the service-learning requirement. In addition, participation in the current study was optional for students enrolled in the control group and required for students in the experimental group. A final limitation to internal validity may have been experimenter bias. The researcher and the teaching faculty member for the experimental condition was the same person. These factors limit the internal validity of the study because they could have contributed to differences between the groups that were not due to the independent variable.

The findings from this study suggest that there may have been existing differences between the experimental and control groups prior to data collection. In addition to the threats to internal validity mentioned above and additional variable could have impacted the results. The majority of students in the experimental group were online students. This is important to note because students who are less clear and direct about their goals need a substantial amount of support from instructors and/or peers in order to have a successful service-learning experience (Jurgens & Schwitzer, 2002; Robinson & Barnett, 1996). It is possible that the students did not have a successful service-learning experience in terms of personal growth because they did not have the support that they needed. Future researchers should focus on the structure and support of the service-learning students whether they are online or in the classroom.

An additional recommendation for future research is to replicate the current study with a larger sample size and more control over the demographic variables. It is important to have a large enough sample size to decrease the vulnerability to Type I error. One way to increase the sample size is to include students from other disciplines. The American
Association of Community Colleges (AACC), Learn and Serve America, and Campus Compact are three organizations that provide guidelines and examples to develop and implement service-learning across the curriculum. Although it was beyond the scope of the current study, future research should increase sample size by investigating the impact of community college service-learning in other disciplines. In addition, demographic variables should be accounted for with statistical procedures that can measure the impact they have on the outcome variables, if any, and remove their effect from the final results.

Researchers may also want to replicate the current study with additional outcome variables. Although each institution develops a general education curriculum to reflect the institutions mission, Cohen and Brawer (2003) point out that general education typically refers to a set or core of courses that improve critical thinking, self-awareness, values, and acceptance of diverse cultures. The scope of the current study focused on two domains of Bloom’s taxonomy: the knowledge domain (i.e. critical thinking) and the affective domain (i.e. personal growth). The third domain of Bloom’s taxonomy is psychomotor domain that could include communication and information literacy.

Finally, future researchers may want to establish psychometric properties for the Longview Community College Critical Thinking Assessment. Although the instrument has high face validity, content and construct validity and reliability should be established. Additional research should be conducted to establish the overall psychometric properties of the instrument.

**Implications**

Previous literature on service-learning focuses on the development and implementation of service-learning programs (Kozeracki, 2000). The majority of research
has examined the impact it has on learning outcomes using self report measures, particularly at four-year institutions (Astin & Sax, 1998). Findings from the current study reveal that service-learning has a positive impact on critical thinking outcomes when implemented into a community college curriculum. The implications for community college constituencies are as follows.

**Implications for Administrators**

The current study shows that service-learning has a positive impact on critical thinking skills. Administrators should take this into consideration when making decisions regarding the development, implementation, and support of service-learning programs. It is important to have empirical evidence to support the claim that service-learning is a valuable and effective pedagogy. Not only is it necessary to substantiate funding, but it is also necessary to recruit faculty members to adopt the pedagogy. Teaching faculty must design their courses with service-learning as an integral part of the curriculum in order for it to be successful. In addition, faculty members must invest additional time and effort when developing and fostering relationships with community partners and students. Administrators will need to provide data in order to motivate faculty to participate in service-learning.

Although personal growth did not significantly change over the course of the current study, other research shows that service-learning has a positive impact on personal growth. For this reason, it is likely that factors other than service-learning limited personal growth in the current study. Jurgens and Schwitzer (2002) indicate that the success of service-learning may be limited by developmental factors, such as goal directedness. Since community college students are less prepared for academia than students from four-year institutions and
universities, it is important for community college administrators to emphasize the need for more guidance and support from faculty members, especially during training and development, in order for service-learning to be successful.

Finally, community college administrators should take the results of the current study into account when developing curriculum and policies regarding service-learning. Findings indicate that service-learning is a valuable method of teaching and learning that enhances critical thinking skills. In addition, the current study demonstrates the need for faculty training and development in order for service-learning to be successful. According to Armstrong (2006), faculty should be trained in the areas of reflection, reciprocity, and mutuality within the service-learning experience in order for academically based service learning to effectively enhance personal growth.

**Implications for Teaching Faculty**

Teaching faculty should be aware of the amount of time and attention necessary to design and implement an effective service-learning course. In order to effectively implement service-learning into the community college curriculum, community college faculty should be familiar with how the lower level of personal development may impact the design and implementation of service-learning. Community college students are less likely to have clearly defined goals or an idea or plan to reach their goals. Since community college students are more likely to need additional support and guidance from service-learning faculty, it is important for faculty members to anticipate more time and energy into service-learning courses while planning the course schedule. It is also important for faculty members to maintain a strong relationship with the community partners in order to assist in the guidance and direction of course connections with service. According to Armstrong (2006)
faculty should design service-learning to have a clear connection with learning outcomes. If the faculty member is not aware of what types of service are being provided, then he or she cannot make clear connections with course material. Throughout the course of the semester, faculty should be cognizant of how much support and guidance each student will need in order to ensure effective development, especially in the area of personal growth. In addition, Armstrong recommends that faculty actually include personal growth and development as one of the course objectives to make a clear connection between service-learning and learning outcomes.

*Implications for Community Partners*

The findings of the current study indicate that students are developing critical thinking skills while participating in service-learning. Students are developing the skills necessary to apply classroom knowledge to the real-life problems and obstacles faced by many community agencies, making service-learning students an invaluable asset to the organization. The findings from the current study indicate that community college students may need more support and direction from those they are working with. Community partners should be more effective by working closely with faculty members to create meaningful service experiences for students. Community partners and faculty must maintain open communication throughout the semester in order to effectively convey expectations to service-learning students. By providing clear directions and opportunities, community partners may enhance students’ development of personal growth as a result of service-learning.

*Implications for Students*

As a result of the current study, community college students who participate in
service-learning should have a greater understanding of why service-learning is an important and valuable method that will enhance their learning, specifically in the area of critical thinking. If students are provided the necessary support and guidance throughout the semester, it may also be a successful method of establishing and identifying personal and educational goals. Rather than experiencing the frustration that comes along with the challenges of juggling education, family, work, and other obligations, students can rest assured that their service-learning efforts are not futile. Not only should they experience empowerment by making a difference in their community, but they will also recognize that service-learning is helping them develop critical thinking ability and with the appropriate support, personal growth.

Overall Summary

In order to determine the impact of service-learning on general education outcome measures among community college students, direct measurable outcomes in terms of pre-test and post-test scores were collected and analyzed on two learning outcomes: critical thinking and personal growth. An ANOVA with repeated measures and a MANOVA with repeated measures were used to statistically compare scores obtained from students who participated in service-learning to scores obtained from students who did not. Results were used to expand the knowledge base pertaining to service-learning in higher education, specifically the impact of community college service-learning on general education outcome variables. This information should be used to assist community college administrators and faculty when making decisions regarding the development, implementation, and assessment of service-learning in their institutions.

The current study is the first known quantitative study to address the impact of
community college service-learning on general education learning outcomes. The overall results indicate that service-learning has a positive impact on critical thinking outcomes at the community college level. Findings also suggest that community college students may need substantially more structure and support for service-learning to have a positive impact on personal growth and development. Research shows that community colleges report insufficient funding for support is the primary challenge faced when attempting to sustain service-learning as part of the curricula (Robinson & Barnett, 1996). The results from the current study allow educators and administrators a better understanding of the impact of service-learning on general education outcomes at the community college level. They also point out the need for more structure and support for service-learning to have a positive impact on personal growth and development. With the appropriate resources in place, service-learning can have a positive impact on general education learning outcomes at the community college level.
REFERENCES


Annapolis Junction, MD: Community College Press.


Longview Community College Critical Thinking Assessment

Observation or Inference: Identify each of the following items as "objective statements" or "inferences."

1. The man in the drugstore fell to the floor clutching his chest and the other customers turned in his direction when he screamed.
2. The pigeon pecking at the disk was distracted by the sound of the door slamming and hesitated while it considered whether to keep pecking or not.
3. When the dinner with her husbands parents was over, she was so anxious to leave and go home that she left her coat behind.
4. The old man looked both ways several times before he stepped off the curb and slowly walked across the street.
5. Shoppers in the mall assumed that the man talking loudly to himself was crazy, and they walked quickly around him, avoiding eye contact.

Correlations: The following statements describe a relationship between two variables. In the space provided, write an explanation for each relationship. For example, a government study reveals that the more a mother smokes, the more her children are likely to exhibit behavioral problems. An explanation for the relationship between maternal smoking and child behavioral problems might be that family stress caused the mother to smoke and increased child behavioral problems.

6. The more psychology courses students take during their college years, the higher scores they get on a measure of interpersonal sensitivity.

Explanation:
7. A study on the effects of alcohol found that higher and higher doses of alcohol produced increasingly lower scores on a test of memory recall.

Explanation:

8. A college professor notices that the farther students sit toward the back of the room, the worse their grades in the course seem to be.

Explanation:

9. When the physical attractiveness of high school girls was rated by their peers, it was noticed that those with the highest scores tended to do the best on a measure of self-esteem on record in the guidance office.

Explanation:

10. A survey of adolescents being treated for eating disorders noted that those who watched the most TV during the week tended to receive the lowest ratings on a measure of general health.

Explanation:

Operational Definitions: Below are some hypotheses that are being researched. Identify which terms in each hypothesis should be operationally defined, and then give an example of how each of these terms might be defined so that the hypotheses can be more clearly tested.

11. Memory improves with regular exercise.

12. Proper nutrition aids alertness in the classroom.

13. People who are talking on car phones do not drive safely.

14. Frustration causes aggression.

15. Lack of sleep impairs one's judgment.
The **Student Developmental Task and Lifestyle Assessment** is composed of statements shown to be typical of some students and is designed to collect information concerning college students’ activities, feelings, attitudes, aspirations, and relationships. The Assessment is designed to help students learn more about themselves and for colleges to learn how to assist students more effectively. The SDTLA’s usefulness depends entirely on the care, honesty, and candor with which students answer the questions.

It will require about 25-35 minutes for you to complete this questionnaire.

**DIRECTIONS**
- For each question choose the *one response* that most closely reflects your beliefs, feelings, attitudes, experiences, or interests. Record your responses as directed.
- Consider each statement carefully, but do not spend a great deal of time deliberating on a single statement. Work quickly, but carefully.
- In this questionnaire, “college” is used in a general sense to apply to both two and four year colleges, as well as universities; it refers to all kinds of post-secondary educational institutions.
- If you have no parent, substitute guardian or parent equivalent when responding to items about parent(s).

**Part 1: Statements 1 –21**

Respond to the following items by marking:

**A = True**

**B = False**

1. I never regret anything I have done.

2. I am currently involved in one or more activities that I have identified as being of help in determining what I will do with the rest of my life.

3. I followed a systematic plan in making an important decision within the past thirty days.

4. I have personal habits that are potentially dangerous for my health.

5. I like everyone I know.

6. It’s important to me that I be liked by everyone.

7. I would prefer not to room with someone who is from a culture or race different from mine.

8. I never get angry.

9. Within the past six months, I have experienced unfamiliar artistic media or performances.

10. During the past 12 months, I have acquired a better understanding of what it feels like to be a member of another race.

11. Since beginning college, my friends have become more frequent sources of support than my parents.

12. I only attend parties where there are plenty of alcoholic beverages available.

13. I never say things I shouldn’t.
14. Within the past six months, I have learned about or experienced a culture different from my own through artistic expression.

15. I never lie.

16. I always take precautions (or abstain) to assure that I will not contract a sexually transmitted disease (STD).

17. Within the past 12 months, I have undertaken an activity intended to improve my understanding of culturally/racially different people.

18. I never get sad.

19. Within the past 12 months, I had a conversation or discussion about the arts outside of class.

20. I avoid discussing religion with people who challenge my beliefs, because there is nothing that can change my mind about my beliefs.

21. Within the past 12 months, I have undertaken an activity intended to improve my understanding of people with disabilities.

**Part 2: Statements 22 – 68**

Respond to the following statements by selecting the appropriate letter:

A = Never (almost never) true of me  
B = Seldom true of me  
C = Usually true of me  
D = Always (almost always) true of me

22. I satisfactorily accomplish all important daily tasks (e.g., class assignments, test preparation, room/apartment cleaning, eating, and sleeping).

23. I seek out opportunities to learn about cultural/artistic forms that are new to me.

24. It bothers me if my friends don’t share the same leisure interests as I have.

25. I’m annoyed when I hear people speaking in a language I don’t understand.

26. I have made conscious efforts to make the college a better place to attend.

27. I have a difficult time in courses when the instructor doesn’t regularly check up on completion of assignments.

28. I pay careful attention to the nutritional value of the foods I eat.

29. I feel comfortable socializing with people who have physical, emotional, sensory, or learning disabilities.

30. I plan my activities to make sure that I have adequate time for sleep.

31. I seek to broaden my understanding of culture (e.g., art, music, or literature).

32. When I wish to be alone, I have difficulty communicating my desire to others in a way that doesn’t hurt their feelings.

33. I avoid groups where I would be of the minority race.

34. My classmates can depend upon me to help them master class materials.

35. I don’t perform as well in class as I could because I fall short of requirements.

36. I limit the quantity of fats in my diet.

37. Because of my friends’ urgings, I get involved in things that are not in my best interest.

38. A person’s sexual orientation is a crucial factor in determining whether I will attempt to develop a friendship with her/him.

39. It’s more important for me to make my own decisions than to have my parent’s approval.
40. I conceal some of my talents or skills so I will not be asked to contribute to group efforts.

41. I have plenty of energy.

42. It's more important to me that my friends approve of what I do than it is for me to do what I want.

43. It's hard for me to work intensely on assignments for more than a short time.

44. I am satisfied with my physical appearance.

45. I feel uncomfortable when I'm around persons whose sexual orientation is different from mine.

46. When in groups, I present my ideas and views in a way that it's clear I have given them serious thought.

47. It's very important to me that I am successful both inside and outside the classroom.

48. My weight is maintained at a level appropriate for my height and frame.

49. My personal habits (e.g., procrastination, time management, assertiveness) get in the way of accomplishing my goals or meeting my responsibilities.

50. I try to avoid people who act in unconventional ways.

51. I accept criticism from friends without getting upset.

52. I get bored and quit studying after working on an assignment for a short time.

53. I eat well-balanced, nutritious meals daily.

54. I find it difficult to accept some of the ways my close friends have changed over the past year.

55. I have difficulty following through with decisions I have made when I discover others (e.g., parents or friends) disagree with these decisions.

56. I have difficulty disciplining myself to study when I should.

57. I exercise for 30 minutes or more at least 3 times a week.

58. I don't socialize with people of whom my friends don't approve.

59. My study time seems rushed because I fail to realistically estimate the amount of time required.

60. I plan my week to make sure that I have sufficient time for physical exercise.

61. I feel confident in my ability to accomplish my goals.

62. I am annoyed when I have to make an accommodation for a person with a disability.

63. I become inebriated from the use of alcohol on weekends.

64. I try to dress so that I will fit in with my friends.

65. It's essential that those important to me approve of everything I do.

66. Even when I'm not particularly interested in a subject, I'm able to complete course requirements satisfactorily.

67. It's important to me that I achieve to the limits of my abilities.

68. I use library materials, resources, and facilities effectively.

Part 3: Statements 69 - 73

Respond to the items below by selecting one of the following:

A = Strongly Agree
B = Agree
C = Disagree
D = Strongly Disagree
69. I have arranged my living quarters in a way that makes it easy for me to study, sleep, and relax.

70. I have become more culturally sophisticated since beginning college.

71. Learning to live with students from cultural or racial background different from mine is an important part of a college education.

72. Society has a responsibility to assist people who cannot sustain themselves.

73. As a citizen, I have the responsibility to keep myself well-informed about current issues.

Part 4: Statements 74-87

Respond to the statements below by selecting one of the following:

A = Never
B = Seldom
C = Sometimes
D = Often

74. I wonder what my friends say about me behind my back.

75. I dislike working in groups when there are a significant number of people who are from a race or culture that is different from mine.

76. Within the past year, I have participated in activities that directly benefited my fellow students.

77. Within the past 3 months, I engaged in activities that were dangerous or could be risky to my health.

78. I have used my time in college to experiment with different ways of living or looking at the world.

79. I am confident in my ability to make good decisions on my own.

80. I participate in community service activities.

81. I trust the validity of my values and opinions, even when they aren’t shared by my parent(s).

82. I express my disapproval when I hear others use racial or ethnic slurs or put-downs.

83. I have an inner sense of direction that keeps me on track, even when I am criticized.

84. In the past 6 months, I have gone out of my way to meet students who are culturally or racially different from me because I thought there were things I could learn from them.

85. I feel anxious when confronted with making decisions or taking actions for which I am responsible.

86. I meet my responsibilities to my parent(s) as well as I should.

87. Within the past 12 months, I have taken a public stand on issues or beliefs when many friends and acquaintances didn’t agree.

Part 5: Statements 88 – 153

Select the one best response from the alternatives provided.

88. After a friend and I have a heated argument, I will
   A. Never (almost never) speak to him/her.
   B. Seldom speak to him/her.
   C. Usually speak to him/her.
   D. Always speak to him/her.
   E. I never have disagreements with friends.

89. In terms of an academic major or concentration,
   A. I am uncertain about possible majors and am a long way from a decision.
   B. I have thought about several majors, but haven’t done anything about it yet.
   C. I have made a tentative decision about what I major in.
   D. I have made a firm decision about a major, but I still have doubts about
whether I have made the right
decision.
E. I have made a firm decision about a
major in which I am confident that I
will be successful.

90. Thinking about employment after
college,
A. I do not know how to find out about
the prospects for employment in a
variety of fields.
B. I have a vague idea about how to
find out about future employment
prospects in a variety of fields.
C. I know one source that could
provide information about future
employment prospects in a variety
of fields.
D. I know several sources that can
provide information about future
employment prospects in a variety
of fields.

91. When thinking about the kind of life I
want 5 years after college, I have . . .
A. not come up with a very clear
picture.
B. a vague picture, but have been
unable to identify the specific steps I
need to take now.
C. a clear enough picture that I can
identify the step necessary for me to
take now in order to realize my
dream, even though I haven't done
very much about it yet.
D. a clear enough picture and identified
the steps.

92. During this academic year,
A. I have organized my time well
enough for me to get everything
completed.
B. I sometimes had difficulty
organizing my time well enough to
get everything done.
C. I often had difficulty organizing my
time well enough to get everything
done.
D. I seldom seem able to organize my
time well enough to do everything.

93. I participate in the arts (e.g., draw, write,
play musical instrument, or sing) just for
my own enjoyment.
A. I never (almost never) do this.
B. I seldom do this.
C. I occasionally do this.
D. I frequently do this.

94. When faced with important decisions
this year, I have . . .
A. relied on others—such as parent(s),
friend(s), or teacher(s)—to tell me
what to do.
B. sought information and opinions,
but made the final decisions on my
own.
C. relied on myself alone in making the
decisions.
D. attempted to avoid making decisions
as much as possible.

95. I have identified, and can list, at least 3
ways I can be an asset to the community.
A. No, I haven't thought about that
much.
B. No, I don't know what I can
contribute.
C. No, that's not important to me.
D. Yes.

96. During this academic year,
A. I have tended to put off most school
work, and assignments to the last
minute and, as a result, don't do as
well as I could.
B. I have often forgotten about
assignments or put them off so long
that I was unable to turn them in on
time.
C. I have established a study routine
that has enabled me to get most
school work and assignments
completed on time and to my own
satisfaction.
D. I have established a study routine
that has enabled me to get all work
and assignments completed on time
and to my own satisfaction.

97. When I have experienced stress or
tension this term,
A. I have most often sought relief by
listening to music, reading, or
visiting friends.
B. I have most often had a few drinks
or beers to relax.
C. I have most often exercised, worked
out, or played a sport.
D. I have kept on going and ignored the
stress.
E. I have had occasions when it became too much to handle and I had to take days off to relax or rest/sleep.

98. In terms of the array of possible academic majors at this college, I have...
A. not spent much time investigating the possibilities.
B. talked to some students about their majors, but have not done any systematic investigation.
C. read the catalog and talked to some students and/or faculty/staff members about possible majors.
D. made a systematic effort to learn about possible majors and what they entail.
E. made a systematic effort to learn about possible majors and have carefully looked at my abilities and interests and how they fit different majors.

99. Within the past 6 months,
A. I haven’t seriously thought about possible post-college jobs or careers.
B. I have thought about possible post-college jobs or career, but haven’t done much about exploring the possibilities.
C. I have asked relatives, faculty members, or others to describe positions in the fields in which they are working.
D. I have taken definite steps to decide about a career, such as visiting a counselor, placement center, or persons who hold the kinds of positions in which I am interested.

100. If something were to prevent me from realizing my present educational plans, I have...
A. no idea what else I might pursue.
B. a vague notion about acceptable alternatives.
C. several acceptable alternatives in mind, but I haven’t explored them very much.
D. several acceptable alternatives in mind, which I have explored in some detail.
E. When I have heated disagreements with friends about matters such as religion, politics, or philosophy, I...
A. am likely to terminate the friendship.
B. am bothered by their failure to see my point of view but hide my feelings.
C. will express my disagreement, but will not discuss the issue.
D. will express my disagreement and am willing to discuss the issue.
E. don’t talk about controversial matters.

102. I have made a positive contribution to my community (residence hall, campus, neighborhood, or hometown) within the past 3 months.
A. No, that isn’t important to me.
B. No, I don’t know what I could do to make a positive contribution.
C. No, but I have tried to find ways.
D. Yes.

103. In terms of an academic major/concentration, I have...
A. determined what all the requirements are and the deadlines by which things must be done, for the major I have chosen.
B. investigated the basic requirements for graduating with a degree in my academic major.
C. a general idea about the courses and other requirements needed in my major.
D. not paid much attention to the requirements for my major; I depend on my advisor or others to tell me what to take.
E. yet to decide on an academic major.

104. I have decided the place (if any) that marriage has in my future.
A. No, I will just wait to see what develops.
B. No, I don’t think about it.
C. No, but I know what I would like to have happen.
D. Yes, I have made a definite decision.

105. I am familiar with sources of help on campus (e.g., tutoring, counseling,
academic information, library research tools and procedures, and computers).
A. I really don't know much about these things.
B. I know about a few.
C. I know about most of them.
D. I know about all of them.

106. When I don't agree with someone in authority (e.g., professor, administrator), I...
A. never express my opinion.
B. express my opinion only when I am angry.
C. express my opinion when asked.
D. express my opinion if given a chance.
E. avoid dealing with persons in position of authority if possible.

107. Within the past 3 months, I have taken an active part in a recycling activity/program.
A. No, recycling is too much trouble.
B. No, I don't know where to dispose of materials.
C. Yes, I have participated occasionally.
D. Yes, I have participated regularly.
E. Yes, I have participated and promoted recycling activities to others.

108. I use tobacco products (smoke, chew, or dip).
A. Never.
B. Once a week or less.
C. Several times a week.
D. Most days.
E. Everyday.

109. In terms of the labor market demand for people with a degree in my major, in the career area in which I am most interested,
A. I have yet to decide on a career area and/or academic major.
B. I don't have much of an idea of what I will face upon graduation.
C. I have a general, although somewhat vague, picture of what I will face upon graduation.
D. I have investigated things enough to be pretty clear about what I will face upon graduation.

110. I can clearly state my plan for achieving the goals I have established for the next 10 years.
A. No, because I have no specific goals for the next 10 years.
B. No, because I don't like making detailed plans for long-range goals.
C. No, because I haven't worked out my plan completely.
D. Yes.

111. Within the past month,
A. I took the initiative to bring several people together to resolve a mutual problem.
B. I joined with several people to resolve a mutual problem.
C. I have not encountered a problem that needed a group effort to solve.
D. I have avoided situations that required me to work with other people in solving problems.

112. Within the last 12 months, I have attended a play or classical music concert when not required for a class.
A. Yes
B. No, I don't like those kinds of things.
C. No, I just haven't gotten around to it.
D. No, there aren't such things available here.
113. If I thought my friends would disapprove of a decision I made, I would most likely...
   A. try to keep them from finding out (keep it a secret).
   B. tell them and pretend I didn’t care what they thought.
   C. tell them and explain my reasoning for this decision.
   D. make up something to mislead them from knowing the truth.

114. In the past 12 months, I have taken an active part in activities or projects designed to improve the community, such as a charity drive, clean up campaign, or blood drive.
   A. Never
   B. Once
   C. Twice
   D. Three times
   E. Four or more times

115. I have more than one drink (i.e., 1.5 ounces of liquor, 5 ounces of wine, or 12 ounces of beer).
   A. Never
   B. Once a week or less
   C. Two to three times a week
   D. Most days
   E. Everyday

116. Over the past 12 months at this college, I have...
   A. taken the initiative to set up conferences with an academic advisor.
   B. kept appointments with an academic advisor when she/he scheduled them.
   C. avoided dealing with my academic advisor.
   D. not investigated how to obtain academic advising.
   E. not been at this college long enough to get involved in academic advising.

117. In the past year,
   A. I have discussed my career goals with at least 2 professionals in the field that interests me most.
   B. I have had minimal exposure to people in the career field that interests me most.
   C. I know several professionals in the career field in which I am most interested, but I haven’t talked to them about entering the field.
   D. I have yet to decide on a career area.

118. My plans for the future are consistent with my personal values (for example, importance of service to others, religious beliefs, importance of luxuries, desire for public recognition).
   A. No, my future plans are unclear and I am undecided about my personal values.
   B. No, my future plans are clear, but I am undecided about my personal values.
   C. No, my future plans are unclear, but I am clear about my personal values.
   D. Yes, I have recently begun to think about how my values will shape my future.
   E. Yes, I thought about this a lot and have a clear plan.

119. Each day,
   A. I depend on my memory to make sure that I get done what needs to be done, and that works for me.
   B. I keep a calendar or make a “To Do” list of what needs to be done each day and that works for me.
   C. I dislike planning what I need to do; I just let things happen and that works for me.
   D. I don’t make detailed plans about what I need to do each day, and as a result I forget important things.

120. Within the past 12 months, I have visited a museum or an art exhibit when not required for a class.
   A. Yes
   B. No, I don’t like those kinds of things.
   C. No, I just haven’t gotten around to it.
   D. No, there aren’t such things available here.

121. In regard to social issues (e.g., homelessness, environmental pollution, or AIDS),
   A. I don’t think much about them.
   B. I am concerned, but haven’t taken any specific actions.
114

C. I contribute money to organizations that address the issue(s), but that is the extent of my involvement.
D. I am actively involved in organizations that address the issue(s).

122. I have a mature working relationship with one or more members of the academic community (faculty member, student affairs/services staff member, administrator).
A. Yes
B. No, I don’t like dealing with them.
C. No, I have tried to form relationships, but haven’t been successful yet.
D. No, I don’t know any.
E. No, I don’t have time for that kind of thing.

123. When thinking about occupations I am considering entering,
A. I don’t know what is required in order to be competitive for a job.
B. I haven’t decided which occupations interest me most.
C. I have a general idea of what is required.
D. I can list at least 5 requirements.

124. I have developed strategies to maximize my strengths and to minimize my weaknesses in order to accomplish my goals in life.
A. No, I don’t know myself that well.
B. No, I haven’t figure out how to do that.
C. No, I don’t have a clear picture of my life goals.
D. Yes, I have done this, but I’m not very confident about my strategies.
E. Yes, I have done this, and I am confident that my strategies will be effective.

125. I have one or more goals that I am committed to accomplishing and have been working on for over a year.
A. No, I don’t like making definite goals.
B. No, I have tried, but have been unable to follow through.
C. No, I have difficulty making realistic long-range plans.
D. Yes.

126. Over the past year, I have frequently participated in cultural activities.
A. No, that isn’t something that I enjoy or consider important.
B. No, there haven’t been any cultural activities available in which I could participate.
C. I have attended when others have encouraged or invited me.
D. Yes, I have taken advantage of as many opportunities as I could manage.
E. Yes, only when required by the college.

127. Within the past 12 months, I contributed my time to a worthy cause in my community (campus or town/city).
A. No
B. 1 – 10 hours
C. 11 – 20 hours
D. 21-30 hours
E. 31 or more hours

128. Within the past 12 months,
A. I haven’t attended any non-required lectures, programs, or activities dealing with serious intellectual subjects.
B. I have attended 1 or 2 non-required lectures or programs dealing with serious intellectual subjects.
C. I have attended 3 or 4 lectures or programs dealing with serious intellectual subjects that were not required for any of my courses.
D. I have attended 5 or more lectures or programs dealing with serious intellectual subjects that were not required for any of my courses.
129. In terms of practical experience in the career area I plan to pursue after college, I have . . .
   A. yet to decide on a post-college career area.
   B. had no experience.
   C. had very little experience.
   D. had some experience.
   E. had a great deal of experience.

130. I am involved in hobbies or leisure activities today that I see myself continuing to pursue 10 years from now.
   A. Yes
   B. No
   C. I don't know

131. In addition to my academic studies,
   A. I spend much of my free time involved in organized activities on campus or in the community.
   B. I spend most of my free time "goofing off" or watching television.
   C. I spend most of my free time with friends doing things we enjoy.
   D. I spend most of my time working to support myself and/or caring for my family.

132. In regards to college organizations specifically related to my chosen occupational field, I have . . .
   A. yet to decide on a post-college occupational field.
   B. investigated joining one or more, but have not actually joined.
   C. joined one or more, but am not very involved.
   D. joined one or more and am actively involved.

133. I have investigated what I must do in order to satisfy my need or desire for material goods, such as cars, clothes, and a home once I complete my education.
   A. No, I'm unsure about how important material goods are to me.
   B. No, I haven't thought much about what I will need to do.
   C. No, I have given some thought to this, but things are still unclear.
   D. Yes, I'm somewhat sure that I will be able to satisfy my needs/desires.
   E. Yes, my current plans are likely to meet my needs or desires.

134. I have formed a personal relationship (friendly acquaintanceship) with one or more professors.
   A. Yes, but I find it difficult to talk to him/her (them).
   B. Yes, we often enjoy interacting with each other.
   C. No, I would like to but haven't taken any action.
   D. No, I would like to and have tried unsuccessfully.
   E. No, because that isn't important to me.

135. Considering beginning-level positions in business, industry, government, or education for which I would be eligible when I complete my education, I . . .
   A. can name 3 or more.
   B. can name only 2.
   C. can name only 1.
   D. cannot name any.
   E. haven't made a decision about my academic major/concentration; therefore, I don't know for what I might be qualified.

136. I have considered the kinds of tradeoffs (in areas such as family time, leisure time, job status, income, or time with friends) I will need to make in order to have the kind of lifestyle I want to have 5 years after completing my education.
   A. I haven't thought about this at all.
   B. I have thought about this in general.
   C. I have a fairly clear idea of the tradeoffs required.
   D. I have a very clear idea of the tradeoffs required.

137. I have been actively engaged in a student organization or college committee in the past 6 months.
   A. Yes
   B. No, I don't have time because of my job(s) and/or family responsibilities.
   C. No, I am not interested.
   D. No, I haven't been in college long enough.
   E. No, but I plan to do so soon.
138. When thinking about narrowing the number of career areas I wish to explore,
A. I have identified specific personal abilities and limitations which I can use to guide my thinking.
B. I have some general ideas about what I would be successful in.
C. I have only a vague sense of where I can best use my skills or minimize my shortcomings.
D. I have never thought about careers in this way.

139. I am purposefully developing intellectual skills and personal habits that will assure that I continue to learn after completing my formal education.
A. I haven’t thought about this.
B. I rely completely on course requirements to do this.
C. I think about this sometimes.
D. I do this systematically.

140. Within the past 3 months, I have had a serious discussion with a faculty member concerning something of importance to me.
A. No, I don’t like talking to faculty members.
B. No, I have tried, but was unsuccessful.
C. No, I haven’t found one who seemed willing to interact in that way.
D. Yes, I initiated such a discussion.
E. Yes, I responded to a faculty member’s initiative.

141. Within the past 3 months,
A. I haven’t thought seriously about my career.
B. I have read about a career I am considering.
C. I have been involved in activities directly related to my future career.
D. I have thought about my career, but things are still too unsettled for me to take any action yet.

142. I have weighed the relative importance of establishing a family in relation to other life goals.
A. No, my desire to establish a family is too uncertain.
B. No, my life goals are too uncertain.
C. Yes, but my priorities tend to change.
D. Yes, my priorities about these goals are clear.

143. While in college I have acquired practical experience directly related to my educational goals through an internship, part-time work, summer job, or similar employment.
A. No, I haven’t been enrolled long enough.
B. No, I haven’t thought about it very much.
C. No, I have yet to establish any specific educational goals.
D. Yes, I did it to satisfy program requirements.
E. Yes, I did it on my own initiative.

144. I have established a specific plan for gaining practical experience in the career area I plan to pursue after college.
A. No, I have yet to decide on a career area.
B. No, but that is something I should be doing.
C. No, that isn’t something I want to do.
D. Yes, but I haven’t actually acted on my plan.
E. Yes, and I have begun implementing my plan.

145. I have considered how my present course of study will impact my goals for the future.
A. No, I haven’t thought about this at all.
B. Yes, I have thought about this, but it’s unclear how my studies will shape my future.
C. Yes, I have a fairly clear idea about how my studies will shape my future.
D. Yes, I have a very clear picture of how my studies will shape my future.

146. I have developed a financial plan for achieving my educational goals.
A. No, my parent(s) are taking care of it.
B. Yes, I have a plan which depends on the continuation of the present level of funding.
C. No, I haven’t thought much beyond the current term.
147. I carefully investigated the intellectual abilities and necessary academic background needed to be successful in my chosen academic major.
A. No, I have yet to make a definite decision about an academic major/concentration.
B. No, I chose my major/concentration solely on the basis of what I enjoyed most.
C. No, I have narrowed the choice down to a few areas, but haven't really investigated majors in that way.
D. No, I never thought about it in that way.
E. Yes.

148. I am acquainted with at least one person who has a disability.
A. Yes.
B. No, I have not met anyone with a disability.
C. No, I am not interested in knowing anyone with a disability.

149. Within the past 3 months, I have read a non-required publication related to my major field of study.
A. No, I have yet to decide on an academic major/field of study.
B. No, I don't have time to read such things.
C. No, that would be too boring.
D. Yes.

150. I am acquainted with at least 3 persons who are actively involved in the kind of work I visualize for myself in the future.
A. Yes.
B. No, I haven't met many people doing the work I visualize for myself.
C. No, I have yet to decide on a post-college occupational area.
D. No, I don't think that is very important.

151. I often have trouble visualizing day-to-day work in the career area I have selected.
A. Yes, because I have yet to decide on a career area.
B. Yes, because I don't know what routine work in my career area is really like.
C. Yes, because I don't like to think about that.
D. No, I can visualize work in that area, but I'm not sure that it's realistic.
E. No, I have a clear and realistic picture of work in my career area.

152. Within the past 12 months, I have had a serious conversation about my long-term educational objectives with an academic advisor or other college official.
A. No, I don't know to whom to talk.
B. No, I have tried, but no one will help me.
C. No, but I want to do that.
D. No, I don't want my options limited.
E. Yes.

153. While in college, I have visited a career center or library to obtain information about a chosen career.
A. No, but I will do that when I find time.
B. No, I don't need career information.
C. No, there is no place or person that deals with careers on my campus.
D. Yes.

END
Agency Letter Of Agreement
For Placement Of Service-Learning Students

Dear Agency Supervisor:

On behalf of our college, thank you for entering into a partnership with us to provide a rich educational opportunity for our students. By accepting, supervising and teaching our service learners, you are helping students join classroom theory with real-life experience. Ultimately you are also promoting civic responsibility.

As an agency supervising Service-Learning students you agree to provide the faculty member with:

✓ Current proof of not-for-profit status
✓ Current proof of liability to cover students serving at your agency
✓ Copy of state license if you are a childcare or elderly care provider
✓ You agree that while fulfilling service-learning hours, students will not
✓ Be left unsupervised with minors
✓ Transport any persons
✓ Meet in private residences without an agency representative present
✓ Be subjected to or asked to engage in any proselytizing or fundraising activities
✓ You agree to ensure that Service-Learning students are provided with
✓ An orientation prior to beginning their service-learning hours
✓ Training and supervision with regard to agency policies and procedures including health and safety information *Health cards needed for any meal preparation at soup kitchens
✓ A clear description of the skills and assigned service-learning work including expectations, responsibilities and requirements
✓ A safe and appropriate working environment

The Service-Learning Program agrees to provide
✓ Consultation for identifying appropriate tasks for students
✓ Orientation for agency supervisors regarding students needs and capabilities
✓ Follow-up and support regarding student issues, if requested
✓ Tutor training for all students who will be helping with homework or any other form of tutoring

If you wish to become a partner in education with us and agree to the listed provisions, complete the agency information below, sign and return to the faculty member you will be working with.

Agency Name
Agency Address
Agency Representative (print)
Agency Representative (sign)
Phone FAX # Email


Description of Agencies

Service-learning opportunities will be available with following service-learning partners: Kids Café and the Boys and Girls Club of Virginia Beach, PIN Ministries, and/or the Judeo Christian Outreach Center.

Kids Café and the Boy and Girls Club of Southeastern Virginia
Kids Café and the Boy and Girls Club of Southeastern Virginia work together to provide a free, nutritious evening meal in a safe and supportive environment for children in the public school system. Volunteers are needed for food preparation and serving, interaction with children, assistance with homework, instruction on life skills, and clean up. There are two sites to choose from: the South Rosemont Site in Virginia Beach and Brighton Rock AME Zion Baptist Church in Portsmouth.

HOURS: 2 p.m. to 6 p.m., Monday through Friday

PiN Ministries
The People in Need (PIN) Ministry provides clothing, food, medical care, hygiene supplies, and a faith-based program for people in need. Volunteers are needed to sort donated items, assist with meal preparation and service, to interact with people during meal time, and help clean up. Students can choose to serve at the warehouse located off Birdneck Road in Virginia Beach or at the meal site on 16th Street at the oceanfront.

HOURS: Meals - 7 a.m.-11 a.m., Saturdays and 3 p.m.-7 p.m., Sundays
Warehouse - Flexible Monday through Friday

Judeo Christian Outreach Center
The Judeo Christian Outreach Center (JCOC) provides shelter and meals for homeless individuals. The mission is carried out by volunteers and members of various organizations such as churches, synagogues, and civic groups in the community. Help is needed to serve meals, interact with people, clean up in the dining hall, and provide assistance to the center as they provide substance abuse counseling, job skills training, and GED preparation. The center is located in Virginia Beach.

HOURS: 9 a.m. - 9 p.m. Monday through Friday
Acknowledgement of Risk Form

I am aware of the possible risks inherent in the nature of the ______________ _event at the ________________. I have made an informed decision to participate and feel that I possess the skills, abilities, and knowledge that are prerequisite. I am aware that such participation has the potential for accidents or illness while traveling to and from this activity as well as during the activity. I will conduct myself in a responsible manner and in accordance with the college conduct guidelines for students.

If you have questions or concerns about the nature of this activity or possible risks involved please call 822-7429. If you need accommodations for a documented disability, have special dietary needs, or wish to share emergency medical information, please notify the Student Activities Coordinator 72 hours before the event.

Participant Signature __________________________ Date __________

Participant Name (print) __________________________

Parent Signature (minor participant) __________________________ Date __________

Parent Name (print) __________________________

Special Needs: Please Check all that apply
Sign Language Interpreter _____ Braille _____ Large Print _____
Dietary (specify) __________________________

Other including Emergency Medical Treatment (please specify)

____________________________ __________________________

Emergency Contact Person Emergency Phone Number
Informed Consent Form

THE IMPACT OF SERVICE-LEARNING ON GENERAL EDUCATION OUTCOMES

AT A COMMUNITY COLLEGE IN VIRGINIA

This research will examine the impact of service-learning on general education learning outcomes in a community college setting. The study will collect information regarding demographic characteristics such as age, sex, and employment status, as well as critical thinking skills, personal growth, and communication skills.

You are being asked to complete a pre-test measure at the beginning of the semester (90 minutes) and a post-test measure at the end of the semester (90 minutes). Assessment times will be scheduled with a proctor in one of the computer labs on campus. The purposes of the form are to give you information that may affect your decision whether to say "yes" or "no" to participation in this research and to record the consent of those who say "yes."

Your participation is voluntary. Although it is important to us that you complete the entire assessment measures, you can choose to stop participation at any point. Your participation today will in no way affect your grades or the services you receive here.

There are no right or wrong answers, so please just make your honest and best judgment. Although the questions are in no way intended to prove distressful, if you do have question or concerns related to the assessment measures, please consult with the proctor.

CONFIDENTIALITY:

The researcher will take reasonable steps to keep private information, such as responses to any assessment material, confidential. The results of this study may be used in reports, presentations, and publications; but the researcher will not identify you. All results will be reported only as a group.

Please sign below to indicate that you understand and are ready to participate.

________________________________________  ____________________________
Participant’s printed name                                      Date

________________________________________
Signature
Thank you for agreeing to participate in this study.

Please log in to Blackboard 8. Locate and click on "Sonya Landas DEVL Shell" in the right hand column under "My Blackboard Courses."

Please click on "Assessments" to the left of the screen and complete each assessment in the following order:

1. Background Information Survey
2. Longview Community College Critical Thinking Assessment
3. SDTLA

When you are done with all four assessments, please log out of Blackboard.
Background Information Survey

1. Please enter your username: ________________________________

2. What is your gender?
   o Male
   o Female

3. Which of the following best describes your ethnicity?
   o Asian
   o Black or African American
   o Hispanic or Latino
   o Pacific Islander
   o White
   o Other (please specify) ________________________________

4. What is your date of birth? ________________________________

5. Based on the following definitions, indicate which types of service activities you have experienced in the past three years.
   o volunteerism - Activity in which the focus is mainly service, and the beneficiary is primarily the recipient of service. Example: Collecting food for a food-bank. If “yes” please describe the length of your participation and the population served.

   o community service - Activity in which the main focus is on the service being provided as well as the recipient, but there is also room for the service provider to benefit as well. Example: Serving meals at a soup kitchen. The primary beneficiary are the people being fed, but the service provider is also likely to benefit by observing how their service is directly impacting the lives of those they serve. If “yes” please describe the length of your participation and the population served.

   o internships - Activity in which the main focus is on the learning that occurs from providing a service. Example: A student interested in pursuing a career in oceanography may complete an internship at the Virginia Marine Science Museum in order to gain experience in the field. If “yes” please describe the length of your participation and the population served.

   o field experience - Activities in which provided service is related to academic field of study, but are not fully integrated into the curriculum. Example: Nursing programs that require students to provide services to various health care organizations to sharpen student skills. If “yes” please describe the length of your participation and the population served.

6. By definition, service-learning is a form of teaching/learning that builds a connection between community service activities and course objectives/content using guided reflection activities such as journaling, group discussion, and class projects. Based on this definition, have you participated in service-learning in the last three years?
   o Yes
   o No
If “yes” please describe the length of your participation and the population served.

7. Are you currently participating in service-learning in any course other than Introduction to Psychology?
   o Yes
   o No
   If “yes” please indicate what course and the population you plan to serve.

8. Are you participating in service-learning as a requirement of your Introduction to Psychology course this semester?
   o Yes
   o No
   If “yes” please indicate where you are planning to serve.

9. Please indicate which of the following best describes the amount of time you spend at work.
   o Not employed
   o 0-10 hours per week
   o 10-20 hours per week
   o 20-30 hours per week
   o 30-40 hours per week
   o more than 40 hours per week

10. Are you currently an active duty member of the military?
    o Yes
    o No

11. Are you currently enrolled in a transfer program?
    o Yes
    o No

12. Please indicate the number of academic credit hours you are currently taking.
    o 0-6 credit hours
    o 6-12 credit hours
    o more than 12 credit hours

13. Please indicate which of the following your primarily identify yourself as.
    o day student
    o night student
    o online student

14. Please indicate the number of academic credit hours you have successfully completed (do not include developmental credits).
    o 0-12 credit hours
    o 12-24 credit hours
    o more than 24 credit hours
APPENDIX I
Student-Agency Agreement

Student Name ____________________________ Email ________________________

Student Address __________________________ Phone ________________________

City __________________________ ZIP __________ SS # __________

Community Site / Program ________________________________________________

Site Address ________________________________________________

City ________________________________

Zip code __________ Phone # __________ Fax # __________

Site Supervisor ________________________________

List the primary activities this student is agreeing to engage in:

List any special requirements you have for volunteers who are working at your site. (Background check, food handlers card, etc.)

To the student: The service agencies will be evaluating not only on performance but also willingness to learn and/or change, ability to receive criticism, general attitude, and eagerness to perform the service. The service agencies and the Service Learning Office expect students to act responsibly, as representatives of TCC, by showing up for scheduled service times, behaving in a professional manner, asking questions when there is an unfamiliar task or situation, receiving criticism with a positive attitude, following the policies and procedures of the agency and TCC, and obeying the laws of the Commonwealth of Virginia.

I, the student named in this document, agree to perform the services indicated.

Student’s signature ____________________________ Date __________

As the site supervisor, I have discussed these duties with the student and I’m satisfied the student understands the commitment he/she is making.

Site supervisor’s signature ____________________________ Date __________
Follow-Up Interview

1. Where did you complete your service-learning activity? (select all that apply)
   - People In Need
   - Judeo Christian Outreach Center
   - Kids Cafe and the Boys and Girls Club

2. If you participated in service-learning, do you plan to continue serving?
   - yes
   - no

3. Do you have children?
   - yes
   - no
   If yes, what age(s)?

4. If you participated in service-learning, did you bring anyone (i.e. family members, friends, etc.) with you to serve with you?
   - yes
   - no

5. What did you like the most about this experience?
   ________________________________________________________________

6. What did you like the least about this experience?
   ________________________________________________________________
APPENDIX K
Note: For research projects regulated by or supported by the Federal Government, submit 10 copies of this application to the Institutional Review Board. Otherwise, submit to your college human subjects committee.

**Responsible Project Investigator (RPI)**

The RPI must be a member of ODU faculty or staff who will serve as the project supervisor and be held accountable for all aspects of the project. Students cannot be listed as RPIs.

<table>
<thead>
<tr>
<th>First Name: Alan</th>
<th>Middle Initial: M.</th>
<th>Last Name: Schwitzer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone: 757-683-3251</td>
<td>Fax Number: 757-683-5756</td>
<td>E-mail: <a href="mailto:aschwitz@odu.edu">aschwitz@odu.edu</a></td>
</tr>
<tr>
<td>Office Address: EDUC 251-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City: Norfolk</td>
<td>State: VA</td>
<td>Zip: 23529-0157</td>
</tr>
<tr>
<td>Department: ELC</td>
<td>College: Education</td>
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</table>

**Complete Title of Research Project:** The impact of service learning on general education outcomes at a community college.

**Code Name (One word):** SLTCC

**Investigators**

Individuals who are directly responsible for any of the following: the project’s design, implementation, consent process, data collection, and data analysis. If more investigators exist than lines provided, please attach a separate list.

<table>
<thead>
<tr>
<th>First Name: Sonya</th>
<th>Middle Initial: L</th>
<th>Last Name: Landas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone: 757-227-9831</td>
<td>Fax Number:</td>
<td>Email: <a href="mailto:slandas@tcc.edu">slandas@tcc.edu</a></td>
</tr>
<tr>
<td>Office Address: Tidewater Community College, 1700 College Crescent, G-127</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City: Virginia Beach</td>
<td>State: VA</td>
<td>Zip: 23453</td>
</tr>
<tr>
<td>Affiliation: <em>Faculty</em> <em>X_Graduate Student</em> <em>Undergraduate Student</em> <em>Staff</em> <em>Other</em> ODU Doctoral Student; TCC Teaching Faculty</td>
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List additional investigators on attachment and check here: __
**Type of Research**

1. This study is being conducted as part of (check all that apply):

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<tr>
<td>X</td>
<td>Faculty Research</td>
<td>Non-Thesis Graduate Student Research</td>
</tr>
<tr>
<td>X</td>
<td>Doctoral Dissertation</td>
<td>Honors or Individual Problems Project</td>
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<td></td>
<td>Masters Thesis</td>
<td>Other Research in collaboration with TCC</td>
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**Funding**

2. Is this research project externally funded or contracted for by an agency or institution which is independent of the university? Remember, if the project receives ANY federal support, then the project CANNOT be reviewed by a College Committee and MUST be reviewed by the University's Institutional Review Board (IRB).

   |   |   |
|---|---|---|
|   | Yes (If yes, indicate the granting or contracting agency and provide identifying information.) |   |
| X | No |   |

Agency Name:

Mailing Address:

Point of Contact:

Telephone:

**Research Dates**

3a. Date you wish to start research (MM/DD/YY) 12/01/09

3b. Date you wish to end research (MM/DD/YY) 12/06/10

**Human Subjects Review**
4. Has this project been reviewed by any other committee (university, governmental, private sector) for the protection of human research participants?

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<td></td>
<td>Yes</td>
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<td>X</td>
<td>No</td>
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4a. If yes, is ODU conducting the primary review?

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<tr>
<td>X</td>
<td>Yes</td>
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<td>No (If no go to 4b)</td>
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4b. Who is conducting the primary review?

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5. Attach a description of the following items:

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<tbody>
<tr>
<td></td>
<td>Description of the Proposed Study</td>
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<tr>
<td></td>
<td>Research Protocol</td>
</tr>
<tr>
<td></td>
<td>References</td>
</tr>
<tr>
<td></td>
<td>Any Letters, Flyers, Questionnaires, etc. which will be distributed to the study subjects or other study participants</td>
</tr>
<tr>
<td></td>
<td>If the research is part of a research proposal submitted for federal, state or external funding, submit a copy of the FULL proposal</td>
</tr>
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</table>

**Note:** The description should be in sufficient detail to allow the Human Subjects Review Committee to determine if the study can be classified as EXEMPT under Federal Regulations 45CFR46.101(b).
Identify which of the 6 federal exemption categories below applies to your research proposal and explain why the proposed research meets the category. Federal law 45 CFR 46.101(b) identifies the following EXEMPT categories. Check all that apply and provide comments.

SPECIAL NOTE: The exemptions at 45 CFR 46.101(b) do not apply to research involving prisoners, fetuses, pregnant women, or human in vitro fertilization. The exemption at 45 CFR 46.101(b)(2), for research involving survey or interview procedures or observation of public behavior, does not apply to research with children, except for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.

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<tr>
<td>X</td>
<td>(6.1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.</td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
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<tr>
<td>X</td>
<td>(6.2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; AND (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.</td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
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</tbody>
</table>
(6.3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if:

(i) The human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

Comments:

(6.4) Research, involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

Comments:

(6.5) Does not apply to the university setting; do not use it

(6.6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

Comments:
PLEASE NOTE:

You may begin research when the College Committee or Institutional Review Board gives notice of its approval.

You MUST inform the College Committee or Institutional Review Board of ANY changes in method or procedure that may conceivably alter the exempt status of the project.

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<tr>
<th>Responsible Project Investigator (Must be original signature)</th>
<th>Date</th>
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</thead>
</table>