ASSESSING THE EFFECT OF STUDENTS' PERCEPTIONS ON BENEFITS RECEIVED FROM PARTICIPATION IN SERVICE-LEARNING

A Thesis

by

TESSA MARING GOOLSBY

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

December 2009

Major Subject: Sociology

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Approved by:

Chair of Committee,	Jane Sell
Committee Members,	Carol Albrecht
	Michael Ash
Head of Department,	Mark Fossett

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ABSTRACT

Assessing the Effect of Students' Perceptions on Benefits Received from Participation in Service-Learning. (December 2009)

Tessa Maring Goolsby, B.S., Texas A&M University

Chair of Advisory Committee: Dr. Jane Sell

This study examined how teachers' perceptions and attitudes and students' perceptions impacted the learning outcomes students received from their participation in service-learning. Service-learning is a form of experiential learning that endeavors to enhance students' academic and civic education through participation in community service. Two learning outcomes of service-learning were investigated: student problem solving and leadership skills. The data consisted of survey responses from 443 middle and high school students and their respective teachers that participated in evaluation research conducted by the Texas Center for Service-Learning and Texas A&M University during the 2007-2008 academic year. The survey items used from the teacher surveys focused on whether teachers felt that administrators took their opinions and ideas into account when making decisions regarding the service-learning program, as well as items that focused on teachers' general attitude towards the program. Survey items used from the student surveys focused on whether students felt their teacher

enjoyed service-learning projects, as well as survey items that focused on students' self-efficacy in terms of problem solving and leadership skills.

The basic hypotheses were: (1) the more institutionalized the service-learning program is in the students' school, the more positive benefits they receive from their program involvement, (2) when students perceive that they have more ownership of the service-learning program, they receive more benefits from their participation, and (3) the more positively students perceive the teacher's perception of the service-learning program, the more positive benefits students receive for their program involvement. Path analysis and multiple regression are used to test the hypotheses.

Contrary to what was expected, the data indicated that institutionalization was significantly, negatively related to student problem solving (-.3007, $p \leq .001$) and leadership skills (-.4020, $p \leq .001$). As expected, the data showed that student perception of student ownership of the service-learning program was significantly, positively related to student problem solving (1.0845, $p \leq .05$) and leadership skills (2.4721, $p \leq .001$). The data also showed that teacher attitude was very important in regard to student perception of the teacher's attitude and student perception of student ownership of the program, as well as student problem solving and leadership skills. The data suggested that the teacher's attitude was more important in terms of student learning outcomes than the student's perception of the teacher's attitude.

DEDICATION

This work is dedicated to my family. I could not have asked for a better group of "cheerleaders." Thank you for all of your love, encouragement, and support-it made all the difference.

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I would like to thank my committee chair, Dr. Jane Sell, and my committee members, Dr. Carol Albrecht and Dr. Mike Ash, for all of their time, energy, and input throughout the course of this project.

I would also like to thank the Texas Center for Service-Learning who provided both the opportunity and the funds to conduct the evaluation research from which my sample was taken. Thank you also to the Texas middle and high school students and teachers that participated in the study. I would also like to extend my gratitude to all of the interns who served on the Texas A&M Service-Learning Research Team for the countless hours they spent administering surveys, inputting data, and communicating with schools and teachers. Thank you to Dr. Carol Albrecht, who directed the Texas A&M Service-Learning Research Team, for allowing me the opportunity to participate in the evaluation research. I would also like to thank Dr. Carol Albrecht and Dr. Don Albrecht for their help in creating the data set used for my research, as well as for their guidance during my statistical analysis. In addition, I would like to thank Dr. Jane Sell for guiding me through the literature, as well as providing helpful comments and insights throughout this research.

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NOMENCLATURE

EST	Expectation States Theory
ISD	Independent School District
SL	Service-Learning

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INTRODUCTION

Schools are charged with the responsibility of educating students. This education includes, but is not limited to, teaching academic skills, such as reading, writing, and math, social skills, such as how to work with others, and civic education, such as citizenship and the role of government. Much of this responsibility is placed on teachers. According to Dewey (1938), "teachers are the agents through which knowledge and skills are communicated" (3). They are responsible for creating environments and facilitating experiences that are conducive to learning.

Over the years there have been various suggestions for educational reform, some of which have resulted in changes in trends of educational methods and practices. Donahue (2000) asserts that teachers serve as "filters" and determine how these reforms "make sense", or are implemented, in their classrooms (448). One particular reform is service-learning, a form of experiential learning that endeavors to enhance students' academic and civic education through participation in community service. Although the philosophy behind service-learning is based on well established ideas, such as learning through experience, service-learning as a formal teaching strategy is still relatively new. To date, research on service-learning focuses primarily on student learning outcomes and reports generally positive results, but there is still much work to be done, especially in regard to taking the contexts in which service-learning occurs into consideration.

This thesis follows the style of *American Sociological Review*.

To expand on the existing research, I investigated how students' perceptions impact the benefits, or learning outcomes, in particular those associated with problem solving and leadership skills, they actually receive from their participation in service-learning. Specifically, I examined students' perceptions regarding their teacher's attitude towards service-learning and the students' feelings of ownership of the service-learning program. Additionally, I asked how the institutionalization of the service-learning program at the students' schools effect the learning outcomes that they attain from their participation in service-learning. To study this, I employed the use of responses from student and teacher surveys used in evaluation research conducted by the Texas Center for Service-Learning and Texas A&M University on service-learning programs in public middle and high schools in the state of Texas during the 2007-2008 academic year.

LITERATURE REVIEW

History

Service-learning as pedagogy is still evolving, however, ideas regarding utilizing the community as a setting for "civic education" are not entirely new. John Dewey's ideas and emphasis upon the importance of direct experience were important influences in the 1920s and 1930s. According to Hepburn (1997), these ideas created innovative experimentation in social studies and civic education curriculum-the community was seen as a rich resource for learning the processes of government. As a response to the need to counteract the isolation of schools and "refit" them to meet the needs of society, as well as make learning more "compelling" (Bruner 1971:20), the 1970s marked another high point of using community service as a tool to educate students. However, by the early 1980s, support for experiential learning programs declined due to concerns that these programs were too expensive. At this time schools began to rely on television to provide access to information and supply students with "vivid virtual experiences of the world" (Hepburn 1997:140). By the early 1990s there was a renewed interest in community service as a method for engaging and reconnecting students with the community. Today, as a society characterized by even more technology and ample opportunities to choose to engage with objects (i.e. an iPod, laptop, video game, etc.) rather than individuals, service-learning continues to be utilized as a technique to connect students with their surrounding communities and enhance their educational experience.

Philosophy and Definitions

The philosophy of service-learning has strong roots in the work of John Dewey (Hironimus-Wendt and Lovell-Troy 1999; Hepburn 1997; Carver 1997). Dewey proposed that there is an "organic connection between education and personal experience" (1938:12). According to Dewey (1938), learning is an active[1], rather than passive, process that entails the learner interacting with and experiencing his or her environment and it is the responsibility of the teacher to develop and facilitate these learning situations. Modeled after Dewey's ideas on experiential education, service-learning is an engaging teaching technique that involves students in hands-on experiences in order to facilitate learning. Just as Dewey expressed that the importance of experience in learning "does not mean that all experiences are genuinely or equally educative", not all service experiences are "equally educative" (1938:13). Various components combine to produce service-learning experiences. Hironimus-Wendt and Lovell-Troy (1999) suggest that, in its "most simple form," service-learning is comprised of the following general components: (1) students must participate, or have the option to participate, in a service-related activity (2) instructors choose service sites that "maximize the likelihood" that students will encounter situations that are "directly" tied to course material (3) students must "intentionally" engage in activities to reflect on their "service-related observations and experiences" (361). Others elaborate to include that service activities should also meet a real community need (Sipe 2001; Learn and Serve America 2008).

Service-learning is inextricably linked with the concepts of reciprocity and reflection (Jacoby et al. 1996). The idea behind reciprocity is that service-learning projects will "provide benefits for all parties" (Snipe 2001:33). Not only will community partners benefit directly from the students' volunteer work, but the students and the community partners will both learn through interaction with each other. Reflection entails students engaging in intentional activities, such as journaling and class discussions, that provide opportunities for students to process their experiences and make connections between their service project and what they are learning in school. The emphasis on these two concepts distinguishes service-learning from other types of experiential learning (Jacoby et al. 1996).

Through the combination of these components and concepts, service-learning endeavors to enhance civic education, increase academic skills, develop personal and interpersonal skills, develop students as agents of change, challenge stereotypes, as well as extend learning beyond textbooks and the classroom and connect students with their community (Parker-Gwin and Mabry 1998; Carver 1997; Moore and Sandholtz 1999; Learn and Serve America 2008).

General Issues

Although there are three general components of service-learning, there are many different interpretations, objectives, and contexts of service-learning (Learn and Serve America 2008). It is not uncommon for different schools and universities to employ varying specific service-learning terminology, as well as different definitions of and objectives for service-learning on their respective campuses. It is also sometimes the

case that different departments on the same college campus use different definitions and terminology to describe similar service-learning concepts. This lack of a consistent definition and set of vocabulary, or language, to talk about service-learning may hinder the ability of various educational entities to work together and share information to improve their respective programs and initiatives. There is also a lack of a consistent, appropriate "label" for service-learning (Breese 2002). There are varying opinions on proper syntax, specifically whether to include the hyphen. Those that advocate for the importance of including the hyphen argue that it represents the special connection or the "dynamic relationship between service and learning" (Jacoby et al. 1996:5). Eyler and Giles (1999) assert that "service learning" (i.e. no hyphen) indicates that the service and learning goals are separate, rather than integrated, while service-learning indicates that service and learning goals are equally weighted and "each enhances the other for all participants" (5). In addition, they stress that "the hyphen in the phrase symbolizes the central role of reflection in the process of learning through community experience" (Eyler and Giles 1999:5).

There are several critiques and misperceptions of service-learning that proponents of service-learning often address. One of these misperceptions is that service-learning and mandatory community service are synonymous (Learning In Deed 1999). However, service-learning is different because it is more structured than community service and it intentionally blends service activities and academic curriculum (Hironimus-Wendt et al. 1999). Participating in service-learning can be required or optional, depending on the particular institution. In a similar vein, service-learning is

also different from an internship because it is less structured and its activities act as a "supplement" to class material rather than the focus of the class (Hironimus-Wendt et al. 1999). Another critique of service-learning is that only students, not the community or population they serve, benefit from service-learning and, conversely, service-learning programs do not benefit students, rather they just serve as a source of cheap labor for non-profit organizations (Learning In Deed 1999). Proponents of service-learning argue that one of the central tenets of service-learning is the presence of a relationship of "reciprocity" (Jacoby et al. 1996). This relationship is intended to be beneficial for all parties involved and foster situations in which each learns from and teaches another (Snipe 2001; Jacoby et al. 1996). While it may be the case that students serve as a source of cheap labor for community agencies, in the ideal service-learning experience, it is also the case that, through their service to the community agency, students are provided opportunities for hands-on learning. In order to have this mutual exchange of benefits, it makes sense that there would also need to be a mutual exchange of work involved. For example, in order for students to receive benefits associated with service-learning (i.e. hands-on experiences, development of academic and personal skills, etc.), they need to put in the work at the service site, as well as in the classroom. Additionally, in order for community agencies to receive the benefits of cheap student labor, they need to spend time organizing a service project and building relationships with teachers. Bartsch (2001) notes service-learning also yields benefits for teachers, such as a larger collection of teaching and learning strategies. The same logic applies. In order for teachers to receive these benefits, they need to spend time searching for service opportunities that

are relevant to their class curriculum, as well as continually develop relationships and connections with community agencies. Ideal service-learning includes these reciprocal relationships. The hands-on experiences and reflection afforded students through service-learning is based on the idea that solid connections exist between the school and the community (Bartsch 2001). In this manner, those who endorse service-learning argue that students can be transformed from passive members to "active contributors" to their community, resulting in students that are more than just cheap labor (Bartsch 2001:vii). Another misperception or critique of service-learning is that it is only appropriate, or useful, for at-risk youth or gifted/talented students. Most proponents of service-learning argue against this "targeted" version of service-learning. So for example, Barber (1991) states that students from all classes should participate in community service and that service-learning programs "must assure that no one is forced to participate merely because he or she is economically disadvantaged, and no one is exempted from service merely because that individual is economically privileged" (50).

There is also much debate surrounding the issue of whether students should be required to participate in service or service-learning or whether their participation should be optional. According to Barber (1991), there are two ways that service can be interpreted. The interpretation used has an impact on whether service should be required. If service is interpreted as "the encouragement of voluntarism and a spirit of altruism" (Barber 1991: 46) then, by definition, service cannot be required. Coercing or forcing volunteerism is an oxymoron and does not make sense as a teaching strategy (Barber 1991; Eyler and Giles 1999). However, if service is integrated into the classroom and is

interpreted as a "dimension of citizenship education and civic responsibility in which individuals learn the meaning of social interdependence and become empowered in the democratic arts" (Barber 1991: 46), then requiring students to participate in service is very similar to the rationale behind requiring students to participate in other academic or curricula activities, such as completing math homework or participating in a biology lab experiment. Barber (1991) also asserts that "the most in need of training in the democratic arts of citizenship are, in fact, least likely to volunteer" (47). If students do not understand the meaning of citizenship and civic responsibility, they are not likely to choose to volunteer. When students are required to participate in empowering educational curricula, such as academically linked service, they learn to be autonomous, responsible individuals. Consequently, Barber asserts that teaching civic education is "necessary to preserve American freedoms" (Barber 1991:48). Eyler and Giles (1999) offer two rationales for requiring service. The first is in line with Barber and states that "service is part of civic duty and contributes to the development of citizenship" (181) and the second claims that service is a "useful component of academic development of citizenship, leading beyond what is commonly acquired in the classroom" (181-182). They conclude, much like Barber, that, as schools are supposed to teach citizenship, requiring service seems in line with this goal. However, Eyler and Giles (1999) also recognize that the legitimacy of requiring service in public institutions is controversial and have, in some instances, lead to backlash and lawsuits with claims of involuntary servitude. In regard to the legality, or constitutionality, of required community service in public schools, Smolla (1999) states that lawsuits citing involuntary servitude are not

likely to be considered viable because they are very different from anything that resembles slavery and are designed to primarily benefit the student "through the experience of public service and the introspection and analysis required by the accompanying academic exercises" (Smolla 1999:122). It is likely that this benefit is the most important distinction between community service and involuntary servitude. Parker-Gwin and Mabry (1998) suggest pros and cons for service as a requirement and as an option. The drawback to requiring students to participate in service is that they may perceive it as added time they must dedicate to the course in order to meet requirements, which has potential to lead to resentment. However, they also assert that requiring participation in service may lead to potentially positive outcomes by "pushing" students into new situations that they may determine are "ultimately beneficial" (Parker-Gwin and Mabry 1998:287). Making service an optional activity recognizes that students have different learning styles and preferences, as well as varying demands on their time (Parker-Gwin and Mabry 1998).

Quality is an important aspect to the success of service-learning and tends to vary greatly between different programs. Each program presents a different context characterized by its own goals, objectives and learning outcomes, as well as its own set of teachers, implementation practices, community partners, and service projects. Experiential learning, service-learning in particular, places a higher level of responsibility on the teacher. Dewey articulates this higher level of responsibility when he states that educators must be able to identify which "surroundings are conducive to having experiences that lead to growth (and) know how to utilize the surroundings,

physical and social, that exist so as to extract from them all that they have to contribute to building up experiences that are worthwhile" (1938:35). In other words, it is often the responsibility of the teacher to identify and build relationships with community agencies that may offer service experiences that are relevant to the academic interests of their students. It is also the responsibility of the teacher to prepare their students for interacting with their service site in order to maximize their service-learning experience. According to Hironimus-Wendt and Lovell-Troy (1999), this preparation should include sociological training that addresses how peoples' lives are impacted by structural, cultural, and historical contexts, the importance of trying to see the world from someone else's perspective, and that, despite the existence of powerful social structures, people do have agency over their own lives. Without proper education and orientation prior to participating in their service project, students may engage in blaming the victim, approach the activity with a savior-like attitude, often referred to as "white knight syndrome", or interpret their experiences through a lens of prejudice and individualism, which can reinforce stereotypes (Hironimus-Wendt et al. 1999; Hondagneu-Sotelo and Raskoff 1994). Hondagneu-Sotelo and Raskoff (1994) suggest presenting students with more concept-based questions, rather than theory-based questions on assignments, which, from their experience, resulted in essays that enabled students to "most effectively place their community service-learning experience in a sociological framework" (251). They also suggest providing more constructive feedback and presenting an orientation focused on diversity to challenge stereotypes and encourage analytical thinking (Hondagneu-Sotelo and Raskoff 1994). Quality may also be impacted

by how clearly teachers are able to link the students' service experience with the academic material. If the link is not very well developed students will interpret their activity as just "volunteering", rather than service-learning, which, as conceptualized by Soukup (1999), indicates a program failure or "lack of learning" (17). Implementing successful service-learning experiences requires a lot of time on the part of the teacher engaging in activities such as planning, building relationships with community agencies, and dedicating class time to facilitate reflective discussions. In order to accommodate, sometimes "breadth is sacrificed for depth" (Everett 1998:306).

Evaluation and Research

The primary focus of service-learning evaluation, for both teachers and researchers, is student learning outcomes. Some describe service-learning as having two main types of learning outcomes: civic and academic (Parker-Gwin and Mabry 1998). However, learning outcomes often span beyond citizenship and academics to include things such as personal and interpersonal development (e.g. leadership skills, communication skills, affective development, etc.) (Eyler and Giles 1999; Soukup 1999).

Individual service-learning projects often have a relatively large assortment of desired learning outcomes. For example, a kindergarten class produced original artwork and a resource guide, as well as managed a class budget and purchased washable toys, for the emergency room waiting room at a local hospital in order to make the experience less intimidating (Bartsch 2001). In addition to teaching citizenship and developing language, writing, counting, and budgeting skills, the service experience also provided

an outlet for students to learn to express themselves through art, develop problem solving skills, and work in a team. Given the shear breadth of and the abstract nature of some of the potential learning outcomes associated with service-learning, evaluation can be difficult. Some of the learning outcomes are, in and of themselves, difficult to assess using traditional methods because they are often demonstrated in the actual performance of service itself or in the products of service, such as books, hiking trails, and presentations (Bartsch 2001).

Teachers assess learning outcomes using a combination of methods, including observing academic and social growth of younger students during guided discussions, "observation checklists, rubrics, journal entries, peer and community evaluations" (Bartsch 2001:vii). Teachers also evaluate student learning outcomes by assessing the products of a project, such as grading the composition of a letter to a congressman. In some instances teachers also provide opportunities for students to participate in self-assessments using tools such as rubrics and checklists (Bartsch 2001).

Researchers have also attempted to evaluate whether students are attaining these desired learning outcomes. Studies have employed surveys, pre and post tests, narratives, interviews, and/or focus groups as means to examine students' service-learning experiences. To date, the majority of the service-learning research has focused on higher education, rather than the primary and secondary levels of education.

Research findings have been generally positive. For example, Soukup (1999) presents an assessment based on narrative and survey data from 1990-1993 and 1995-1999 from a service-learning program in communication courses at Santa Clara

University. His findings suggest that students do make connections between their learning and their service, but at different levels, service-learning results in emotional growth (i.e. self-esteem, sense of appreciation, and satisfaction), service-learning experience results in empathy for those served and better ability to relate to "the other", and the service-learning experience may result in a changed outlook on others, education, and on life. However, some student responses, in both surveys and narratives, indicated that they did not make meaningful connections between their service and their learning. Soukup asserts that this occurred because they failed to fulfill "the last step of service-learning: classroom reflection on experience" and proposes that the "faculty implementation" needs improvement (Soukup 1999:22). It is important to note that there are some issues associated with Soukup's data that make interpretation problematic. It is difficult to compare data from different years because, in some cases, different assessment tools were used. Students completed these assessments voluntarily, so the data do not include responses from all students that participated. Furthermore, students completed the assessments in various contexts. Some were completed in the classrooms, while others were completed at the students' service site. It is possible that these different contexts may have influenced students' responses. Through research conducted in his own social inequality courses at Radford University, Everett (1998) found that students felt that they, in general, benefited both personally and academically from their participation in the service-learning course. He required the service-learning students to participate in writing intensive reflection activities, such as journaling and essays, as well as reflective class discussions. Although he did not specify how the

learning outcomes of the students in the non-service-learning version of the social inequality course were assessed, Everett (1998) asserts that the students in the service-learning version of the course were able to grasp and apply concepts better than the non-service-learning students. There is evidence that indicates reflection activities appear to be crucial to producing student learning outcomes. For example, research conducted by Parker-Gwin and Mabry (1998) used pre and post surveys to compare three models of service-learning. Two of the three models incorporated reflection activities into the class. The students in these two courses indicated a deeper interest in the course subject matter than the course that did not incorporate reflection. Research also indicates that service-learning projects that are more long-term, or longer than one semester, result in increased learning outcomes for students (Moore and Sandholtz 1999; Parker-Gwin and Mabry 1998; Hironimus-Wendt et al. 1999). There is evidence that service-learning projects that last longer, take place in students' community (i.e. outside of school), involve personal contact, or interaction, with those being served, and have an emphasis on service yield increased learning outcomes and attitudinal changes in students, specifically in terms of their attitudes toward their academic success, school socialization (i.e. relationships with other students, general high school experience, multiculturalism within the school setting, and participation in school activities), future postsecondary educational plans and the role of altruism in their future goals, and community pride (Moore and Sandholtz 1999).

Although research has indicated that students experience many positive benefits and learning outcomes from their participation in service-learning, we should still

proceed with relative caution. Some assert that "the general sense of optimism" held by service-learning practitioners may result in biased interpretations and generalizations (Hironimus-Wendt et al. 1999). There are also other issues associated with the generalizability of these findings. For instance, many of the survey instruments are not methodologically sophisticated so that responses to questions are difficult to evaluate. Some contain biased wording, which is related to the problem of social desirability, as well as double barreled statements, which make it more difficult for students to choose a response and decrease the ability to obtain accurate answers. Much of the evidence that indicates service-learning is successful is anecdotal and is based on small case studies (Parker-Gwin and Mabry 1998; Hironimus-Wendt et al. 1999). Another problem with evaluating the evidence concerns comparability of outcomes. While there are likely to be some similarities, each service-learning project has its own unique set of specific learning outcomes, as well as a unique service site and set of service and reflection activities. These varied circumstances will result in different experiences. Are they similar enough to compare? In a similar vein, much of the research does not consider how various contextual factors may impact students' learning outcomes, such as characteristics of the service site (Parker-Gwin and Mabry 1998). It is important to note that "experience does not occur in a vacuum" (Dewey 1938:34). Therefore, it seems that the context surrounding the service-learning experience, such as characteristics of the teacher, school, and community partner, should be taken into consideration. Soukup (1999) also suggests that, due to the fact that service-learning serves several different

parties, several different assessment tools should be developed in order to meet the needs of and examine the benefits of these other participants, such as community agencies.

As evidenced by the above discussion, there is a need for careful methodological assessment of service-learning at differing school levels. The assessments should consider contextual issues involving the characteristics of the programs and the school setting. Additionally assessment should consider the outcomes that are carefully and consistently measured.

Importance of Teachers

Teachers are in a unique and powerful position to influence students. This is the case because students spend much of their time with their teachers and a lot of time in academic, or school, environments in general. Throughout the duration of a student's academic career teachers have a relatively consistent presence and are able to interact with students on a nearly daily basis. Students have "easy access" to their teachers and vice versa (i.e. students are a captive audience). Students spend several hours a week over a relatively long period of time (i.e. several months or, in some instances, years) interacting with and observing the same teacher, or group of teachers. The structure of academic, or school, environments is also consistent over time, with the teacher serving as the legitimate authority figure in the classroom.

Legitimate power "involves some value or standard, accepted by the individual, by virtue which the (influencing) agent can assert his power" (Raven and French 1958:83). In more formal organizations, such as schools, legitimate power is largely derived from relationships between positions within the organization rather than between

individuals, or, in other words, legitimate power is based predominately on structural relationships present between an influencing agent and an individual, or "target" (Raven and French 1958; Raven 1992). Teachers' authority is legitimated by the institution of education, which places students in a subservient position to teachers within the social structure of schools. Due to teachers' legitimate authority, students "should be more willing to follow" their suggestions and requests for behavior (Cialdini and Sagarin 2005:160). Teachers' authoritative position within this institutional social structure also legitimizes them as experts. As experts, they justifiably have "expert power." Expert power is based on the assumed knowledge of the expert, or as described by Raven (1992), "we do what an expert tells us because we assume that the expert knows what is correct, even if we do not understand the reasons" (221). So, given that teachers are the experts in the classroom, students are likely to take what teachers say at "face value", without question.

This legitimate authority enables teachers to play a direct, major role in structuring students' learning environments and students' interactions within these environments. Specifically, teachers have the power and authority to create routines in the classroom, which both support and produce a social structure and guidelines for behavior within the classroom. Ultimately, through the process of structural ritualization, routines become "established, solidified, enduring social arrangements" (Knottnerus 1997: 258). Ritualization refers to "activities such as routinized interaction sequences and social behaviors" (Knottnerus 1997: 259). Through repetitive, routinized social interactions (i.e. routines), ritualization "leads to structural reproduction or

structural transformation" (Knottnerus 1997: 260). Repetition of routines reproduces the social structure. The structure and routines, or rituals, of an embedded group, such as a classroom within a school, "have a direct impact on the habits of thought and action of its members" (Knottnerus 1997: 258). Each classroom's individual structure and routines are created and perpetuated by the teacher; therefore, the teacher is able to directly influence class members' thoughts and actions.

Teachers can also utilize other types of power to influence students, such as referent, informational, and coercive power (Raven 1992). Referent power is based on whether a target identifies with, or feels a likeness toward, the influencing agent (Raven and French 1958; Raven 1992). Therefore, the more a student identifies with a teacher, the more that student may be influenced by the teacher. Informational power is the same as "persuasion," it is based on "the information, or logical argument, that the influencing agent can present to the target in order to implement change" (Raven 1992:221). This seems to be the nature of the teaching occupation. Teachers are charged with the responsibility of presenting information to students and teaching them the required curricula. It seems that, in some respect, teachers sometimes must convince students that a particular skill or subject is relevant to them and is worth learning. Coercive power is based on the target's perception of the influencing agent's "ability to mediate punishments" for them (Raven and French 1958:83). Students may perceive that, among other punishments, the teacher has the ability to alert parents and administration of undesirable behavior, fail them in the class, or prevent them from advancing academically, so, in order to avoid such punishments, students comply with

the teacher's requests, such as participating in class projects and completing homework assignments.

The type of power used by the teacher effects the students' attribution. (Raven 1992). For example, when reward or coercive power is used the teacher taps in to his or her ability to impart rewards and/or punishments onto students. In this type of instance, the student will attribute his or her change in behavior or compliance with the teacher's requests as external to themselves (Raven 1992). This seems to imply a relative absence of choice. In other words, students are likely to attribute their behavior to the presence of a potential reward or punishment (i.e. the student believes they engaged in certain behavior in order to receive a reward or avoid a punishment); the teacher will also have a similar interpretation of students' attribution (Raven 1992). When informational power is used, students attribute change in behavior and compliance as internal to themselves; the student wanted to comply, rather than being pressured to comply, with the teacher's request for particular behavior, which implies a greater amount of choice. In this type of interaction, perhaps it is the case that the student is convinced by the teacher's reasoning or logic and determines that compliance is an appropriate response. While coercive and reward power and informational power are at opposite ends of the internal/external attribution scale, expert, referent, and legitimate power seem to fall somewhere in between (as cited in Raven 1992).

Rodrigues (1995) suggests that "locus of causality" and "causal controllability" plays an important role in attribution. Locus of causality refers to whether the student, or actor, attributes his or her behavior to an internal or external cause. Internal causes

are those that are specific to an actor, such as his or her personal abilities and the amount of effort they exert to perform a behavior. External causes are those that exist in the student's environment, such as peer pressure and teacher bias. Causal controllability refers to whether the student attributes his or her behavior to a controllable or uncontrollable cause. Controllable causes are those that can be changed by the student, such as the amount of effort he or she exerts. Uncontrollable causes are those that the student cannot change, such as lack of ability or aptitude. Rodrigues' study (1995), which included 120 male and female college students, asked participants to read scenarios that described a nurse's reluctant compliance with a doctor's orders. They were asked to rate several scales after each scenario regarding the six possible reasons (i.e. the six types of power that may be used by the doctor: reward, coercion, legitimate, referent, expert, and informational) for the nurse's compliance. The results indicated that reward, informational, and referent power were seen as more internal and controllable, while expert, legitimate, and coercive power were seen as more external and uncontrollable. This generally coincides with Raven (1992). One difference is that Raven (1992) suggests that the use of reward power results in the actor as attributing his or her behavior to something external to themselves (i.e. a reward), while Rodrigues (1995) suggests that reward power can result in the actor attributing his or her behavior to something internal. He argues that this may be the case because actors can choose whether to accept or refuse a reward (Rodrigues 1995)[2].

Raven (1992) suggests that influencing agents may also use other, more indirect approaches, such as environmental or ecological manipulation to influence targets. In

other words, agents may "change the *situation* so that the target of influence is pressed to comply" (as cited in Raven 1992: 222). For instance, teachers employ the use of lesson plans and routines to structure their classes. Teachers are able to add and subtract items from the lesson plan or routine, which enables them to change the students' classroom situation, regardless of the students' preferences. Given the nature of the power structure in the classroom, these adjustments would compel the students to comply with the teacher's desired classroom routines and activities. Additionally, an agent may invoke or lessen the power of third parties in order to influence the target. For instance, a teacher may invoke the coercive power of a student's parent (e.g. "I am going to call your mother about this.") in order to "bring about change" in the student (Raven 1992: 222). Influencing agents may also engage in "preparing the stage for the use of social power" (Raven 1992: 223). Specific preparation depends on the type of power one wants to utilize. For example, teachers may situate their desk at the head of the classroom or speak to the class from behind a podium, placing them in a position of authority. This setting of the "stage" helps the teacher to invoke legitimate power as a means to influence students. In addition, teachers may place their degree(s) where they can easily be seen by students, which may enable the teacher to utilize expert power as a means of influence.

Social Learning

Operant Learning

According to B.F. Skinner (1969), "the "reasons" why men behave are to be found among the consequences of their behavior" (94). In other words, people's

behavior is governed by what they "get out of behaving in given ways" (Skinner 1969:94). This directly describes "operant behavior," namely, behavior that "acts upon the environment to produce consequences" (Skinner 1969:94). These consequences are the mechanisms through which operant learning occurs.

Operant learning is characterized by the Law of Effect , which states that "of several responses made to the same situation, those which are accompanied or closely followed by satisfaction…will, other things being equal, be more firmly connected with the situation…;those which are accompanied or closely followed by discomfort…will have their connections with the situation weakened…The greater the satisfaction or discomfort, the greater the strengthening or weakening of the bond" (Thorndike 1911:244). Put simply, the consequences of an act (i.e. whether the act yields a reinforcement or a punishment) will affect the probability of an individual repeating the act at another time. Although Thorndike (1911) mentions "satisfaction," it is important to note that operant learning does not involve or consider cognitive processes.

Operant learning involves two kinds of consequences: reinforcements and punishments. Reinforcements increase the probability of an act, while punishments decrease the probability of an act. However, when there is an absence of a consequence following an act, extinction occurs, which will lead to a decrease in the probability of an act. Reinforcements and punishments can be either positive or negative. A reinforcement or punishment is considered positive when it is added to the situation. Conversely, when either type of consequence is removed from the situation they are considered negative. For example, if a student is given a piece of candy for arriving to

class on time and they arrive on time again the next day, the candy served as a positive reinforcement. After repeated, similar experiences and responses, people learn that particular reinforcements and/or punishments may be associated with particular acts. In other words, people learn that certain acts may yield certain consequences.

Skinner (1969) asserts that humans do not learn because they have a "natural" desire to learn, rather, humans, like other animals, will learn "under the right conditions" (96). The "right conditions" refers to the presence of the right reinforcers. In regard to education, teachers are able to promote learning because, as operants, they are able to directly impart reinforcements and punishments on students. To be successful in the classroom, teachers have to identify what reinforcers they have available, such as what they have that students want (e.g. access to field trips) and the attractiveness of their classroom (e.g. a pleasant classroom may reinforce students when they enter the room) (Skinner 1969). Teachers can use these reinforcers to solicit, or encourage, the behavior they desire from students.

Observational Learning

While attending school students learn much more than the material that appears on the chalkboards and in textbooks. Learning, in general, tends to occur beyond the confines of these primarily read-only mediums and often extends to social modes of learning, such as observation. In addition to the curriculum, students also learn how to behave and how to determine which behaviors are desirable within that environment and which are undesirable. Much of human behavior is "learned by observation through modeling" (Bandura 1986:47). In other words, people learn through watching others

and modeling their behavior. According to Bandura (1986), modeling is similar to imitation, however, it also includes "symbolic transformation" of what is observed, which enables the observer to "capture" the essence of the modeled behavior and transform the information into a manageable, memorable form (56). Modeling is "one of the most powerful means of transmitting values, attitudes, and patterns of thought and behavior" (Bandura 1986:48).

Bandura's social learning theory, known as social cognitive theory, asserts that four types of processes must occur in order for observational learning to take place. The first is attentional processes, which govern the exploration and perception of the modeled behaviors. Attentional processes determine what is selectively observed and what information is taken from modeled activities. Various factors influence exploration and perception, such as how attractive the model is to the observer. The more attractive the model is to the observer, the more attention the observer will exert, other things being equal. The observer's preconceptions and expectations also influence exploration and perception. Preconceptions influence perceptions. Expectations guide what the observer looks for, the characteristics they notice, as well as how they interpret the activities that they observe (Bandura 1986). In addition, modeling influences (i.e. those being observed), are able to gain the attention of observers and "effect changes most rapidly and reliably when they are adjusted to the cognitive capabilities of observers" (Bandura 1986:53). Given that teachers are trained to work with students in specific grade levels, which are characterized by specific ranges of cognitive abilities and levels

of psychological development, they are well prepared to interact with students in such a way that captures the students' attention.

The second type of process that enables observational learning is retention processes. In order for observational learning to occur, the observer must be able to remember what they observed. Mechanisms such as rehearsal and repetition help observers to retain information about the modeled activity. Cognitive rehearsal, or imagining how one's self may perform in a situation, serves as an important memory aid. Structural arrangements can also play a role. The observer's most consistent associations, regardless of whether the association exists due to "preference or imposition," will be with the people who "delimit the behavioral patterns that will be repeatedly observed and, hence, learned most thoroughly" (Bandura 1986:55). Teachers and students interact with each other on a near daily basis. Teachers have the opportunity and means to repeatedly model behavior for students. Given the frequency and repetitive nature of student-teacher interactions, the theory, then, would predict that students retain much of the information associated with the modeled behavior of their teachers.

Production processes, which involve the reproduction of the modeled behavior, are also necessary for observational learning. This type of process entails "converting symbolic conceptions into appropriate actions" (Bandura 1986:63). While observing modeled performances, the learner first forms a conception of "how constituent acts must be combined and temporally sequenced to produce new forms of behavior" (Bandura 1986:64). This conception enables the learner to initially produce, as a minimum, a "rough approximation" of the modeled behavior and provides an "internal

model for response production," as well as a "standard for response correction" (Bandura 1986:64). The learner uses a conception-matching process to increase the similarity between their conception of the modeled behavior and their behavioral enactment (i.e. the conception should match the action). Through this process, the learner compares "incoming sensory feedback" from behavioral enactments to the conception, and then makes modifications, or "corrective performance adjustments," in order to increase the correspondence between their conception and action (Bandura 1986:64). Additional opportunities to observe the same modeled behavior provide the learner a chance to focus their attention on "troublesome segments to fill in the missing guides for achieving accurate performance" (Bandura 1986:65). Again, teachers have the opportunity and means to repeatedly model behavior for students. Given the routinized, repetitive nature of student-teacher interactions and the relatively high frequency with which they tend to occur, students have ample opportunities to repeatedly observe the modeled behavior of their teachers. These repeated observations of the same modeled behavior serve as an opportunity for students to identify "trouble spots" (i.e. mismatches or inaccuracies) in their conceptions and behavioral enactments. The theory, then, would predict that students are likely to be able to develop more accurate conceptions and performances of the teacher's modeled behavior.

The final type of process required for observational learning is motivational processes. Although people can learn many differing things through observation, they do not also engage in the learned behavior.. However, when an attractive incentive is

provided, previously unexhibited observationally learned behavior will turn into action (Bandura 1986).

There are three sources of incentives that influence the performance of behavior learned observationally: direct, vicarious, and self-produced (Bandura 1986:68). Direct sources of incentives yield desired outcomes for the learner. Vicarious sources of incentives involve the observation of the outcomes for others. More specifically, those observationally learned behaviors that appear to be "effective for others are favored over those behaviors that have been observed to produce negative consequences" (Bandura 1986:68).

Given the structural position of teachers in the classroom (i.e. teachers are the legitimate authority), they have access to and are able to offer attractive incentives to students for modeling observationally learned behavior. Teachers are also in a position to impart "positive or negative social reactions" on students (Bandura 1986:68). This could act as a direct or vicarious source of incentives for modeling, depending on the situation. If a student experiences a positive social reaction from the teacher in response to their own performance of observationally learned behavior, then it serves as a direct source. However, if the student observes the positive or negative social reaction of the teacher in response to another student's performance, then it will act as a vicarious source. The theory, then, would predict that, if teachers are able to provide incentives (i.e. motivations) to students for performing observationally learned behavior, students will model, or perform, the behavior.

The combination of these four types of processes transforms "modeled events" from a symbolic conception into a "matching pattern" (i.e. an accurate performance of an observationally learned behavior) (Bandura 1986:52). In other words, it is the attentional, retention, production, and motivational processes that enable the learner to reproduce, or model, the observationally learned behavior. As previously described, teachers repeatedly model behavior for students and play an important role in each of these processes-if teachers play their roles well, it is likely that students will reach the point of accurately performing the teacher's modeled behavior.

Expectation States

Expectation states theory (EST) is comprised of several interrelated theories that examine how people use various kinds of characteristics to organize interaction. The core of EST is status characteristics theory (Berger and Webster 2006). Status characteristics theory describes the development of a status-organizing process in which evaluations of characteristics shape expectations of interactants and create expectations that then shape observable inequalities in a group (Berger and Webster 2006). A key component in this process is the concept of a status characteristic, which can be described as any characteristic around which beliefs and expectations about actors come to be organized (Berger, Cohen, and Zelditch 1972; Berger and Webster 2006; Knottnerus 1994).

There are two types of status characteristics: specific and diffuse. Specific status characteristics are characterized by expectations of how a person will perform in a specific situation. They consist of two or more differentially evaluated states (e.g.

positive/negative or high/low) and each state is associated with an expectation or belief regarding how individuals will perform specific tasks (Knottnerus 1994). Diffuse status characteristics involve two or more states that are differentially evaluated, each state is associated with particular expectations, and each state is also associated with "a similarly evaluated general expectation state" (Berger and Webster 2006:272).

Status characteristics theory is characterized by five core assumptions, or principles (Berger and Webster 2006; Knottnerus 1994). The first is the "salience assumption," which states that if a status is initially determined to be applicable, or relevant, to the task at hand, it will become salient. Status also becomes salient even if it simply distinguishes between actors in a situation (Knottnerus 1994). This first assumption applies to classroom tasks because the status of the teacher is relevant in the classroom. The teachers' status identifies them as the leader and enables them to organize classroom tasks. This creates an extremely big difference in the status of the teacher relative to the status of student.

The second principle is the "burden of proof assumption," which states that unless some information or context intervenes, status characteristics are used to structure task behavior. The burden of proof is on the actors to demonstrate, or prove, the irrelevance of a status characteristic, rather than its relevance (Berger and Webster 2006). If there is no intervention in the burden of proof process (i.e. actors are unable to demonstrate the irrelevance of a salient status characteristic), status advantages will continue to be "generalized from one situation to the next as part of normal interaction (Berger and Webster 2006:273). The burden of proof process is important in terms of

the classroom because it reinforces the relevance of the teacher's status. Due to the intensity of the diffuse status of the teacher, which is characterized by their legitimate authority and accompanied by the social structure of the classroom, there is not likely to be an intervention in the burden of proof process (i.e. teachers have the power to reinforce and perpetuate their status). Therefore, the teacher's status advantages will be generalized, or applied, to a seemingly infinite number of future tasks and interactions.

The third principle is the "sequencing assumption," which states that as new actors enter or leave the task group and new status information becomes salient, the restructuring of the situation will occur in sequence through the salience and burden-of-proof processes, while previously created structures remain intact (Berger and Webster 2006; Knottnerus 1994). In terms of the classroom, then, this principle indicates that, regardless of other actors that may enter or leave the situation, the status of the teacher will remain salient and relevant because the previously created structure will be maintained.

The fourth principle is the "aggregation assumption," which states that actors develop performance expectations for themselves and others through a process of combining all available information that is relevant and salient to the task (Berger and Webster 2006; Knottnerus 1994). The actor is generally unaware of this process. The model by which this takes place is known as the "principle of organized subsets" (Berger and Webster 2006; Knottnerus 1994). Actors separately combine all of the information leading to a positive performance expectation into a subset and all of the information leading to a negative performance expectation into a subset. The combining process is

susceptible to an attenuation effect, which means that as more like-signed information is added to the positive or negative subset, the less impact it will have on the overall expectation value (e.g. learning that a person is female, has low mathematical ability, and low occupational rank, with each additional piece of information having a smaller impact on the overall expectation value). In order to determine the aggregated expectations for an actor, the values of the positive and negative subsets are added together. An actor's expectation advantage or disadvantage relative to another is found by subtracting the aggregated expectations for the other from the aggregated expectation for self (Berger and Webster 2006; Knottnerus 1994). In terms of the classroom, students would combine all of the information about the teacher, such as high occupational rank and high level of education, into subsets and add them together to determine the teacher's aggregated expectations. Students can then repeat this process using their own information to determine their aggregated expectations. After subtracting their teacher's aggregated expectations from their own, students are likely to find that, compared to their teacher, they have an expectation disadvantage (i.e. teachers have an expectation advantage).

The fifth principle is the "basic-expectation assumption," which states that the position an actor occupies in the power and prestige order is a direct function of the actor's aggregated performance expectations or expectation advantage relative to another (Berger and Webster 2006; Knottnerus 1994). The observable power and prestige order is characterized by four elements of the interaction: chances to perform, distribution of performance outputs, communicated evaluations, and influence among group members

(Knottnerus 1994). Given the previous discussion regarding the expectation advantage of teachers, this principle, then, indicates that teachers will demonstrate more power and prestige during interactions than students. Specifically, they are likely to have more opportunities to perform, communicate evaluations of students' performances, and be able to have a relatively strong influence on students.

Through the mechanism of EST, specifically status characteristics theory, teachers are able to have a profound effect on students. Due to the severity of teachers' diffuse status (i.e. in the classroom, the teacher has the highest possible status), students often defer to teachers and look to them for guidance on expectations for behavior and performance. Teachers form expectations about students and treat them accordingly. Students learn these expectations and proceed to perform accordingly.

Mitigating Factors

Despite the profound importance of teachers and their ability to influence students, there are also factors that mitigate this importance. Just as Marx described the separation of the proletariat worker from their labor in his theory on capitalism, a similar process towards the proletarianization of teachers, or the process by which teachers' work is controlled, seems to be occurring in education as an organization (Apple and Jungck 1990). This process is fueled by the development of the movement to "professionalize" teaching.

The trend towards "professionalizing" the teaching occupation, which entails rationalizing and standardizing the process and products of teaching and the centralization of authority and control, results in "degradation of labor" for teachers

(Apple and Jungck 1990). Degradation of labor is characterized by loss of autonomy and reduced control of work, as well as separation from execution, or the increased fragmentation of complicated tasks into smaller elements and processes (Apple and Jungck 1990). These results occur through the processes of deskilling and intensification.

Deskilling involves teachers losing control over their labor and the deterioration of skills they have developed over time. Deskilling occurs through mechanisms that are intended to enhance "professionalism," such as providing teachers with pre-packaged, pre-determined, ready-to-use, "canned" curriculum that can be used by any teacher, regardless of whether or not they are familiar with the material or subject (Apple and Jungck 1990). This process eliminates the need for teachers to exercise their creativity and use their planning skills. When skills are not used, they eventually breakdown and are lost. State mandates also function as deskilling mechanisms. In many parts of the United States there are mandates that declare that only material from the approved textbooks may be taught; noncompliance would likely result in administrative sanctions (Apple and Jungck 1990).

Intensification is the pressure to do more work in the same amount of time. For example, adding more lessons to the curriculum without removing anything from the original curriculum. Intensification is exploitative because it increases the amount of labor extracted in the same amount of time, which reduces labor costs and increases the level of productivity. Intensification results in a much heavier workload, which, in turn, leads to "cutting corners" so that only what is vital to the immediate task is completed,

leaving people compelled to increasingly "rely on "experts" to tell them what to do and begin to mistrust the expertise that they may have developed" (Apple and Jungck 1990: 234-235) throughout the course of their careers.

Accountability policies, such as No Child Left Behind, also contribute to deskilling and intensification through imposing additional, very specific, rigid requirements. No Child Left Behind evaluates schools and teachers in relation to "standards-based adequate yearly progress," which entails measuring academic progress by administering standardized tests to students (Mathis 2004). If requirements are not met, schools face the possibility of incurring negative consequences, such as loss of funding (Mathis 2004). With the combination of intensification and the pressure of high-stakes accountability testing, teachers are pressured into focusing their energy on teaching "the test" (Apple and Jungck 1990; Mathis 2004). In this type of arrangement, quality is sacrificed for quantity and there is a loss of pride in the work that has been accomplished; teachers become increasingly disconnected from what they are teaching and the quality of students' education likely decreases.

In general, as employees continue to lose control over their own labor and their skills deteriorate, it becomes even easier for others in power (e.g. management) to gain more control over the employees' work due to the loss of their skills to plan and control their work themselves (Apple and Jungck 1990). Specifically in regard to teaching, as teachers lose control of their labor, their ability to control what they teach and how they teach it is diminished. Instead, this control is put into the hands of the state and school administrators. In this way the state and school administration are able to impact how

teachers influence students. Specifically, the state and school administration directly create the context in which teachers interact with students. These entities determine what will be taught, which education initiatives and particular aspects of the curriculum are to be prioritized, and under what physical environmental conditions students and teachers interact. Factors such as deskilling and intensification undermine teachers' status and power to influence. They are becoming less able to make decisions regarding the curriculum and how the material is presented. Instead, as the prevalence of "canned" curriculum and the pressure of high-stakes accountability testing increase, teachers are becoming more and more like a non-thinking component of a process-they are becoming less skilled and increasingly replaceable.

Attitude-Behavior Relationship

While it seems logical, even intuitive, to assume that a person's attitudes dictate or heavily influence their behavior choices, it is not an uncommon occurrence that a person's attitude does not match their behavior. However, despite the inconsistent relationship between attitudes and behavior, attitudes are still important to consider because under certain conditions attitudes and behavior are more likely to match, which means that, given these certain conditions, attitudes have potential to be useful in predicting behavior.

The degree to which attitudes guide behavior, or the conditions under which attitudes and behavior are more likely to match, are generally affected by the qualities of the behavior, qualities of the person, qualities of the situation, and the qualities of the attitude itself (Eagly 1992).

The qualities of the behavior entail whether the behavior a researcher wishes to predict, using knowledge they have regarding a person's attitudes, is general or specific. To increase predictability, it is important to measure attitudes and behaviors at the same level of specificity (Eagly 1992; Fazio and Roskos-Ewoldsen 2005). In other words, it is best to predict a specific behavior using attitudinal information that is equally specific, while it is also best to predict general patterns of behavior using general attitudinal measures. Research, like that conducted by Fishbein and Ajzen, shows that studies that used attitude and behavior measures that were equivalently specific, on average, found higher correlations between attitudes and behavior than did studies which used attitude and behavior measures that differed on their levels of specificity.

The qualities of the person also influence the degree of attitude-behavior consistency. There are two general classes of people. The first includes individuals that are more conscious of and guided by their internal feelings. The second includes individuals that tend to depend on situational cues to determine their behavior. On average, those who are more conscious of their feelings exhibit more consistency between their attitudes and behavior compared to those who are more dependent on situational cues (Fazio and Roskos-Ewoldsen 2005). Some specific qualities that have been shown to influence attitude-behavior consistency are level of moral reasoning and self-monitoring (as cited in Fazio and Roskos-Ewoldsen 2005). An individual's level of moral reasoning can be either high or low, or somewhere in between. Higher levels of moral reasoning entail thought and decision making based on an individual's own moral principles and internal feelings. However, lower levels of moral reasoning are

characterized by concerns surrounding societal rules and norms and the consequences associated with a particular action. In keeping with the descriptions of the class one and class two distinctions, those individuals with higher levels of moral reasoning are more likely to act in ways that are consistent with their attitudes than are individuals with lower levels. Self-monitoring is a personality dimension that indicates whether an individual views their decision to behave in certain ways is based on their inner feelings (i.e. low self-monitors) or what seems appropriate for the situation (i.e. high self-monitors). High self-monitors are said to "*monitor* the impression that they make on other people and adjust that impression to fit with others' expectations" (Fazio and Roskos-Ewoldsen 2005:45). As expected, low self-monitors are more likely to behave in ways that are more consistent with their attitudes.

The two major situational qualities that influence the strength of the attitude-behavior relationship are normative factors and time pressure. Normative factors are characterized by norms (i.e. social standards), which guide expectations for behavior. Norms have the potential to be so strong that they can constrict an individual's behavior to the point where they cannot, or will not, act in accordance with their attitudes. Norms also have the potential to be powerful enough to cause practically everyone within a situation to exhibit the same, or similar, behavior, regardless of their individual attitudes. However, in the event of a time constraint, or pressure to make a decision in a relatively short amount of time, individuals are more likely to rely on their attitudes. When time is short, individuals are unable to carefully consider all of the information available and tend to fall back on their "preeexisitng attitudes" (Fazio and Roskos-Ewoldsen 2005:47).

The strength of the attitude-behavior relationship is also affected by the qualities of the attitude itself, particularly the manner in which the attitude was formed and how accessible the attitude is from memory. Attitudes can be formed through direct experience or indirect experience with the attitude object. Attitudes formed through direct experience have been shown to be more predictive of future behavior than those formed through indirect experience (Fazio and Roskos-Ewoldsen 2005). Attitude-behavior consistency is also stronger when the attitude is more easily accessible from memory. Research has shown that attitudes formed through direct experience tend to be more accessible, or come to mind more quickly/easily, than those formed through indirect experience (as cited in Fazio and Roskos-Ewoldsen 2005). Both of these concepts are important in terms of investigating service-learning because students and teachers develop attitudes towards service-learning based on their direct experience with it. Students also develop attitudes towards their teacher's feelings regarding service-learning through direct experience, such as service-learning related interactions with their teachers. Given that teachers and students are able to form their attitudes towards service-learning through direct experience, it also follows that these attitudes will be more easily accessible from memory. It is also the case that these attitudes will be more easily accessible because students' and teachers' direct experiences are recent and direct experiences with service-learning are repeated throughout the course of the school year. Hence, these measures can be taken as important.

Propositions for the Study

The larger institution of the school structures the context in which teachers and students experience rewards and punishments. For the particular context of interest, the school structures the conditions under which teachers and then students experience service-learning. The teacher's attitude is a function of these processes and experiences. The teacher, in turn, has the ability to structure students' academic environment and affects students through powerful mechanisms, such as legitimate power and modeling.

The literature reviewed provides the basis for the following propositions:

- If institutionalization of the service-learning program is high, then the teacher attitude towards the program will be more positive, which will result in more positive benefits for students as a result of their program involvement.
- If students perceive that they have ownership of the service-learning program, they will receive more positive benefits from their program participation.
- If students perceive that their teacher has a positive attitude towards the service-learning program, then they will experience more positive benefits from their involvement in the service-learning program.

The positive benefits of the students will be reflected in their perceptions of leadership skills and problem solving skills.

METHODS

Data

The source of the data used in this study is survey responses from middle and high school students and teachers participating in service-learning program evaluation research conducted by Texas A&M University and the Texas Center for Service-Learning during the 2007-2008 academic year. Student and teacher surveys were constructed by the service-learning research team at Texas A&M University (directed by Dr. Carol Albrecht) in conjunction with the Texas Center for Service-Learning[2]. Surveys included specific questions required by the Texas Center for Service-Learning, as well as items that were developed by the Texas A&M research team that were designed to assess particular topics of interest of the Texas Center for Service-Learning. All public school districts in Texas that receive grant money from the Texas Center for Service-Learning to implement service-learning programs on their campuses are required to participate in the evaluation research in order to receive more grant money in the future. However, for the purposes of this study, only districts whose students turned in parental consent forms will be included.

The sample includes 443 middle and high school students and their respective teachers in 8 independent school districts (ISD) in the east, west, and central regions of Texas; however, only 309 of the respondents were used in the analysis that focuses on student problem solving skills and 308 in the analysis that focuses on student leadership skills due to missing data.

The majority of surveys were administered in the service-learning classrooms by members of the service-learning research team from Texas A&M University. All of the participating students were read the same informed consent information prior to their participation, which notified the students that their participation was voluntary, they would not receive a grade for their participation, and their individual survey responses would be kept confidential. Students were asked to write their name at the top of their survey prior to them being collected by the Texas A&M research team member who administered the surveys. Hence, student survey responses will be able to be linked, or paired, with their respective teacher's survey responses. In an effort to make students more comfortable and ensure that their responses would be confidential, teachers were asked to leave the classroom while the students completed the service-learning surveys.

Design

This study addresses the following research question: How do teachers' perceptions and attitudes and students' perceptions impact the benefits, or learning outcomes, they actually receive from their participation in service-learning? Specifically, this study investigates how the institutionalization of the service-learning program affects student learning outcomes, as well as whether students perceive that they have ownership of the service-learning program and whether students perceive their teacher's attitude towards the service-learning program to be positive or negative. Then, I ask how these relate to student benefits, or learning outcomes, which are assessed based on survey items addressing students' self-efficacy in terms of problem solving and leadership skills.

To address this research question, I have developed three hypotheses. The first hypothesis states that the more institutionalized the service-learning program is in the student's school, the more positive benefits they receive from their program involvement. It is important to note that, for the purposes of this investigation, institutionalization is conceptualized using items from the teacher survey that focus on whether the teacher felt that administrators valued their opinions regarding the service-learning program. It is likely that this hypothesis is the case because when teachers perceive that they are supported by the school administrators, they will have a more positive attitude towards the service-learning program, which may also lead to teachers investing more time in the service-learning program. This, in turn, will have a positive impact on the student's perceptions regarding the teacher's attitude and will result in more positive learning outcomes (i.e. leadership and problem solving skills). Given the overarching effect that institutionalization is likely to have on students' learning outcomes, it is also important to consider these variables when testing the hypothesis. Teacher attitude is conceptualized using items from the teacher survey that generally focus on whether teachers felt that service-learning is a positive addition to the classroom and curriculum, whether they felt it is difficult to relate service-learning to classroom material, as well as whether they felt that the program benefited students. Teacher time investment is conceptualized using items from the teacher survey that convey how much of the teacher's time was spent on planning, transportation, training, reflection activities with students, as well as time spent at the service-learning project site. Student perception of teacher attitude is conceptualized using an item from the

student survey that focuses on whether the student felt that the teacher enjoyed service-learning projects.

The second hypothesis proposes that when students perceive that they have more ownership of the service-learning program (i.e. they are able to make decisions regarding the program), they receive more positive benefits from their program involvement. An important component of a successful, high quality service-learning program is the opportunity for adolescents to "make real decisions within appropriate and clearly understood limits (and) have the opportunity to speak and be heard" (Schine 1997: 171). These opportunities enable students to develop a sense of ownership of the service-learning program, which leads to a higher level of program involvement and engagement, which, in turn, leads to increased student learning outcomes. Student ownership is conceptualized using a survey item that indicates whether the students or an adult (i.e. the teacher, principal, community partner, or an adult volunteer) chose the service-learning project the class worked on during the academic year. Given the power that teachers have to reinforce students, teacher attitude and student perception of teacher attitude are also important variables to consider in this hypothesis. It seems that if teachers have a more positive attitude, they may act more positively towards students, which would reinforce student behavior and interaction. Likewise, if students perceive that the teacher has a more positive attitude, students may interact more with teachers and feel more comfortable sharing their thoughts and ideas. Based on the general theory then, these processes will reinforce student ownership and result in increased student leadership and problem solving skills.

The third hypothesis states that the more positively students perceive the teacher's perception of the service-learning program, the more positive benefits students will receive from their program involvement. Based on the general theory then, I expect that the institutionalization of the program itself effects teacher's attitudes and implementation of service-learning and that each individual teacher then uniquely effects his or her own classroom. According to Donahue (2000), teachers serve as "filters" for making educational reform, such as service-learning, make sense in their diverse classrooms and communities. Teachers also bring their own beliefs and attitudes to the table, which speaks to why "service-learning can look very different at the classroom level" (Donahue 2000: 445). Hence, teachers have a direct impact on how educational initiatives are implemented in their classrooms and how students experience them. Student perception of teacher attitude will be influenced by the teacher's actual attitude towards service-learning. This is the case because student perception of, or attitude towards, the teacher's attitude is formed through direct experience (i.e. student attitude is formed through direct service-learning related interaction with the teacher). Therefore, teacher attitude is also an important variable to consider when testing this hypothesis.

Models

The five independent variables used to test the hypotheses are institutionalization of the service-learning program, teacher attitude towards the service-learning program, teacher time investment, students' perception of their teacher's attitude towards service-learning, and students' perception of their ownership of the service-learning program. The dependent variable used is student benefits, or learning outcomes. Student benefits

are conceptualized using items[4] from the student survey that address students' self-efficacy in terms of their problem solving and leadership skills.

To test the hypotheses[5], I developed two path models[6], which allow for an assessment of the direct and indirect effects of each of the independent variables on both dependent variables (i.e. student problem solving skills and student leadership skills), as well as their direct and indirect effects on each other. A path analysis is an extension of a regression (Statistics Solutions 2009). Using a path model to test a hypothesis allows for the expansion of the regression model. In other words, the path models allow one to pull apart the regression models to investigate how each independent variable directly affects the other independent variables in the model, as well as how each independent variable directly affects the dependent variables (i.e. the path models show the direct effects of each independent variable on both the independent and dependent variables in the model, while holding other independent variables constant). Path models also allow for the assessment of mediation effects, which investigate the extent to which a given variable carries the influence of a particular independent variable to a dependent variable (Preacher and Leonardelli 2001). The basic path model is presented in Figure 1.

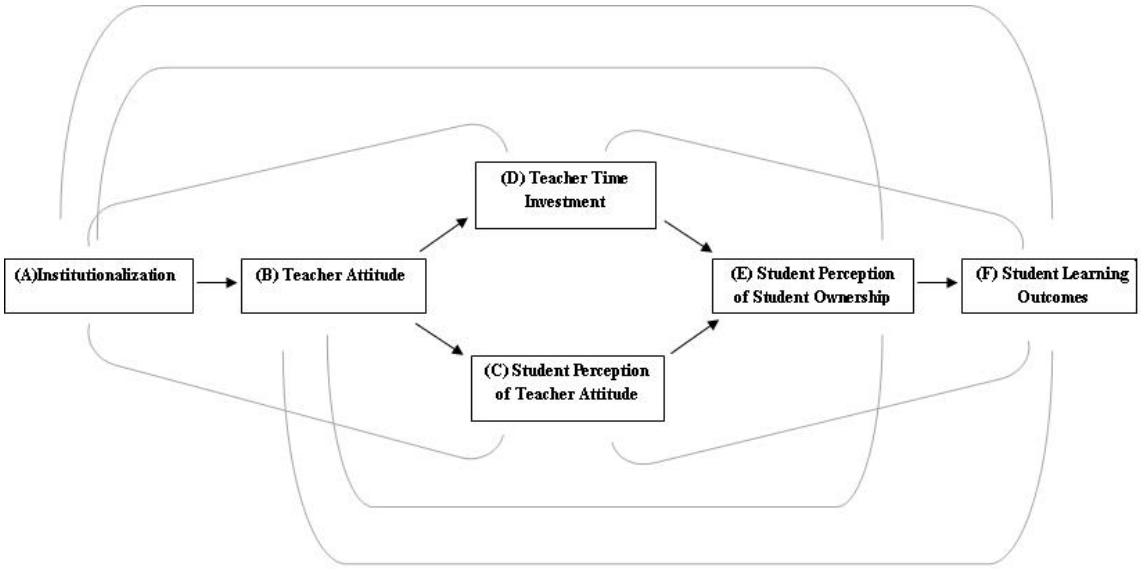

Figure 1. Path Model Connecting the Five Independent Variables to Student Learning Outcomes

The basic path model begins with institutionalization of the service-learning program because institutionalization seems to be at the root of each hypothesis-it seems that institutionalization affects all of the other variables. It makes sense that this would be the case because everything happens within the context of a larger institution-the school. Everything and everyone is affected by how the school administration institutionalizes school programs. According to the path model, institutionalization, which is conceptualized using survey items that focus on whether the teachers felt that administrators take their opinions and ideas into account when administrators make decisions about the service-learning program, will affect teachers' attitude towards the service-learning program. Teacher attitude will then affect the student's perception of the teacher's attitude, as well as how much time they invest in the program. Both of

these variables then affect the student's perception of student ownership of the service-learning program, which then leads to student learning outcomes received through participation in the service-learning program.

I ran multiple regressions to assess the relationships and the significance of the relationships between student benefits (i.e. learning outcomes in terms of problem solving and leadership skills), program institutionalization, teacher attitudes towards the service-learning program, teacher time investment in the service-learning program, students' perception of teacher's attitudes towards the service-learning program, students' perception of their ownership of the service-learning program.

FINDINGS

The first path model, presented in Figure 2, shows the direct effects of the five independent variables on student learning outcomes, specifically on student problem solving skills. In addition to the direct effects, Table 1 presents the indirect and total effects of each independent variable.

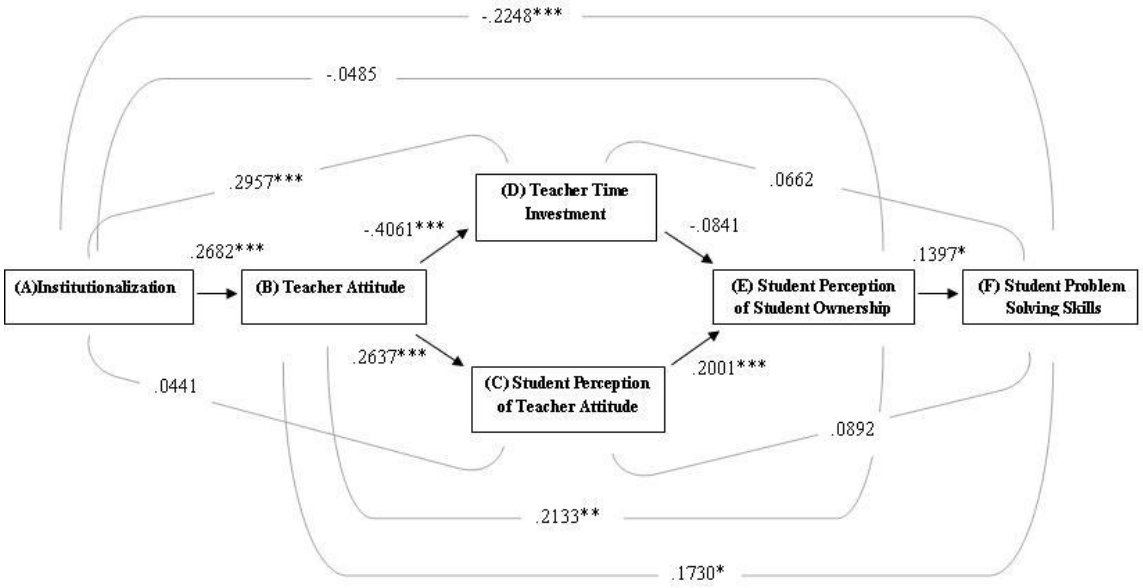

Figure 2. Student Problem Solving Skills Path Model

Table 1. Direct and Indirect Effects for Figure 1 and Figure 2

Independent Variables	Dependent Variable	Direct Effects	Indirect Effects Through B	C	D	E	Total Effects
A	B	.2682***	-	-	-	-	.2682
A	C	.0441	.0707	-	-	-	.1148
B		.2637***	-	-	-	-	.2637
A	D	.2957***	-.1089	-	-	-	.1868
B		-.4061***	-	-	-	-	-.4061
A	E	-.0485	.0806	.0088	-.0249	-	.0160
B		.2133**	-	.0528	.0342	-	.3003
C		.2001***	-	-	-	-	.2001
D		-.0841	-	-	-	-	-.0841
A	F_1	-.2248***	.0568	.0041	.0161	-.0068	-.1546
B		.1730*	-	.0309	-.0221	.0298	.2116
C		.0892	-	-	-	.0280	.1172
D		.0662	-	-	-	-.0117	.0545
E		.1397*	-	-	-	-	.1397
A	F_2	-.2662***	.0537	.0054	.0324	-.0137	-.1884
B		.1521*	-	.0322	-.0445	.0604	.2002
C		.0657	-	-	-	.0566	.1233
D		.1334*	-	-	-	-.0238	.1096
E		.2830***	-	-	-	-	.2830

Notes: Letters coordinate with variables in Figure 1 and Figure 2. A represents Institutionalization, B represents Teacher Attitude, C represents Student Perception of Teacher Attitude, D represents Teacher Time Investment, E represents Student Perception of Student Ownership, F_1 represents Student Problem Solving Skills, and F_2 represents Student Leadership Skills.

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ (two-tailed tests)

As shown in the path model (Figure 2), institutionalization has a significant, negative direct effect on student problem solving skills (-.2248), holding constant teacher attitude, student perception of teacher attitude, teacher time investment, and student perception of student ownership. This indicates that, when all other independent variables are held constant, the institutionalization of the service-learning program is negatively related to student learning outcomes associated with problem solving skills. This does not support the main tenet of the first hypothesis (i.e. the more institutionalized the service-learning program is in the student's school, the more positive benefits, or learning outcomes, they receive from their program involvement). In regard to the other independent variables considered in the first hypothesis, the model shows that institutionalization has a significant, positive direct effect on teacher attitude (.2682), which does support the idea that if teachers perceive that they are supported by the school administrators, they will have a more positive attitude towards the service-learning program. Contrary to the assertion that if teachers have a more positive attitude towards the service-learning program they may invest more time in the program, the model shows that teacher attitude has a significant, negative direct effect on teacher time investment (-.4061), however, institutionalization does have a significant, positive direct effect on teacher time investment (.2957), controlling for the effects of teacher attitude. Teacher time investment does not have a significant direct effect on student problem solving skills (.0662), holding constant the effects of all other independent variables. As expected, teacher attitude has a significant, positive direct effect on the student perception of teacher attitude (.2637). The model also shows that, when controlling for

the effects of teacher attitude, institutionalization (.0441) does not have a significant direct effect on student perception of teacher attitude.

As depicted by the path model (Figure 2), student perception of student ownership has a significant, positive direct effect on student problem solving skills (.1397), which supports the main tenet of the second hypothesis (i.e. when students perceive that they have more ownership of the service-learning program, they receive more positive benefits from their program involvement). In regard to the other independent variables considered in the second hypothesis, as expected, teacher attitude has a significant, positive direct effect on student perception of student ownership (.2133), controlling for the effects of institutionalization, student perception of teacher attitude and teacher time investment. Student perception of teacher attitude, also as expected, has a significant, positive direct effect on student perception of student ownership (.2001). The path model also shows that, when controlling for the effects of teacher attitude, teacher time investment, and student perception of teacher attitude, institutionalization (-.0485) does not have a significant direct effect on student perception of student ownership. Teacher time investment (-.0841) also does not have a significant direct effect on student perception of student ownership.

As shown in the path model (Figure 2), controlling for the effects of all other independent variables, student perception of teacher attitude does not have a significant direct effect on student problem solving skills (.0892), which does not provide support for the main tenet of the third hypothesis (i.e. the more positively students perceive the teacher's perception of the service-learning program, the more positive benefits students

will receive from their program involvement). In regard to the other independent variables considered in the third hypothesis, as expected, teacher attitude has a significant, positive effect on student perception of teacher attitude (.2637). Also as expected, controlling for the effects of institutionalization, student perception of teacher attitude, teacher time investment, and student perception of student ownership, teacher attitude has a significant, positive direct effect on student problem solving skills (.1730).

Table 2. Multiple Regression Models for Problem Solving Skills and Leadership Skills

	Model 1	Model 2
Independent Variables	Problem Solving Skill	Leadership Skills
Institutionalization	-.3007***	-.4020***
Teacher Attitude	.1989**	.1970**
Student Perception of Teacher Attitude	.3418	.2835
Teacher Time Investment	.00002	.0001*
Student Perception of Student Ownership	1.0845*	2.4721***
R^2	.0973	.1649
Adjusted R^2	.0824	.1511
F-value	6.53***	11.93***
N	309	308

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ (two-tailed tests)

The multiple regression (i.e. Model 1), presented in Table 2, confirms that the overall model (Figure 2) is significant, as is indicated by an F-value of 6.53 associated with a p-value of .001. The p-value and coefficient for institutionalization (-.3007) indicate, controlling for the effects of the other independent variables, that

institutionalization is significant and is negatively related to student problem solving skills, which does not provide support for the first hypothesis. As expected, the p-value and coefficient for teacher attitude (.1989), controlling for the effects of the other independent variables, indicate that teacher attitude is significant and is positively related to student problem solving skills. Contrary to what was expected, teacher time investment (.00002), controlling for the effects of the other independent variables, is not associated with a significant p-value, which indicates that teacher time investment is not significantly related to student problem solving skills. The p-value and coefficient for student perception of student ownership (1.0845) , controlling for the effects of the other independent variables, indicate that student perception of student ownership is significant and is positively related to student problem solving skills, which supports the second hypothesis. Student perception of teacher attitude (.3418) , controlling for effects of the other independent variables, is not associated with a significant p-value, which indicates that student perception of teacher attitude is not significantly related to student problem solving skills. This does not provide support for the third hypothesis. According to the R^2 and Adjusted R^2, these five independent variables explain between 9.73% and 8.24% of the variation in student problem solving skills.

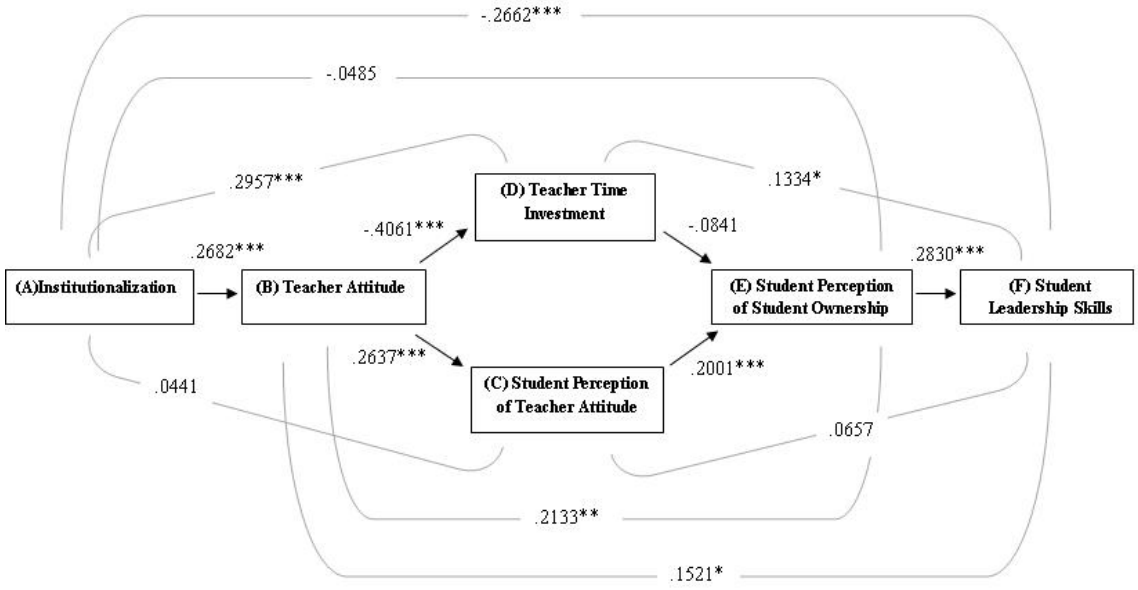

Figure 3. Student Leadership Skills Path Model

The second path model, presented in Figure 3, depicts the direct effects of the five independent variables on student leadership skills. Figure 3 shows that, when the effects of the other four independent variables are controlled for, institutionalization has a significant, negative direct effect on student leadership skills (-.2662). This indicates that the institutionalization of the service-learning program is negatively related to student learning outcomes associated with leadership skills, everything else being equal. This does not support the main tenet of the first hypothesis (i.e. the more institutionalized the service-learning program is in the student's school, the more positive benefits, or learning outcomes, they receive from their program involvement). In regard to the other independent variables considered in the first hypothesis, similar to

the previous discussion of the first path model, the second path model also shows that institutionalization has a significant, positive direct effect on teacher attitude (.2682), which does support the idea that if teachers perceive that they are supported by the school administrators, they will have a more positive attitude towards the service-learning program. Contrary to the assertion that if teachers have a more positive attitude towards the service-learning program they may invest more time in the program, the second model also shows that teacher attitude has a significant, negative direct effect on teacher time investment (-.4061), however, controlling for the effects of teacher attitude, institutionalization does have a significant, positive direct effect on teacher time investment (.2957). Controlling for the effects of the other four independent variables, teacher time investment has a significant, positive direct effect on student leadership skills (.1334). Again, as expected, teacher attitude has a significant, positive direct effect on the student perception of teacher attitude (.2637). The model also shows that institutionalization (.0441), controlling for the effects of teacher attitude, does not have a significant direct effect on student perception of teacher attitude.

As depicted in the second path model (Figure 3), student perception of student ownership has a significant, positive direct effect on student leadership skills (.2830), which provides support for the main tenet of the second hypothesis (i.e. when students perceive that they have more ownership of the service-learning program, they receive more positive benefits from their program involvement). Similar to the discussion of the first path model, in regard to the other independent variables considered in the second hypothesis, the second path model, as expected, shows that, when controlling for the

effects of student perception of teacher attitude and teacher time investment, teacher attitude has a significant, positive direct effect on student perception of student ownership (.2133). Again, student perception of teacher attitude, also as expected, has a significant, positive direct effect on student perception of student ownership (.2001). Again, similar to the first path model, the second path model also shows that, controlling for the effects of teacher attitude, student perception of teacher attitude, and teacher time investment, institutionalization (-.0485) does not have a significant direct effect on student perception of student ownership. Teacher time investment (-.0841) also does not have a significant direct effect on student perception of student ownership.

As shown in the second path model (Figure 3), controlling for the effects of all other independent variables, student perception of teacher attitude does not have a significant direct effect on student leadership skills (.0657), which does not provide support for the main tenet of the third hypothesis (i.e. the more positively students perceive the teacher's perception of the service-learning program, the more positive benefits students will receive from their program involvement). In regard to the other independent variables considered in the third hypothesis, as expected, teacher attitude has a significant, positive effect on student perception of teacher attitude (.2637) and, controlling for the effects of all other independent variables, has a significant, positive direct effect on student leadership skills (.1521).

The multiple regression (i.e. Model 2 in which the primary dependent variable is student leadership skills) presented in Table 2, confirms that the model (Figure 3) is significant, as is indicated by an F-value of 11.93 associated with a p-value of .001. The

p-value and coefficient for institutionalization (-.4020), controlling for the effects of the other independent variables, indicate that institutionalization is significant and is negatively related to student leadership skills, which does not provide support for the first hypothesis. As expected, the p-value and coefficient for teacher attitude (.1970), controlling for the effects of the other independent variables, indicate that teacher attitude is significant and is positively related to student leadership skills. As expected, the coefficient and p-value for teacher time investment (.0001), controlling for the effects of the other independent variables, indicates that teacher time investment is significant and is positively related to student leadership skills. The p-value and coefficient for student perception of student ownership (2.4721), controlling for the effects of the other independent variables, indicate that student perception of student ownership is significant and is positively related to student leadership skills, which supports the second hypothesis. Student perception of teacher attitude (.2835), controlling for the effects of the other independent variables, is not associated with a significant p-value, which indicates that student perception of teacher attitude is not significantly related to student leadership skills. This does not provide support for the third hypothesis. According to the R^2 and Adjusted R^2, these five independent variables explain between 16.49% and 15.11% of the variation in student leadership skills.

DISCUSSION OF RESULTS

As I expected, the data for both path models indicate that institutionalization of the service-learning program is related to student problem solving and leadership skills. However, contrary to what I expected, institutionalization is *negatively* related to both types of student learning outcomes, which does not support the main tenet of the first hypothesis. Other independent variables were also considered in the first hypothesis, namely, teacher attitude, teacher time investment, and student perception of teacher attitude because of the effect that institutionalization was thought to have on them and the effect that these were thought to have on student learning outcomes.

Institutionalization had a significant direct effect on all of these variables except student perception of teacher attitude. So, as expected, the data provided support for the assertion that when teachers feel that administrators value teacher input in regard to the service-learning program, they will have a more positive attitude towards the program. Institutionalization also has a significant, positive direct effect on teacher time investment. It was also proposed that teacher attitude would be positively related to the amount of time a teacher invested in the program, however, contrary to what was expected, the data showed that teacher attitude was significantly negatively related to teacher time investment. While institutionalization is not significantly related to student perception of teacher attitude, as expected, teacher attitude is significantly positively related to student perception of teacher attitude.

The data showed that student perception of student ownership of the service-learning program was positively related to both student problem solving and leadership skills, which provides support for the main tenet of the second hypothesis. The data also provided support for some of the other pieces of the second hypothesis. As expected, both teacher attitude and student perception of teacher attitude are positively related to student perception of student ownership. Contrary to what was expected, the path models showed that institutionalization does not have a significant direct effect on either type of student learning outcomes. However, the models differed in that teacher time investment was not significantly related to student problem solving skills, but did, as expected, have a significant, positive direct effect on student leadership skills.

Contrary to what was expected, the data showed that student perception of teacher attitude is not related to student problem solving or leadership skills, which does not provide support for the main tenet of the third hypothesis. This hypothesis also considered the affect of teacher attitude on student perception of teacher attitude, as well as the effect of teacher attitude on student learning outcomes. As expected, teacher attitude has a significant, positive direct effect on both of these variables.

Both models are significant. However, it seems that the model predicting student leadership skills is stronger than the one that predicts student problem solving skills. This is the case because both the R^2 and the Adjusted R^2 are higher for the leadership skills model (i.e. Model 2 in Table 2) than the problem solving skills model (i.e. Model 1 in Table 2). It is also important to note that, in Model 2, four of the five independent variables are significantly related to student leadership skills, while, in Model 1, only

three of the five independent variables are significantly related to student problem solving skills.

SUMMARY AND CONCLUSIONS

This study investigated the importance of student perception in relation to the learning outcomes students experience from their participation in service-learning. The two perceptions considered were student perception of teacher attitude and student perception of student ownership of the service-learning program. The hypotheses propose that these perceptions are influenced by the institutionalization of the service-learning program, the teacher's attitude towards the program, and the amount of time the teacher invests in the program. The data did not provide support for the main tenet of the first hypothesis, which stated that the more institutionalized the program is in the student's school, the more positive benefits they receive from their program involvement. Instead, the data suggests that institutionalization is negatively related to student problem solving and leadership skills. This implies that the more institutionalized the service-learning program becomes in the school, the fewer positive benefits, or learning outcomes, the student receives from their participation in the program. This may be the case because as the institutionalization of the program increases, so does the bureaucratization of the program, which may entail the transformation of the service-learning program from something innovative that focuses on student learning to a series of bureaucratic processes (e.g. increased demands for "necessary" paperwork). In other words, it is possible that as the program becomes more institutionalized, it becomes less effective, which would result in fewer student learning outcomes.

The general path model (Figure 1) proposes that the student's perception of student ownership of the service-learning program is also directly influenced by the student's perception of the teacher attitude. In relation to the student's perception of the teacher's attitude, the data indicate that the teacher's attitude has a positive effect on the student's perception of the teacher's attitude. This suggests that as the teacher's attitude towards the service-learning program changes (i.e. becomes more positive or negative), the student's perception of the teacher's attitude will adjust accordingly. The data suggest that student perception of teacher attitude positively effects student perception of student ownership. This implies that whether the student feels their teacher enjoys service-learning projects significantly impacts the student's perception of their ownership of the service-learning program. It seems likely that this is the case because teachers who have a more positive attitude towards the service-learning program may adhere more closely to the central tenets of service-learning as a teaching strategy. This supports the points made by researchers such as Schine (1997) who maintained that high quality service-learning programs enabled students opportunities to make important decisions and share their opinions and ideas. If teachers adhere to this tenet and reinforce this student behavior, it follows that students will be more active in shaping their service-learning experience. The data show that student's perception of their ownership of the service-learning program is positively related to the student's problem solving and leadership skills. This supports the main tenet of the second hypothesis, which states that when students perceive that they have more ownership of the service-learning program, they receive more positive benefits from their participation in the

program. The data also indicate that this relationship is stronger between student perception of student ownership and student leadership skills, as compared to student problem solving skills.

The third hypothesis states that the more positively students perceive the teacher's attitude toward the service-learning program, the more positive benefits students receive from their program involvement. The data indicate that, in contradiction to the hypothesis, the student's perception of the teacher's attitude is not significantly related to student problem solving or leadership skills. It is also important to note that, as previously discussed, the data show that the teacher's attitude has a significant, positive effect on the student's perception of the teacher's attitude. More importantly, the teacher's attitude has a positive effect on student problem solving and leadership skills. This combined with the fact that the data show that the teacher's attitude also significantly positively effects the student's perception of their ownership of the service-learning program (which itself also significantly positively effects student learning outcomes), implies that the teacher's attitude towards the program is critical for the benefits students receive from their participation in the service-learning.

The findings from this study imply that if teachers have a positive attitude towards the service-learning program, students benefit in terms of their learning outcomes. In terms of policy implications, this suggests that educating teachers about the potential for service-learning to be an effective, versatile, creative educational tool may result in fostering a more positive attitude towards the program. Schools should thoughtfully structure service-learning programs in ways that promote positive teacher

attitudes, such as developing effective program policies and processes that do not weigh down teachers with unnecessary burdens (e.g. extraneous paperwork and meetings). The findings also suggest that when students perceive that they have ownership of the service-learning program, they receive more positive benefits relating to problem solving and leadership skills from their participation in the service-learning program. In terms of policy implications, this suggests that, in order to produce a more effective service-learning experience, teachers should structure their service-learning projects and activities in such a way that students are empowered and encouraged to make choices, as well as openly share their opinions and ideas.

Future research should further investigate the importance of institutionalization of service-learning within the school, specifically with regard to more concrete forms of institutionalization, such as what particular service-learning related resources are available to teachers. It would be interesting to see if institutionalization conceptualized in another way would continue to be negatively related to student learning outcomes. It may be while some institutionalization is necessary for any service-learning program, extensive institutionalization in the form of requirements, may actually hinder teachers' and students' autonomy. It would also be interesting to test how the availability of particular kinds of resources affects the teacher's attitude towards the program, the amount of time teachers invest in the program, and student learning outcomes. Further investigation of the relationship between teacher attitude and teacher time investment is also warranted. It may be helpful to distinguish between time spent in logistical activities (e.g. planning, meetings, etc.) and time spent in learning activities (e.g.time

spent engaging with students through reflection activities, etc.). Given the importance of teacher attitude in this study, it seems that future research should also investigate how schools can encourage and maintain positive teacher attitudes towards service-learning, particularly how schools can organize and structure service-learning programs that promote positive teacher attitudes.

ENDNOTES

1. Ideas of active learning are also directly implicated through theories of learning, at least as far back as Thorndike (1898). Operant learning models have been particularly important in defining the impacts of direct experience for individuals and groups.

2. It seems that the promise of or potential for a reward would still directly affect the actor's behavior, which implies that the behavior is would still be affected by something external. Rodrigues attributes the behavior to internal factors, particularly the ability to choose to accept the reward. However, if the reward is not appealing, or ineffective (i.e. the actor chooses to refuse the reward), I would question whether the influencing agent really possessed reward power.

3. Survey instruments are included in Appendix A.

4. A list detailing which specific survey items were used to conceptualize each variable is included in Appendix B.

5. The research proposal included using multilevel modeling to analyze the data; however, the sample size was not large enough to use this method.

6. An initial analysis included 4 control variables, which included gender, race, income, and the total number of students in the school that participated in service-learning. Race was conceptualized using the proportion of students that self-reported as white. Income was conceptualized using information that was collected at the school-level and was based on the proportion of students that were enrolled in the free/reduced lunch program. The T tests for all 4 control variables were not statistically significant. The p-values for the control variables are as follows- gender: $p = .48$, race: $p = .16$, income: $p = .60$ and total number of students in the school that participated in service-learning: $p = .24$. Because the initial analysis showed that these control variables were insignificant and did not have an effect, they will not be considered in this analysis.

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APPENDIX A

STUDENT AND TEACHER SURVEYS

Service Learning – Spring 2008
Student Post-Survey (Grades 6-12)

Your Name_____
School_____ **Teacher**_____

1. Are you a male or a female?

   1. Male 2. Female

2. What is your grade level? _____

3. How would you describe your ethnic background (CIRCLE ALL THAT APPLY)
   1. White American
   2. Asian/Pacific Islander
   3. Black/African American
   4. Mexican American
   5. Other Latino (specify)_____
   6. Other (specify)_____

4. Have you ever been involved in any of the following? (CIRCLE ALL THAT APPLY)
   1. Sports
   2. Academic clubs
   3. Service clubs
   4. Student leadership group
   5. Other clubs (specify)_____
   6. Paid job
   7. None of the above

5. On average, how many hours per week do you spend in extra-curricular activities? _____ hours

6. Have you ever volunteered in your community? (PLEASE EXCLUDE COURT MANDATED SERVICE AND CIRCLE ALL THAT APPLY)
   1. Yes–a service learning project
   2. Yes–other school sponsored service
   3. Yes–with neighborhood organization
   4. Yes–with youth organization
   5. Yes–with a church group
   6. Yes–Other (specify)_____
   7. No–I have not volunteered

7. What grades do you get, on average?
   1. Mostly A's
   2. Mostly B's
   3. Mostly C's
   4. Mostly D's
   5. Mostly F's

8. What will be your grade in this class/subject on the next report card?
   1. A
   2. B
   3. C
   4. D
   5. F

9. During the past six weeks, approximately how many times were you absent from school for any reason not related to participation in school activities? _____ times.

Please indicate how strongly you agree or disagree with the following statements by circling the appropriate response. The possible responses are (1) Strongly Disagree (2) Disagree, (3) Undecided, (4) Agree, and (5) Strongly Agree.

		Strongly Disagree	**Disagree**	**Undecided**	**Agree**	**Strongly Agree**
10.	I like being at school.	1	2	3	4	5
11.	Time seems to pass very slowly when I am doing school work.	1	2	3	4	5
12.	The school work I am assigned is always meaningful and important.	1	2	3	4	5
13.	My classes are always interesting.	1	2	3	4	5
14.	It is difficult for my teacher to relat classroom materials to service learning.	1	2	3	4	5
15.	Teachers or other adults at school take my ideas seriously.	1	2	3	4	5
16.	The school work I am assigned is sometimes too difficult.	1	2	3	4	5
17.	Teachers or other adults at school listen to my ideas about how to improve the school.	1	2	3	4	5
18.	My teacher enjoys Service Learning Projects.	1	2	3	4	5
19.	The things I am learning at school will be very important for my future.	1	2	3	4	5
20.	I am going to college AS SOON AS I graduate from high school.	1	2	3	4	5
21.	I am definitely going to graduate from college.	1	2	3	4	5
22.	I like to have the grownups in my household come to school.	1	2	3	4	5
23.	I plan to attend a trade or vocation school after I graduate from high school.	1	2	3	4	5
24.	I would rather get a full-time job than go to more school when I graduate from high school	1	2	3	4	5

How good are you at each of the following things? Please rate yourself by circling one of the following: (1) Poor, (2) Fair, (3) Good, (4) Very Good, and (5) Excellent.

		Poor	Fair	Good	Very Good	Excellent
25.	Finding resources to help me with a community project	1	2	3	4	5
26.	Leading a group project	1	2	3	4	5
27.	Understanding what other people are trying to say	1	2	3	4	5
28.	Getting others to listen to my ideas	1	2	3	4	5
29.	Speaking in front of groups	1	2	3	4	5
30.	Solving problems	1	2	3	4	5
31.	Looking at media sources to find out about community problems	1	2	3	4	5
32.	Using what I learn in school to solve problems in the community	1	2	3	4	5
33.	Being a leader at school	1	2	3	4	5
34.	Finding useful information to solve problems	1	2	3	4	5

35. What inspires or encourages you to be successful at school? **Please write your answer in the space below. If you need more room continue on the back of this page.**

_____
_____
_____
_____

Please indicate how satisfied you are with the following issues. The possible responses are (1) Very Dissatisfied, (2) Dissatisfied, (3) Slightly Dissatisfied, (4) Slightly Satisfied, (5) Satisfied, and (6) Very Satisfied.

		VD	D	SD	SS	S	VS
36.	My relationship with my teachers	1	2	3	4	5	6
37.	My relationship with other students	1	2	3	4	5	6
38.	My relationship with THIS teacher	1	2	3	4	5	6
39.	My involvement in school activities	1	2	3	4	5	6

Please indicate the frequency with which the following events occur. The possible answer responses are: (1) Never, (2) Seldom, (3) Sometimes, (4) Often, and (5) Always.

		Never	Seldom	Sometimes	Often	Always
40.	When I participate in school events my parents/guardians attend.	1	2	3	4	5
41.	My parents/guardians encourage me to participate in service projects.	1	2	3	4	5
42.	When I am involved in community service, my parents/guardians participate with me.	1	2	3	4	5

Please answer the final questions about the Service Learning Project you completed this past year.

43. Who chose the problem/project you worked on? (Circle all that apply)
    1. Our teacher
    2. Our community partner
    3. We students
    4. Our principal
    5. Adult volunteers
    6. I don't know who chose the project.

44. About how many total hours did you spend planning for the service learning project?
    1. Less than 4 hours
    2 4-10 hours
    3. 11-20 hours
    4. 21 or more hours

45. About how many total hours did you spend participating in a service learning project (include training, planning, reflection and actual participation time)?
    1. Less than 4 hours
    2. 4–10 hours
    3. 11-20 hours
    4. 21 or more hours

46. About how many hours did you spend in reflection activities?
    1. Less than 4 hours
    2. 4-10 hours
    3. 11-20 hours
    4. 21 or more hours

47. How did you reflect on your project activities? (Circle all that apply)
    1. By writing in a Journal
    2. By having conversations led by teacher/group leader
    3. By having conversations led by another student
    4. By doing skits, poems or plays
    5. By creating a display for parents or members of the public
    6. Other(specify) _____ _____

48. What topics did you focus your reflections on? (Circle all that apply)
    1. How I felt as I went through the project.
    2. How our group made decisions about the project.
    3. Course-related information we learned while doing the service activities.
    4. Ethical issues related to the service project.
    5. How to deal with setbacks to our project plans.
    6. Other (specify) _____

49. How well did the service project help you understand course material? (Circle all that apply)
    1. Not at all
    2. It clarified a few things
    3. It clarified a lot of things.
    4. It showed me why the course is important.
    5. Other (specify)_____ _____

50. In which ways did community partners help you shape your project? (Circle all that apply).
    1. Not at all
    2. Choosing a problem to work on
    3. Providing information and research
    4. Suggesting solutions to the problem(s)
    5. Guiding us in our service activities.

51. What have you done in Service Learning projects?_____
    _____
    _____

52. What have you learned from Service Learning projects?_____
    _____
    _____

53. What would you tell others about Service Learning?_____
    _____

Teacher Survey Spring 2008

The purpose of this survey is to gather information that can be used to evaluate the Service Learning Program. This survey is voluntary, and you can omit any questions or quit at any time. It should take about ten minutes to complete the survey. Your answers are confidential and will have no effect on your employment. No one except the research team will ever know your answers. Thank you for your time. If you have questions, please contact Dr. Carol Albrecht at 979-862-4689.

1) What is your name? _____

(2) What is your sex? 1. Male 2. Female

(3) How would you describe your ethnic background? (CIRCLE ALL THAT APPLY)

1. White American
2. Asian/Pacific Islander
3. Black/African American
4. Mexican American
5. Other Latino (specify)_____
6. Other (specify) _____

(4) How many years total have you been teaching? _____

(5) How many years have you been using Service Learning as a teaching practice?_____

(6) In how many of your classes do you use Service Learning as a teaching practice? _____

(7) Please indicate how many Service Learning projects you completed in this class. If you teach multiple classes, please use the additional blanks to indicate the number of Service Learning projects completed in each class. If needed, please list additional classes on the back.

1. Class 1 _____ 3. Class 3 _____ 5. Class 5 _____
2. Class 2 _____ 4. Class 4 _____ 6. Class 6 _____

(8) Throughout your teaching career, how many Service Learning projects have you completed?

_____

(9) What subject(s) do you teach in this class(es)? _____

(10) What Service Learning Project(s) have you completed this year? Please list them in chronological order, beginning with the most recent.

_____
_____
_____
_____
_____
_____
_____

(11) What types of activities did your most recent project include? (Circle all that apply.)

1. raising money for an agency/institution
2. writing letters to members of an agency/institution
3. preparing materials/resources to be used by an agency/institution
4. providing entertainment for members of an agency/institution
5. providing services for an agency/institution (i.e., translating, mentoring etc.)
6. participating in an activity with members from an agency/institution (i.e., Special Olympics)
7. other (specify) _____

(12) What agency(ies) or group(s) did this project serve?

_____
_____
_____
_____
_____

(13) Approximately how much total time, if any, did you spend on the following activities during your most recent Service Learning project?

1. Planning	_____ hours	_____minutes
2. Transportation	_____ hours	_____minutes
3. Site ("on location")	_____ hours	_____minutes
4. Reflection Activities	_____ hours	_____minutes

(14) How much total time, if any, did you spend on the following activities during Service Learning projects this school year?

1. Planning	_____ hours	_____minutes
2. Transportation	_____ hours	_____minutes
3. Site ("on location")	_____ hours	_____minutes
4. Reflection Activities	_____ hours	_____minutes
5. Teacher Training/Workshops	_____ hours	_____minutes
6. Student Orientation/Training	_____ hours	_____minutes

(15) What types of reflection activities, if any, were used?

_____
_____
_____
_____
_____

(16) Have you been involved in your community as a volunteer? **(Excluding Service Learning)**

1. No

2. Yes **If Yes, answer 12a**

⇓ ⇓

(12a) In a typical year, how many hours do you spend in non-court mandated community service? _____ hours

Please indicate how strongly you agree or disagree with the following statements. Possible responses are: **(1) STRONGLY DISAGREE (SD), (2) DISAGREE (D), (3) NEUTRAL (N), (4) AGREE (A), or (5) STRONGLY AGREE (SA).**

	SD	D	N	A	SA
(17) The Service Learning Program is a positive addition to classroom learning.	1	2	3	4	5
(18) It is difficult to structure a Service Learning project that relates to the subject(s) I teach.	1	2	3	4	5
(19) Service Learning activities should be a requirement for all Texas students.	1	2	3	4	5
(20) Participating in the Service Learning Program interferes with TAKS preparation for the students.	1	2	3	4	5
(21) The Service Learning Program is beneficial for the students.	1	2	3	4	5
(22) I am consulted when administrators make decisions about the Service Learning Program at my school.	1	2	3	4	5
(23) My opinions about the Service Learning Program are important to administrators.	1	2	3	4	5
(24) Teachers in our school feel that the Service Learning Program is "just another thing we have to do."	1	2	3	4	5
(25) The Service Learning Program motivates my students to be more involved in their community.	1	2	3	4	5
(26) Community partners are committed to providing on-going support to the Service Learning Program.	1	2	3	4	5
(27) Service Learning projects interfere with students' academic studies.	1	2	3	4	5
(28) The Service Learning Program takes too much time away from class.	1	2	3	4	5
(29) The Service Learning Program helps students learn the curriculum.	1	2	3	4	5
(30) I feel that there is no one in my school that I can talk to about the Service Learning Program.	1	2	3	4	5
(31) My students enjoy participating in Service Learning Projects.	1	2	3	4	5
(32) The amount of paperwork required for the Service Learning Program is reasonable.	1	2	3	4	5
(33) Community partners value Service Learning.	1	2	3	4	5

(34) What is the most important benefit of Service Learning for your students?

_____
_____
_____
_____
_____

(35) What is the most rewarding benefit of Service Learning for you?

_____
_____
_____
_____
_____

Indicate the extent to which you agree the following factors would be helpful as you prepare to engage in service learning projects in the future. **(1) Strongly Disagree (SD), (2) Disagree (D), (3) Neither agree nor disagree (N),**

	SD	D	N	A	SA
(36) More class time	1	2	3	4	5
(37) More training for teachers	1	2	3	4	5
(38) Better training for student leaders	1	2	3	4	5
(39) More ideas for Service Learning projects	1	2	3	4	5
(40) More time to prepare projects	1	2	3	4	5
(41) Better instructions for incorporating Service Learning into my classroom	1	2	3	4	5
(42) Better instructions for contacting community agencies	1	2	3	4	5
(43) More material resources	1	2	3	4	5
(44) More motivational incentives for students	1	2	3	4	5
(45) More rewards/incentives for teachers	1	2	3	4	5
(46) More support from parents	1	2	3	4	5

(47) If you could change one thing about the Service Learning Program, what would it be?

(48) What, if anything, would make it easier for you to implement the Service Learning Program in your classroom?

(49)What other comments or observations would you like to make about Service Learning?

(49) How many parents, if any, were involved in your class's Service Learning projects this school year? _____

If applicable, please briefly describe the extent and type of participation of these parents.

(50) How many community partners, if any, were involved in your class's Service Learning projects this school year? _____

If applicable, please briefly describe the extent and type of participation of these community partners.

(51) Are there any parents and/or community leaders who would be willing to answer some questions about their involvement with the Service Learning projects? If so, please provide the name and/or contact information for these individuals.

Name	Phone Number or E-mail	Agency (If applicable)

When did you finish your Service Learning project? _____month ____day_____year.

Mailing Address for Barnes and Noble Gift Certificate

_____

_____

_____

_____

_____

Thank you. Your participation is appreciated.

APPENDIX B

CONCEPTUALIZATION OF VARIABLES

STATISTICAL MODELING

Conceptualization of Independent Variables

- IV_1: Program Institutionalization
    - Items from teacher survey:

      #22: I am consulted when administrators make decisions about the SL program at my school.

      #23: My opinions about the SL program are important to administrators.
- IV_2: Teacher Attitude Towards SL Program
    - Included these items from teacher survey:

      #17: The SL program is a positive addition to classroom learning.

      #18: It is difficult to structure a SL project that relates to the subject(s) I teach.

      #21: The SL program is beneficial for the students.

      #24: Teachers in our school feel that the SL program is "just another thing we have to do."

      #28: The SL program takes too much time away from class.

      #29: The SL program helps students learn the curriculum.
- IV_3: Student perception of teacher's attitude towards SL program
    - Included these items from student survey:

      #18: My teacher enjoys SL projects.
- IV_4: Teacher Time Investment in SL Program
    - Included these items from teacher survey:

#14: How much time, if any did you spend on the following activities during SL projects this school year? (Activities included planning, transportation, site, reflection activities, teacher training/workshops, and student orientation/training)

- IV_5: Student perception of student ownership of the service-learning program
  - Included these items from student survey:

    #43: Who chose the problem/project you worked on? ("we students")

Conceptualization of Dependent Variables (Learning Outcomes)

- DV_1: Student Problem Solving Skills
  - Included these items from student survey (self rating: Poor, Fair, Good, Very Good, Excellent):

    #25: Finding resources to help me with a community project

    #30: Solving problems

    #31: Looking at media sources to find out about community problems

    #32: Using what I learn in school to solve problems in the community

    #34: Finding useful information to solve problems

- DV_2: Student Leadership Skills
  - Included these items from student survey (self rating: Poor, Fair, Good, Very Good, Excellent):

    #26: Leading a group project

    #27: Understanding what other people are trying to say

    #28: Getting others to listen to my ideas

#29: Speaking in front of groups

#33: Being a leader at school

VITA

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