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# Assessment of the personal and professional attributes of educators who utilize service-learning

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Assessment of the personal and professional attributes of educators  
who utilize service-learning

by

Hina Shantilal Patel

A dissertation submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Education

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2004

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Hina Shantilal Patel  
has met the requirement of Iowa State University**

Signature was redacted for privacy.

**Major Professor**

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**For the Major Program**

Dedication

To my father, Shantilal, for his sacrifices.

To my mother, Hansa, for her prayers.

To my sister, Nipa, for her example.

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## STATEMENT OF THE PROBLEM

*Service-Learning is not a methodology for everyone.*

*(Kennedy, 2003)*

### Foreground of the Problem

My dissertation research explores the possibility of personality differences between educators who do and do not use service-learning. As a catalyst to my research are my personal experiences as a pre-service and in-service teacher. As a pre-service teacher, the phrase “effective teaching” was frequently used in the teacher education curriculum. The phrase conjured thoughts of experiential and multicultural education. I began to question if my professors themselves possessed the qualities of an “effective teacher.” Did the adage “do what I say, not what I do” accurately depict their teaching style? Although, at that time, I did not possess the social-justice oriented vernacular, I sensed the relationship between education and indoctrination.

This former experience relates to my present research. It can be argued that social-justice oriented service-learning can be a form of indoctrination into the personal agenda of the educator. Intuitively, yet empirically unfounded, a relationship exists between educators who use service-learning, thus promoting in one way, shape or form the concept of citizenship (being a contributing member of the local/national/global community) and these educators’ cognitions and behaviors that convey personal overt and covert signs of citizenship. Sigmon (1996) describes the student learning outcomes from effective service-learning experiences. These outcomes parallel the personality characteristics of altruism, efficacy and a justice-orientation. In relation to altruism, students should demonstrate “willingness to empathically understand the community--its people, processes and problems-

-in both formal and informal contexts (p. 109)." In relation to efficacy, students convey "a strong sense of mission, purpose, and direction [and] the conviction that one can and will make a difference in the lives of those being served (p. 109)." In relation to justice, students "consider issues and circumstances through the eyes of each one involved in or affected by them [and] gather facts before coming to conclusions (p. 109)." Educators who use service-learning are recommended to cultivate these characteristics in students, yet do they possess these characteristics themselves?

As an in-service teacher, the creation, implementation and analysis of various campus-wide service-learning projects conveyed a consistency in participation by a cohort of teachers. Anecdotal evidence supports that students favored these teachers. In support, through informal observation, these were the teachers that went above and beyond their role in terms of commitment to teaching (connection to students, staff and school) and learning (professional development). Due to resistance on the part of administration, I reflected on these teacher-led service-learning projects. Thoughts of indoctrination resurfaced and I aspired to learn more about the complexity of teaching citizenship skills.

#### Background of the Problem

These interconnected experiences impacted my decision to continue my graduate school education. Through my enlightening experiences at Iowa State University, I learned of the complexity of service-learning. Historically, the principles of service-learning parallel the beliefs of great educational philosophers such as Plato, Dewey and Rousseau. Presently, universities (Campus Compact, 2001), community colleges (American Association of Community Colleges, 1997), public and private high schools, middle-schools and elementary schools (U.S. Department of Education, 1999) illustrate the growing trend of service-learning

inclusion into the curriculum. Extensive research exists on the components of service-learning: academics (Eyler & Giles 1999), community service (Bacon, 2002) and reflection (Mills, 2001).

This research on service-learning provides support for its transformative impact on students who range in age, major and prior experiences. Service-learning as a transformative pedagogy is documented by contemporary social reconstructionists. High-quality service-learning provides the opportunity for students to critically examine social injustices, whether the injustices are due to marginalization, exploitation, powerlessness, violence and/or cultural imperialism (Young, 2000). Ideally, a reciprocal relationship between the academic and the community partners fosters a sense of empowerment. Service-learning that is based on the principles of social justice extends beyond providing services that simply assist in adjusting to the dominant culture. For example, working with English-as-a-second-language speakers to assist with language barriers or providing basic technology courses to the older generation to bridge the digital divide involves students philosophizing about the reason for the need of the service. Meeting with oppressed groups can result in important insights about the nature of the oppression.

However, research on service-learning educators is limited to the compilation of determining factors that effect the utilization of service-learning. These factors range from material support (incentives, funding, rewards) to nonmaterial support (recognition, alignment to institutional mission, connection to promotion and tenure) (Abes, Jackson & Jones, 2002). Discovering these motivations, according to Hammond (1994), will increase “efforts to advance the service-learning agenda at colleges and universities across the nation”

(p. 27). This study will turn service-learning research inward to expose the internal (and related external) factors that influence the motives of educators who use service-learning.

## Problem

### Research Questions

There are two major research questions for this study:

1. Is there a significant difference between the personality traits of service-learning educators and non-service-learning educators who voluntarily implement service-learning into the curriculum, specifically:
  - Do service-learning educators report a higher level of altruism than non-service-learning educators?
  - Do service-learning educators have a higher level of teacher-efficacy than non-service-learning educators?
2. Is there a significant difference between the professional traits of service-learning and non-service-learning educators, specifically, educational history, work experience, honors and awards, institutional service, community service, professional endeavors (i.e. publications, presentations, grants) and philosophy of education?

### Hypotheses

1. Service-learning educators will score statistically significantly higher than non-service-learning educators on the Self-Report Altruism Scale (Research Hypothesis 1a) and the Ohio State Teacher Efficacy Scale (Research Hypothesis 1b). This will indicate that educators who have a high level of teacher efficacy and altruism are more conducive to becoming proponents of service-learning. Furthermore, the data will suggest that the attributes service-learning advocates are attempting to cultivate

in students are possessed personally and that service-learning educators are themselves individuals with a high level of efficacy and altruism. The more symmetry between institutional demands and the personality and experiences of the educator, the higher the job satisfaction levels, which will result in a positive impact on student learning.

2. Service-learning educators will have significantly different experiences than non-service-learning educators.
  - *Educational History* (Research Hypothesis 2a)--Service-learning educators will have more undergraduate and graduate experiences with institutions that promote civic engagement, which will be determined by membership in Campus Compact.
  - *Work Experience* (Research Hypothesis 2b)--Service-learning educators will have more years of experience in industry than in higher education.
  - *Honors and Awards* (Research Hypothesis 2c)--Service-learning educators will receive significantly more teaching awards than non-service-learning educators.
  - *Institutional Service* (Research Hypothesis 2d) --Service-learning educators will report significantly more institutional service (i.e., committee membership) than non-service-learning educators.
  - *Community Service* (Research Hypothesis 2e) --Service-learning educators will report significantly more community service than non-service-learning educators.

- *Professional Experiences* (Research Hypothesis 2f)--These experiences will be influenced by the promotion and tenure requirements of the institution. Respondents working at institutions that have "Doctoral/Research Universities--Extensive" and "Doctoral/Research Universities--Intensive" classifications will report more publications, presentations and grants.
- *Philosophy of Education* (Research Hypothesis 2g)--Service-learning educators will use more social reconstructionist terminology in the question requiring a constructed response. To analyze the philosophy of education, I will use the work of Brameld in *Patterns of Educational Philosophy: A Democratic Interpretation*. The major philosophies of education include perennialism, essentialism, progressivism and reconstructionism (Brameld, 1950). Service-learning instructors and non-service-learning instructors will be compared by the frequency of use of particular word/phrases that have a reconstructionist flavor. These words include "citizenship," "activism," "service," "change," "society," "status quo," etc.
- *Philosophy of Education* (Research Hypothesis 2h)--In the forced response question, I hypothesize that educators who use service-learning will choose the social reconstructionist option more than non-service-learning educators.

#### Contributions

This research contributes to the scholarship of the pedagogy of service-learning on three planes;

- First, this research contributes to the existing literature on faculty motivations.

Presently, the focus is on the use of extrinsic motivation to increase the use of

service-learning. This study provides additional information on the professional experiences of educators who utilize service-learning. In addition, this study will reveal if intrinsic motivation, specifically personality traits, influence the integration of community service into the curriculum to achieve academic objectives. Hammond (1994) states, “an exploration of service-learning faculty motivations enhances our understanding of the scholarly profession by clarifying the circumstances under which faculty may modify their teaching to include a service component. At the same time, a better understanding of the experiences of faculty who integrate service and teaching provides a base for extending and improving the quality of the enterprise” (p. 21).

- Second, this study reveals whether symmetry exists between the qualities that are ideally cultivated in students through high-quality service-learning experiences and the qualities of educators who initiated the use of service-learning. Do these service-learning teachers possess altruistic, efficacious and justice-oriented qualities that they are attempting to instill in students?
- Formulating a generalized schema of service-learning instructors can contribute to the growth of this teaching and learning tool. Discovering some of the similarities and differences between service-learning instructors and non-service-learning instructors can provide a step towards the formation of a recruitment/retention mechanism for K-H educators who are the most conducive to initiating and implementing service-learning opportunities.

*Recruitment.* Institutions with civic engagement as a part of their mission advocate pedagogies such as service-learning. Depending on the institution, the teacher of the

particular course either voluntarily chooses or is mandated to include a service-learning component. I believe a consistency in personality exists among the teachers who choose to integrate service-learning. A correlation between personality and teaching tools can be induced if personality differences are present between educators who use and do not use service-learning. Thus, the quality of mandated service-learning courses (courses that are required to include a service-learning component) may be compromised if taught by teachers who do not possess these particular personality traits.

Due to the works of past and present service-learning advocates, quality, not quantity, is now the issue to be addressed. If top-down demands are placed on educators to incorporate service-learning, negative residual effects of mandatory service-learning requirements on faculty who do not possess these attributes (high level of teacher efficacy and altruism) may result. Deci and Ryan (1982) state that administrators, through controls, pressures and evaluations, decrease teachers' intrinsic motivation to teach, which in turn degrades the quality of education (p. 32). Also, mandatory service-learning requirements may cause a change in expectation for the philosophy of education of future faculty, resulting in selection bias in the interview process for schools with service-learning at the core of their mission statements.

*Retention.* Personality characteristics such as efficacy are essential for the sustainability of service-learning. These efficacious educators, who believe service-learning can contribute to the cultivation of citizenship skills, will continue to utilize service-learning even when confronted with inevitable issues such as dissatisfaction by a student or community partner, budget cuts, and lack of support by administration. Retention, in the conventional sense of the term, correlates with job satisfaction, which will be elevated if personality parallels the



demands of the position. Also, positive evaluations are awarded when positive learning experiences are had by students. These evaluations play a role in the promotion and tenure process, which in turn impacts one's intellectual freedom.

I have a personal connection to my research. As a service-learning advocate, the results of this study can contribute to the discovery of self. Disseminating the results of this study to the service-learning community can provide both a reflective learning experience of the attributes that distinguish service-learning educators as well as the shared, collective commitment of all educators to learning and teaching.

## REVIEW OF LITERATURE

This research, grounded in social reconstructionism, weaves together two personal passions, the fields of education and psychology. This review of literature was developed in a hierarchical manner, building from the general to the specific for the central strands of philosophy of education, service-learning, personality and a combination of the three. The first strand provides a theoretical foundation for my research. A brief discussion of the major philosophies of education is followed by a detailed description of my theoretical perspective, social reconstructionism. The second strand portrays the definition, models and outcomes of contemporary service-learning, which provides the context for the combination of both strands, social justice oriented service-learning. The third strand is a general view of personality specifying on the constructs of altruism and efficacy. This chapter concludes with the most relevant literature, which parallels my research by combining all three strands, the personality of service-learning advocates.

### Philosophy of Education

Philosophy guides are cognitions and actions. Four major philosophies of education exist: perennialism, essentialism, progressivism and reconstructionism. The first three philosophies will be discussed in brief; the latter will be discussed in detail. The philosophies, if placed on a continuum, would range from the most conservative (perennialism) to the most liberal (reconstructionism), with essentialism and progressivism favoring the proximal endpoints.

*"All perennialists concur in the proposition that exercising and disciplining the mind is one of the highest obligations of learning."*

*(Brameld, 1950, p. 325)*

### *Perennialism*

Perennialism is a conservative view of education based on realism. Perennialism was the leading educational philosophy prior to the 1900's. However, it bleeds into the present day "whenever current educational practices are under attack by the public" (Kilgour, 1995, p. 59). Perennialism, analogous to recurrent growth, believes the importance of teaching universal truths that transcend time. The foundational thinkers are Plato (who is attributed as a catalyst to other perspectives), Aristotle and Aquinas. Perennialists believe the purpose of education is to cultivate the intellect. To a perennialist, "learning is not 'doing,' learning is 'reasoning'" (Brameld, 1950, p. 384). Instruction is led by teachers who possess a moral authority over students (p. 330). Instructional materials center around the Great Books, which provide timeless teachings of unchanging truths.

*Essentialism is the "conservation of inherited cultural patterns."*

*(Brameld, 1950, p. 209)*

### *Essentialism*

Essentialism, similar to perennialism, is a conservative view of education. As the name eludes, essentialism stresses the learning of key elements, the force under the "back to basics" movement of the 1970's. This educational theory is a tug of war between objective idealism and objective realism. The foundational thinkers of objective idealism are historically Plato, Kant and Hegel and more recently Edwards and Emerson. Idealists weave together knowledge attainment and spirituality. The foundational thinkers of objective

realists are historically Newton, Darwin and Locke and more recently Santayana (Brameld, 1950, 1977; Davies, 2002; Reese, 2000). For realists, knowledge attainment is linked to understanding the physical world. The curriculum is a combination of spiritual laws of idealists and the physical laws of realists. Heavy on the latter, the result is learning and teaching that is systematic with discipline-specific (elementary: reading, writing and arithmetic; secondary: science, math, history and English) textbooks, recitations, homework and testing. Memorization of the cookbook curriculum, which aimed to transmit the cultural values of the majority, ultimately perpetuates the status quo.

*Progressivists place "problem solving and scientific inquiry as central to the student-centered curriculum."*

*(Kilgour, 1995, p. 60)*

### *Progressivism*

Unlike former theories, the remaining two philosophies value the interests of students and society (Kilgour, 1995, p. 60). Progressivism is a 1900's reform movement, grounded in the philosophy of pragmatism. Davies (2002) conveys this nebulous socio-political movement as an enjoiner of "narrative fidelity" (p. 271). The term "progressivism" is used rampantly throughout education-related literature. It is one of the most, if not the most, influential philosophy of education. The foundation of progressivism is attributed to John Dewey, a renowned educator, and William James, a renowned psychologist (Brameld, 1950; Davies, 2002; Gallant, 1972; Lavisky, 1973; Reese, 2000). Progressivists believe the curriculum should be contextualized in the realities of society by advocating problem-based experiential learning opportunities for students.

Progressive educators, according to Reese (2001), had "conflicting views on human nature, society and the prospect of social change" (p. 8). Depending on the agenda, there are interpretations of the theme of progressive education such as child-centeredness, holistic education (i.e., including social services in schools), learning on increasing levels of complexity, learning from the natural environment, and anti-traditional practices (Brameld, 1950; Davies, 2002; Kilgour, 1995; Reese, 2000). These various interpretations are the reason for the frequent use of the term, in essence, the reason for its marketability. This is conveyed in a study conducted by Davies who discovered the use of "progressive education" as the theoretical base for three Canadian educational commissions from 1950, 1968 and 1995. The commissions created recommendations for the improvement of Canadian education. The analysis conveys the relationship between the cultural context and the expansion of the definition of progressive education. The 1950's commission used progressive education and the conservative cultural context to justify the need for a scientific curriculum and IQ testing. The 1968 commission used the liberal cultural context and progressive education as a justification for recommending a more experiential, social-justice-oriented curriculum. The 1995 commission used progressive education and the cultural context as "reconciled the ongoing priority for equity with new concerns for standards and accountability to justify a reform to standardized testing" (p. 282). "Progressive education" will continue to be utilized as a justification for dynamic educational initiatives because of its associated ubiquitous vernacular.

*"Societies are not stagnant entities; they constantly redefine and reconstitute themselves in response to internal and external influences. In the broadest sense of the word, this state of redefinition and reconstitution is a state of social reconstruction."*

*(Hicks, 1994, p. 149)*

### *Social Reconstructionism*

Social reconstructionism is a theoretical perspective that informs the scholarship of instructors who utilize social-justice-oriented service-learning. This pedagogy is a cause for the reincarnation of social reconstructionism. Social reconstructionism has endured through the peaks and valleys of American history. This perseverance is due to the universality of its core constructs. The objective of this perspective is to follow through with the foundation of our nation's constitution. Social reconstructionists believe education is elevated when democracy, equality, and justice ground the curriculum.

In this century, no particular curriculum theory dominated the missions of schools (Thomas & Schubert, 1997, p. 266). However, social reconstructionism has contributed to actively engaging in the foundational values of democracy. Social reconstructionists are honored as one of the first theorists who acknowledged the interplay between knowledge, ideology, schooling, and social control (Maxcy & Stanley, 1986, p. 68; Stanley, 1981).

The interpretations of social reconstructionism by educational theorists are more similar than different. Stanley (1992), in a seminal work on social reconstructionism, *Curriculum for Utopia: Social Reconstructionism and Critical Pedagogy in the Postmodern Era*, states that schools that have social reconstructionist missions are "institutional sites that contain the promise of counterhegemonic struggle, refigure the role of teachers from that of technicians and clerks to transformative intellectuals working towards social change and the common good...(p. xiii)." Thomas & Schubert (1997) divides Stanley's lengthy work into

four themes woven in the works of social reconstructionists "(1) the persistence of the idea that we live in a time of social crisis, (2) the promotion of critical social analysis in a reflective inquiry tradition, (3) the practice of citizen action programs whereby students can become directly involved in policy and public affairs, and (4) the acceptance of the school as an agency for social change" (p. 273). Weltman (2002) interprets social reconstructionist education as including "teaching students to think critically about social issues; teaching about social issues from a social democratic perspective; involving students in social work and social action; and organizing schools as models of social democracy with teachers, students, parents, and community members working together (p. 64)." Social reconstructionism is an action-based, improvement-oriented theoretical perspective.

According to Weltman (2002), neither educators nor historians agree on the nature of social reconstructionism. Bondy & McKenzie (1999) state that throughout its history, "the social reconstruction perspective does not advocate a particular portrait of a reconstructed society. However, advocates of this philosophy view the concepts of diversity, pluralism, equality, and social justice as central to reconstruction" (p. 132). The illusory lines of social reconstructionist theory is a strength and, in my opinion, the reason for its perseverance. Because of its ubiquitous nature, social reconstructionism can be linked to progressive, multicultural and democratic education.

### *History*

According to Stern & Riley (2001), to understand the leaders of the movement is to understand social reconstructionism (p. 56). The three major figures of the social reconstructionist movement are: George Counts, Harold Rugg and Theodore Brameld. Each theorist has contributed to the sustainability of social reconstructionism.

George S. Counts (1889-1974) and Harold Rugg (1906-1948) were both educators at Teachers College, Columbia University, considered to be disciples of Dewey and known as "hard progressivists." Counts is the author of numerous liberal works, such as, *The American Road to Culture* (1930), *The Prospects of American Democracy* (1938), *The Challenge of Soviet Education* (1957) and *Education and the Foundations of Human Freedom* (1962). His best-known piece, which provoked a vast amount of dialogue, was *Dare the Schools Build a New Social Order* (1932). Rugg is well known for the reconfiguration of modern social studies. He integrated the teachings of history, geography, economics and political science to form social studies. He was well known in his time for the book *Man and His Changing World*, an incredibly successful social studies textbook. His text was challenged for the covert socialist innuendoes. Theodore Brameld (1904-1987) is considered to be the most extreme in his viewpoints (Brameld, 1977). Brameld, in contrast to his predecessors, "actively used a Marxist methodology in his earlier writing and later fused this language form with Deweyan experimentalism as well as other language forms to construct a fully developed educational theory" (Thomas & Schubert, 1997, p. 272). He was author of numerous books: *Ends and Means in Education* (1950), *Patterns of Educational Philosophy* (1955), *Philosophies of Education in Cultural Perspective* (1955), *Toward a Reconstructed Philosophy of Education* (1956), *Cultural Foundations of Education: An Interdisciplinary Exploration* (1957), *Education and the Emerging Age--Newer Ends Stronger Means* (1961), *Education as Power* (1965), *The Use of Explosive Ideas in Education: Culture, Class and Evolution* (1965), *The Climactic Decades: Mandate to Education* (1970), *Patterns of Educational Philosophy: Divergence and Convergence in Culturological Perspective* (1971)



and *Tourism as Cultural Learning* (1977). His major objective was to "build the bridge between what is and what should be" (Parsons, 1986, p. 18).

Numerous theorists believe this perspective is rooted in social meliorism (Stanley & Nelson, 1994, p. 274; Thomas & Schubert, 1997, p. 272). Social meliorism is defined as a perspective that employs schools as a medium to better society (Stanley & Nelson, 1994, p. 274). Undoubtedly, the objective for social reconstructionists is to improve the conditions of society. The Great Depression (1929) was the catalyst to the formation of the social reconstructionist perspective; the struggles of this period resulted in a need and desire for economic changes. In the 1920's "the U.S. had a well-developed political and economic system which placed the ideals of private gain, competition, and property rights above the ideals of public gain, cooperation, and human rights. It was with this society that the social reconstructionists found themselves in disagreement" (Parsons, 1986).

The reconstructionists possessed a contrasting view of the economic, as well as education of the time. Social reconstructionists in the past and the present perceive schools as institutions that structurally support the views of the dominating class; thus, existent economic inequities are continually perpetuated (Parsons, 1986, p. 4). To contextualize the reconstructionist movement, proponents were liberal progressives (Stanley, 1985, p. 384). Counts asked key members of the progressive education movement to share personal viewpoints on controversial, yet important societal issues. Due to the lack of response, the social reconstructionists divided (Gallant, 1972; Parker & Parker, 1995).

Similar to the progressives, social reconstructionists believed in the importance of teaching with an interdisciplinary approach (Bondy & McKenzie, 1999; Stanley, 1992; Weltman, 2002). Opposing the progressives, social reconstructionists believed that individual

freedom was not the mission of education (Parsons, 1986, p. 8). Reconstructionists disagreed with progressives' views on child-centered education (Parsons, 1986, p. 8).

Reconstructionists equated the role of the teacher as a leader in the classroom. Teachers contribute to the socialization process of students, guiding their development as leaders who have realized the need for societal changes. Social reconstructionists reconceptualized the role of teachers and students as change agents.

Social reconstructionists contributed to the literature of the day. Counts, in 1932, wrote the book, *Dare the Schools Build a New Social Order*, in hope of reconstructing preservice teacher education of the day. Rugg is honored as creating the greatest success of the social reconstructionists—a textbook series (Bowers, 1970; Reynolds & Martusewicz, 1994, p. 227). This widely disseminated (selling over 1 million copies within a decade) elementary level social studies text conveyed the socialist stand of the reconstructionists. The journal *Social Frontier* was created in 1934 to support this critical perspective. The journal became an avenue to express Marxian beliefs. However, these views were not supported by all of the social reconstructionists, which is considered to be a factor in its dismantling. The justification for the anti-capitalism premise of the journal was because "first, capitalism failed to utilize the benefits of technology for the good of the whole society. Second, capitalism affected individual morality by emphasizing rugged individualism and the profit motive. Third, capitalism failed to develop a philosophy of social welfare" (Parsons, 1986, p. 26). Ultimately, the journal was secured by the more conservative majority, the Progressives.

For approximately two decades, social reconstructionism fell into a deep hibernation. But, as Weltman argues through the words of John Goodland, an educational theorist, "no prosocial revolution is ever lost but is merely unfinished" (Weltman, 2002, p. 63). For the

first decade of hibernation, the 1940's, a combination of fears of communism and totalitarianism and the effects of World War II resulted in "patriotic feelings aroused by the war [that] prompted conservative educators and others to question various progressive approaches, particularly reflective inquiry and social criticism" (Parker & Parker, 1995; Stanley & Nelson, 1994, p. 274). For the second decade of hibernation, the 1950's, Sputnik caused the underemphasis of social studies curriculum, instead focusing on math and science. Reynolds & Martusewicz (1994) note, "money from the National Defense Act was funneled primarily into the National Science Foundation, whose premise was that experts (university physicists, biologists, and mathematicians) should create the curriculum of schools, not the teachers" (p. 228). In the 1960's, social reconstruction awakened from the long hibernation due to similar reasons for its formation (the Great Depression)—economic hardship. People questioned the capitalist economic model (Parsons, 1986, p. 31). However, the conservatism of the 1980's promoted back-to-basics curriculum, which did not allow for a utopian vision of our society. The contemporary curriculum, although plagued by "corporations like Exxon and IBM, for example, [who] have vested interests and considerable influence in the determination of outcomes and objectives in teacher education as well as curriculum reform in the public schools," have visionaries who support the fight for social justice (Banks, 1995; Reynolds & Martusewicz, 1994, p. 228).

Social reconstructionism parallels present-day educational trends ranging from service-learning to critical thinking (Stern & Riley, 2001, p. 56). Research on the need for social reconstructionism is extensive. For example, the seminal work by Kozol, *Savage Inequalities: Children in America's Schools* (1991), conveys the economic and educational inequities of our present-day society. Kozol reveals what the media fails to report:

... the health conditions and the psychological disarray of children growing up in burnt-out housing, playing on contaminated land, and walking past acres of smoldering garbage on their way to school. They also ignore the vast expense entailed in trying to make up for the debilitated skills of many parents who were prior victims of these segregated schools or those of Mississippi, in which many of the older residents of East St. Louis led their early lives (p. 38).

*"The schools cannot avoid transmitting values... The only honest position educators can take is to impart values they believe reflect their vision of the highest achievable human ideals"*

*(Suzuki, 1984, p. 228)*

### *Indoctrination*

The textbooks grounded in the social reconstructionist perspective magnified the question of the existence of indoctrination in schools. Reconstructionists viewed indoctrination as inevitable. The practice of schooling, including the socialization processes, are unquestionably value-laden "exhibiting constructions that are often held by groups that are dominant and more powerful within society" (Adler & Goodman, 1986, p. 41). But "the job of schools was to choose what to inculcate. To him [Counts], the inculcation of love of laws in support of democracy, liberty, justice, and freedom were primary" (Parsons, 1986, p. 14). Reconstructionism combines indoctrination, critical theory and reflective inquiry (Maxcy & Stanley, 1986; Stanley, 1981).

Counts goes as far as stating that one of the reasons for the shape of America, at that time (and arguably now) is lack of morality. Morality is an issue that educators divert from due to the lack of consensus on the matter. Sleeter & Grant (1994) contend that, "education serves as a socialization process to help the young (from 8 to 80) buy into and fit into a particular conception of the American way of life" (p. 127). Unfortunately, educators are not actively teaching the foundational democratic principles because of the controversy that lies within them. Teachers need to realize "that all education contains a large element of

imposition, that in the very nature of the case this is inevitable, that the existence and evolution of society depend upon it, that it is consequently eminently desirable, and that the frank acceptance of this fact by the educator is a major professional obligation (Counts, 1969, p. 12).” Unquestionably, the perennialist and essentialist philosophies of education would not prioritize the inclusion of these concepts (i.e., morality and socialization) into the curriculum.

At a conscious or unconscious level, educators must realize they "were never neutral when planning a curriculum, selecting materials, and designing methods of instruction. These were not random acts but deliberate choices in accordance with a conception of social betterment" (Stanley, 1981; Stanley & Nelson, 1994, p. 274). Thus, every lesson plan conveys personal ideas, biases and agendas of educators. As American educators, should we not support the foundational values of this country?

The majority of social studies educators who are mandated to teach and eventually accountable for learning in state-wide testing the concepts of equality, justice and freedom attempt to portray a value-free view form of the “truth.” Unfortunately, conventional social studies classrooms “sees problems identified by the teacher and presented to the students with all the relevant data and an asserted or implied conclusion [conveying a] scientific or 'positivist' approach...” (Maxcy & Stanley, 1986, p. 63). Even social reconstructionists have been accused of “positivist tendencies with their apparent assumption that teachers have a blueprint for the new and desirable social order” (Shermiss & Barth, 1983a, p. 63). However, social reconstructionists do not advocate a particular view of society. They advocate for socializing students to have a social justice orientation. They do not ask teachers to have a particular political agenda, but believe in the importance of teaching students the necessary skills to make informed policy decisions (Stanley, 1985 referencing Newmann, 1975).

However, this form of education, with teachers playing central roles in knowledge acquisition, assumes that “teachers can understand the object of study (e.g., racism) better than students” (Stanley, 1992, p. 140). Of course, this is not always an accurate assumption, considering that the majority of today's and tomorrow's teachers are part of the majority, European American decent.

Unquestionably, the beliefs of educators bleed into the curriculum. If contemporary teaching practices are aligned to the principles of the nations, then teachers may have the courage to teach controversial issues. These issues provide students with a basis for the life-long development of citizenship skills.

*If we want a democratic citizenry that respects and values diversity and cares about people, especially those disenfranchised through unfair institutional practices and inequitable distribution of resources and opportunities, then we need to teach to this end. This is not always an easy thing to do. It is difficult to stand up against injustice and to work to create a democratic, caring community, but this is our challenge as educators.*

*(Ballengee-Morris & Stuhr, 2001, p. 12)*

### *Examples of Teaching in a Social Reconstructionist Perspective*

Many educators feared the fine lines of indoctrination, and thus adhered to non-debatable topics. Uncomfortable with the abstract, they adhered to the concrete. Similarly, pre-service teachers are hesitant to adopt this approach because it lacks structure and provokes ethical dilemmas (Donahue, 1999). Fortunately, due to the revival of social reconstructionism by contemporary educators, numerous cross-disciplinary resources with a social justice orientation exist. These classroom resources symbolize, on a grander scale, the

multiplicity of contexts that embrace social reconstructionist values that underlie social justice oriented service-learning endeavors.

Connecting the examples below are the human values supported by social reconstructionists. Counts provides detail to these values by urging educators who choose to teach for social justice to "combat all forces tending to produce social distinctions and classes; repress every form of privilege and economic parasitism; manifest a tender regard for the weak, the ignorant, and the unfortunate; place heavier and more onerous social burdens on the backs of the strong; ... strive for genuine equality of opportunity among all races, sects, and occupations; direct the powers of government to the elevation and refinement of the life of (every) man..." (1969, p. 41). The following lessons, activities, and resources are practical applications of these social reconstructionist beliefs. Sleeter in *Multicultural Education as Social Activism*, recommends teacher resources that assist with "helping students analyze inequality in their own lives by oppressed groups, such as *The Crisis*, *Third Force*, *MS*, *The Disability Rag*, or *Off Our Backs*. These publications often frame current issues in ways that ensure that leaders of oppressed groups see them, and they provide a blueprint of exactly what to look at locally, in one's own community" (1996, p. 227). She recommends curriculum guides that assist with students' cultivation of social action skills such as the *Martin Luther King, Jr. Center on Nonviolent Social Change Guide*, *Open Minds to Equality* by Schniedewind & Davidson (1983) and *The Kid's Guide to Social Action* by Lewis (1991), which describes the process of creating persuasive letters and speeches, organizing petitions and other forms of social action.

*Elementary School.* Time and time again, research has conveyed that volunteer experiences in youth correlate with the engagement of volunteer experiences in adulthood.

Unfortunately, teachers may view social action as too complex for elementary-aged students. Bondy & McKenzie (1999) provide evidence for the use of social justice lessons for younger children.

They describe the experiences of a first-year teacher who chose to teach with a social reconstructionist perspective. A few examples of the activities he asked his students to engage in are: an analysis of the media, including revealing stereotypes (“good” characters are light-skinned, wealthy, attractive and smart versus “bad” characters who often wear dark colors and are unattractive and not as intelligent) in Disney movies such as *The Little Mermaid*; service-learning opportunities; and a Student Awareness Fair with inspiring presentations given by local social change activists.

*Social Studies.* According to Rugg (1952), there are numerous views of social studies curriculum: the formal subject-matter approach; the scholastic approach, the American civilization approach, the social problems or issues approach, the individual orientation approach, the individual problem approach, the social sciences approach, the social values approach (pp. 222-223). These views assist with the framing of years upon years of human development. Teaching and learning in social studies curriculum lends itself to the cultivation of citizenship. Hundreds of forms of service-learning examples exist for social studies classrooms. My personal favorite is an electronic classroom to classroom collaboration. Both parties are from different parts of the nation, for example, Ankeny, Iowa and New York City, New York. Students are paired in an extreme manner, for example, an African American female from the East Coast is matched with a European American male from the Midwest. These students who are from different geographically-located schools and who have completely different backgrounds collaboratively discuss unit questions, complete



technology-based performance assessments, and devise social action projects (Stern & Riley, 2001, p. 58).

*English.* Martin (1995) discusses the challenge of incorporating this perspective into the public schools. Martin states, "opportunities to experiment with alternative forms of pedagogy such as multicultural social reconstructionism or to transform the curriculum were few, and those who sought to challenge the existing paradigm were often marginalized" (p. 149). However, she created ways to discuss social justice issues within the contexts of a traditional English curriculum. If discussed with a social justice orientation, required readings for high school students such as *To Kill A Mockingbird*, *The Great Gatsby* and *Grapes of Wrath* can result in deep discussions on historical and present issues of racism, social class structure and the plight of migrant workers, respectively. Martin believes, "we must investigate the messages that we send to prospective educators about what is and what is not a "classic" piece of literature and the purported values of such works, what types of language we revere as appropriate or inappropriate, and the styles of writing that we value" (Martin, 1995, p. 150).

*Art.* Several journals pertaining to art educational studies convey support of the multicultural social reconstructionist perspective, for example, *Art Education* and *Studies in Art Education: A Journal of Issues and Research*. Hicks (1994) recommends regardless of the medium, the integration of cultural teachings when international art is utilized in the curriculum because "the decontextualization of the objects and simplification of the concept of culture often leads to a romanticization of the exotic" (p. 152). She goes a step further, reminding readers of the complexities within cultures, and states that "rather than treating culture as a single, homogeneous community, we need to understand the differences,

conflicts, hierarchies, and power relations that both unite and divide members of a culture" (p. 153). Art projects in a multicultural social reconstructionist perspective range from analyzing visual art (i.e., advertisements) to revealing the underlying assumptions to expressionist art (i.e. murals displaying social realities).

*Science.* There are resources related to the sciences for all age-levels. For youth, *Keepers of the Earth* and *Keepers of the Animals* by Caduto and Bruchac portray the perspective of Native Americans on nature and *Gifted Hands: The Ben Carson Story* describes the obstacles faced by an individual who went from the streets to becoming a surgeon (Sleeter, 1996, pp. 186-189). For older students, *Exploding the Hunger Myths* deconstructs this global issue and recommends that teachers convey to students the convolutions caused by power (Martin, 1995, p. 187). There are an abundance of science projects that are related to social justice oriented service-learning. The key is to ask why particular environmental issues even exist. More often than not, the reasoning has a financial base: "communities with the greatest political resources are able to keep toxic wastes out of their own backyards; communities with the least political clout end up receiving everyone else's toxic wastes, and suffering health consequences" (Sleeter, 1996, p. 184). Weltman (2002) summarizes the social reconstructionist perspective on science-related issues, "Brameld (1956) argued that a global curriculum should promote the protection of cultural and environmental values at the highest international levels and the implementation of social and economic programs at the lowest feasible local levels" (p. 70).

*Nursing.* The literature on social reconstructionism conveys numerous qualitative and quantitative studies that link the nursing curriculum with social justice oriented service-learning. The University of Colorado Health Science Center is on the forefront, dividing the

curriculum of nurses into minority health, poverty, environmental health and medically underserved individuals. Redman and Clark (2002) describe long-term, reciprocal, service-learning programs for each of the divisions. They describe the views of students prior to their service-learning experience: "for many students of relative privilege, working to address social needs was a new and uncomfortable experience, involving close contact with unfamiliar communities and individuals, with who they had little firsthand experience" (p. 449). However, feelings of discomfort ranging from confusion to anger can fuel learning (McCall, 1994, p. 67). When teaching with a social justice perspective, delays in learning need to be expected. Students may not be able to articulate lessons learned within the time frame of a conventional semester-long course. These service-learning components result in the fulfillment of the intended curricular objectives, to "prepare professionals engaged in the type of reforms needed to solve problems of access and equity in the health care delivery system" (Redman & Clark, 2002, p. 446).

*Preservice Teacher Education.* A rich array of research on the social justice-oriented curriculum for preservice teachers conveys the expansion of contemporary social reconstructionism. McCall (1994) recommends that preservice teacher educators form relationships, which will eventually develop into coalitions, with colleagues who believe in teaching and researching multicultural, social reconstruction-related issues (p. 66). Goodland promotes an ideal example of collaboration--the formation of Centers of Pedagogy to create relationships, support systems and resource exchanges between K-12 and higher education professors (Parker & Parker, 1995, p. 284).

Social reconstructionist preservice teacher education is linked with constructivism and multicultural education. Cannella & Reiff contend, "social reconstructionist teacher

education is an example of a teacher preparation philosophy that implicitly follows constructivist principles. Social reconstructionists have recognized that preservice teachers enter education with their own constructed realities and must be involved in the examination of their own culturally based beliefs as well as the historical and cultural context from which schooling has emerged" (p. 37). The preservice teachers deconstruct personal, societal and school beliefs. According to Martin & Van Gunten (2002), "MCSR [multicultural social reconstructionist] education extends the multicultural paradigm in that it attempts to transform traditional relationships of power and domination, attends to the representative voices of historically marginalized groups, and calls for critical dialogue and the counterhegemonic action of principles that translate society and its institutions into democratic sites that are truly democratic, just, and humane" (p. 45). Preservice teachers are exposed to the ways in which the system does a disservice to females, students of color and the poor.

A commonly cited example of social justice oriented service-learning for preservice teacher education is reporting findings to K-12 teachers and administrators of biases of textbooks. The University of Wisconsin-Madison uses the social reconstructionist perspective in their teacher education program via action research (McCall & Andringa, 1997, p. 58). Students use the guidelines "Bias in U.S. History Textbooks" created by The Council on Interracial Books for Children. Students are asked to discover the hidden curriculum within the texts that are used in local public schools. Students are asked to answer questions such as: Whose knowledge is perceived as worthy of teaching? Who has reaped benefits from the conveyance of this knowledge? (Martin & Van Gunten, 2002, p. 46). Students explore the reasons for these biases, including the financial motives of publishers to

print uncontroversial resources (McCall, 1994, p. 63 who quotes Banks, 1993). Another example includes surveying the resources of different schools and the corresponding neighborhoods of the students. Preservice teachers report the financial disparities, which manifest in available teaching and learning resources that are divided by class lines. Martin and Van Gunten (2002) go further by asking preservice teachers to compare/contrast the grocery stores in these neighborhoods in order for students to experience a taste of the daily life of their future students.

Although increasing, social reconstructionism is not the approach utilized by the majority of preservice teacher education programs. According to Liston & Zeichner (1990), the reasoning has to do with the instructors. The majority of preservice teachers do not teach with the social reconstructionist perspective because their “teacher educators are often conservative, fear alienating their students who frequently support the status quo, fear alienating K-12 school personnel with whom they must work, and fear tensions which arise from an approach which criticizes existing institutions and society” (Liston & Zeichner, 1990). Students resist this approach, as well. Students report feeling overwhelmed, one student states, “I’m learning we were not taught anything of what she’s telling us to teach” (McCall, 1995, p. 23). bell hooks (1989) believes, “students who are privileged are often downright unwilling to acknowledge that their minds have been colonized, that they have been learning how to be oppressors, how to dominate or at least how to passively accept the domination of others” (p. 102). If preservice teachers are not exposed to this or related perspectives, they will not have the tools to teach active citizenship. Redman & Clark (2002) believe that, “learning about the responsibilities of citizenship and engaging in civic action is left to each individual in the United States. However, many Americans believe their

participation in solving large and complex social problems is unlikely to make a difference, although they witness homelessness, poverty, lack of health care, and violence on a daily basis. Feeling that one person cannot make a difference has led to learned helplessness and a lack of social activism" (p. 446).

The history of social reconstructionism is not as long as the history of its foundational principles. Although fears of indoctrination have impeded its growth, its presence is felt in contemporary American education (Weltman, 2002, p. 61). Social reconstructionism challenges teachers and students to become individuals yet group-oriented, critical yet active inquirers.

*The great difficulty in education is to get experience out of ideas."*

*George Santayana*

### Service-Learning

Social reconstructionists encourage teachers and students to create and participate in social action. Quality service-learning can be the means to this end. The pedagogy of social-justice-oriented service-learning (not necessarily in these words) is what social reconstructionists envisioned for our schools, community and nation. Service-learning is described in length in the following section because of its key role as the independent variable.

### *Definitions of Service-Learning*

The definition of service-learning varies depending on the setting (Astin, 1998; Eyler & Giles, 1999). At an institutional level, service-learning may be associated with academic affairs, student affairs or a rare combination. The definition and setting powers funding for service-learning. Service-learning, at the minimum, has three connected components:

academics, community service and reflection (Bringle & Hatcher, 1995; Furco & Billig, 2002; Zlotkowski, 2003). A frequently cited definition of service-learning is by the Corporation for National and Community Service (2003): “curriculum-based community service that integrates classroom instruction with community service activities. The service must: be organized in relation to an academic course or curriculum; have clearly stated learning objectives; address real community needs in a sustained manner over a period of time; and assist students in drawing lessons from service through regularly scheduled, organized reflection or critical analysis activities such as classroom discussions, presentations or directed writing.” Service-learning, community service and experiential education are often grouped, yet a significant differentiation exists. Community service “such as volunteerism, community action and public service generally refers to involvement in community issues with the purpose of achieving public good. Community service typically does not incorporate structured, theoretical reflection on part of the participants” (Learn and Serve, 2001). Experiential education includes “structured learning activities that engage students directly in the subject being studied. Learning is derived from a combination of experiences and reflection however does not necessarily utilize community service as the basis for learning” (National Society for Experiential Education, 2001). Service-learning is connecting the curriculum, community service and reflection.

### *Models of Service-Learning*

When discussing outcomes, the various types of service-learning are not differentiated. However, the effectiveness of service-learning components needs to be evaluated on an individual basis. Different integration levels and models are utilized by instructors, each striving for an increase in student learning. Service-learning programs can

be partially or fully integrated. Service-learning models include civic-based, problem-based, consulting-based, and community-based action research. Particular programs are more conducive to particular disciplines. Each model has its own strengths and weaknesses.

The literature on social-justice-oriented service-learning discusses the duality within service-learning programs. I view this duality as two extremes on a continuum. The terminology for the endpoints varies from one educational theorist to the next. Battistoni (1997) believes there are two underlying ethical justifications for the use of service-learning: "philanthropic" and "civic." Kahne and Westheimer (1996) use the terms "charity" and "change" (p. 687). Philanthropic/charity service-learning is associated with altruism and civic/change service-learning is associated with social justice. The former involves a sense of giving or gratitude. The latter is based in social reconstructionism, emphasizing mutual responsibility and social transformation. Kahne and Westheimer (1996) describe it as "questioning the status quo; challenging social, political, and economic structures that allow injustice; and engaging in dialog with others about the purpose, method, and meaning of service" (p. 687). Donahue (1999) believes in the value of both types of service-learning. He believes "balancing charity and change, not choosing one over the other, to meet short- and long-term needs is required for addressing a range of problems from hunger and homelessness to human rights and health care" (p. 686).

#### *History of Service-Learning*

The history of service-learning transcends centuries (Eyler & Giles, 1999; Stanton, Giles & Cruz, 1999). Service-learning was viewed as a tool to enhance education. Roots of service-learning stretch to the late 19<sup>th</sup> and 20<sup>th</sup> centuries (Dewey, 1916). Service-learning was woven in the social reform educational movements of the 1960's and 1970's (Stanton,



Cruz & Giles, 1999). John Dewey, a strong supporter of service-learning, believed students would “learn more effectively and become better citizens if they engaged in service to the community and had this service incorporated into their academic curriculum” (U.S. Department of Education, 1999). Dewey stated, “an experience, a very humble experience, is capable of generating and carrying any amount of theory (or intellectual content), but a theory (or intellectual content) apart from an experience can not be definitely grasped even as theory” (Dewey, 1916). The political sphere is shaping the present history of service-learning. In 1990, former President Bush signed the National and Community Service Act of 1990 in an attempt to create an ethic of service across the nation (Kozeracki, 2000). In 1993, former President Clinton signed the National and Community Service Trust Act, which funded such programs as AmeriCorps and Learn and Serve America (Kozeracki, 2000). These programs increased the focus on integrating student community service, volunteerism and service-learning into the curriculum. President Clinton stated, “...citizen service is the very American idea that we meet our challenges not as isolated individuals, but as members of a true community, with all of us working together. Our mission is nothing less than to spark a renewed sense of obligation, a new sense of duty, a new season of service...” (CARE, 2001).

#### *Service-Learning in a Contemporary Context*

The purpose of service-learning parallels the educational mission of the institution. The mission varies depending on the context whether it is K-12, community-college or higher education. According to Stanton, Giles and Cruz (1999), service-learning for a community-college relates to accessibility of educational and employment opportunities. Service-learning for a research-based university centers on expanding and applying

knowledge to solve social problems. For a liberal arts and sciences university, service-learning is intended for citizen and overall character development. Regardless of the affiliation of the institution, civic engagement via service-learning is on the rise.

#### *Service-Learning in K-12 Education*

Striking statistics convey the frequency of service-learning. The National Center for Education Statistics of the United States Department of Education conducted the *National Student Service-Learning and Community Service Survey* in the spring of 1999. The results of the survey include: 64% of all public schools, including 83% of public high schools, had students participating in community service activities recognized by and/or arranged through the school; 57% of all public schools organized community service activities for their students; 32% of all public schools organized service-learning as part of their curriculum, including nearly half of all high schools; and 83% of schools with service-learning offered some type of support to teachers interested in integrating service-learning into the curriculum, with most providing support for service-learning training or conferences outside of school (U.S. Department of Education, 1999).

#### *Service-Learning in Higher Education*

Public schools are not the single supporters of service-learning. Community colleges are veteran advocates of service-learning. Community colleges “pioneered the community-service function by offering a range of cultural and recreational activities for their local communities at the beginning of the twentieth century and they continue this tradition by offering short-term courses, entertainment events, health information, and many other services to the public” (Kozeracki, 2000, p. 3). The American Association of Community Colleges (AACC) conducted a survey in 1997 demonstrating that nearly half of all

community colleges are offering service-learning opportunities (Kozeracki, 2000). One of the multitude examples of community college participation is Chandler-Gilbert Community College, located in Arizona, which offers over thirty courses requiring service-learning in disciplines including biology, music, education and English. Faculty members providing a service-learning component are assigned a student service-learning assistant who “administers student paperwork (for example, liability forms and placement applications), arranges transportation, and tracks students’ hours served at the sites.... The office of student life also provides detailed instructions and evaluation criteria for service essays, which are short pieces to be written based on students’ reflective journals and polished throughout the semester. The office publishes the essays in a bound book” (Schuh & Whitt, 1999, p. 3).

Numerous higher education institutions cast service-learning as a significant role, which conveys the merit of this teaching tool. The University of Maryland, Georgetown University, California State University, Colorado State University, Michigan State University and Berea College are examples of “sustained institutionalization” of service-learning (Furco, 1999). Sustained institutionalization of service-learning at the university level, according to Furco, involves: a formal definition of service-learning, strategic planning, alignment with institutional mission, alignment with educational reform efforts, faculty awareness, faculty involvement and support, faculty leadership, faculty incentives and rewards, student awareness, student opportunities, student leadership, student incentives and rewards, community partner awareness, mutual understanding, community partner voice and leadership, a coordinating entity, a policy-making entity, staffing, funding, administrative support and evaluation and assessment (Furco, 1999).

Courses with a service-learning component are offered in virtually every college and virtually every academic department at the universities with “sustained institutionalization” (Shuh & Whitt, 1999). For example, the University of Maryland has a tripartite mission: to provide high-quality education, to advance knowledge through research and to provide service for the State of Maryland and its citizens (Schuh & Whitt, 1999). Georgetown University is one of the first universities to create a fourth-credit option, the service-learning credit. Students arrange with a faculty member to earn an additional credit in a three-credit course by completing forty hours of community service and meeting the goals set forth in an individually-designed learning contract (Schuh & Whitt, 1999). California State University requires students to enroll in an introductory course on community participation. Students, before graduation, are required to enroll and successfully complete a minimum of one service-learning course related to the students’ major. At Colorado State University, service-learning courses are now offered in every college and in practically every academic department. Michigan State University is the creator of the *Michigan Journal of Community Service-Learning*, an influential journal dedicated to service-learning research. Berea College was ranked #1 in the Nation for Service-Learning in the 2003 edition of *US News and World Report Best Colleges Report*. Strongly supported service-learning initiatives exist such as Students for Appalachia, People Who Care and Trio.

#### *Outcomes of Service-Learning*

The scholarship of service-learning is expansive. Numerous studies are conducted on the relationship between service-learning and student outcomes. The National Service-Learning Clearinghouse (NSLC), a well-used resource for service-learning advocates, synthesized these studies and created a fact sheet outlining the impact of service-learning on

students, schools and communities. Service-learning results range from an increase in higher-order thinking skills to refinement of personal and social skills to realizations of the existence of various careers (NSLC, 2003). Along the same lines, through extensive quantitative and qualitative research, Eylar and Giles (1999) found service-learning to be an educational tool that has the potential to transform perspectives, foster acceptance of diversity, enhance critical thinking and promote citizenship (see also Campus Compact, 2003).

The learning outcomes associated with service-learning, as well as the rationale for service-learning inclusion into the curriculum are empirically documented. Bondy & McKenzie (1999) describe the learning objective of a first-year teacher who wishes to change students' worldview from individualistic to communitarian (p. 141). NSLC reports that the student and the community benefit from service-learning. Students report an increase in personal efficacy. The perceptions of community members are altered after working with students who are engaged in service-learning. NSLC reports numerous examples of an increase in support (i.e., tax levies and school volunteers) because of high quality service-learning experiences that unite schools and surrounding communities (p. 2).

McCall & Andringa (1997) report their personal motivation for the utilization of social-justice-oriented service-learning. Their motivation is fueled by the daily oppressions they face ranging from sexism to racism to classism (p. 57). This level of personal involvement results in personal growth on the behalf of instructors and students. NCSL (2003) reports that at school-wide service-learning sites teachers state feeling reinvigorated, an increase in conversations about teaching and learning and a decrease in discipline referrals (p. 2). The evidence supporting the inclusion of service-learning into the curriculum is vast.

### *Elevation of Service-Learning*

The elevation of traditional service-learning into social-justice-oriented service-learning is discussed extensively in the literature. According to these educational theorists, changes need to occur to reframe service-learning. These alterations include role-changes, revealing the root causes of injustice, removing policy-related obstacles and delving into new areas of research.

### *Role-Changing in Service-Learning*

Maybach (1996) provides a critical examination of current service-learning practices and discusses oppressive actions of service-learning and provides salient solutions. He believes the majority of service-learning opportunities have black and white roles, specifically, service-learning provider and service-learning recipient. Maybach coined the new term "partners in service" to convey a sense of equality. Both parties have a similar objective: to fight for social justice. Maybach envisioned "emphasizing mutual respect for individual strengths and weaknesses each partner can bring to the service relationship, underscoring the give and take of the cooperation, supporting the equal role each should play in the service design and accomplishment of the community project they are engaged in, and reinforcing the equal concern for positive outcomes in both service partners" (p. 231).

The literature is sprinkled with inspiring case studies that portray the values of a 180-degree change of roles--marginalized individuals as empowered service-learning providers. This role-change provides a new dimension to service-learning. More often than not, disenfranchised populations, "hear that they are good for nothing, know nothing, and are incapable of learning anything--that they are sick, lazy, and unproductive--that in the end

they become convinced of their own unfitness” (Freire, 1970, p. 45). To slash this self-fulfilling prophecy, role changes need to occur.

### *Injustice in Service-Learning*

Service-learning, in top form is a pedagogy that inspires one to fight for social justice. This is an objective for contemporary social reconstructionists who strive to contribute to raising the social conscience of future generations. Conventional service-learning can become deeper social reconstructionist service-learning opportunities by not only role-reversal but also by exploring the root causes of injustices. Unfortunately, the majority of service-learning experiences do not require students to contemplate the root causes of the injustices, which were the catalyst for the service (Wade, 2001, p. 1). Delving into these causes results in philosophical dialogue, hypothesis formation and critical thinking.

### *Policy and Service-Learning*

Policy restrictions limit the elevation of conventional service-learning to social-justice-oriented service-learning. Funding, a major source of motivation and support for service-learning institutions, is subject to policy restrictions. Wade (2001) reveals, "federal funds (such as K-12 Learn and Serve America funds distributed to state agencies via the Corporation for National Service) have limitations on their use, especially in regard to advocacy, lobbying government officials, political activity and supporting partisan bills or government activities" (p. 2). Ultimately, student learning is capped. Beyond funding, there are school-based barriers. Wynne (2001) describes teacher leaders as individuals who are socially and politically conscious. These individuals attempt to have a social reconstructionist perspective, but the "bureaucracy of schools and systems, as well as the attitudes of

educational policy makers, stifle the possibilities for teacher leaders to be effective as change agents” (p. 2).

### *Service-Learning Research*

Service-learning research needs to change to support the social reconstructionist perspective. Donahue (1999) argues for clarity in the key terminology surrounding service-learning, which ideally requires a consensus in the definition of service-learning (p. 693). He contends, "even concepts such as responsibility, empowerment, and community can have very different meanings for different service-learning practitioners, although such concepts are often identified as those to which everyone subscribes" (p. 693). In addition, instructors need to further their personal research--to include a strong knowledge base in the service-learning project. For example, Gent and Gureka (2001) discuss the need for teacher training in regards to working with populations who have cognitive and physical disabilities. This population is used frequently as service-learning recipients. Without proper information, stereotypes such as "child-like" and "poor quality of life" are perpetuated for people with developmental disorders. Educators need to educate themselves. They, like all humans, need to reflect upon personal assumptions and biases, to understand fully what they are conveying to their students. Regardless of the intentions of instructors and students, service-learning should not be demeaning.

Because of the academic component of service-learning, the research has focused on learning outcomes of the student. Maybach (1996) believes service-learning research needs to be more inclusive: “[e]valuation needs to focus not only on the student's and agency's experience, it needs to evaluate both partners in service. The results of the service experience need to be understood from all perspectives. Ignoring any voices yields an incomplete



perspective in this process and constitutes a silencing, oppressive, disempowering scenario that does not value the ideas and beliefs of the individuals involved" (p. 234). One can argue the accountability for students is compromised, "even fewer build service-learning projects around a model that is accountable for the results of the service experience on the service recipient" (p. 234). The service-learning recipient does not have the opportunity to evaluate the service-learning provider. Thus, the service-learning provider does not have the opportunity to extract valuable lessons from the evaluation. Both parties are short-changed.

In conclusion, advocates of social reconstructionist education "do not expect children to reconstruct the world. Rather, these advocates view schools as connected with other institutions in society, either working with most institutions to reinforce inequality or working with opposition movements to institute change" (Maybach, 1996, p.p. 227-228). Social justice-oriented service-learning is a pedagogy that fosters students understanding of self in relation to society. Education with a social reconstructionist theoretical perspective has the potential to be transformative. In essence, "the transformation occurs as individuals become reflectively aware of their own conscious development while also becoming aware of the consciousness of others" (White, 2001). Ideally, every connection (from student to teacher to community) experiences its positive impact.

### Personality

The two major hypotheses tested in this study employ two personality traits, efficacy and altruism, as dependent variables. Personality psychology as a field is saturated with research conducted by academics as well as practitioners. A portion of this research provides evidence for the relationship between personality and occupational choice. This literature

supports my research endeavor to form a working schema of an educator who utilizes service-learning.

The connection between personality and work is explored in depth by Holland (1997). Holland deduces from years of research the principle of vocation as an expression of personality. Vocational satisfaction is based on the "congruence between one's personality and the environment in which one works" (Holland, 1997, p. 11). In support, Palmer (2000) states, "our created natures make us like organisms in an ecosystem: there are some roles and relationships in which we thrive and others in which we wither and die"(p. 44). Personal histories of the members of a vocation are similar. This is the reason for the accuracy of vocational stereotypes.

Holland believes there are six types of personalities that correspond to vocations. He labels these types as: "realistic," "investigative," "artistic," "enterprising," "conventional," and "social." The latter are described as empathic, generous, understanding, perceptive, cooperative, responsible and idealistic. They are in vocations such as teaching or counseling. The former two characteristics, empathy and generosity, relate to efficacy and altruism, respectively, which conveys a link between personality type and teachers. My research goes one step further by assessing the impact of personality in the choice of teaching and learning pedagogies. I examine, specifically, whether educators who utilize service-learning score differently than educators who do not utilize service-learning on levels of altruism, efficacy and professional endeavors.

The relationship between personality and teaching is discussed in the context of pre-service teacher education. Personality is referenced as the determining factor for the daily weather, which forms the climate of the classroom (Shiann, 2000; Wong & Wong, 1998) The

National Council for Accreditation of Teacher Education (NCATE) states, "candidates for all professional education roles develop and model dispositions that are expected of educators" (p. 19). NCATE references the National Education Association (NEA) Codes of Ethics and individual institutional standards to provide an outline of these dispositions. Specific dispositions are cultivated in pre-service teachers such as commitment to learning, collaboration, integrity, emotional maturity and responsibility. In addition, The National Service-Learning in Teacher Education Partnership, affiliated with the American Association of Colleges for Teacher Education, created a brief, titled *Meeting NCATE Standards Through Service-Learning: Dispositions*, which added sensitivity to diversity and democratic values to the aforementioned list of dispositions. However, the concept of cultivating disposition in future teachers is not without conflict. Creating and using checklists that constitute ideal personalities for individuals pursuing a career in the profession of teaching are equated with "attempts, to produce a cadre of 'correct' individuals (which contradicts the claim that diversity is respected and embraced)" (Nelson, 2002).

*"Give what you have, to someone it may be better than you dare to think."*

*Longfellow*

## Altruism

### *Altruism and Psychology*

One of the personality attributes explored in this study is altruism. Altruism is considered a subtrait of agreeableness, part of the Five Factor Model of Personality (Axelrod, Widiger, Trull & Corrbitt, 1997). Similar to numerous psychological constructs, altruism has a slippery definition. Altruism is the helping of others without the expectation of a reward. Research on altruism is extensive and varied. Numerous disciplines ranging from

evolutionary biology to philosophy to botany study altruism (Field, 2001; Knoblock, 2001; Korchmaros & Kenny, 2001). Eisenberg, a psychologist, defines altruism as “voluntary, intentional behaviors that benefit another and are not motivated by external factors such as rewards and punishments” (Eisenberg, 1986, p. 63). Knoblock, a psychoanalyst, describes altruism in relation to evolution, as a “behavior that increases the fitness of others at the expense of the fitness of the altruist” (Knoblock, 2001, p. 340). Altruism is defined by Clohesy, a voice for nonprofit organizations, as “an attitude of concern for the well-being of others, transcending or transforming private self-interest” (Clohesy, 2000, p. 240). Evidently, similar to progressive education, the metamorphosis of the definition of altruism parallels the agenda of the researcher.

### *Correlations to Altruism*

Rushton (1981) describes the connection between altruism and psychological concepts. In short, the researchers discuss the link between altruism and empathy, moral reasoning, and social responsibility (p. 82). Blotner and Bearison (1984) share results that support the aforementioned studies, conveying developmental consistencies of perspective-taking, moral reasoning, and altruistic behaviors for upper elementary-aged students. I made the decision to assess altruism, similar to efficacy, because of these empirical links to these personality traits. By assessing the educator’s level of altruism, we can deduce the level of the correlating constructs.

Rushton describes the characteristics of an altruistic personality. According to Rushton and supported by following studies, altruism increases with age (Wagner & Rush, 2000, p. 387) and sex-related in that females score higher than males (Smith, 1994, p. 786). In addition, altruists, compared to non-altruists, display more honesty and self-control

(Rushton, 1980, p. 85). Also, “he or she has internalized higher and more universal standards of justice, social responsibility, and modes of moral reasoning, judgment, and knowledge, and/or he or she is more empathic to the feelings and sufferings of others and able to see the world from their emotional and motivational perspective” (Rushton, 1981, p. 84). Overall, people who possess an altruistic personality rank high in integrity.

The majority of research on altruism pertains to the relationship between altruism and empathy. Two influential articles, both written by Batson and Batson, support the widely accepted empathy-altruism connection. This hypothesis claims the motivation for prosocial behavior is empathy, which directs behavior toward improving the condition of the person in need. Batson, Batson, Griffit, Barrientos, Brandt, Sprengelmeyer and Bayly (1989) published the article *Negative-State Relief and the Empathy-Altruism Hypothesis*. The study attempts to replicate the research conducted by Cialdini, Shaller, Houlihan, Arps, Fultz & Bearman (1987), the creators of the negative-state relief hypothesis. The negative-state relief hypothesis is described as an “egoistic explanation of the apparent evidence for the empathy-altruism hypothesis” (Batson et al., 1989, p. 922). According to this model, “individuals who experience empathy when witnessing another person’s suffering are in a negative affective state—one of temporary sadness or sorrow—and these individuals help in order to relieve this negative state” (Batson et al., 1989, p. 922). The following exemplifies the negative state relief theory, “During a train trip, Abraham Lincoln looked out his window and saw several piglets drowning. He ordered the train to stop so they could be saved. When praised for his action, Lincoln discounted altruism as his motive, claiming, instead, that his act was motivated by the selfish desire to avoid a guilty conscience” (Sdorow, 1995, p. 637).

Second, Batson et al. (1991) published the article *Empathic Joy and the Empathy-Altruism Hypothesis*. The article combats the empathic joy hypothesis created by Smith, Keating and Stotland (1989). This theory, similar to the negative-state relief hypothesis, is ego-based. The empathic joy hypothesis suggests “empathically aroused individuals help to gain the good feeling of sharing vicariously in the needy person’s joy at improvement” (Batson et al., 1991, p. 413). The researchers conducted three experiments to test the validity of the hypotheses which resulted in support of the empathy-altruism hypothesis. However, Batson et al. conclude that empathic-joy may be the motive for individuals experiencing low-empathy. Overall, research supports the empathy-altruism hypothesis.

Batson et al. (1991) discusses the similarities and differences between the *Negative State Relief* and the *Empathy-Altruism* hypotheses. Similarities include: empathy fosters helping, empathy causes a sense of sadness and helping can mitigate this sadness. The major difference between the models is “the nature of the motivation that is evoked by feeling empathy for another in distress” (Batson et al., 1989, p. 924). The motive for helping is either an egoistic relief of a negative affective state or an altruistic goal to relieve distress. In a study, the researchers manipulate empathy by creating mood-enhancement environments. Results have shown subjects that experienced a sad mood environment helped more. Also, results have shown “anticipated mood enhancement is not sufficient to reduce the helping of empathically aroused individuals because it does not permit them to reach the altruistic goal of relieving the victim’s distress” (Batson et al., 1989, p. 931). Again, the results of the study support the empathy-altruism hypothesis.

### *Altruism and Prosocial Behavior*

Frequently, altruism is categorized within the realm of prosocial behavior. Eisenberg (1991) compiled research on prosocial behavior, specifically, altruism. Prosocial behavior is defined as voluntary behavior intended to benefit another (Eisenberg, 1991, p. 273).

Altruistic prosocial behavior is defined as “prosocial behaviors that are not motivated predominantly by the desire for external rewards or the desire to reduce aversive internal states” (Eisenberg, 1991, p. 274).

*Correlations to Prosocial Behavior.* Referenced correlations between variables relating to prosocial behavior resulted from numerous studies. For example, meta-analyses of studies convey that perspective taking is positively correlated to prosocial behavior.

Perspective taking involves the ability to take the perspective of others. Age and perspective taking are linked, specifically, perspective taking increases with age. Also, meta-analyses of studies convey a significant positive correlation between moral reasoning and prosocial behavior (Eisenberg, 1991).

*Gender Differences in Prosocial Behavior.* Meta-analysis found gender differences in empathy, specifically females earn higher scores on questionnaire measures (Smith, 1994). Smith (1994) conveys the gender differences in socialization of altruism. Smith supports Chodorow's view that females learn to “fuse with others” and males learn to separate (Smith, 1994, p. 786). Thus, in altruism, “the one caring and the one being cared for are connected” (Smith, 1994, p. 786). Smith differentiates altruism from concepts such as self-neglect and co-dependence. “Altruism is the unselfish devotion or concern for another, while self-neglect refers to intentionally neglecting care of self, despite available resources and knowledge” (Smith, 1994, p. 787). Altruism and co-dependence both involve a sense of responsibility for

people, but the latter is based on controlling people through coercion and manipulation.

Smith compiled the four critical attributes of altruism: a sense of personal responsibility for another's well being, a sense of compassion for another, a sense of empathy and a selfless dedication to fulfill the needs of another (Smith, 1994, p. 787). In her literature review, Smith found the themes of antecedents and consequences in relation to altruism. The antecedents of altruism include: an ability to view alternative perspectives; an awareness that one's behavior has consequences for others; and an ability to transcend the ego. The consequences of altruism include: a vicarious pleasure in the welfare or happiness of others; a sense of relief when it appears the needs of another are met; good is equated with caring for others; and the "exclusion of self may result in disequilibrium in relationships if only others are legitimized as the recipient of care" (Smith, 1994, p. 789). Overall, Smith believes altruism plays a large role in the lives of women.

*Prosocial Behavior and Mood.* In addition, meta-analyses correlate mood and altruism. According to Eisenberg (1991), people with a negative mood help more than people in neutral moods: "dwelling on the misfortunes of others seemed to increase the likelihood of one's attending to others' needs and therefore helping them" (p. 277). People in a positive mood have a tendency to participate in prosocial behavior.

*Altruistic Prosocial Behavior and Education.* We can attribute the connection between altruism and education to the former President of the Carnegie Foundation for the Advancement of Teaching, Ernest Boyer, who believed that "altruism can best be appreciated as an experience rather than an abstraction" (Boyer, 1996). The connection between prosocial behavior and education is the foundation for contemporary movements toward character education, which cultivates universal principles such as trustworthiness, respect,



responsibility, fairness and citizenship (Character Education Partnership, 2003). Through education prosocial behavior can be increased.

Eisenberg in the book *The Caring Child* discusses ways to cultivate altruism in children. She sees the five levels of prosocial reasoning in children: level one is a self-focused orientation, level two is a needs-orientation, level three is an interpersonal orientation, level four is empathetic orientation and level five is the internalized stage (Eisenberg, 1992, p. 31). She suggests to develop empathetic reactions in children by: directing the child's attention to people's feelings by asking him/her feel in their place, stressing the good feelings that stem from caring about other people, pointing out examples of people who are empathetic and those who are not, and communicating your admiration for kindhearted people (Eisenberg, 1992, p. 103). Altruism can be cultivated in children and adults, thus indicating it is an environmentally-influenced not solely dispositional construct.

Etzebarria, Apodaka and Eceiza (1994) convey significant increases of prosocial-altruistic behavior after a pre/post test resulting from 15 weekly activities encouraging "empathy, perception-taking, the concept of a person and cooperation" (p. 414). Sharpe, Crider & Vyhldal (1996) supports the concept of the impact of teaching prosocial altruistic behaviors. Teaching strategies were implemented to cultivate prosocial behavior. Data was collected during peer conflicts. The results of the study include an increase in student-led initiatives including the use of conflict resolution. Greener (2000) conveys consistency between self-assessments, teacher assessments and peer assessments in regards to children's prosocial behavior.

### *Altruistic Institutional Values*

Young and Elfrink (1991) attempted to formulate the main values for college and university student affairs practitioners. The value of altruism is an emergent theme in student affairs research. For example, Young and Elfrink argue the values of student affair practitioners include "pluralism, freedom and altruism" (p. 47). Kitchener (1984) believed in four ethical principles for student affairs practitioners: "respecting autonomy, doing no harm (nonmaleficence), benefiting others (beneficence), and being just" (p. 48). The third value is analogous to cultivating a level of altruism in students. The authors believe in the dynamic nature of formulating values, which vary depending on the time and circumstances. For the early 1990's, they proposed values that parallel the values proposed by the American Association of Colleges of Nursing (AACN). These seven values define altruism as a "concern for the welfare of others" along with equality, aesthetics, freedom, human dignity, justice and truth (p. 48). After polling professors of nursing and student affairs practitioners, a modified version of the AACN values was created. Altruism persevered as an essential value. Attitudes and personal qualities that mark altruism include: caring, commitment, compassion and generosity (p. 52). Examples of professional behaviors that relate to altruism include: "gives full attention to students and others when working with them; assists other personnel in providing service when they are unable to do so; expresses concern about social trends and issues that have implications for professional work" (p. 52).

### *Altruism and Career Choice*

Rotter and Stein (1971) explored societal perception of careers. The researchers asked subjects to complete a questionnaire rating careers on level of truthfulness, competency and altruism. The findings include the highest correlations ( $r=.66$ ) between the variables altruism

and trustworthiness and the lowest correlations ( $r=.43$ ) between the variables altruism and competence. Professionals, as highly educated individuals, ranked high on all three variables. However, people of power rank low in the variables of truthfulness and altruism. For example, professors, psychologists and psychiatrists are regarded as more truthful, competent and altruistic compared to successful businessmen, politicians and Army generals (Rotter & Stein, 1971, p. 339). Interestingly, the study found that high school teachers are perceived as more altruistic than competent and college professors are perceived as more competent than altruistic.

The seminal work of Lortie (1975) conveys the altruistic motivation for educators. Lortie believes that one of the top four reasons to begin the journey to become a teacher is a desire to serve others. This conveys an altruistic-based motivation for some pre-service teachers. Connolly (2000), utilizing an ipisitive approach, interviewed seven K-6 teachers who were in their third year of teaching. This is a critical year for teacher attrition. From this study, Connolly reports that teachers remain committed to education because of a combination of a high level of job satisfaction, emotional ties to students, altruism and efficacy (p. 56).

Traditional (college-age) and non-traditional students display a difference in the motivation for entering the teaching profession. For nontraditional students efficacy more than altruism come into play. Serow in the article *Why Teach?: Altruism and Career Choice Among Nontraditional Recruits to Teaching* explores the motives for 26 second-career teachers utilizing the life history technique. For nontraditional teachers, the sense of personal satisfaction alluding to competence may be a stronger motive than altruism (Serow, Eaker & Forrest, 1994). The interview involved acquiring demographic information, occupational

experience, thoughts on teaching and work experience related to teaching. Serow divided the motives for second-career teachers into four categories: extenders (extension of personal interests), subject-oriented (love of discipline, i.e., history), practical (security and scheduling) and rectifiers (correct an earlier incorrect career decision). Serow et al. concluded that self-fulfillment, including an increase in self-esteem and self-efficacy, were motives for these teachers. For traditional students, "service-related aims" are the motivation to entering education (Serow, Eakes & Forest, 1994, pp. 27-48).

Foor (1997) utilized qualitative research methodology to explore altruism in twenty-five secondary-level teachers. Four themes emerged from the interviews with these altruistic teachers: "student centered/caring, rewards/recognition, role overload and love of teaching/subject material" (Foor, 1997). Also, Foor observed in these teachers a "no bragging norm" and the discussion of accomplishments only in relation to students' success.

#### *Altruism and Service-Learning*

The concept of altruism can be cultivated through service-learning. For example, students in a middle school science class studying the environment help preserve the natural habitat of animals living at a local lake. Through classroom studies, the students learn about the environment. The students keep the area around the lake clean, post signs providing information to the public, and study soil and water composition as well as the impact of industrial development on wildlife. Throughout the project, students write about their experiences in journals and participate in class discussions about the project and its effect on their lives and the local community (National Center for Education Statistics, 1999, p. 3). Service-learning opportunities provide students an environment in which to cultivate altruism.

*Altruism and Social Justice*

Holmes, Miller and Lerner (2002) convey the various schools of thought ranging from economists to rational choice theorists to laypersons who believe that human behavior is motivated by self-interest. The researchers created the exchange fiction hypothesis, which involves individuals masking their altruistic gestures (i.e., tax deductions for acts of charity). According to Holmes et al., the “offer of an exchange creates a fiction that permits people to act on their impulse to help without committing themselves to unwanted psychological burdens” (Holmes et al., 2002, p. 145). This theory partly stems from the work on the justice motive by Lerner. He hypothesized that self-interest may explain why people choose not to fight for issues involving justice. People who face the realities of injustice have to disconnect from the just world hypothesis as well as answer difficult questions, such as “If this person or group is worthy of my assistance, are the myriad other similar victims whose suffering I am exposed to on a regular basis not also worthy of my help?” and “If this type of person or group is worthy of help now are they not also worthy of help in the future?” (Holmes et al., 2002, p. 145).

The results of the study support the exchange fiction hypothesis. Subjects were offered a product (a candle) in exchange for a charitable donation. Results convey an increase in displays of compassion when provided with a self-serving justification (Holmes et al., 2002, p. 149). The researchers share two possibilities for suppressing altruistic tendencies: “an act of unambiguous help in a situation likely to recur exposes the actor to future demands and internal conflicts” and “our culture values individualism over collectivism, appearing too sociocentric can make one suspect” (Holmes et al., 2002, p. 149). Therefore, self-interest can provide an excuse for helping.

Clohesy (2000) provides a revolutionary plea to third-sector organizations (also known as non-profit organizations, which are the community partners in service-learning) Clohesy shares the thoughts of numerous others, such as Kant, Blum, Selznick and Arendt. Service-learning is completed with non-profit organizations. Clohesy argues these theorists contribute to the relationship between altruism and humanness (Kant), moral action (Blum) and evolution (Selznick) (p. 245). Clohesy argues Arendt believes that people have tunnel vision focusing on private economic matters as opposed to public action. Clohesy states, "citizens' home life is spent not chiefly in education, thoughtful discussion, and loving growth, but in consumption, display, and preoccupation with economic advancement" (p. 247).

Clohesy (2000) pleads to third-sector organizations to follow democratic, in the true sense of the word, ideals. Third-sector organizations can have a democratic character that involves "the encouragement of participation and the sharing of experiences and insights by all members of a community" (p. 249). Clohesy warns nonprofit organizations that they are as "susceptible to routinization and bureaucratization as any other institution" (Clohesy, 2000, p. 250). He asks nonprofit organizations to rebel against this trap of detachment because it results in a dehumanization of the involved parties. The population that is served will no longer be perceived as humans but rather as cases. The service providers are no longer fulfilling a vocation merely completing a job. Donors, whose support brings the mission of the organization into fruition, will be viewed as mere patrons (Clohesy, 2000, p. 250). Although non-profit organizations compete with profit organizations for contracts to provide services, they need to remain altruistically-centered.

Altruism is a part of philosophy, psychology, biology, education and beyond. Underlying the numerous definitions of altruism is the concept of giving. The hypothesized motives for giving may range from a cathartic emotional release to improving status to fighting for justice. Levels of altruism can be influenced by teachers, parents and peers whether through pedagogies such as character education and service-learning or daily life experiences.

*Self-belief does not necessarily ensure success, but self-disbelief assuredly spawns failure.*

*Alfred Bandura*

### Efficacy

Efficacy is described as either a personality trait or a state (Barfield & Burlingame, 1974; Tschannen-Moran & Hoy, 2001). In addition to altruism, the personality attribute of teacher efficacy was explored in this study. Teacher efficacy is a branch of self-efficacy. Self-efficacy is a person's belief that he or she can perform behaviors that are necessary to bring about a desired outcome (Bandura, 1982; Bandura, Reese & Adams, 1969). Bandura, an influential cognitive-behavioral psychologist and creator of the construct, believes "self-efficacy determines our choice of activities, our intensity of effort, and our persistence in the face of obstacles and unpleasant experiences, in part by reducing the anxiety that might interfere with engaging in the activity" (Sdorow, 1995, p. 326; see also Bandura, Reese & Adams 1982; Carey, Snel, Carey & Richards, 1989; Dzewaltowski, Noble & Shaw, 1990). People with a high level of self-efficacy do not have to overcome the fear of failure.

### *Correlation to Efficacy*

Self-efficacy is linked with an internal locus of control, a cognitive-behavioral characteristic of personality developed by Julian Rotter. Rotter differentiates between the two types of locus of control, "internal versus external locus of control refers to the degree to which persons expect that a reinforcement or an outcome of their behavior is contingent on their own behavior or personal characteristics versus the degree to which persons expect that the reinforcement or outcome is a function of chance, luck, or fate, is under the control of powerful others or is simply unpredictable" (Sdorow, 1995, p. 327). One of the first inventories assessing teacher's sense of efficacy was derived from Rotter's locus of control construct (Gibson & Dembo, 1984, p. 569).

### *Teacher Efficacy*

Teachers' Sense of Efficacy is defined by leading theorists (Ashton and Webb, 1986) as "teachers' situation-specific expectation that they can help students learn" (p. 3). Teacher efficacy includes not only self-defined competencies, but also "the ability of teaching as professional discipline to shape students' knowledge, values and behavior" (Friedman & Kass, 2001 p. 675). Teacher efficacy is related to effective teaching which unquestionably impacts students' achievement (Ashton & Webb, 1986; Glassberg, 1979; Greenwood, Olejnik & Parkay, 1990). Research differentiating effective and noneffective teachers based on level of teacher efficacy centers on K-12 practitioners and preservice teacher education students (Root, Callahan & Sepanski, 2002), as opposed to higher education faculty members. Results indicate differences in the affective, cognitive and behavioral domains of teachers. Affectively, teachers with a high level of teacher efficacy, who are more likely to be female (Greenwood, Olejnik & Parkay, 1990), report lower levels of stress and display



positive emotions in the form of praise (as opposed to criticism, embarrassment, and excommunication) of low-achieving students (Chester & Beaudin, 1996; Greenwood, Olejnik, Parkay, 1990). Cognitively, these effective teachers exhibit an internal locus of control and a higher level of cognitive functioning (i.e., use of novel, risky or challenging teaching strategies) (Glassberg, 1979; Greenwood, Olejnik, Parkay). Behaviorally, high-*efficacy* teachers lead effective small-group instruction while engaging the remaining students, assist low-achieving students during failure situations, monitor student learning and overall managed content and conduct efficient classes (Ashton & Webb, 1986; Chester & Beaudin, 1996, p. 236).

#### *Teacher Efficacy and Social Justice*

Contemporary research furthers the definition by portraying the complex relationship between teacher efficacy and institutional reform. Chester & Beaudin (1996) studied the reason why teacher efficacy decreases after the first year of teaching. Results from the study suggests teacher efficacy "beliefs are mediated by the teacher's age and prior experience and by school practices such as opportunities for new teachers to collaborate with colleagues, supervisor attention to instruction, and the level of resources available at the school" (Chester & Beaudin, 1996, p. 233). Klecker and Loadman (1998) contributed another factor that impacts teacher efficacy, decision-making. These researchers sought to shed light on the concept of teacher empowerment, a construct equated with effective educational restructuring reform efforts. The study, which involved 10,544 teachers in 307 Ohio public schools, found teacher empowerment divided by status, professional growth, self-*efficacy*, decision-making, impact and autonomy in scheduling. Engerline-Lampe (2002) supports the relationship between decision-making and efficacy. The study concludes lack of clarity in

decision-making boundaries led to a lowered sense of personal and teacher efficacy, which is essential for school restructuring. Engerline-Lampe states "a key factor in restructured schools must be teacher beliefs and attitudes regarding their central role in decision making regarding the education of tomorrow's citizens" (Engerline-Lampe, 2002, p. 144). Most recently, Friedman and Kass (2002) add "school context and interpersonal relations between teachers and significant others within the school context to the concept of teacher-efficacy" to the list of influential factors (p. 675). They discuss the complexity of the role and the expectations therein for a teacher which includes being "both a leader and a follower at the same time, in the very same organization" (Friedman & Kass, 2001, p. 678).

Its association with social justice-oriented school restructuring efforts reawakens the research on teacher efficacy. As a critical component in teacher empowerment models this research will continue to lead to new directions.

*"Be the change you want to see in this world."*

*Gandhi*

#### Personality of Educators Who Utilize Service-Learning

Numerous studies such as *Small Town Teacher* (McPherson, 1972) and *Schoolteacher* (Lortie, 1975) provide in-depth analyses of K-12 teachers including, but not limited to revealing, socialization patterns and role conflicts. In regards to post-secondary faculty, in general terms, Schneider and Zalesny (1982) state that academicians can be divided into three categories: teachers, researchers and both (p. 37). Boyer (1996) and Astin (1998) discuss the need to expand the role of a professor by restructuring promotion and tenure practices that encourage the academy to become civically engaged.

### *Motivation for the Use of Service-Learning*

Research regarding educators who specifically utilize service-learning centers around motivation. Hammond (1994) worked with the Curriculum Development Committee of the Michigan Campus Compact to understand the motivations of faculty who incorporated service-learning into their curriculum. They created a professional profile of a service-learning educator. Demographically, 53.5% were male, 88.8% were European-Americans and 79.7% were over age 40. Of the 44 disciplines represented, the most frequent use (23%) of service-learning was by faculty members in Education. In regard to status, 98.4% had a Ph.D., 74.2% taught for over 10 years and 82.9% listed teaching as their top professional responsibility. Over 63% of these faculty members used a service-learning component in their course four or more times thereby indicating a commitment to service-learning. The instrument used to inquire about the motivation of educators who use service-learning divided the construct of motivation into three categories: personal motivations, co-curricular motivations and curricular motivations. The results found the strongest motivation to be in the curricular realms because service-learning "brings greater relevance to course materials, encourages self-directed learning, improves student satisfaction with education, is an effective way to present disciplinary content material and is an effective form of experiential education" (p. 25). Another interesting result of this study is that of the faculty members who utilized their service-learning efforts as a part of a scholarly work, 81.6% reported they were "very satisfied" or "satisfied" with their courses (p. 25).

Kennedy (2003) shares the results of a study conducted by a marketing research class on the prevalence of service-learning on campus. Similar to Hammond, they concluded that the professional profile including gender, status and length of service was insignificant.

However, academic discipline was important, specifically social sciences and humanities, had the highest levels of participation. Kennedy created a two-dimensional typology characterizing faculty who are involved in service-learning based on ideological commitment and institutional motivation: "Faculty are characterized as committed and motivated (social-change agents); uncommitted but institutionally motivated (engaged teachers); committed but institutionally unmotivated (private change agents); and neither committed nor motivated (not-at-alls)" (p. 5).

Levine (1994) discusses how to increase faculty's motivation to use service-learning. Levine recommends the following seven steps: (1) administrators should ask faculty members; (2) provide financial support structure; (3) convey the academic discipline's success with service-learning; (4) urge faculty's attendance at service-learning conferences; (5) recommend to faculty members to teach service-learning courses "that offer a balanced perspective on service" providing the strengths and weaknesses of voluntarism, former presidential service initiatives, and social service agency perspective; (6) convey how service-learning can relate to scholarship; and (7) reward the works of service-learning educators.

Rothman (1998) believes that faculty will increase their involvement in two different "waves": (1) faculty who are innovators will take the pedagogy of service-learning in new directions and (2) faculty who will wait until service-learning is less marginalized and "come on board only after the practice has gained some broader acceptance."

Stanton, Giles and Cruz (1999) interviewed pioneers of service-learning, which was operationalized as working with service-learning between the 1930's and 1960's in postsecondary education. In-depth interviews were initiated at the Wingspread Conference.

The researchers discovered the motivation for utilizing service-learning ranged from beliefs that education should serve society to democratic education to social justice. The pioneers shared stories portraying their life experiences. Some described their parents as avid volunteers/activists, and others conveyed their personal stake in civil rights issues. The pioneers have various learning objectives such as empowering students to become leaders and creating international field studies. They were inspired by educational theorists such as Dewey, Freire and Kolb.

This chapter reveals the relevant studies that connect education and psychology. The insights of these theorists have provided a sustainable future for social-justice oriented service-learning and personality psychology. The research discussed informs my past, present and future work.

## METHODOLOGY

Pilot studies, employing both quantitative and qualitative research methodology, provided a foundation for my dissertation research. The lessons learned through these studies necessitated changes such as: increasing the sample size to use parametric tests, using technology as the medium for transmission and collection of data and asking direct questions that make it possible to deduce the professional experiences and philosophy of education of respondents.

In my Web-based survey, I explore the personal attributes of educators who utilize service-learning by integrating two inventories designed to assess levels of altruism and teacher efficacy. I explore the professional attributes of educators who utilize service-learning by asking a series of questions that parallel the conventional components of a curriculum vitae for professors in higher education: educational history, work experience, honors and awards, institutional service, community service, professional endeavors (i.e. publications, presentations, grants) and philosophy of education.

During the summer of 2003, subjects received a request for participation on three separate occasions. These email messages had an active hyperlink embedded into the text of the message, which directed the subject to the online instrument that assessed the above-mentioned personal and professional traits (for a copy of the survey see Appendix A). The third and final email message included an incentive, a \$10.00 e-gift certificate for amazon.com for every 5<sup>th</sup> respondent (for email messages see Appendix B, C, D).

### *Research Questions*

In essence, I am determining if differences exist in the personality (altruism and teacher efficacy) and professional experiences (publications, conferences, grants) of educators who do and do not utilize service-learning.

### *Population and Sample*

A total of 560 service-learning educators and non-service-learning educators are assessed. The 280 service-learning educators are part of an educational system that has an institutional emphasis on civic engagement. The presidents of these institutions are a part of the organization Campus Compact. The mission statement for this organization is: "Campus Compact is a national coalition of more than 860 college and university presidents committed to the civic purposes of higher education. To support this civic mission, Campus Compact promotes community service that develops students' citizenship skills and values, encourages partnerships between campuses and communities, and assists faculty who seek to integrate public and community engagement into their teaching and research (Campus Compact, 2003). This will provide insights into service-learning practitioners that are supported by their institution. The 280 non-service-learning educators are a part of an educational system that does not have an institutional-wide emphasis on civic engagement; the president of the university/college will not be a part of Campus Compact. The institutions of these non-service-learning educators are matched with the institutions of service-learning educators in two ways: Carnegie Classification and geography (by region).

The sample was randomly selected by using <http://www.eduplace.com> divisions of the regions of the United States. The four regions are divided into: Northwest, Midwest, South and West (see Appendix E). The states within each region were assigned a number.

Seven states from each of the four regions then were randomly chosen (using the website <http://www.random.org> for a list of random numbers). The URL <http://www.compact.org> was used to print the list of member institutions for each of the 28 states (7 states X 4 regions) (see Appendix F) that were chosen (for an example, see Appendix G). Seven Campus Compact member institutions were chosen randomly for each of those states and matched with seven non-Campus Compact institutions and matched on two levels. First, the institutions matched geographically (same region). Second, the institutions matched in terms of the 2000 Carnegie Classification of Institutions of Higher Education: Doctoral/Research University—Extensive, Doctoral/Research University—Intensive, Master’s College and Universities I, Master’s College and Universities II, Baccalaureate Colleges—Liberal Arts, Baccalaureate Colleges—General, Baccalaureate/Associate’s Colleges, Associate’s Colleges, Specialized Institutions and Tribal Colleges and Universities (Carnegie Foundation, 2000) (for an example, see Appendix H). From the websites of each of the institutions, I randomly chose 10 educators under the following 17 disciplines: Agriculture, Arts, Architecture, Business, Education, Engineering, Human Development and Family Studies, Health, Interdisciplinary, Journalism, Language, Law, Library Sciences, Math, Sciences, Social Sciences and Technology. If possible, one professor from a discipline was chosen. The disciplines and email addresses of each of these 560 educators were recorded. The first request for participation generated 27 "failure of delivery" messages. I replaced these messages with "colleagues" who were in the same university and the same discipline.

### *Design*

A one-way Analysis of Variance was employed to test the majority of the hypotheses. Initially, it was under debate if the best procedure was a t-test or a one-way ANOVA until



realizing, "there is a precise mathematical relationship between the calculated value of  $t$  and the calculated value,  $F$ , of the one-way ANOVA. For an independent variable with two levels or groups  $t^2=F$ " (Abrami, Cholmsky & Gordon, 2001, p. 256). Thus, under the conditions of this study, the conclusions would be equivalent using either test. However, conducting numerous  $t$ -tests result in an "increased likelihood of a Type I error somewhere in the collection of tests" (Abrami, Cholmsky & Gordon, 2001, p. 258).

The one-way ANOVA procedure was utilized with service-learning or non-service-learning educator (determined by the response to question 3.06) as the single categorical "factor." The continuous "dependent" variables were teacher efficacy (hypothesis 1a), altruism (hypothesis 1b), work experience (hypothesis 2b), honors and awards (hypothesis 2c), institutional service (hypothesis 2d) and community service (hypothesis 2e). Also, a one-way ANOVA was applied to test professional experiences (hypothesis 2f) with Carnegie Classification (determined by the response to question 3.02) as the "factor" and number of publications, presentations and grants (determined by the response to questions 3.17, 3.18 and 3.19, respectively) as the "dependent" variables.

To test hypothesis 2a, educational history, the following two variables were summed: service-learning or non-service-learning educator (determined by the response to question 3.06) and the affiliation with Campus Compact for the respondents' undergraduate and graduate institutions (determined by the response to questions 3.10 and 3.11). Hypothesis 2g, philosophy of education, was assessed by summarizing the following variables: service-learning or non-service-learning educator (determined by the response to question 3.06) with specific philosophies of education--perennialism, essentialism, progressivism and social

reconstructionism (determined by the response to 3.21) and descriptive information such as sex, ethnicity and discipline (determined by the responses to questions 3.03, 3.04, and 3.05).

A bivariate correlation, the Pearson product-moment correlation ( $r$ ), was conducted to determine if a relationship exists between two variables. Each of the continuous variables was included in these analyses. Prior to conducting a bivariate correlation, a scatterplot was created (recommended by George & Mallery, 2001, p. 114) to ensure the relationship between the two variables is linear, as opposed to curvilinear, which is not detected by the Pearson  $r$ .

Besides one-way ANOVA and bivariate correlation, an additional test was employed in the analysis. A factor analysis was conducted on the Ohio State Teacher Efficacy Scale (recommended by the creators, Tschannen-Moran & Hoy) to determine which of the three dimensions of teacher efficacy (instructional strategies, student engagement and classroom management) was the most influential.

#### Data and Instrumentation

The purpose of this study is to understand better the personal and professional attributes of educators who utilize service-learning. This research endeavor is a combination of psychology (specifically personality psychology) and education (specifically service-learning). Assessing the two attributes, efficacy and altruism, provides a panoramic view of an educator who chooses to incorporate community service into the curriculum. These specific facets of personality are assessed, as opposed to the general Five Factor Model (openness, conscientiousness, extraversion, agreeableness and neuroticism) inventory such as the NEO-FFI by Costa and McCrae. The generality of the NEO-FFI and similar measures

may not be able to reveal the specific differences between service-learning providers and non-service-learning providers (Pervin & John, 1999, p. 358). Thus, more specific instruments to assess personal traits and more specific questions to assess professional traits are used to determine if there is a statistically significant difference between the educators in altruism, teacher efficacy and experiences.

Ranging from college entrance committees to human resources departments, personality assessments are utilized to determine a schema for ideal candidates. The growing trend for the incorporation of service-learning provokes the need to explore the individual differences and environmental influences of the educators who are asked to incorporate this educational tool into their curriculum. By learning about the educators who voluntarily utilize service-learning, we can form a generalized, working schema of an educator who is the most likely to incorporate service-learning into the curriculum.

#### Self-Report Altruism Scale

To assess altruism, I utilized the Self-Report Altruism Scale created by J. Philippe Rushton, Roland D. Chrisjohn and G. Cynthia Fekken in 1981 (see Appendix I). The Self-Report Altruism Scale consists of 20 items. "Respondents are instructed to rate the frequency with which they have engaged in the altruistic behaviors using the categories 'Never,' 'Once,' 'More Than Once,' 'Often' and 'Very Often'" (Rushton et al., 1981). This scale is stable psychometrically. Altruism, similar to efficacy, is valuable because of the empirical links to other personality traits. The construct validity of this measure is conveyed by its significant positive correlation "among a variety of questionnaire measures of prosocial orientation" (Rushton, Chrisjohn & Fekken, 1981, p. 299). It is positively correlated with peer-ratings of altruism, measures of moral reasoning (Kohlberg's dilemmas), nurturance,

sensitive-attitude, empathy, social responsibility and an overall prosocial disposition (Rushton, Chrisjohn & Fekken, 1981). This scale is utilized because of its wide acceptance in the field. The directions for the scale were modified slightly. Originally, the instructions read, "Tick the category on the right that conforms to the frequency with which you have carried out the following acts" (Rushton et al., 1981). With the recommendation of the authors of the scale, I changed the instructions to "Imagine you are in a situation where you could engage in the following items. Tick the category on the right that conforms to the estimated frequency with which you would carry out the following acts."

Teaching is a personal reflection of interests, biases, and agendas. We teach what we believe (Brinkley et al., 1999). If educators are involved in community service, thereby signifying levels of altruism, they may choose to cultivate a sense of citizenship in students through service-learning.

### Efficacy Scales

I will review the other self-efficacy scales to validate my choice for the Ohio State Teacher Efficacy Scale (OSTES) created by Megan Tschannen-Moran and Anita Woolfolk Hoy in 2001 (Appendix J). The first teacher efficacy scale, the Rand measure, stemmed from the work of Rotter. This measure consists of two questions that evaluate whether teachers feel control is internal or external. The first question assesses external factors (i.e., "value placed on education at home; the conflict, violence, or substance abuse in the home or community; the social and economic realities concerning class, race, and gender; and the physiological, emotional and cognitive needs of a particular child"): "When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment" (Tschannen-Moran & Hoy, 2001, p.

785). The second question assesses internal factors: "If I really try hard, I can get through to even the most difficult or unmotivated students" (Tschannen-Moran & Hoy, 2001, p. 785). Because of the limited number of questions, reliability and validity are the psychometric issues against the use of this scale. Second, Guskey in 1981 created a 30-item instrument named Responsibility for Student Achievement. However, Tschannen-Moran & Hoy state that "no published studies were found in which other researchers had adopted this measure" (Tschannen-Moran & Hoy, 2001, p. 786). Third, Rose and Medway created a 28-item measure called the Teacher Locus of Control. But, similar to Guskey's measure, it was not utilized by researchers. Fourth, The Webb Efficacy Scale was created in the early '80's but, similar to the former measures, it was not utilized by researchers. During these four measurement developments, the theory of locus of control was the critical construct, but, then Alfred Bandura's theory became the theme for the following measures. The fifth assessment for efficacy is the Ashton vignettes. Everyday scenarios assessed how teachers handle common teacher challenges. However, Tschannen-Moran & Hoy (2001) state that only one study utilized this scale. The sixth assessment, the Teacher Efficacy Scale, by Gibson and Dembo, has been the most popular. However, when factor analysis was completed on this measure, a surprising two-factor structure exists. Tschannen-Moran & Hoy state that "the lack of clarity about the meaning of the two factors and the instability of the factor structure make this instrument problematic for researchers" (Tschannen-Moran & Hoy, 2001, p. 789). Several researchers used Gibson and Dembo's scale to create specific efficacy scales, for example, the Science Teaching Efficacy Belief Instrument by Riggs and Enochs (1990) and the Classroom Management Efficacy Scale by Emmer (1990). Bandura created a Teacher Self-Efficacy Scale based on his theory. One of the seven subscales for this measure is

community involvement, which I believe would correlate highly with service-learning advocates. I prefer using this measure, but reliability and validity information is not yet available.

#### Ohio State Teacher Efficacy Scale

A teacher efficacy scale is utilized compared to a self-efficacy scale because the purpose of this study is to understand the subject as an educator. Pajares (1996) supports the need to assess efficacy at a specific as opposed to a general level, “when efficacy beliefs are globally assessed and/or do not correspond with the criterial tasks with which they are compared, their predictive value is diminished or can even be nullified; and when efficacy assessments are tailored to the criterial task, prediction is enhanced” (p. 557). Thus, for psychometric reasons, I utilized a specific teacher-efficacy scale as opposed to a self-efficacy scale.

The best option is the OSTES created by Tschannen-Moran & Hoy, which is based on Bandura’s scale. The three efficacy factors for the OSTES are for instructional strategies, classroom management and student engagement. Unfortunately, the OSTES eliminates Bandura’s community involvement subscale. Fortunately, with the OSTES, a total score can be calculated to assess efficacy. In addition to the high reliabilities, the OSTES has construct validity as well. In addition, the total scores on the OSTES correlate with both the Rand items and Gibson and Dembos’s measure. Considering all of the options, the best instrument choice, at the present time, is the OSTES (Tschannen-Moran & Hoy, 2001).

The OSTES consists of 24 items. Respondents are asked to rate how much of a personal difference they can make in everyday school-related challenges using the 9-point Likert scale that ranges from “nothing,” “very little,” “some influence,” “quite a bit” and “a

great deal” (Tschannen-Moran & Hoy, 2001). This teacher efficacy measure is stable psychometrically unlike the Rand, Responsibility for Student Achievement, Teacher Locus of Control, Webb Efficacy, Teacher Efficacy and content-specific scales (Tschannen-Moran & Hoy, 2001). The alpha reliabilities for the full 24-item scale of the scale are .92 to .95. One modification was made to the scale due to my population, professors/instructors in higher education. I replaced the word “children” with the word “students.

In the article *Teacher efficacy: Capturing an elusive construct*, Tschannen-Moran & Hoy (2001) review the findings on the connections between teachers with a strong sense of efficacy and a “tendency to exhibit higher levels of planning and organization,” openness to new ideas and new teaching methods, lower frequency in criticism of students, enthusiasm and commitment to teaching (p. 784). A high score on the scale conveys the educators’ perception of impact, specifically, if they feel they can make a difference on three dimensions of teacher efficacy—instructional strategies, student engagement and classroom management. A main learning objective for service-learning is for students to realize the realities (i.e. social injustices) of society. Thus, high scorers on this inventory can be interpreted as educators who believe they play a significant role in the formation of students’ perception of the critical issues of contemporary society. Thus, a high score will convey educators’ perception of influence on students understanding of social ills. Assessing efficacy will provide an understanding of the educators’ personality, as a whole, because of the strong empirical link between efficacy and other personality traits such as locus of control, personal responsibility and persistence (Gibson & Demko, 1984, p. 572). For this reason, assessing teacher-efficacy is ideal for understanding the personality of the educator.

## RESULTS AND ANALYSIS

### *Preparation of Data*

Analyses of the results succeeded extensive preparation of the data. Preparation entailed four adjustments. First, under review was the critical question, 3.06, "Do you use the educational strategy--service-learning? In other words, do you integrate community service into your curriculum to achieve academic goals?" Originally, 66 respondents stated "no," 45 respondents stated "yes," and 17 respondents stated "other." To classify the "other" respondents into either "yes" or "no," the answer for the next question was judged. Question 3.07, designed for the purpose of construct validity, asks, "If you responded affirmatively to the above question, please describe your service-learning component." After thoughtful review of the rationale for the 17 "other" responses, an addition of 4 "no" responses and 13 "yes" responses were designated, for a total of 70 non-service-learning educators and 58 service-learning educators. Below is a chart outlining the "other" respondents' answer to question 3.07 and the corresponding classification for question 3.06:

<b>"Other" Responses to 3.07:</b>	<b>Change in Classification for 3.06:</b>
As an optional exercise	Yes
Co-Op Internship	Yes
I am in the process of adding this component	Yes
I do but it depends on the class	Yes
I teach graduate students in a program for state c	No (incomplete response)
It is done, but not in my class.	No
No, but I'd like to learn more about it	No
Only for internship experiences	Yes
Only for the Field Work class	Yes
Sometimes, depends on course	Yes
in one area, the teacher education course I teach	Yes
in the works for next year	Yes
internship class IS community service	Yes
no academically relevant application in local comm	No



observing service agencies	Yes
practicum experiences and student teaching	Yes
when appropriate	Yes

The sample represents a variety of service-learning opportunities, ranging from Art students creating crafts with elementary-aged students to health students working as physician assistants for pro bono medical screenings for underserved populations, to business students working with nonprofits to assist with issues such as marketing, management, accounting, and information technology, to science students working in conjunction with local grassroots organizations concerned with water quality.

Second, there was evident confusion over question 3.09, "Do you voluntarily incorporate service-learning into the curriculum or is it an institutional mandate for your course?" Four respondents marked "institutional mandate." When reading these responses, an Art teacher described the existence of an institutionally mandated first-year writing class that integrated a service-learning component. The other three responses equated institutional mandate with state mandates for teacher education and health curriculums, both of which encourage designing learning experiences for students that move theory to application. Because of this confusion, I chose not to include question 3.09 in the analysis.

Third, the responses were quantified for six questions: 3.14 ("List honors and awards you have received"), 3.15 ("List institutional service-related activities you are involved with, i.e., committee membership"), 3.16 ("List community service-related activities you are involved with, i.e., work with nonprofit organizations"), 3.17 ("How many publications have you completed?"), 3.18 ("How many conference presentations have you completed?"), and 3.19 ("How many grants have you earned?"). Approximately 10 responses for each of the

three questions were eliminated when the responses were too general to quantify, such as: “I am heavily involved with many committees and activities--too many to take the trouble to list”; “a bunch”; “many-\$6m in funding”; “lots of committees”; “sorry-no time-extensive list”; “sorry confidential”; “tons”; and “I could spend the rest of the day listing committee work, including serving as chair, I have done over the years, but I have better ways of spending my time!”

Fourth, the three assumptions for one-way ANOVAs were partially met (Abrami et al., 2001, p. 284). Heteroskedasticity is an issue for some of the significant findings, according to Levene’s Test of Homogeneity of Variance, with  $p < .05$ . Also, the scores are not completely orthogonal, statistically independent. The respondents, higher education professors, teach several courses. These courses are offered at different times through the academic year (fall, spring, and summer sessions). One, none, or all of these courses may include a service-learning component. Professors reporting the use of service-learning also may be teaching courses that do not include a service-learning component. Thus, the “service-learning educators” also may be “non-service-learning educators” at a given time. However, I believe the question extracted the intended response. Educators who have used service-learning (in the past, present, or future) were designated “service-learning educators.” Finally, the sample is distributed normally and is relatively large ( $n > 30$ ), so that asymptotic normality is likely for model residuals. Results from skewness and kurtosis measures (within  $\pm 2$ ) validate this assumption for the continuous variables, except for those variables with extreme responses such as institutional service (skewness statistic: 2.11, kurtosis statistic: 7.33), publications (skewness statistic: 6.319, kurtosis statistic: 45.57) and presentations (skewness statistic: 5.85, kurtosis statistic: 44.03) (Appendix K).

*Description of Sample*

The following three charts convey descriptive information of the sample on three levels: total, service-learning educators only, and non-service-learning educators only:

<b>Total</b>				
<b>N</b>	<b>Sex</b>	<b>Ethnicity</b>	<b>Geography</b>	<b>Discipline</b>
121--126	<b>Male: 50</b> <b>Female: 73</b>	<b>African American: 2</b> <b>American Indian/Alaskan Native: 1</b> <b>Asian/Pacific Islander: 4</b>	<b>Midwest: 41</b> <b>Northeast: 26</b> <b>South: 33</b> <b>West: 21</b>	<b>Agriculture: 3</b> <b>Arts: 9</b> <b>Architecture: 2</b> <b>Business: 8</b> <b>Education: 15</b> <b>Engineering: 7</b> <b>HDFS: 3</b> <b>Health: 7</b> <b>Interdisciplinary: 3</b> <b>Journalism: 1</b> <b>Language: 2</b> <b>Law: 1</b> <b>Library Sciences:</b> <b>Math: 7</b> <b>Sciences: 19</b> <b>Social Sciences: 20</b> <b>Technology: 4</b>
<b>Campus Compact:</b>	<b>Carnegie:</b>	<b>Hispanic: 1</b>		
<b>No: 56</b> <b>Yes: 65</b>	<b>DE: 17</b> <b>DI: 15</b> <b>MI: 48</b> <b>MII:</b> <b>BLA:</b> <b>BG: 18</b> <b>BA:</b> <b>A: 23</b> <b>S:</b> <b>T:</b>	<b>White: 108</b> <b>International: 7</b>		

<b>Service-Learning Educators</b>				
<b>N</b>	<b>Sex</b>	<b>Ethnicity</b>	<b>Geography</b>	<b>Discipline</b>
66-69	<b>Male:</b> 34 <b>Female:</b> 33	<b>African American:</b> <b>American Indian/Alaskan Native:</b> 1 <b>Asian/Pacific Islander:</b> 4	<b>Midwest:</b> 20 <b>Northeast:</b> 20 <b>South:</b> 16 <b>West:</b> 10	<b>Agriculture:</b> 3 <b>Arts:</b> 3 <b>Architecture:</b> <b>Business:</b> 5 <b>Education:</b> 8 <b>Engineering:</b> 4 <b>HDFS:</b> 1 <b>Health:</b> <b>Interdisciplinary:</b> <b>Journalism:</b> <b>Language:</b> 2 <b>Law:</b> <b>Library Sciences:</b> <b>Math:</b> 5 <b>Sciences:</b> 14 <b>Social Sciences:</b> 10 <b>Technology:</b> 3
<b>Campus Compact:</b>	<b>Carnegie:</b>	<b>Hispanic:</b>		
<b>No:</b> 32 <b>Yes:</b> 34	<b>DE:</b> 10 <b>DI:</b> 7 <b>MI:</b> 26 <b>MII:</b> <b>BLA:</b> <b>BG:</b> 11 <b>BA:</b> <b>A:</b> 12 <b>S:</b> <b>T:</b>	<b>White:</b> 56 <b>International:</b> 6		

<b>Non-Service-Learning Educators</b>				
<b>N</b>	<b>Sex</b>	<b>Ethnicity</b>	<b>Geography</b>	<b>Discipline</b>
55-57	Male: 16 Female: 40	African American: 2 American Indian/Alaskan Native: Asian/Pacific Islander:	Midwest: 21 Northeast: 6 South: 17 West: 11	Agriculture: Arts: 6 Architecture: 2 Business: 3 Education: 7 Engineering: 3 HDFS: 2 Health: 7 Interdisciplinary: 3 Journalism: 1 Language: Law: 1 Library Sciences: Math: 2 Sciences: 5 Social Sciences: 10 Technology: 1
<b>Campus Compact:</b>	<b>Carnegie:</b>	Hispanic: 1		
No: 24	DE: 7 DI: 8	White: 52		
Yes: 31	MI: 22 MII: BLA: BG: 7 BA: A: 11 S: T:	International: 1		

The descriptive statistics provide general information (location, ethnicity, gender, Campus Compact membership, and Carnegie Classification) of the sample (Appendix L). The majority of the respondents are working in the Midwest. The fewest service-learning educators and non-service-learning educators work in the West and Northeast, respectively. The majority of the sample self-identified as European American. In regard to gender, 57% of the sample were female and 39% male. The service-learning educators were evenly divided by gender (48% were females and 49% were males). For the non-service-learning educators, 70% were female and 28% male. Campus Compact membership of the institutions of the respondents was evenly divided (49% were members and 46% were non-members). Similar to the total, of the service-learning educators, 49% were members and 46% were

non-members. For the non-service-learning educators, 54% were members and 42% were non-members. The majority of these institutions have a Carnegie Classification of Master's Colleges and Universities I and Associate's Colleges. Education, Sciences, and Social Sciences are the disciplines of the majority of the respondents. Kenney (2003) found "the only classificatory variable of difference was academic discipline, with humanities and social science departments ranking the highest in participation and science and math with the lowest" (p. 5).

### *Hypotheses Testing*

#### *Research Hypothesis 1a*

*Service-learning educators will score statistically significantly higher than non-service-learning educators on the Ohio State Teacher Efficacy Scale.*

Results from a one-way ANOVA supported the acceptance of Research Hypothesis 1a. That is, service-learning educators ( $n = 56$ ;  $Mean = 171.20$ ) scored significantly higher than non-service-learning educators ( $n = 69$ ;  $Mean = 159.81$ ) on the Ohio State Teacher Efficacy Scale. The total scores for teacher efficacy for service-learning educators and non-service-learning educators indicate  $F(2, 123) = 5.180, p < .01$ . Four questions indicate statistical significance, with  $p < .05$ :

<b>Question</b>	<b>Service-Learning</b>	<b>Non-Service-Learning</b>	<b>Significance</b>
E1.01B How much can you do to help your students think critically?	$n = 56$	$n = 69$	$F(2, 123) = 3.72, p < .05$
	$Mean = 7.54$	$Mean = 6.83$	

E1.01E To what extent can you make your expectations clear about student behavior?	$n = 56$	$n = 69$	F (2, 123) = 4.11, $p < .05$
	<i>Mean</i> = 8.54	<i>Mean</i> = 7.99	
E1.01H How much can you do to help your students value learning?	$n = 56$	$n = 68$	F (2, 122) = 4.11, $p < .05$
	<i>Mean</i> = 6.93	<i>Mean</i> = 6.29	
E1.01Q How much can you do to adjust your lessons to the proper level for individual students?	$n = 56$	$n = 69$	F (2, 123) = 3.25, $p < .05$
	<i>Mean</i> = 6.86	<i>Mean</i> = 6.13	

(Refer to Appendix M for more details on the significant findings for teacher efficacy and Appendix N for the non significant findings for teacher efficacy). Analysis of the individual questions conveys that service-learning educators, compared to non service-learning educators believe they play a greater role in the design (i.e., expectations of behavior), implementation (i.e., use of differentiation to accommodate for varying learning levels) and assessment (i.e., appreciation of learning and critical thinking) of the learning experiences of students.

A factor analysis was conducted on the Ohio State Teacher Efficacy Scale, as recommended by Tschannen-Moran and Hoy (Appendix O). The Kaiser-Mayer-Olkin statistic, a measure “of whether your distribution of values is adequate for conducting factor

analysis,” resulted in the value of .820, which is “meritorious” (George & Mallery, 2001, p. 242). The Bartlett’s Test of Sphericity resulted in  $p < .05$ ; thus, the data are “multivariate normal and acceptable for factor analysis” (George & Mallery, 2001, p. 242). There are six factors with eigenvalues larger than 1.0, which together account for 62.45% of the total variance, as depicted in pictorial form by the scree plot. However, the creators of the scale divided teacher efficacy into three categories: instructional strategies, student engagement, and classroom management.

#### *Research Hypothesis 1b*

*Service-learning educators will score statistically significantly higher than non-service-learning educators on the Self-Report Altruism Scale.*

Results from a one-way ANOVA conveyed that Research Hypothesis 1b is not supported. These service-learning educators ( $n = 56$ ;  $Mean = 115.09$ ) do not score significantly higher than non-service-learning educators ( $n = 69$ ;  $Mean = 112.35$ ) on the Self-Report Altruism Scale (see Appendix P for non-significant findings for altruism). The total scores for altruism for service-learning educators and non-service-learning educators indicate  $F(2, 123) = .404$ , with  $p > .05$ . Three questions indicate  $p < .05$  (see Appendix Q for further details for altruism):



Question	Service-Learning	Non-Service-Learning	Significance
A2.01F I have donated goods or clothes to a charity.	<i>n</i> = 56	<i>n</i> = 69	F (2, 123) = 4.21, <i>p</i> < .05
	<i>Mean</i> = 8.46	<i>Mean</i> = 7.75	
A2.01G I have done volunteer work for a charity.	<i>n</i> = 56	<i>n</i> = 68	F (2, 122) = 4.00, <i>p</i> < .05
	<i>Mean</i> = 6.75	<i>Mean</i> = 5.74	
A2.01O I have bought 'charity' Christmas cards deliberately because I knew it was a good cause.	<i>n</i> = 56	<i>n</i> = 68	F (2, 122) = 8.01, <i>p</i> < .05
	<i>Mean</i> = 5.61	<i>Mean</i> = 4.00	

A difference may not exist in the total scores on the Self-Report Altruism Scale between service-learning educators and non-service-learning educators due to the need for a teacher-specific altruism scale discussed further in chapter five. However, analysis of individual questions convey service-learning educators, on average, engage in more acts of charity (i.e., contributions of goods, clothes and cards), as well as direct services (i.e. volunteer work) than non-service-learning educators. The results reveal a service orientation possessed by

service-learning educators; professionally and personally service-learning educators are civically-engaged. The consistency between the professional and personal realms of behavior alludes to the question concerning whether service-learning educators report a higher level of job (professional)/life (personal) satisfaction than non service-learning educators.

*Research Hypothesis 2a*

*Educational History:*

*Service-learning educators will have more undergraduate and graduate experiences with institutions that promote civic engagement, which will be determined by membership in Campus Compact.*

Both service-learning educators and non-service-learning educators experienced undergraduate and graduate education in institutions that are committed to civic engagement. There is not a difference between these two samples on this measure (see Appendix R and Appendix S for frequency distributions of service-learning and non-service learning educators, respectively).

<b>Service-Learning Educators</b>		
<i>Undergraduate</i>	<b>Yes Campus Compact: 30</b>	<b>No Campus Compact: 21</b>
<i>Graduate</i>	<b>Yes Campus Compact: 39</b>	<b>No Campus Compact: 10</b>

<b>Non-Service-Learning Educators</b>		
<i>Undergraduate</i>	<b>Yes Campus Compact: 38</b>	<b>No Campus Compact: 21</b>
<i>Graduate</i>	<b>Yes Campus Compact: 46</b>	<b>No Campus Compact: 17</b>

However, Campus Compact membership, discussed further in chapter five, is too broad on two levels: (1) Presently there are 900 institutional members of Campus Compact. The current on-line listing was used to determine membership for this study. But, when respondents received their undergraduate and graduate education, Campus Compact membership differed. Also, Campus Compact was created relatively recently, specifically in 1985, thus, when some of the respondents were earning their degrees, Campus Compact did not even exist. It would be more fruitful to examine the mission statements of these institutions to determine the priority of cultivating a service ethic in the student body. (2) Campus Compact membership represents an institution's commitment to apply the principle of civic engagement. However, the application of this commitment is diverse in form. For example, three different institutions are members of Campus Compact but if Furco's *Self-Assessment Rubric for the Institutionalization of Service-Learning in Higher Education* is utilized, one institution may be classified at Stage 1: Critical Mass Building, the other at Stage 2: Quality Building and the other at Stage 3: Sustained Institutionalization. Both of these reasons convey the problematic use of Campus Compact.

#### *Research Hypothesis 2b*

##### *Work Experience*

*Service-learning educators will have more years of experience in industry than in higher education.*

Results from a one-way ANOVA conveyed that Research Hypothesis 2b is not supported; these service-learning educators do not score significantly higher than non-service-learning educators in number of years of work experience in higher education or in industry (see Appendix T for more details on the findings for work experience):

Work Experience	Service-Learning	Non-Service-Learning	Significance
3.12 How many years of work experience do you have in higher education?	$n = 55$	$n = 66$	F (1, 119) = 1.37, $p > .05$
	$Mean = 15.25$	$Mean = 17.32$	
3.13 How many years of work experience do you have in industry?	$n = 54$	$n = 65$	F (1, 117) = 2.80, $p > .05$
	$Mean = 8.59$	$Mean = 5.54$	

Although a statistical difference was not found, service-learning educators have, on average, possessed more years of experience in industry than in higher education. Perhaps, connecting the classroom with the community is more intuitive for professors who have had experiences outside of academe or application of the theoretical may be a higher educational objective for educators who were once a part of industry.

#### *Research Hypothesis 2c*

##### *Honors and Awards*

*Service-learning educators will receive significantly more teaching awards than non-service-learning educators.*

Results from a one-way ANOVA conveyed that Research Hypothesis 2c is not supported; significant differences do not exist between these service-learning and non-service-learning educators for the number of teaching awards reported: F (2, 34) = 1.125,  $p >$

.05 (see Appendix U for more details on the non significant findings for honors and awards). Both service-learning and non-service-learning educators averaged over one teaching award during their academic career. A deeper understanding of the relationship between teaching awards and service-learning could be deduced if inquiring further on the reasoning for receiving the teaching award (i.e. what instructional methods were used with nominating students). In essence, how were the role expectations of a teacher exceeded by the recipient in order to earn the award? From that information, one would be able to determine if a particular pedagogy is favored by students.

#### *Research Hypothesis 2d*

##### *Institutional Service*

*Service-learning educators will report significantly more institutional service (i.e. committee membership) than non-service-learning educators.*

Results from a one-way ANOVA convey that hypothesis 2d is not supported. These service-learning educators ( $n = 30$ ;  $Mean = 4.03$ ) do not score significantly higher than non-service-learning educators ( $n = 33$ ;  $Mean = 4.27$ ) on institutional service  $F(1, 61) = .157, p > .05$  (see Appendix V for more details on the non-significant findings for institutional service). Membership on four campus committees was the average for both service-learning and non-service-learning educators. This level of involvement conveys a consistency across institutions regardless of the Carnegie Classification. A norm, or expected standard of participation, for institutional service exists for higher education.

### *Research Hypothesis 2e*

#### *Community Service*

*Service-learning educators will report significantly more community service than non-service-learning educators.*

After deleting general descriptors (i.e., “tons,” “a bunch,” “lots”) the number of community service activities was tabulated. However, quantifying the list of service activities reduced the quality of responses. For example, a respondent stated that he was a part of establishing several NGO's. Another respondent stated she was the president of the local school board for several years. These two respondents received the same ranking as member of a church for several years or festival volunteer for several years, although there is an unquestionable difference in the depth and breadth between these community service activities. Using this quantified data, the one-way ANOVA conveyed that hypothesis 2e is not supported; these service-learning educators ( $n = 41$ ;  $Mean = 2.56$ ) do not score significantly higher than non-service-learning educators ( $n = 45$ ;  $Mean = 2.11$ ) on community service:  $F(1, 84) = .580, p > .05$  (see Appendix W for more details on the non significant findings for community service).

### *Research Hypothesis 2f*

#### *Professional Experiences:*

*These experiences will be influenced by the promotion and tenure requirements of the institution. Respondents working at institutions that have "Doctoral/Research Universities--Extensive" and "Doctoral/Research Universities--Intensive" classifications will report more publications, presentations and grants.*

Results from a one-way ANOVA conveyed that hypothesis 2f is supported; a significant difference exists between the Carnegie Classification of an institution and the number of reported publications, presentations, and grants. In regard to publications, presentations, and grants, there are four, three, and two, respectively, significant differences between the institutions (see Appendix X for more details):

<b>Publications</b>	<b>Carnegie Classification</b>	<b><i>n</i></b>	<b><i>Mean</i></b>	<b>Significance</b>
3.17 How many publications have you completed?	1 (DE)	12	66.25	F (4, 94) = 6.34, <i>p</i> < .05
	2 (DI)	11	12.27	
	3 (MI)	42	6.90	
	6 (BG)	15	14.00	
	8 (A)	19	2.42	
<b>Presentations</b>	<b>Carnegie Classification</b>	<b><i>n</i></b>	<b><i>Mean</i></b>	<b>Significance</b>
3.18 How many conference presentations have you completed?	1 (DE)	13	63.54	F (4, 89) = 4.22, <i>p</i> < .05
	2 (DI)	10	23.00	
	3 (MI)	37	17.76	
	6 (BG)	15	16.60	
	8 (A)	19	11.79	
<b>Grants</b>	<b>Carnegie Classification</b>	<b><i>n</i></b>	<b><i>Mean</i></b>	<b>Significance</b>
3.19	1 (DE)	13	9.69	F (4, 94) = 4.08, <i>p</i> < .05

How many grants have you earned?	2 (DI)	9	5.89	$p < .05$
	3 (MI)	41	3.20	
	6 (BG)	15	3.27	
	8 (A)	21	1.52	

DE: Doctoral/Research Universities—Extensive

DI: Doctoral/Research Universities--Intensive

MI: Master's Colleges and Universities I

BG: Baccalaureate Colleges—General

A: Associate's Colleges

### *Research Hypothesis 2g*

#### *Philosophy of Education*

*In the constructed response question, service-learning educators will use more social reconstructionist terminology.*

The constructed response question is inconclusive because respondents did not use the words citizenship, activism, service, change, society, and/or status quo. Respondents described their philosophy of education in the following manner:

- “Strive to be the very best. And anything you do, do it with a passion.”
- “You get out of something what you put into it. You move to make a move.”
- “My approach involves a tension between two goals. I push students to master the current body of knowledge in the course content area. At the same time, I try to instill an attitude of humility about what we think we know. The unifying focus is on research methodology--its strengths and weaknesses.”
- “Education should be based on the physical, mental, social, spiritual and emotional well-being of an individual.”



- “Education should be fun.”
- “I do think the classics are important - but this does not apply well to the sciences. In my field, you must understand a basic body of knowledge in order to proceed further in the future. I believe that students that should be motivated to learn if they proceed to college. Not everyone has the motivation to earn a four-year degree. This said if the student has an excellent foundation, s/he can then become a life-long learner and will be able to learn many things in the future in a self-taught manner. So I feel that in college students should be challenged. They should know the classics, but must be current in the knowledge of their field in order to make decisions regarding their future. As an professor, I also feel that I must challenge students to develop themselves by encouraging and providing opportunities for study abroad, research, and exposure to various careers.”
- “Hands on learning - present post secondary learning model too visual/audial oriented when many "poor" students" really need a more experiential/ kinetic-tactile approach.”
- “Tell me, I forget. Show me, I remember. Involve me, I understand. I utilize all learning styles and multiple intelligences in my classroom, thus having a variety of assessment tools for my students. Service learning provides invaluable learning information for my students. . . cannot even imagine not having this in my courses. I would require it if the state did not mandate it! Helps to create wonderful discussions inside the classroom and at our on-line discussion board. These experiences will last a life time, part of life long learning experiences. I model what I teach/learn/talk/believe in!”

- “My philosophy is that all children can learn and that if children aren't learning the way we teach them we must teach them the way they learn.”
- “Humans have an innate interest in learning, so with complementary teaching methods, students will exert above and beyond effort to learn well.”

*Research Hypothesis 2h*

*Philosophy of Education*

*In the forced response question, educators who use service-learning educators will choose the social reconstructionist option more than non-service-learning educators.*

Question 3.21 asks:

Which one of the following four descriptions relates best to your philosophy of education?

1. Curriculum should be based on the classics because the lessons learned from the Great Books transcends time
2. Curriculum should be based on mastering a common body of information that is essential for everyone to understand
3. Curriculum should be based on the individual student's desires and needs in order to cultivate self-knowledge
4. Curriculum should be based on exposing students to the complexities of our social world; i.e., injustices

Twelve respondents chose the social reconstructionist philosophy of education; nine were service-learning educators and three were non-service-learning educators. Thus, research hypothesis 2h is supported. Seven of the nine social reconstructionists identified as white females, none of whom taught in the “hard” sciences and/or business fields. Infrequent identification with social reconstructionism parallels the findings of Serow, Eaker, and Forrest (1994), who discovered among pre-service teachers “only 4% chose 'a strong interest in correcting social problems' when asked the most desirable quality of a teacher” (p. 36). The graph below depicts the descriptive statistics that relate to the philosophies of education

of service-learning educators and non-service-learning educators (the results of service-learning educators are underlined>):

<b>Philosophy of Education</b>	<b><i>N</i></b>	<b>Sex</b>	<b>Ethnicity</b>	<b>Discipline</b>
<i>Social Reconstructionism</i>	<u>9</u> , 3	Male: <u>1</u> Female: <u>7</u> , 3	<b>African American:</b> <b>American Indian/Alaskan Native:</b> <b>Asian/Pacific Islander: 1</b> <b>Hispanic: <u>1</u></b> <b>White: <u>7</u>, 2</b> <b>International:</b>	<b>Agriculture:</b> <b>Arts:</b> <b>Architecture:</b> <b>Business: 1</b> <b>Education: <u>1</u>, 1</b> <b>Engineering:</b> <b>HDFS:</b> <b>Health: <u>1</u></b> <b>Interdisciplinary: <u>1</u></b> <b>Journalism: <u>1</u></b> <b>Language:</b> <b>Law: <u>1</u></b> <b>Library Sciences:</b> <b>Math:</b> <b>Sciences:</b> <b>Social Sciences: <u>3</u></b> <b>Technology:</b>

<b>Philosophy of Education</b>	<b>N</b>	<b>Sex</b>	<b>Ethnicity</b>	<b>Discipline</b>
<i>Progressivism</i>	<u>11</u> , 17	<b>Male:</b> <u>5</u> , 9 <b>Female:</b> <u>6</u> , 7	<b>African American:</b>  <b>American Indian/ Alaskan Native:</b>  <b>Asian/Pacific Islander:</b> <u>1</u> , 1  <b>Hispanic:</b>  <b>White:</b> <u>25</u> , 14  <b>International:</b> <u>2</u> , 2	<b>Agriculture:</b> 1 <b>Arts:</b> <u>2</u> <b>Architecture:</b> <u>2</u> <b>Business:</b> <b>Education:</b> <u>3</u> , 4 <b>Engineering:</b> <u>1</u> <b>HDFS:</b> <u>1</u> <b>Health:</b> <u>1</u> <b>Interdisciplinary:</b> <b>Journalism:</b> <b>Language:</b> <b>Law:</b> <b>Library Sciences:</b> <b>Math:</b> 4 <b>Sciences:</b> <u>1</u> , 4 <b>Social Sciences:</b> 1 <b>Technology:</b> 1

<b>Philosophy of Education</b>	<b>N</b>	<b>Sex</b>	<b>Ethnicity</b>	<b>Discipline</b>
<i>Essentialism</i>	<u>28</u> , 35	<b>Male:</b> <u>8</u> , 18 <b>Female:</b> <u>20</u> , 16	<b>African American:</b>  <b>American Indian/ Alaskan Native:</b> 2  <b>Asian/Pacific Islander:</b> 2  <b>Hispanic:</b>  <b>White:</b> <u>27</u> , 28  <b>International:</b> 2	<b>Agriculture:</b> 2 <b>Arts:</b> <u>4</u> , 2 <b>Architecture:</b> <b>Business:</b> <u>3</u> , 3 <b>Education:</b> <u>2</u> , 3 <b>Engineering:</b> <u>2</u> , 1 <b>HDFS:</b> <u>1</u> <b>Health:</b> <u>3</u> <b>Interdisciplinary:</b> <u>1</u> <b>Journalism:</b> <b>Language:</b> 2 <b>Law:</b> <b>Library Sciences:</b> <b>Math:</b> <u>2</u> , <b>Sciences:</b> <u>2</u> , 9 <b>Social Sciences:</b> <u>5</u> , 6 <b>Technology:</b> 2

<b>Philosophy of Education</b>	<b>N</b>	<b>Sex</b>	<b>Ethnicity</b>	<b>Discipline</b>
<i>Perennialism</i>	<u>2</u> , 2	Male: <u>2</u> , 2  Female:	African American:  American Indian/ Alaskan Native:  Asian/Pacific Islander:  Hispanic:  White: <u>2</u> , 1  International: 1	Agriculture: Arts: Architecture: Business: Education: Engineering: HDFS: 1 Health: Interdisciplinary: <u>1</u> Journalism: Language: Law: Library Sciences: Math: Sciences: Social Sciences: <u>1</u> , 1 Technology:

The majority of the respondents, both service-learning educators and non-service-learning educators identified with the essentialist philosophy of education (supported by Brameld, 1977). In second place was the progressive philosophy of education. Perennialism received the least resonance.

Lastly, bivariate correlations between variables were calculated. Prior to these linear calculations, scatterplots were evaluated for curvilinear relationships (Appendix Y). Results include positive correlations,  $r = .457, .451, .588$ , between professional experiences (publications, presentations, and grants) (Appendix Z). Interestingly, publications and efficacy are negatively correlated,  $r = -.341$  (Appendix AA). The variables community service and institutional service are correlated,  $r = .284$  (Appendix BB), as well as institutional service and grants,  $r = .375$  (Appendix CC). In addition, total scores for teacher efficacy and altruism are positively correlated,  $r = .335$ . The efficacy questions and altruism questions are positively correlated within and between (see Appendix DD for details on these bivariate correlations).

In conclusion, three of the ten hypotheses were supported:

1a--Teacher Efficacy	Supported
1b--Altruism	Not Supported
2a--Educational History	Not Supported
2b--Work Experience	Not Supported
2c--Honors & Awards	Not Supported
2d--Institutional Service	Not Supported
2e--Community Service	Not Supported
2f--Professional Experience	Supported
2g--Philosophy of Education (constructed response)	Inconclusive
2h--Philosophy of Education (forced response)	Supported

## DISCUSSION AND IMPLICATIONS

This study attempted to provide a generalized schema of a service-learning educator. Because several variables were measured, breadth as opposed to depth in the findings resulted. The answers to general research questions provoked more specific questions for future studies. Unquestionably, this research opens the door for further research on the pedagogy of service-learning. Questions that branch from this research include:

1. What pedagogies are used by educators who are recipients of teaching-related honors and awards? Do institutions who are members of Campus Compact give more teaching honors and awards to educators who utilize service-learning?
2. What is the impact of the undergraduate and graduate experiences of educators who utilize service-learning? Do these service-learning educators compared to non-service-learning educators report experiencing first-hand more learning environments that connect the curriculum with the community? How much of an influence is modeling ranging in form from these previous learning experiences to present colleagues who use service-learning?
3. Do service-learning educators use this pedagogy as a springboard for publications, presentations and grants or is only subject-specific as opposed to pedagogical research valued (answers may be contingent on the Carnegie Classification of the institution)?
4. Do service-learning educators report a higher level of authenticity between their personal and professional lives?
5. This research conveys that the essentialist philosophy of education is supported the most by higher education professors. If these educators do not prioritize learning



related to social injustice, the result will be perpetuation of the status quo, which can be argued, a part of the “common body of information” that essentialists advocate. If educators are not questioning whose knowledge is valued and why then what, if any, social changes will result? If higher education professors view their role as disseminators of information then who is responsible for teaching students to be change agents?

Two major implications from this study relate to the personality or intrinsic motivational factors of this study:

#### *Teacher Efficacy Scale for Higher Education*

The implications of this study relate obliquely to issues of teacher quality in higher education. Astin (1998) discusses the tendency of higher education to “value *being* smart much more than we do *developing* smartness” in students (p. 22). This notion relates to not only apparent connections to admissions requirements but also ephemeral issues of teacher efficacy. One of the findings from this study is a lack of a teacher efficacy scale for higher education professors. One professor stated, via email, “while I could work my way through your instrument, I found the items seemed written for a K-12 teacher, not a university instructor.” This finding provokes numerous questions. Assuming the topics covered in contemporary research are the valued areas of interest, then why is teacher efficacy for higher education not a concern? Why is it that teacher efficacy is measured time and time again at the K-12 level but disregarded in higher education? Is it because teaching is more valued at the K-12 level than higher education (which relates to the Carnegie Classification of institutions)? Or do we assume that individuals with advanced degrees in a particular

discipline are able to express their knowledge to others, which implies that teaching is innate as opposed to an acquired skill?

### *Teacher Altruism Scale*

A part of teacher effectiveness is the concept of meeting and surpassing role expectations. Similar to the need for a teacher efficacy scale that is tailored to higher education, there is a need for a teacher-specific altruism scale. Efficacy, as described in detail in the review of literature, is an area that is well-researched to the point of not only creating occupation specific scales (i.e. teacher efficacy, political efficacy, nutrition efficacy) but also discipline specific scales (science/math teaching efficacy scales). In this study, due to default, the altruism scale that was utilized was written for the general public (not specifically tailored to teachers) to assess global acts of altruism (not specific teacher behaviors that exceed role expectations such as supplemental instruction, advising and outreach beyond the school walls). Thus, in this work, efficacy was studied in a specific manner (teacher efficacy) and altruism was assessed in a global manner (general acts of kindness). This incongruity may contribute to the lack of significance of the results between service-learning educators and non-service-learning educators for levels of altruism. The use of a teacher-related altruism scale would be more consistent, relevant and credible. Being able to compare apples with apples (teacher efficacy scale and a teacher altruism scale) would lead to further questioning such as the existence of similarities and differences between the personalities of K-12 and higher education service-learning educators. Besides the pedagogy of service-learning, do multicultural, gender-fair educators score differently than other pedagogies of choice? In essence, these questions allude to the connection between philosophies of education and the choice of teaching tools.

### *Lessons Learned*

The lessons learned from the dissertation research/writing process strengthen my desire to continue a life-long exploration of praxis (theory put into practice) with social justice oriented service-learning. In retrospect, variations on the present procedures may lead to more fruitful results. Undoubtedly, the adage, “hindsight is 20/20,” resonates.

Hypothetically, if the study were replicated, I recommend several modifications on the tedious sampling procedure. Several of the changes discussed originated from the suggestions of respondents, experienced researchers. First, I would not use Campus Compact as a determinant factor because of its liberal inclusiveness to a subjective principle, civic engagement. Instead, to acquire and differentiate between “service-learning institutions,” the US News and World Reports rankings of *America’s Best Colleges—Programs that Really Work—Service-Learning* listing would be employed.

Neuman (2000) states, “survey researchers disagree about what constitutes an adequate response rate.” However, similar to the desires of the majority of Web-based surveyors, a higher response rate would be appreciated. The response rate for this study was 23% (128 respondents/560 total sample). Unfortunately, this response rate does not parallel the findings of Hammond (1994) and Eble & McKeachie (1985) who averaged “50 to 70 percent returns [as] usual in the study of faculty members” (p.164).

Two issues related to response rate are the use of incentives and the schedule for transmission of the survey. The use of an incentive from the beginning of the study may impact the motivation for completion of the survey. An incentive, \$10.00 gift certificate to Amazon.com for every fifth respondent, was included as a part of the third and final email in the hopes to boost participation. A total of twenty gift certificates were distributed to

participants as a token of appreciation for participation. However, there was a consistency in participation between the due dates (even when the incentive was in place), with approximately an addition of 30 respondents after each email request.

<b>Date:</b>	<b>Total Number of Respondents:</b>
May 30	65 respondents
July 4	93 respondents
September 26	128 respondents

Interestingly, a subject conveyed his desire for a specific incentive in an email.

I am very busy and I'd advise you not to hope that teachers, including your future self, have time to fill out surveys of any kind without compulsion or incentive. I will take 15 minutes to fill your survey if you will arrange to send some materials on Iowa State's Computer Science and Information Technology curricula by email before and after I fill the survey. We are working on curriculum revision (CS) and development (IT).

Another respondent conveyed his concern with the timing of the survey, which may have had an impact on response rate. The due dates were May 30, July 4 and September 26. The former two due dates were during the summer session, which is a time when not all professors are on campus. Availability was an issue of concern that was discussed prior to the implementation of the study, which is echoed in the following piece of advice shared by a respondent:

You sent your study to respondents with a short return timetable. This is the end of the semester, time when I just finished my grades with lots of paperwork. I also was away for a few days of vacation. That could have eliminated me from participation. May I recommend that you conduct future surveys in the middle of a semester (for academic respondents) and give them some time to respond. Otherwise, your return rate will suffer.

In addition to the creation of a specific teacher altruism scale, discussed above, I question if I should have not altered the directions of the altruism scale. Originally, the instructions read, “Tick the category on the right that conforms to the frequency with which you have carried out the following acts” (Rushton et al., 1981). The modification was “Imagine you are in a situation where you could engage in the following items. Tick the category on the right that conforms to the estimated frequency with which you would carry out the following acts.” The authors of the scale and previous respondents of my pilot studies inspired this modification. The change was made because, in my opinion, many respondents would choose “Not Applicable” as their response because they have simply not experienced the particular situation described on the scale. The directions were altered with the intention to gain an accurate assessment of levels of altruism not frequency of exposure to situations that invoke helping.

In addition, in the previous chapter, the process of quantifying data could be eliminated by providing a drop-down menu, thus forced response, for the questions relating to professional experiences (grants, presentations and publications), honors, institutional service and community service. A range in numbers could be provided, such as 1-5; 6-10; 11-15, etc. This would eliminate extreme responses which contributed to the skewness and kurtosis of the data. However, quantifying the data would not be the solution of choice for all of the respondents. A professor shared his concern with the complexity embedded in the efficacy questions.

I'm sorry--I honestly can't answer those questions. There are so many factors in what helps me reach students or keeps me from reaching them—how can I say whether I reach them or not (in answer to questions that are that broad and that general) when I have spectacular successes and complete failures? I mean no disrespect, but wish that surveys of complex issues would provide questions that allow us to acknowledge and

address the complexities. The last survey I was unable to complete was a survey about attitudes to the handicapped that asked questions like whether they should be allowed to drive without acknowledging that some handicaps don't interfere with driving while others make it impossible. Good luck to you in your study. It's a fascinating area.

The majority of these lessons could have been learned prior to the implementation of the full-study if a test group was employed. Pilot studies were conducted but not with the web-based instrument that was constructed for the full study. A respondent, a professor who teaches research methodology, attached a copy of a self-authored article and gave the suggestion of a "sub sample."

I also highly recommend that you field test any survey instrument with a small sub sample of your population. Have them not only attempt to answer your instrument but also give you feedback on where it is vague, confusing, missing instructions or items or choices, etc. Make revisions and then repeat the process. Again, make revisions and repeat the process for a third time. Yes, this takes time but it does work in helping you clean up difficulties in your instrument. A good questionnaire/survey instrument will have face validity and that can give your response rate a big boost.

However, not all of the emails received were critical of the study. Letters of encouragement validated this work.

I just wanted to write to you directly to let you know I completed your faculty survey this morning. I was interested in your work, as I am also a Ph.D. in Curriculum and Instruction (math education) from Penn State. Among my interests are the beliefs of college faculty, particularly beliefs about teaching mathematics. It would be interesting to hear precisely what your research question(s) are and what sort of conclusions you hope to reach based on your survey. I notice you are involved in service learning, an area in which I have no real experience but an interest in finding out more. Feel free to reply to this message if you wish--I wish you good luck in completing your dissertation! (Mine was completed Dec. 2001, not so long ago, so I know what you are likely going through right now).

In conclusion, assessment of the personal and professional attributes of service-learning educators wove together two passions, education and psychology. One of the major findings was a significant difference in teacher efficacy between service-learning educators

and non-service-learning educators. Faculty motivation to utilize service-learning are explored at the extrinsic level (Bringle, Hatcher & Games, 1997; Cooper, 2003; Hammond, 1994; Levine, 1994; National Service-Learning Clearinghouse, 2003), but this study reveals the impact of intrinsic motivation, specifically, teacher efficacy. This study supports the work between instructors with a high level of teacher efficacy and embracement of novel pedagogies (Glassberg, 1979; Greenwood, Olejnik, Parkay, 1990). This information will assist with the recruitment of faculty for the use of service-learning. Due to its intangibility, teacher efficacy is difficult to assess, but it is a way for directors of service-learning centers and others to target teachers who may possess the qualities of high efficacious teachers (Ashton & Webb, 1986; Chester & Beaudin, 1996, p. 236). Also, this study conveys that symmetry exists between the qualities that are ideally cultivated in students through high-quality service-learning experiences and the efficacious qualities of educators who initiated the use of service-learning. The result of this study provides an optimistic basis for the future of service-learning. Since educators who utilize service-learning have a high level of teacher efficacy, they will be able to persist with these endeavors even when confronted with frequent concerns such as student, community, and administrative dissatisfaction. Although all of the hypotheses in these studies were not supported, the research process was demystified through this experience. Gaps in the literature were revealed, such as the need for a teacher altruism and teacher-efficacy scales for higher education. Future research endeavors will continue to contribute to the scholarship of the transformative pedagogy of service-learning.

**Appendix A:  
Instrument**



## Faculty Profile Inventory

### Contact Information

Name: Hina Patel  
 Address: B6 Memorial Union; Ames, Iowa 50021  
 Voice: 515-294-1023  
 Email: [hinap@iastate.edu](mailto:hinap@iastate.edu)

## 1. Teachers Beliefs

[\[Top\]](#) [\[Section 1\]](#) [\[Section 2\]](#) [\[Section 3\]](#) [\[Submit\]](#)

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential (Tschannen-Moran & Hoy, 2001).

### 1.1.

	Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal
a. How much can you do to get through to the most difficult students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. How much can you do to help your students think critically?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. How much can you do to control disruptive behavior in the classroom?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. How much can you do to motivate students who show low interest in school work?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. To what extent can you make your expectations clear about student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Profile Inventory

	behavior?					
f.	How much can you do to get students to believe they can do well in school work?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal
g.	How well can you respond to difficult questions from your students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h.	How well can you establish routines to keep activities running smoothly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i.	How much can you do to help your students value learning?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j.	How much can you gauge student comprehension of what you have taught?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k.	To what extent can you craft good questions for your students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l.	How much can you do to foster student creativity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal
m.	How much can you do to get students to follow classroom rules?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n.	How much can you do to improve the understanding of a student who is failing?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o.	How much can you do to calm a student who is disruptive or noisy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p.	How well can you establish a classroom management system with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Faculty Profile Inventory

- |    |  |                       |                       |                       |                       |                       |
|----|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|    | each group of students?  |                       |                       |                       |                       |                       |
| q. | How much can you do to adjust your lessons to the proper level for individual students?          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| r. | How much can you use a variety of assessment strategies?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|    |  | Nothing               | Very Little           | Some Influence        | Quite A Bit           | A Great Deal          |
| s. | How well can you keep a few problem students from ruining an entire lesson?                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| t. | To what extent can you provide an alternative explanation or example when students are confused? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| u. | How well can you respond to defiant students?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| v. | How much can you assist families in helping their children do well in school?                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| w. | How well can you implement alternative strategies in your classroom?                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| x. | How well can you provide appropriate challenges for very capable students?                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

## 2. Personal and Community Relationships

[\[Top\]](#) [\[Section 1\]](#) [\[Section 2\]](#) [\[Section 3\]](#) [\[Submit\]](#)

Directions: Imagine you are in a situation where you could engage in the following items. Tick the category on the right that conforms to the estimated frequency with which you would carry

## Faculty Profile Inventory

out the following acts (Rushton, Chrisjohn & Fekken, 1981).

2.1.

	Never	Once	More Than Once	Often	Very Often
a. I have helped push a stranger's car out of the snow.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I have given directions to a stranger.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I have made change for a stranger.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I have given money to a charity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I have given money to a stranger who needed it (or asked me for it).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. I have donated goods or clothes to a charity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Never	Once	More Than Once	Often	Very Often
g. I have done volunteer work for a charity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. I have donated blood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. I have helped carry a stranger's belongings (books, parcels, etc).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. I have delayed an elevator and held the door open for a stranger.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. I have allowed someone to go ahead of me in a lineup (at copy machine, in the supermarket).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. I have given a stranger a lift in my car.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## My Profile Inventory

	Never	Once	More Than Once	Often	Very Often
m. I have pointed out a clerk's error (in a bank, at the supermarket) in undercharging me for an item.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. I have let a neighbor whom I didn't know too well borrow an item of some value to me (e.g., a dish, tools, etc).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. I have bought 'charity' Christmas cards deliberately because I knew it was a good cause.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. I have helped a classmate who I did not know that well with a homework assignment when my knowledge was greater than his or hers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. I have, before being asked, voluntarily looked after a neighbor's pets or children without being paid for it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. I have offered to help a handicapped or elderly stranger across a street.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Never	Once	More Than Once	Often	Very Often
s. I have offered my seat on a bus or train to a stranger who was standing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. I have helped an acquaintance to move households.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 3. Personal and Professional Experiences

[\[Top\]](#) [\[Section 1\]](#) [\[Section 2\]](#) [\[Section 3\]](#) [\[Submit\]](#)

- 3.1. What is your school email address? (This personal identifier will be deleted after the responses are tallied).

- 3.2. Name of your college/university.

- 3.3. What is your discipline area?

Other

- 3.4. What is your sex?

Female

Male

- 3.5. What is your race/ethnicity?

African American

American Indian/Alaskan Native

Asian/Pacific Islander

Hispanic

White

International

- 3.6. Do you use the educational strategy--service-learning? In other words, do you integrate community service into your curriculum to achieve academic goals?

Yes

## Faculty Profile Inventory

- No  
 Other, Please Specify:

3.7. If you responded affirmatively to the above question, please describe your service-learning component.

Not Applicable

3.8. Did you create the service-learning component?

- Yes  
 No  
 Other, Please Specify:

3.9. Do you voluntarily incorporate service-learning into the curriculum or is it an institutional mandate for your course?

- Voluntarily  
 Institutional Mandate  
 Other, Please Specify:

3.10. Name the institution where you completed your undergraduate degree.

3.11. Name the institution where you completed your graduate degree.

3.12. How many years of work experience do you have in higher education?

## Faculty Profile Inventory

3.13. How many years of work experience do you have in industry?

3.14. List honors and awards you have received (you may want to cut and paste from your curriculum vitae).

Not Applicable

3.15. List institutional service-related activities you are involved with i.e., committee membership (you may want to cut and paste from your curriculum vitae).

Not Applicable

3.16. List community service-related activities you are involved with i.e., work with nonprofit organizations (you may want to cut and paste from your curriculum vitae).

Not Applicable



## Faculty Profile Inventory

3.17. How many publications have you completed?

Not Applicable

3.18. How many conference presentations have you completed?

Not Applicable

3.19. How many grants have you earned?

Not Applicable

3.20. Describe your philosophy of education.

3.21. Which of the following four descriptions relates best to your philosophy of education?

- Curriculum should be based on the classics because the lessons learned from the Great Books transcends time.
- Curriculum should be based on mastering a common body of information that is essential for everyone to understand.
- Curriculum should be based on the individual student's desires and needs in order to cultivate self-knowledge.
- Curriculum should be based on exposing students to the complexities of our social world i.e., injustices.

Faculty Profile Inventory

<input type="button" value="Submit Survey Response"/>
<p><i>This survey was created using the</i> <b>SurveySuite Survey Generation Tool</b> <i>by</i> <b>INTERCOM</b> <small>University of Virginia</small></p>

**Appendix B:  
First Letter to Subjects**

Webmail: "Faculty Survey"

**WebMail**

*From the desk of..*  
**Hina Patel**

**From: Hina Patel <hinap@iastate.edu>**  
**Thu, 9 Oct 2003 17:48:48 -0500 (CDT)**  
***Faculty Survey***

Hello Faculty Member:

My name is Hina S. Patel. I am earning my Ph.D. in Education, specifically, in Curriculum and Instruction from Iowa State University. For my dissertation research, I am attempting to better understand the nature and nurture of educators at the university level. You are invited to participate in this research because of your status. Because you have been randomly chosen to participate in this study, your participation is of great importance.

Your participation is voluntary. An estimate of the time needed for participation in this research is approximately less than 15 minutes. Participation involves completing an online survey, which includes three sections (length: section one--24 questions, section two--20 questions and section three--20 questions). The survey is located at the following web address: <http://intercom.virginia.edu/SurveySuite/Surveys/Faculty> Please complete this questionnaire by Friday May 30, 2003. Information concerning your participation will be strictly confidential.

Please feel free to share questions or concerns by utilizing the contact information provided below. I would deeply appreciate your participation in this research. Thank you for your time and effort.

Sincerely,

Hina S. Patel; Doctoral Candidate in Curriculum and Instruction; Service-Learning Graduate Assistant; Iowa State University; B6 Memorial Union; Ames, Iowa 50021; hinap@iastate.edu; 515-294-1023

Patricia Leigh, Ph.D.; Assistant Professor in Curriculum and Instruction; Iowa State University; N105B Lagomarcino; Ames, Iowa 50021; pleigh@iastate.edu; 515-294-3748

Sharon McGuire, Ph.D.; Director of the Academic Success Center; Service-Learning Miller Grant Coordinator; 1076 Student Services Building; Ames, Iowa 50021; mcguires@iastate.edu; 515-294-6624

**Appendix C:  
Second Letter to Subjects**

Webmail: "Faculty Survey"

**WebMail**

*From the desk of...*  
**Hina Patel**

**From: Hina Patel <hinap@iastate.edu>**  
**Thu, 9 Oct 2003 17:45:46 -0500 (CDT)**  
**Faculty Survey**

Hello Again Faculty Member:

My name is Hina S. Patel. I am earning my Ph.D. in Education, specifically, in Curriculum and Instruction from Iowa State University. For my dissertation research, I am attempting to better understand the nature and nurture of educators at the university level. You are invited to participate in this research because of your status. Because you have been randomly chosen to participate in this study, your participation is of great importance!

Your participation is voluntary. An estimate of the time needed for participation in this research is approximately less than 15 minutes. Participation involves completing an online survey, which includes three sections (length: section one--24 questions, section two--20 questions and section three--20 questions). The survey is located at the following web address: <http://intercom.virginia.edu/SurveySuite/Surveys/Faculty>  
Please complete this questionnaire by Friday July 4, 2003. Information concerning your participation will be strictly confidential.

Please feel free to share questions or concerns by utilizing the contact information provided below. I would deeply appreciate your participation in this research. Thank you for your time and effort.

Sincerely,

Hina S. Patel; Doctoral Candidate in Curriculum and Instruction; Service-Learning Graduate Assistant; Iowa State University; B6 Memorial Union; Ames, Iowa 50021; hinap@iastate.edu; 515-294-1023

Patricia Leigh, Ph.D.; Assistant Professor in Curriculum and Instruction; Iowa State University; N105B Lagomarcino; Ames, Iowa 50021; pleigh@iastate.edu; 515-294-3748

Sharon McGuire, Ph.D.; Director of the Academic Success Center; Service-Learning Miller Grant Coordinator; 1076 Student Services Building; Ames, Iowa 50021; mcguires@iastate.edu; 515-294-6624

**Appendix D:**  
**Third Letter to Subjects**

**From: Hina Patel <hinap@iastate.edu>**  
**Tue, 16 Sep 2003 11:55:28 -0500 (CDT)**  
***Faculty Survey—Final Plea with \$10 Amazon.com Incentive***

Greetings Faculty Member:

My name is Hina S. Patel. I am earning my Ph.D. in Education, specifically, in Curriculum and Instruction from Iowa State University. This email is attempting to be both informational for the individuals who have completed my survey and motivational for the individuals who have yet to complete my survey.

As you may recall, for my research, I am attempting to better understand the nature and nurture of educators at the university level. You are invited to participate in this research because of your status. Because you have been randomly chosen to participate in this study, your involvement is of GREAT importance! Unquestionably, the time and effort you would expend to complete my survey will have a compounding effect on my future. An increase in sample size would better the possibility for publication which would enhance my curriculum vitae which would increase my chances of employment in the competitive realm of higher education!

I am sending a token of my appreciation (as an out-of-pocket expense from a graduate assistant's budget) to every 5th person who completes my survey, specifically, a \$10.00 electronic gift certificate to Amazon.com. Question 3.1 on the survey, "What is your school email address?," will provide me with the email address that Amazon.com requires for their e-gift certificates.

As before, your participation is voluntary. An estimate of the time needed for participation in this research is approximately less than 15 minutes. Participation involves completing an online survey, which includes three sections (length: section one--24 questions, section two--20 questions and section three--20 questions). The survey is located at the following web address: <http://intercom.virginia.edu/SurveySuite/Surveys/Faculty> Please complete this questionnaire by Friday September 26, 2003. Information concerning your participation will be strictly confidential.

Please feel free to share questions or concerns by utilizing the contact information provided below. I would deeply appreciate your participation in this research. Thank you for your time and effort.

Sincerely,

Hina S. Patel; Doctoral Candidate in Curriculum and Instruction; Service-Learning Graduate Assistant; Iowa State University; B6 Memorial Union; Ames, Iowa 50021; hinap@iastate.edu; 515-294-1023

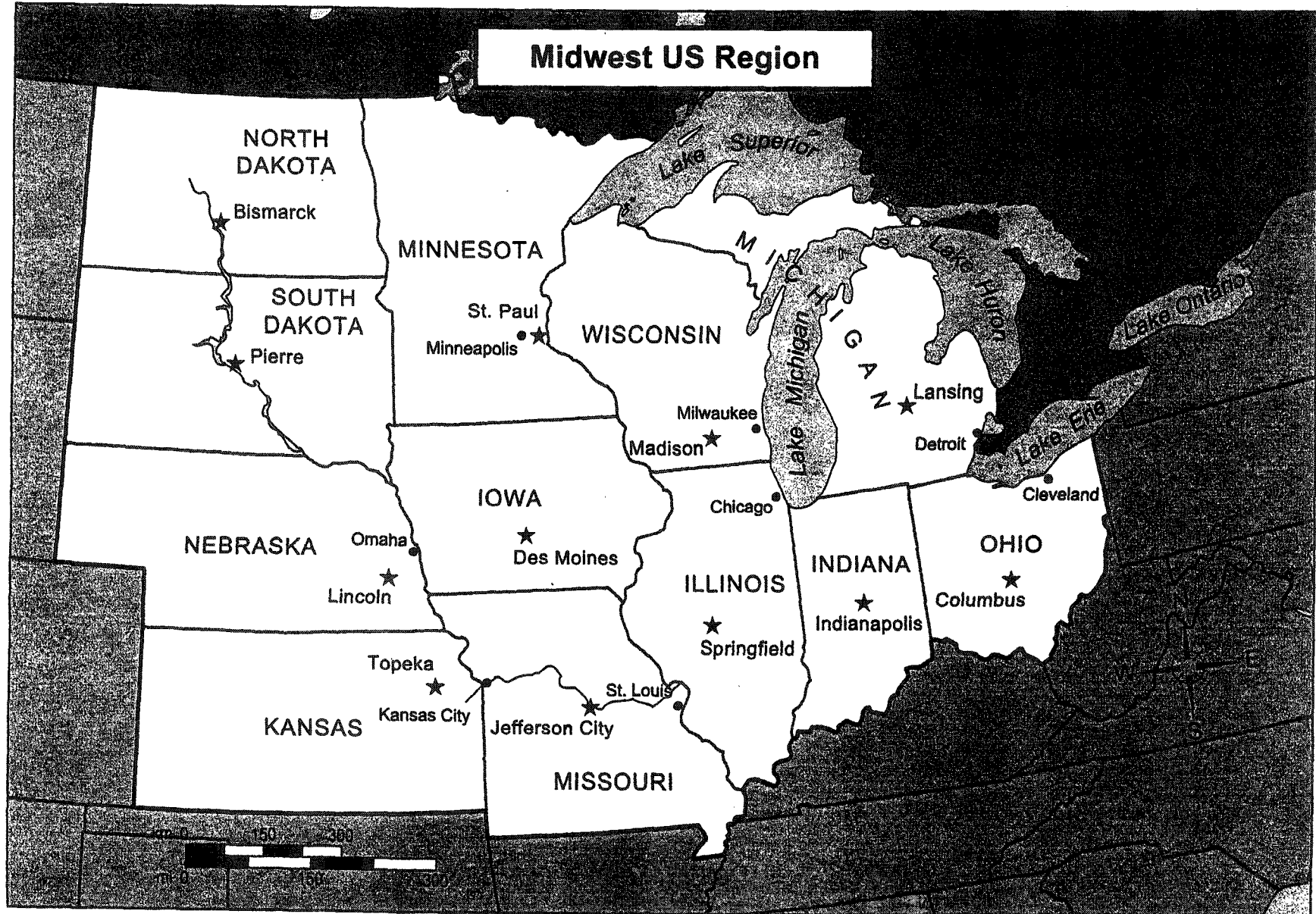
Patricia Leigh, Ph.D.; Assistant Professor in Curriculum and Instruction; Iowa State University; N105B Lagomarcino; Ames, Iowa 50021; pleigh@iastate.edu; 515-294-3748

Sharon McGuire, Ph.D.; Director of the Academic Success Center; Service-Learning Miller Grant Coordinator; 1076 Student Services Building; Ames, Iowa 50021; mcguires@iastate.edu; 515-294-6624

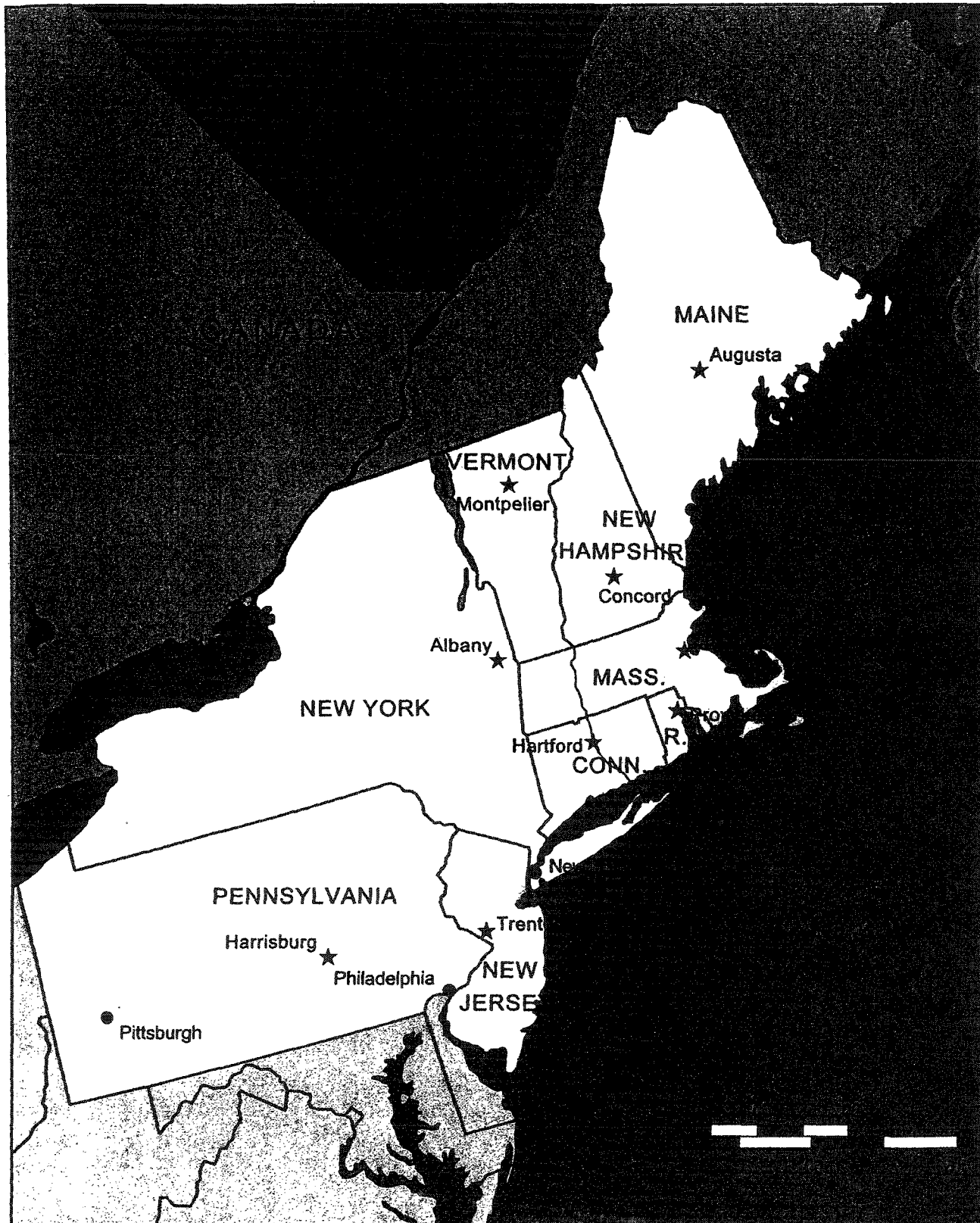


**Appendix E:  
Regions**

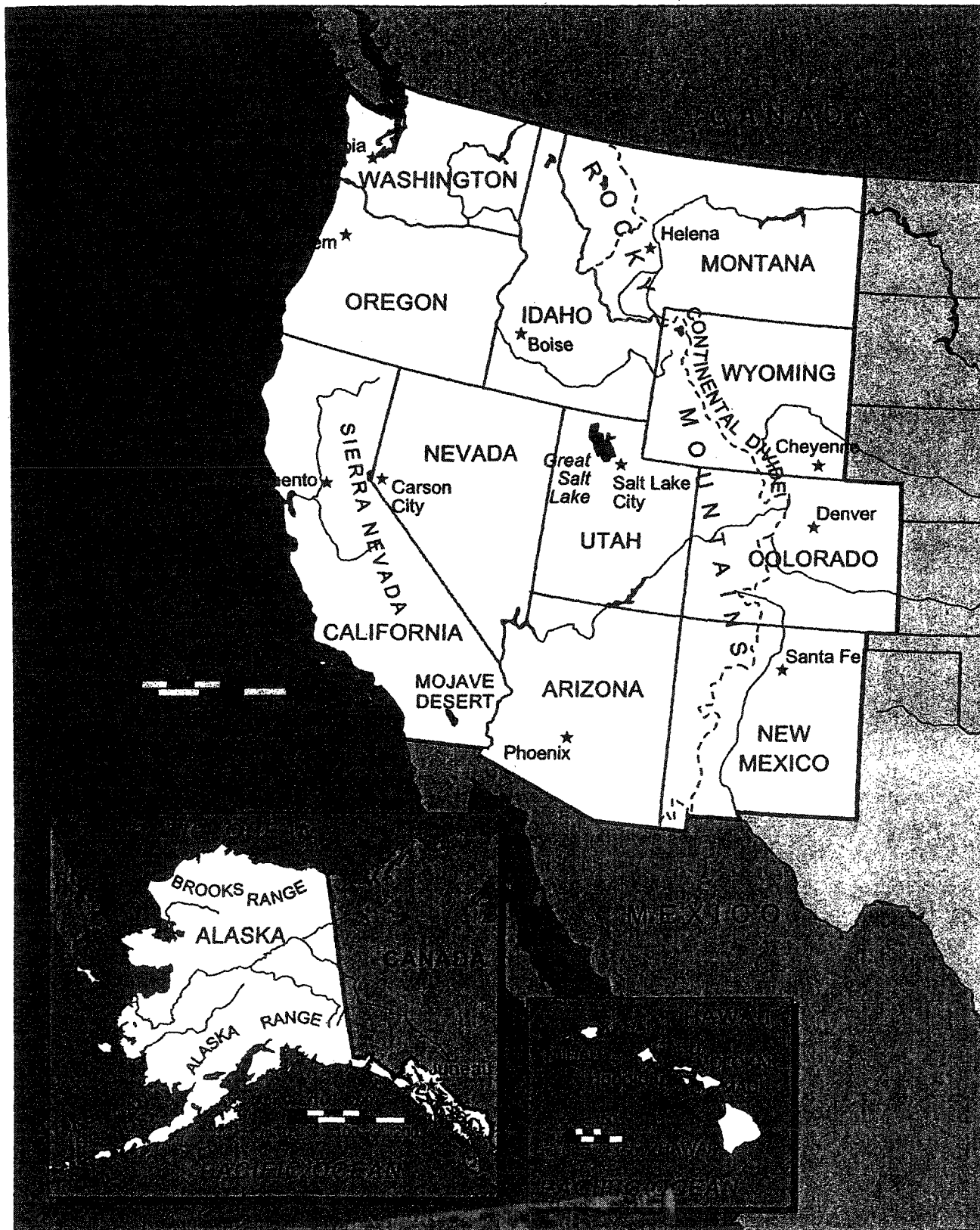
# Midwest US Region



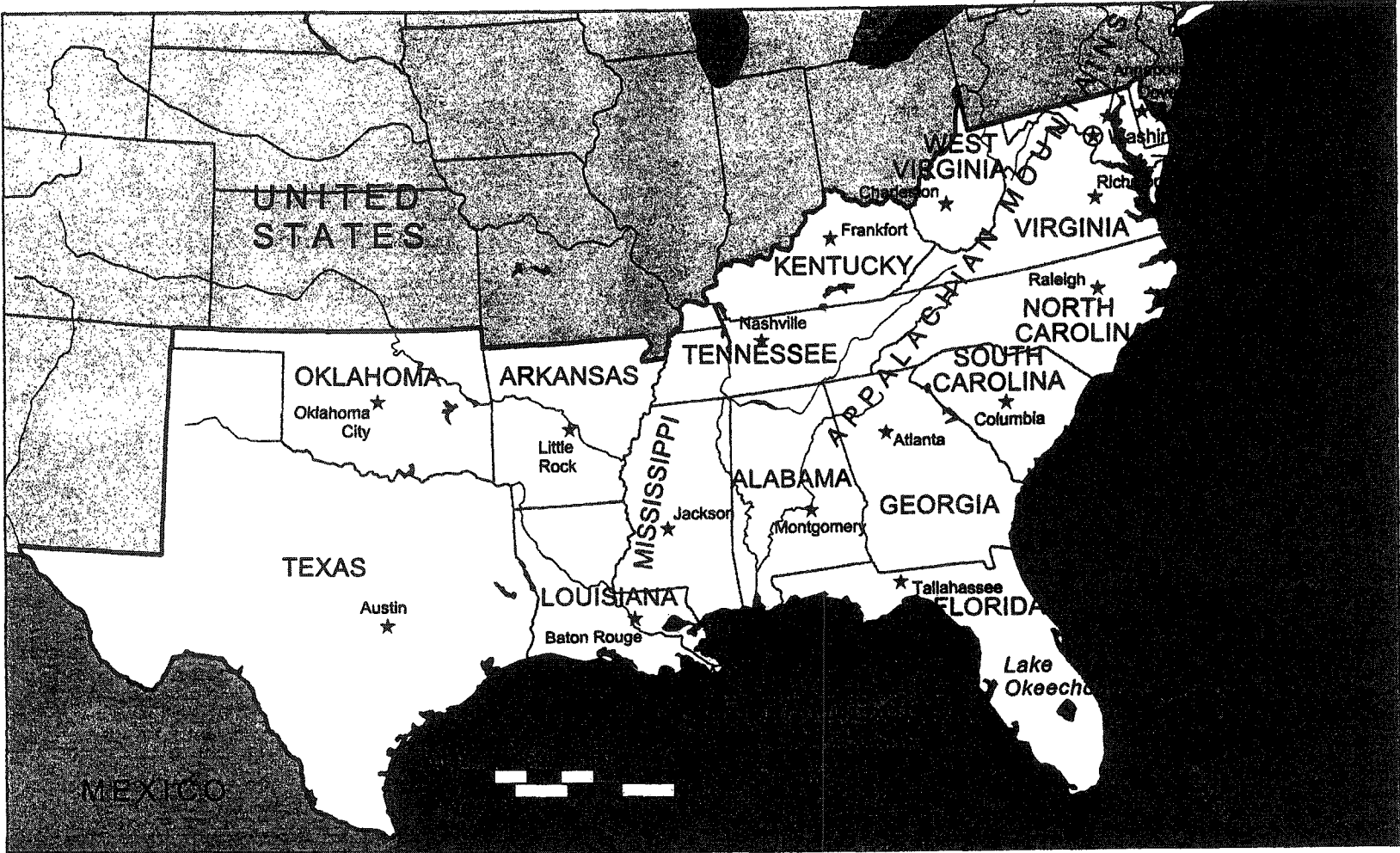
### Northeast US Region



### West US Region



South US Region



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**Appendix F:  
Campus Compact Example**



Campus Compact

**MEMBERSHIP**

*List of members, how to join, member benefits...*

[FAQ](#)   [JOBS](#)   [CALENDAR](#)   [LINKS](#)   [SEARCH](#)   [CONTACT US](#)

- ABOUT CAMPUS COMPACT
- STATE CAMPUS COMPACTS
- AWARDS PROGRAMS
- CAMPUS-COMMUNITY PARTNERSHIPS
- CIVIC ENGAGEMENT
- COMMUNITY COLLEGES
- COMMUNITY SERVICE DIRECTORS
- GRANTS AND FELLOWSHIPS
- LEGISLATION & POLICY
- MEMBERSHIP
- NEWS
- PRESIDENTIAL LEADERSHIP
- PROGRAM MODELS
- PUBLICATIONS
- RESOURCES
- SERVICE-LEARNING & FACULTY
- STUDENTS
- NETWORK ONLY
- SITE MAP

## Campus Compact Members in Missouri

Clicking on a school name will take you to that school's website.

School	President
<a href="#">Central Methodist College</a>	President Marianne Inman
<a href="#">Central Missouri State University</a>	President Bobby Patton
<a href="#">Columbia College of Missouri</a>	President Gerald Brouder
<a href="#">Cottey College</a>	President Helen Washburn
<a href="#">East Central College</a>	President Karen Herzog
<a href="#">Fontbonne College</a>	President Dennis Golden
<a href="#">Lincoln University - Missouri</a>	Constance Williams
<a href="#">Linn State Technical College</a>	President David Claycomb
<a href="#">Logan College of Chiropractic</a>	President George Goodman
<a href="#">Mineral Area College</a>	President Terry Barnes
<a href="#">Missouri Western State College</a>	President James Scanlon
<a href="#">North Central Missouri College</a>	
<a href="#">Northwest Missouri State University</a>	
<a href="#">Ozarks Technical Community College</a>	President Norman Myers
<a href="#">Rockhurst University</a>	President Edward Kinerk
<a href="#">Saint Charles County Community College</a>	President John McGuire

CONTENTS:

[Members by State](#)

[How to Join](#)

[Invaluable Member Benefits](#)

[Membership Benefits by Constituency](#)

[Accolades from Members](#)

[Continued Growth](#)

[Member Participation](#)

[State Compacts](#)

<u>Saint Louis Community College at Meramec</u>	President E. Lynn Suydan
<u>Saint Louis University</u>	President Lawrence Biondi
<u>Southeast Missouri State University</u>	President Kenneth Dobbins
<u>Southwest Missouri State University - Springfield</u>	John Keiser
<u>Southwest Missouri State University- West Plains</u>	Kent Thomas
<u>St. Charles County Community College</u>	John McGuire
<u>St. Louis Community College - Florissant Valley</u>	Marcia Pfeiffer
<u>St. Louis Community College - Forest Park</u>	Patricia Nichols
<u>St. Louis Community College - Meramec</u>	E. Lynn Suydam
<u>State Fair Community College</u>	President Stephen Poort
<u>Truman State University</u>	Barbara Dixon
<u>University of Missouri - Columbia</u>	Richard Wallace
<u>University of Missouri - Kansas City</u>	Martha Gilliland
<u>University of Missouri - Rolla</u>	Gary Thomas
<u>University of Missouri - St. Louis</u>	Don Driemeier
<u>Washington University - St. Louis</u>	Mark Wrighton
<u>Webster University</u>	President Richard Meyers
<u>Westminster College - Missouri</u>	Fletcher Lamkin

Use the pull-down menu below to view more members by state:

Members by State 



**Appendix G:**  
**Colleges and Universities in Sample**

Carnegie Classification:	Abbreviation:
Doctoral/Research University—Extensive	DE
Doctoral/Research University—Intensive	DI
Master's College and Universities I	MI
Master's College and Universities II	MII
Baccalaureate Colleges—Liberal Arts	BLA
Baccalaureate Colleges—General	BG
Baccalaureate/Associate's Colleges	BA
Associate's Colleges	A
Specialized Institutions	S
Tribal Colleges and Universities	T

**Midwest:**

Campus Compact Members:		Non-Campus Compact Members:
University of Kansas	DE	Northern Illinois University
Truman State University	MI	Chicago State University
Dominican University	MI	Minot State University
University of North Dakota	DI	Miami University, Ohio
Edgewood College	MI	Fort Hays State University
Marietta College	BG	Mayville State University
Taylor University	BG	Missouri Southern State College

**Northeast:**

Campus Compact Members:		Non-Campus Compact Members:
Green Mountain College	A	Union County College
Stonehill College	BG	Ramapo College
SUNY at Plattsburgh	MI	Rowan University
Plymouth State College	MI	Framingham State College
Brown University	DE	Rutgers University
Cumberland County College	A	Tompkins-Cortland Community College
Eastern Connecticut State University	MI	Worcester State College

**South:**

Campus Compact Members:		Non-Campus Compact Members:
Samford University	MI	Angelo State University
Frostburg State University	MI	Henderson State University
University of Arkansas--Little Rock	DI	Alabama Agricultural and Mechanical University
Brevard Community College	A	Chesapeake College
University of Houston--Victoria	MI	University of Maryland--University College
Thomas More College	BG	University of Arkansas--Pine Bluff
Emory University	DE	The University of Alabama

**West:**

Campus Compact Members:		Non-Campus Compact Members:
Stanford University	DE	California Institute of Technology
Montana State University	MI	University of Colorado--Colorado Springs
Spokane Community College	A	Columbia Basin College
University of Idaho	DE	New Mexico State University
San Juan College	A	Allan Hancock College
Red Rocks Community College	A	DeAnza College
College of Eastern Utah	A	Lamar Community College

**Appendix H:  
Carnegie Classification Example**

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 LIST OF INSTITUTIONS BY CARNEGIE CLASSIFICATION, CONTROL, AND STATE
 

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*Doctoral/Research Universities—Extensive*

## PUBLIC INSTITUTIONS

## ALABAMA

Auburn University  
 → University of Alabama, The  
 ~ → University of Alabama at Birmingham

## ARIZONA

Arizona State University Main  
 University of Arizona

## ARKANSAS

University of Arkansas Main Campus

## CALIFORNIA

University of California-Berkeley  
 University of California-Davis  
 University of California-Irvine  
 University of California-Los Angeles  
 University of California-Riverside  
 University of California-San Diego  
 University of California-Santa Barbara  
 University of California-Santa Cruz

## COLORADO

Colorado State University  
 University of Colorado at Boulder

## CONNECTICUT

University of Connecticut

## DELAWARE

University of Delaware

## FLORIDA

→ Florida International University†  
 Florida State University  
 University of Florida  
 University of South Florida

## GEORGIA

→ Georgia Institute of Technology†  
 → Georgia State University  
 University of Georgia

## HAWAII

University of Hawaii at Manoa

## IDAHO

University of Idaho†

## ILLINOIS

Northern Illinois University†  
 Southern Illinois University at Carbondale  
 University of Illinois at Chicago  
 University of Illinois at Urbana-Champaign

## INDIANA

Indiana University at Bloomington  
 Purdue University Main Campus

## IOWA

Iowa State University  
 University of Iowa

## KANSAS

Kansas State University c.c.  
 University of Kansas Main Campus C.C.

## KENTUCKY

→ University of Kentucky  
 → University of Louisville†

## LOUISIANA

Louisiana State University and Agricultural  
 and Mechanical College

## MAINE

University of Maine†

## MARYLAND

→ University of Maryland Baltimore County  
 University of Maryland College Park

## MASSACHUSETTS

University of Massachusetts

## MICHIGAN

Michigan State University  
 University of Michigan-Ann Arbor

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 LIST OF INSTITUTIONS BY CARNEGIE CLASSIFICATION, CONTROL, AND STATE
 

---

*Doctoral/Research Universities—Intensive*

## PUBLIC INSTITUTIONS

## ALABAMA

- 1 → Alabama Agricultural and Mechanical University†
- 2 → University of Alabama in Huntsville
- 3 → University of South Alabama

## ALASKA

University of Alaska Fairbanks

## ARIZONA

Northern Arizona University

## ARKANSAS

University of Arkansas at Little Rock

## CALIFORNIA

San Diego State University  
University of California-San Francisco†

## COLORADO

University of Colorado at Denver  
University of Northern Colorado†

## FLORIDA

Florida Atlantic University  
University of Central Florida

## IDAHO

Idaho State University

## ILLINOIS

Illinois State University

## INDIANA

Ball State University  
Indiana State University  
Indiana University-Purdue University Indianapolis

## KANSAS

Wichita State University ✓ |

## LOUISIANA

Louisiana Tech University

University of Louisiana at Lafayette  
University of New Orleans

## MARYLAND

1 → University of Maryland Baltimore†

## MASSACHUSETTS

University of Massachusetts Boston  
University of Massachusetts Lowell

## MICHIGAN

Central Michigan University  
Michigan Technological University†  
Oakland University

## MISSISSIPPI

Jackson State University

## MISSOURI

University of Missouri-Kansas City  
University of Missouri-Rolla†  
University of Missouri-Saint Louis

## MONTANA

Montana State University-Bozeman†  
University of Montana, The

## NEVADA

University of Nevada-Las Vegas

## NEW JERSEY

New Jersey Institute of Technology  
Rutgers, The State University of New Jersey,  
Newark Campus

## NEW MEXICO

New Mexico Institute of Mining and Technology

## NEW YORK

State University of New York College of  
Environmental Science and Forestry†

## NORTH CAROLINA

East Carolina University  
University of North Carolina at Greensboro

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 LIST OF INSTITUTIONS BY CARNEGIE CLASSIFICATION, CONTROL, AND STATE
 

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*Master's Colleges and Universities I*

## PUBLIC INSTITUTIONS

## ALABAMA

- 1 ✓ Alabama State University
- Auburn University at Montgomery
- 2 ✓ Jacksonville State University
- 3 ✓ Troy State University
- 4 ✓ Troy State University Dothan
- 5 ✓ Troy State University Montgomery
- 6 ✓ University of Montevallo
- 7 ✓ University of North Alabama
- 9 ✓ University of West Alabama, The

## ALASKA

- University of Alaska Anchorage
- University of Alaska Southeast

## ARIZONA

- Arizona State University West

## ARKANSAS

- 9 ✓ Arkansas State University
- 10 ✓ Arkansas Tech University
- 11 ✓ Henderson State University
- 12 ✓ Southern Arkansas University
- 13 ✓ University of Central Arkansas

## CALIFORNIA

- California Polytechnic State University-  
San Luis Obispo
- California State Polytechnic University-Pomona
- California State University-Bakersfield
- California State University-Chico
- California State University-Dominguez Hills
- California State University-Fresno
- California State University-Fullerton
- California State University-Hayward
- California State University-Long Beach
- California State University-Los Angeles
- California State University-Northridge
- California State University-Sacramento
- California State University-San Bernardino
- California State University-San Marcos
- California State University-Stanislaus
- Humboldt State University

- San Francisco State University
- San Jose State University
- Sonoma State University

## COLORADO

- Adams State College
- University of Colorado at Colorado Springs
- University of Southern Colorado

## CONNECTICUT

- Central Connecticut State University
- Eastern Connecticut State University
- Southern Connecticut State University
- Western Connecticut State University

## DELAWARE

- Delaware State University

## DISTRICT OF COLUMBIA

- University of the District of Columbia

## FLORIDA

- 14 ✓ Florida Agricultural and Mechanical University
- Florida Gulf Coast University
- University of North Florida
- University of West Florida

## GEORGIA

- 15 ✓ Albany State University
- 16 ✓ Armstrong Atlantic State University
- 17 ✓ Augusta State University
- Columbus State University
- 18 ✓ Fort Valley State University
- Georgia College & State University
- Georgia Southern University
- 18 ✓ Georgia Southwestern State University
- Kennesaw State University
- 19 ✓ North Georgia College & State University
- 21 ✓ State University of West Georgia
- 22 ✓ Valdosta State University

## IDAHO

- Boise State University

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 LIST OF INSTITUTIONS BY CARNEGIE CLASSIFICATION, CONTROL, AND STATE
 

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*Associate's Colleges*

## PUBLIC INSTITUTIONS

## ALABAMA

- ✓ Alabama Southern Community College
- ✓ Bessemer State Technical College
- ✓ Beville State Community College
- ✓ Bishop State Community College
- ✓ Calhoun Community College
- ✓ Central Alabama Community College
- ✓ Chattahoochee Valley Community College
- ✓ Community College of the Air Force
- ✓ Douglas MacArthur State Technical College
- ✓ Enterprise State Junior College
- ✓ Gadsden State Community College
- George C. Wallace State Community College-Dothan
- George Corley Wallace State Community College-Selma
- Harry M. Ayers State Technical College
- J.F. Drake State Technical College
- J.F. Ingram State Technical College
- James H. Faulkner State Community College
- Jefferson Davis Community College
- Jefferson State Community College
- John M. Patterson State Technical College
- Lawson State Community College
- Lurleen B. Wallace Junior College
- Northeast Alabama Community College
- Northwest-Shoals Community College
- Reid State Technical College
- Shelton State Community College
- Snead State Community College
- Southern Union State Community College
- Sparks State Technical College
- Trenholm State Technical College
- Wallace Community College-Hanceville

## ALASKA

- Ilisagvik College
- Prince William Sound Community College

## ARIZONA

- Arizona Western College
- Central Arizona College
- Chandler-Gilbert Community College

## Cochise College

- Coconino County Community College
- Eastern Arizona College
- Estrella Mountain Community College
- Gateway Community College
- Glendale Community College
- Mesa Community College
- Mohave Community College
- Northland Pioneer College
- Paradise Valley Community College
- Phoenix College
- Pima County Community College District
- Rio Salado College
- Scottsdale Community College
- South Mountain Community College
- Yavapai College

## ARKANSAS

- Arkansas State University Beebe Branch
- Black River Technical College
- Cossatot Technical College
- East Arkansas Community College
- Garland County Community College
- Mid-South Community College
- Mississippi County Community College
- North Arkansas College
- NorthWest Arkansas Community College
- Ouachita Technical College
- Ozarka College
- Petit Jean College
- Phillips Community College of the University of Arkansas
- Pulaski Technical College
- Rich Mountain Community College
- South Arkansas Community College
- Southeast Arkansas College
- Southern Arkansas University Tech
- University of Arkansas Community College at Batesville
- University of Arkansas Community College at Hope
- Westark College

## CALIFORNIA

- H → Allan Hancock College





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**LIST OF INSTITUTIONS BY CARNEGIE CLASSIFICATION, CONTROL, AND STATE**


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*Tribal Colleges and Universities***PUBLIC INSTITUTIONS****ARIZONA**

Dine College

**KANSAS**

Haskell Indian Nations University

**MICHIGAN**

Bay Mills Community College

Keweenaw Bay Ojibwa Community College

**MINNESOTA**

Fond du Lac Tribal and Community College

**MONTANA**

→ Fort Belknap College

Fort Peck Community College

Little Big Horn College

→ Stone Child College

**NEBRASKA**

Nebraska Indian Community College

**NEW MEXICO**Institute of American Indian and Alaska Native  
Culture and Arts Development

Southwestern Indian Polytechnic Institute

**NORTH DAKOTA**

Cankdeska Cikana Community College

Ft. Berthold Community College

Sitting Bull College

Turtle Mountain Community College

**SOUTH DAKOTA**

Oglala Lakota College

Sinte Gleska University

Sisseton-Wahpeton Community College

**WASHINGTON**

→ Northwest Indian College

**WISCONSIN**

College of Menominee Nation

Lac Courte Oreilles Ojibwa Community College

**PRIVATE, NOT-FOR-PROFIT  
INSTITUTIONS****CALIFORNIA**

D-Q University

**MONTANA**

Blackfeet Community College

Dull Knife Memorial College

Salish Kootenai College

**NEBRASKA**

Little Priest Tribal College

**NORTH DAKOTA**

United Tribes Technical College

† This institution was also eligible for inclusion in a different classification category under the procedures set forth in the Technical Notes.

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 LIST OF INSTITUTIONS BY CARNEGIE CLASSIFICATION, CONTROL, AND STATE
 

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*Specialized Institutions—Theological seminaries  
and other specialized faith-related institutions*
**PRIVATE, NOT-FOR-PROFIT  
INSTITUTIONS**
**ALABAMA**

International Bible College  
Southeastern Bible College  
Southern Christian University

**ALASKA**

Alaska Bible College

**ARIZONA**

American Indian College of the Assemblies of God  
International Baptist College  
Southwestern College

**ARKANSAS**

Central Baptist College

**CALIFORNIA**

American Baptist Seminary of the West  
Bethesda Christian University  
California Christian College  
Church Divinity School of the Pacific  
Claremont School of Theology  
Dominican School of Philosophy and Theology  
Franciscan School of Theology  
Fuller Theological Seminary  
Golden Gate Baptist Theological Seminary  
Graduate Theological Union  
Hebrew Union College-Jewish Institute of Religion  
(California Branch)  
International School of Theology  
Jesuit School of Theology at Berkeley  
L. I. F. E. Bible College  
Logos Evangelical Seminary  
Mennonite Brethren Biblical Seminary  
Pacific Lutheran Theological Seminary  
Pacific School of Religion  
Saint John's Seminary  
Saint John's Seminary College  
Saint Patrick's Seminary  
San Francisco Theological Seminary  
San Jose Christian College

Shasta Bible College  
Starr King School for the Ministry  
Westminster Theological Seminary in California  
Yeshiva Ohr Elchonon Chabad/West Coast  
Talmudical Seminary

**COLORADO**

Denver Seminary  
Iliff School of Theology  
Nazarene Bible College  
Yeshiva Toras Chaim Talmudical Seminary

**CONNECTICUT**

Beth Benjamin Academy of Connecticut  
Hartford Seminary  
Holy Apostles College and Seminary

**DISTRICT OF COLUMBIA**

Dominican House of Studies  
Washington Theological Union  
Wesley Theological Seminary

**FLORIDA**

Florida Baptist Theological College  
Florida Christian College  
Hobe Sound Bible College†  
Reformed Theological Seminary  
St. John Vianney College Seminary  
St. Vincent De Paul Regional Seminary  
Southeastern College of the Assemblies of God  
Talmudic College of Florida  
Trinity College of Florida  
Yeshiva Gedolah Rabbinical College

**GEORGIA**

Atlanta Christian College  
Beacon College  
Beulah Heights Bible College  
Columbia Theological Seminary  
Interdenominational Theological Center  
Luther Rice Seminary

**HAWAII**

International College and Graduate School

**Appendix I:  
Self-Report Altruism Scale**

Directions: Imagine you are in a situation where you could engage in the following items. Tick the category on the right that conforms to the estimated frequency with which you would carry out the following acts.	Never	Once	More Than Once	Often	Very Often
1. I have helped push a stranger's car out of the snow.					
2. I have given directions to a stranger.					
3. I have made change for a stranger.					
4. I have given money to a charity.					
5. I have given money to a stranger who needed it (or asked me for it).					
6. I have donated goods or clothes to a charity.					
7. I have done volunteer work for a charity.					
8. I have donated blood.					
9. I have helped carry a stranger's belongings (books, parcels, etc).					
10. I have delayed an elevator and held the door open for a stranger.					
11. I have allowed someone to go ahead of me in a lineup (at copy machine, in the supermarket).					
12. I have given a stranger a lift in my car.					
13. I have pointed out a clerk's error (in a bank, at the supermarket) in undercharging me for an item.					
14. I have let a neighbor whom I didn't know too well borrow an item of some value to me (e.g., a dish, tools, etc).					
15. I have bought 'charity' Christmas cards deliberately because I knew it was a good cause.					
16. I have helped a classmate who I did not know that well with a homework assignment when my knowledge was greater than his or hers.					
17. I have before being asked, voluntarily looked after a neighbor's pets or children without being paid for it.					
18. I have offered to help a handicapped or elderly stranger across a street.					
19. I have offered my seat on a bus or train to a stranger who was standing.					
20. I have helped an acquaintance to move households.					

**Appendix J:**  
**Ohio State Teacher Efficacy Scale**

## Teachers' Sense of Efficacy Scale<sup>1</sup> (long form)

Teacher Beliefs	How much can you do?													
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
7. How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
14. How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
19. How well can you keep a few problem students from ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
21. How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)					

### Reliabilities

In Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education*, 17, 783-805, the following were found:

	Long Form			Short Form		
	Mean	SD	alpha	Mean	SD	alpha
<b>OSTES</b>	7.1	.94	.94	7.1	.98	.90
<i>Engagement</i>	7.3	1.1	.87	7.2	1.2	.81
<i>Instruction</i>	7.3	1.1	.91	7.3	1.2	.86
<i>Management</i>	6.7	1.1	.90	6.7	1.2	.86

<sup>1</sup> Because this instrument was developed at the Ohio State University, it is sometimes referred to as the *Ohio State Teacher Efficacy Scale*. We prefer the name, *Teachers' Sense of Efficacy Scale*.



**Appendix K:  
Skewness/Kurtosis**

# Descriptives

## Descriptive Statistics

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
E1	126	.049	.216	-.396	.428
E2	126	-.476	.216	.005	.428
E3	125	-.341	.217	-.713	.430
E4	126	.111	.216	-.107	.428
E5	126	-1.437	.216	2.626	.428
E6	126	-.557	.216	.935	.428
E7	125	-.505	.217	-.619	.430
E8	126	-.768	.216	.853	.428
E9	125	.022	.217	-.652	.430
E10	126	-.235	.216	.189	.428
E11	126	-.203	.216	-.558	.428
E12	124	.103	.217	-.716	.431
E13	126	-.245	.216	-.600	.428
E14	126	.413	.216	-.122	.428
E15	126	-.697	.216	1.302	.428
E16	123	-.548	.218	.185	.433
E17	126	-.278	.216	-.336	.428
E18	125	-.737	.217	.748	.430
E19	124	-.559	.217	.594	.431
E20	124	-.937	.217	.814	.431
E21	124	-.382	.217	-.314	.431
E22	120	.477	.221	-.655	.438
E23	122	-.552	.219	.122	.435
E24	125	-.839	.217	.764	.430
EFFICACY	126	-.505	.216	.367	.428
A1	125	-.080	.217	-.712	.430
A2	125	-.375	.217	-1.119	.430
A3	126	-.540	.216	.033	.428
A4	126	-1.068	.216	.683	.428
A5	126	-.328	.216	.228	.428
A6	126	-1.466	.216	1.503	.428
A7	125	-.293	.217	-.213	.430
A8	125	.457	.217	-1.037	.430
A9	125	-.342	.217	.599	.430
A10	125	-.484	.217	-.968	.430
A11	125	-.296	.217	-.635	.430
A12	122	.426	.219	-.710	.435
A13	126	.262	.216	.403	.428
A14	124	-.308	.217	-.040	.431
A15	125	-.110	.217	-.818	.430
A16	124	-.330	.217	-.041	.431
A17	123	-.316	.218	-.685	.433
A18	124	-.227	.217	-.195	.431
A19	122	-.316	.219	.459	.435
A20	126	-.188	.216	-.102	.428
ALTRUISM	126	-.081	.216	-.114	.428
CC	121	-.151	.220	-2.011	.437
CARNEGIE	121	.604	.220	-1.055	.437
GEOGRAPH	121	.198	.220	-1.343	.437

## Descriptive Statistics

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
DISCIPLI	126	-.114	.216	-1.448	.428
SEX	126	6.034	.216	36.208	.428
ETHNICIT	126	5.385	.216	31.871	.428
USE	126	9.840	.216	105.469	.428
CREATE	126	1.337	.216	-.192	.428
VOLUNTEE	126	-.294	.216	-1.941	.428
UCC	110	-.493	.230	-1.790	.457
GCC	112	-1.227	.228	-.503	.453
HIGHERED	121	.366	.220	-.817	.437
INDUSTRY	119	1.703	.222	2.192	.440
HONORS	75	2.063	.277	6.688	.548
TEACHING	38	.931	.383	.605	.750
INSTSRV	63	2.111	.302	7.334	.595
CXSRV	86	2.064	.260	4.918	.514
PUBLICAT	103	6.319	.238	45.572	.472
PRESENTA	98	5.851	.244	44.027	.483
GRANT	103	2.526	.238	6.271	.472
PHILO	126	2.316	.216	3.546	.428
Valid N (listwise)	8				

**Appendix L:  
Descriptive Statistics**

## Frequencies

### Statistics

	GEOGRAPH	CC	CARNEGIE	DISCIPLI	SEX	ETHNICIT
N Valid	121	121	121	126	126	126
Missing	6	6	6	1	1	1

## Frequency Table

### GEOGRAPH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	41	32.3	33.9	33.9
	2.00	26	20.5	21.5	55.4
	3.00	33	26.0	27.3	82.6
	4.00	21	16.5	17.4	100.0
	Total	121	95.3	100.0	
Missing	System	6	4.7		
Total		127	100.0		

### CC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	56	44.1	46.3	46.3
	2.00	65	51.2	53.7	100.0
	Total	121	95.3	100.0	
Missing	System	6	4.7		
Total		127	100.0		

### CARNEGIE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	17	13.4	14.0	14.0
	2.00	15	11.8	12.4	26.4
	3.00	48	37.8	39.7	66.1
	6.00	18	14.2	14.9	81.0
	8.00	23	18.1	19.0	100.0
	Total	121	95.3	100.0	
Missing	System	6	4.7		
Total		127	100.0		

## DISCIPLI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	3	2.4	2.4	2.4
	2.00	9	7.1	7.1	9.5
	3.00	2	1.6	1.6	11.1
	4.00	8	6.3	6.3	17.5
	5.00	15	11.8	11.9	29.4
	6.00	7	5.5	5.6	34.9
	7.00	3	2.4	2.4	37.3
	8.00	7	5.5	5.6	42.9
	9.00	3	2.4	2.4	45.2
	10.00	1	.8	.8	46.0
	11.00	2	1.6	1.6	47.6
	12.00	1	.8	.8	48.4
	14.00	7	5.5	5.6	54.0
	15.00	19	15.0	15.1	69.0
	16.00	20	15.7	15.9	84.9
	17.00	4	3.1	3.2	88.1
	20.00	15	11.8	11.9	100.0
Total		126	99.2	100.0	
Missing	System	1	.8		
Total		127	100.0		

## SEX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	50	39.4	39.7	39.7
	2.00	73	57.5	57.9	97.6
	20.00	3	2.4	2.4	100.0
	Total	126	99.2	100.0	
Missing	System	1	.8		
Total		127	100.0		

## ETHNICIT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	1.6	1.6	1.6
	2.00	1	.8	.8	2.4
	3.00	4	3.1	3.2	5.6
	4.00	1	.8	.8	6.3
	5.00	108	85.0	85.7	92.1
	6.00	7	5.5	5.6	97.6
	20.00	3	2.4	2.4	100.0
	Total	126	99.2	100.0	
Missing	System	1	.8		
Total		127	100.0		

**Appendix M:  
Significant Findings for Teacher Efficacy**

## Oneway

## Descriptives

		N	Mean	Std. Deviation	Std. Error
E1B	no service-learning	69	6.8261	1.63560	.19690
	yes service learning	56	7.5357	1.17496	.15701
	missing value	1	7.0000	.	.
	Total	126	7.1429	1.47900	.13176
E1E	no service-learning	69	7.9855	1.26599	.15241
	yes service learning	56	8.5357	.85204	.11386
	missing value	1	9.0000	.	.
	Total	126	8.2381	1.12732	.10043
E1I	no service-learning	68	6.2941	1.57460	.19095
	yes service learning	56	6.9286	1.37321	.18350
	missing value	1	9.0000	.	.
	Total	125	6.6000	1.52400	.13631
E1Q	no service-learning	69	6.1304	1.76496	.21248
	yes service learning	56	6.8571	1.36753	.18274
	missing value	1	7.0000	.	.
	Total	126	6.4603	1.62801	.14503
EFFICACY	no service-learning	69	159.8116	22.96370	2.76450
	yes service learning	56	171.1964	16.59509	2.21761
	missing value	1	182.0000	.	.
	Total	126	165.0476	21.03363	1.87382



		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
E1B	no service-learning	6.4332	7.2190	3.00	9.00
	yes service learning	7.2211	7.8504	5.00	9.00
	missing value	.	.	7.00	7.00
	Total	6.8821	7.4036	3.00	9.00
E1E	no service-learning	7.6814	8.2896	3.00	9.00
	yes service learning	8.3075	8.7639	7.00	9.00
	missing value	.	.	9.00	9.00
	Total	8.0393	8.4369	3.00	9.00
E1I	no service-learning	5.9130	6.6753	3.00	9.00
	yes service learning	6.5608	7.2963	5.00	9.00
	missing value	.	.	9.00	9.00
	Total	6.3302	6.8698	3.00	9.00
E1Q	no service-learning	5.7064	6.5544	3.00	9.00
	yes service learning	6.4909	7.2234	3.00	9.00
	missing value	.	.	7.00	7.00
	Total	6.1733	6.7474	3.00	9.00
EFFICACY	no service-learning	154.2951	165.3281	104.00	208.00
	yes service learning	166.7522	175.6406	136.00	216.00
	missing value	.	.	182.00	182.00
	Total	161.3391	168.7562	104.00	216.00

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
E1B	1.901	2	123	.154
E1E	10.626	2	123	.000
E1I	4.017	2	122	.020
E1Q	6.776	2	123	.002
EFFICACY	3.568	2	123	.031

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
E1B	Between Groups	15.587	2	7.793	3.718	.027
	Within Groups	257.842	123	2.096		
	Total	273.429	125			
E1E	Between Groups	9.943	2	4.972	4.106	.019
	Within Groups	148.914	123	1.211		
	Total	158.857	125			
E1I	Between Groups	18.168	2	9.084	4.107	.019
	Within Groups	269.832	122	2.212		
	Total	288.000	124			
E1Q	Between Groups	16.618	2	8.309	3.248	.042
	Within Groups	314.683	123	2.558		
	Total	331.302	125			
EFFICACY	Between Groups	4296.324	2	2148.162	5.180	.007
	Within Groups	51005.390	123	414.678		
	Total	55301.714	125			

## Frequencies

### Statistics

		GEOGRAPH	CC	CARNEGIE	DISCIPLI	SEX	ETHNICIT
N	Valid	66	66	66	69	69	69
	Missing	61	61	61	58	58	58

## Frequency Table

### GEOGRAPH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	20	15.7	30.3	30.3
	2.00	20	15.7	30.3	60.6
	3.00	16	12.6	24.2	84.8
	4.00	10	7.9	15.2	100.0
	Total	66	52.0	100.0	
Missing	System	61	48.0		
Total		127	100.0		

### CC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	32	25.2	48.5	48.5
	2.00	34	26.8	51.5	100.0
	Total	66	52.0	100.0	
Missing	System	61	48.0		
Total		127	100.0		

### CARNEGIE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	10	7.9	15.2	15.2
	2.00	7	5.5	10.6	25.8
	3.00	26	20.5	39.4	65.2
	6.00	11	8.7	16.7	81.8
	8.00	12	9.4	18.2	100.0
	Total	66	52.0	100.0	
Missing	System	61	48.0		
Total		127	100.0		

## DISCIPLI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	3	2.4	4.3	4.3
	2.00	3	2.4	4.3	8.7
	4.00	5	3.9	7.2	15.9
	5.00	8	6.3	11.6	27.5
	6.00	4	3.1	5.8	33.3
	7.00	1	.8	1.4	34.8
	11.00	2	1.6	2.9	37.7
	14.00	5	3.9	7.2	44.9
	15.00	14	11.0	20.3	65.2
	16.00	10	7.9	14.5	79.7
	17.00	3	2.4	4.3	84.1
	20.00	11	8.7	15.9	100.0
	Total		69	54.3	100.0
Missing System		58	45.7		
Total		127	100.0		

## SEX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	34	26.8	49.3	49.3
	2.00	33	26.0	47.8	97.1
	20.00	2	1.6	2.9	100.0
	Total	69	54.3	100.0	
Missing System		58	45.7		
Total		127	100.0		

## ETHNICIT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	1	.8	1.4	1.4
	3.00	4	3.1	5.8	7.2
	5.00	56	44.1	81.2	88.4
	6.00	6	4.7	8.7	97.1
	20.00	2	1.6	2.9	100.0
	Total	69	54.3	100.0	
Missing System		58	45.7		
Total		127	100.0		

## Frequencies

### Statistics

		GEOGRAPH	CC	CARNEGIE	DISCIPLI	SEX	ETHNICIT
N	Valid	55	55	55	57	57	57
	Missing	3	3	3	1	1	1

## Frequency Table

### GEOGRAPH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	21	36.2	38.2	38.2
	2.00	6	10.3	10.9	49.1
	3.00	17	29.3	30.9	80.0
	4.00	11	19.0	20.0	100.0
	Total	55	94.8	100.0	
Missing	System	3	5.2		
Total		58	100.0		

### CC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	24	41.4	43.6	43.6
	2.00	31	53.4	56.4	100.0
	Total	55	94.8	100.0	
Missing	System	3	5.2		
Total		58	100.0		

### CARNEGIE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	7	12.1	12.7	12.7
	2.00	8	13.8	14.5	27.3
	3.00	22	37.9	40.0	67.3
	6.00	7	12.1	12.7	80.0
	8.00	11	19.0	20.0	100.0
	Total	55	94.8	100.0	
Missing	System	3	5.2		
Total		58	100.0		

## DISCIPLI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	6	10.3	10.5	10.5
	3.00	2	3.4	3.5	14.0
	4.00	3	5.2	5.3	19.3
	5.00	7	12.1	12.3	31.6
	6.00	3	5.2	5.3	36.8
	7.00	2	3.4	3.5	40.4
	8.00	7	12.1	12.3	52.6
	9.00	3	5.2	5.3	57.9
	10.00	1	1.7	1.8	59.6
	12.00	1	1.7	1.8	61.4
	14.00	2	3.4	3.5	64.9
	15.00	5	8.6	8.8	73.7
	16.00	10	17.2	17.5	91.2
	17.00	1	1.7	1.8	93.0
	20.00	4	6.9	7.0	100.0
	Total	57	98.3	100.0	
Missing	System	1	1.7		
Total		58	100.0		

## SEX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	16	27.6	28.1	28.1
	2.00	40	69.0	70.2	98.2
	20.00	1	1.7	1.8	100.0
	Total	57	98.3	100.0	
Missing	System	1	1.7		
Total		58	100.0		

## ETHNICIT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	3.4	3.5	3.5
	4.00	1	1.7	1.8	5.3
	5.00	52	89.7	91.2	96.5
	6.00	1	1.7	1.8	98.2
	20.00	1	1.7	1.8	100.0
	Total	57	98.3	100.0	
Missing	System	1	1.7		
Total		58	100.0		

**Appendix N:  
Non significant Findings for Teacher Efficacy**

## Oneway

## Descriptives

		N	Mean	Std. Deviation	Std. Error
E1A	no service-learning	69	5.6377	1.92485	.23172
	yes service learning	56	6.3571	1.53064	.20454
	missing value	1	7.0000	.	.
	Total	126	5.9683	1.78409	.15894
E1C	no service-learning	68	7.4118	1.36300	.16529
	yes service learning	56	7.6786	1.22262	.16338
	missing value	1	9.0000	.	.
	Total	125	7.5440	1.30448	.11668
E1D	no service-learning	69	5.5797	1.81826	.21889
	yes service learning	56	5.8214	1.46607	.19591
	missing value	1	7.0000	.	.
	Total	126	5.6984	1.66503	.14833
E1F	no service-learning	69	6.7971	1.61409	.19431
	yes service learning	56	7.1786	1.33631	.17857
	missing value	1	9.0000	.	.
	Total	126	6.9841	1.50723	.13427
E1G	no service-learning	69	7.7826	1.24699	.15012
	yes service learning	55	7.7636	1.24668	.16810
	missing value	1	9.0000	.	.
	Total	125	7.7840	1.24164	.11106
E1H	no service-learning	69	7.7246	1.23531	.14871
	yes service learning	56	8.0714	1.14188	.15259
	missing value	1	7.0000	.	.
	Total	126	7.8730	1.19989	.10690
E1J	no service-learning	69	7.1159	1.36701	.16457
	yes service learning	56	7.1071	1.17053	.15642
	missing value	1	7.0000	.	.
	Total	126	7.1111	1.27262	.11337
E1K	no service-learning	69	7.4928	1.25585	.15119
	yes service learning	56	7.6429	1.15095	.15380
	missing value	1	7.0000	.	.
	Total	126	7.5556	1.20370	.10723
E1L	no service-learning	68	6.3529	1.52359	.18476
	yes service learning	55	6.8909	1.40992	.19011
	missing value	1	7.0000	.	.
	Total	124	6.5968	1.48663	.13350
E1M	no service-learning	69	7.5507	1.32328	.15930
	yes service learning	56	7.4643	1.14359	.15282
	missing value	1	9.0000	.	.
	Total	126	7.5238	1.24396	.11082
E1N	no service-learning	69	5.7536	1.45931	.17568
	yes service learning	56	6.1071	1.37085	.18319
	missing value	1	7.0000	.	.
	Total	126	5.9206	1.42325	.12679
E1O	no service-learning	69	6.7681	1.66402	.20032
	yes service learning	56	7.3214	1.25201	.16731
	missing value	1	7.0000	.	.
	Total	126	7.0159	1.50723	.13427

## Descriptives

		N	Mean	Std. Deviation	Std. Error
E1P	no service-learning	66	6.9394	1.60651	.19775
	yes service learning	56	7.5357	1.23530	.16507
	missing value	1	7.0000	.	.
	Total	123	7.2114	1.46686	.13226
E1R	no service-learning	68	6.8529	1.80600	.21901
	yes service learning	56	7.4286	1.35991	.18173
	missing value	1	7.0000	.	.
	Total	125	7.1120	1.63241	.14601
E1S	no service-learning	67	7.0000	1.59545	.19492
	yes service learning	56	7.3571	1.08592	.14511
	missing value	1	9.0000	.	.
	Total	124	7.1774	1.39714	.12547
E1T	no service-learning	67	7.9552	1.22391	.14952
	yes service learning	56	7.8929	1.31673	.17595
	missing value	1	7.0000	.	.
	Total	124	7.9194	1.25974	.11313
E1U	no service-learning	67	6.3731	1.78237	.21775
	yes service learning	56	7.0357	1.45182	.19401
	missing value	1	7.0000	.	.
	Total	124	6.6774	1.66039	.14911
E1V	no service-learning	64	3.3750	2.22183	.27773
	yes service learning	55	4.0182	2.46074	.33181
	missing value	1	7.0000	.	.
	Total	120	3.7000	2.35718	.21518
E1W	no service-learning	65	6.8769	1.76341	.21872
	yes service learning	56	7.1786	1.28073	.17114
	missing value	1	7.0000	.	.
	Total	122	7.0164	1.55337	.14064
E1X	no service-learning	68	7.2941	1.55553	.18864
	yes service learning	56	7.8214	1.25201	.16731
	missing value	1	7.0000	.	.
	Total	125	7.5280	1.44007	.12880



## Descriptives

		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
E1A	no service-learning	5.1753	6.1001	1.00	9.00
	yes service learning	5.9472	6.7671	3.00	9.00
	missing value	.	.	7.00	7.00
	Total	5.6537	6.2828	1.00	9.00
E1C	no service-learning	7.0818	7.7417	5.00	9.00
	yes service learning	7.3512	8.0060	5.00	9.00
	missing value	.	.	9.00	9.00
	Total	7.3131	7.7749	5.00	9.00
E1D	no service-learning	5.1429	6.0165	1.00	9.00
	yes service learning	5.4288	6.2140	3.00	9.00
	missing value	.	.	7.00	7.00
	Total	5.4048	5.9920	1.00	9.00
E1F	no service-learning	6.4094	7.1848	1.00	9.00
	yes service learning	6.8207	7.5364	5.00	9.00
	missing value	.	.	9.00	9.00
	Total	6.7184	7.2499	1.00	9.00
E1G	no service-learning	7.4830	8.0822	5.00	9.00
	yes service learning	7.4266	8.1007	5.00	9.00
	missing value	.	.	9.00	9.00
	Total	7.5642	8.0038	5.00	9.00
E1H	no service-learning	7.4279	8.0214	3.00	9.00
	yes service learning	7.7656	8.3772	5.00	9.00
	missing value	.	.	7.00	7.00
	Total	7.6615	8.0846	3.00	9.00
E1J	no service-learning	6.7876	7.4443	3.00	9.00
	yes service learning	6.7937	7.4206	5.00	9.00
	missing value	.	.	7.00	7.00
	Total	6.8867	7.3355	3.00	9.00
E1K	no service-learning	7.1911	7.7944	5.00	9.00
	yes service learning	7.3346	7.9511	5.00	9.00
	missing value	.	.	7.00	7.00
	Total	7.3433	7.7678	5.00	9.00
E1L	no service-learning	5.9842	6.7217	3.00	9.00
	yes service learning	6.5098	7.2721	5.00	9.00
	missing value	.	.	7.00	7.00
	Total	6.3325	6.8610	3.00	9.00
E1M	no service-learning	7.2328	7.8686	5.00	9.00
	yes service learning	7.1580	7.7705	5.00	9.00
	missing value	.	.	9.00	9.00
	Total	7.3045	7.7431	5.00	9.00
E1N	no service-learning	5.4031	6.1042	3.00	9.00
	yes service learning	5.7400	6.4743	3.00	9.00
	missing value	.	.	7.00	7.00
	Total	5.6697	6.1716	3.00	9.00
E1O	no service-learning	6.3684	7.1679	1.00	9.00
	yes service learning	6.9861	7.6567	5.00	9.00
	missing value	.	.	7.00	7.00
	Total	6.7501	7.2816	1.00	9.00

## Descriptives

		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
E1P	no service-learning	6.5445	7.3343	3.00	9.00
	yes service learning	7.2049	7.8665	5.00	9.00
	missing value	.	.	7.00	7.00
	Total	6.9496	7.4732	3.00	9.00
E1R	no service-learning	6.4158	7.2901	1.00	9.00
	yes service learning	7.0644	7.7928	3.00	9.00
	missing value	.	.	7.00	7.00
	Total	6.8230	7.4010	1.00	9.00
E1S	no service-learning	6.6108	7.3892	3.00	9.00
	yes service learning	7.0663	7.6480	5.00	9.00
	missing value	.	.	9.00	9.00
	Total	6.9291	7.4258	3.00	9.00
E1T	no service-learning	7.6567	8.2538	5.00	9.00
	yes service learning	7.5402	8.2455	3.00	9.00
	missing value	.	.	7.00	7.00
	Total	7.6954	8.1433	3.00	9.00
E1U	no service-learning	5.9384	6.8079	3.00	9.00
	yes service learning	6.6469	7.4245	3.00	9.00
	missing value	.	.	7.00	7.00
	Total	6.3823	6.9726	3.00	9.00
E1V	no service-learning	2.8200	3.9300	1.00	9.00
	yes service learning	3.3530	4.6834	1.00	9.00
	missing value	.	.	7.00	7.00
	Total	3.2739	4.1261	1.00	9.00
E1W	no service-learning	6.4400	7.3139	3.00	9.00
	yes service learning	6.8356	7.5216	3.00	9.00
	missing value	.	.	7.00	7.00
	Total	6.7380	7.2948	3.00	9.00
E1X	no service-learning	6.9176	7.6706	3.00	9.00
	yes service learning	7.4861	8.1567	3.00	9.00
	missing value	.	.	7.00	7.00
	Total	7.2731	7.7829	3.00	9.00

**Test of Homogeneity of Variances**

	Levene Statistic	df1	df2	Sig.
E1A	2.393	2	123	.096
E1C	1.381	2	122	.255
E1D	2.003	2	123	.139
E1F	1.074	2	123	.345
E1G	2.387	2	122	.096
E1H	2.105	2	123	.126
E1J	.969	2	123	.382
E1K	1.452	2	123	.238
E1L	2.616	2	121	.077
E1M	2.687	2	123	.072
E1N	1.397	2	123	.251
E1O	1.538	2	123	.219
E1P	.754	2	120	.473
E1R	3.411	2	122	.036
E1S	1.474	2	121	.233
E1T	2.164	2	121	.119
E1U	5.843	2	121	.004
E1V	1.821	2	117	.166
E1W	3.918	2	119	.023
E1X	1.249	2	122	.290

**ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
E1A	Between Groups	17.074	2	8.537	2.757	.067
	Within Groups	380.799	123	3.096		
	Total	397.873	125			
E1C	Between Groups	4.323	2	2.162	1.276	.283
	Within Groups	206.685	122	1.694		
	Total	211.008	124			
E1D	Between Groups	3.514	2	1.757	.630	.534
	Within Groups	343.026	123	2.789		
	Total	346.540	125			
E1F	Between Groups	8.595	2	4.297	1.919	.151
	Within Groups	275.374	123	2.239		
	Total	283.968	125			
E1G	Between Groups	1.502	2	.751	.483	.618
	Within Groups	189.666	122	1.555		
	Total	191.168	124			
E1H	Between Groups	4.486	2	2.243	1.572	.212
	Within Groups	175.482	123	1.427		
	Total	179.968	125			
E1J	Between Groups	.015	2	.007	.005	.996
	Within Groups	202.430	123	1.646		
	Total	202.444	125			
E1K	Between Groups	1.008	2	.504	.344	.710
	Within Groups	180.104	123	1.464		
	Total	181.111	125			

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
E1L	Between Groups	8.964	2	4.482	2.063	.132
	Within Groups	262.875	121	2.173		
	Total	271.839	123			
E1M	Between Groups	2.428	2	1.214	.782	.460
	Within Groups	191.001	123	1.553		
	Total	193.429	125			
E1N	Between Groups	5.038	2	2.519	1.248	.291
	Within Groups	248.169	123	2.018		
	Total	253.206	125			
E1O	Between Groups	9.464	2	4.732	2.120	.124
	Within Groups	274.504	123	2.232		
	Total	283.968	125			
E1P	Between Groups	10.818	2	5.409	2.579	.080
	Within Groups	251.686	120	2.097		
	Total	262.504	122			
E1R	Between Groups	10.188	2	5.094	1.941	.148
	Within Groups	320.244	122	2.625		
	Total	330.432	124			
E1S	Between Groups	7.240	2	3.620	1.881	.157
	Within Groups	232.857	121	1.924		
	Total	240.097	123			
E1T	Between Groups	.971	2	.485	.302	.740
	Within Groups	194.223	121	1.605		
	Total	195.194	123			
E1U	Between Groups	13.497	2	6.748	2.508	.086
	Within Groups	325.600	121	2.691		
	Total	339.097	123			
E1V	Between Groups	23.218	2	11.609	2.129	.124
	Within Groups	637.982	117	5.453		
	Total	661.200	119			
E1W	Between Groups	2.738	2	1.369	.563	.571
	Within Groups	289.230	119	2.431		
	Total	291.967	121			
E1X	Between Groups	8.820	2	4.410	2.167	.119
	Within Groups	248.332	122	2.036		
	Total	257.152	124			

**Appendix O:  
Factor Analysis of OSTES**

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## Factor Analysis

### Descriptive Statistics

	Mean	Std. Deviation	Analysis N
E1A	5.9730	1.74491	111
E1B	7.2342	1.39450	111
E1C	7.5946	1.30995	111
E1D	5.7568	1.59668	111
E1E	8.3333	1.12277	111
E1F	7.0541	1.41317	111
E1G	7.7928	1.24402	111
E1H	7.9009	1.22812	111
E1I	6.6937	1.48197	111
E1J	7.1441	1.19732	111
E1K	7.6126	1.19978	111
E1L	6.6757	1.46574	111
E1M	7.5766	1.21767	111
E1N	5.9550	1.39732	111
E1O	7.0901	1.51087	111
E1P	7.2523	1.37820	111
E1Q	6.6036	1.59134	111
E1R	7.1622	1.66537	111
E1S	7.2162	1.33079	111
E1T	7.9369	1.25972	111
E1U	6.7477	1.59812	111
E1V	3.7387	2.36532	111
E1W	7.0180	1.51347	111
E1X	7.5586	1.43137	111

## Correlation Matrix

		E1A	E1B	E1C	E1D	E1E	E1F	E1G
Correlation	E1A	1.000	.339	.285	.477	.241	.450	.261
	E1B	.339	1.000	.242	.263	.217	.363	.248
	E1C	.285	.242	1.000	.183	.321	.238	.221
	E1D	.477	.263	.183	1.000	.122	.546	.171
	E1E	.241	.217	.321	.122	1.000	.367	.200
	E1F	.450	.363	.238	.546	.367	1.000	.327
	E1G	.261	.248	.221	.171	.200	.327	1.000
	E1H	.198	.130	.093	.150	.202	.244	.314
	E1I	.355	.317	.132	.452	.160	.581	.074
	E1J	.228	.241	.154	.228	.180	.275	.264
	E1K	.182	.261	.252	.306	.198	.238	.256
	E1L	.196	.376	.158	.323	.199	.360	.262
	E1M	.161	.091	.535	.204	.337	.235	.152
	E1N	.451	.351	.263	.407	.224	.471	.272
	E1O	.297	.266	.671	.152	.357	.236	.233
	E1P	.230	.253	.440	.160	.298	.198	.094
	E1Q	.376	.239	.184	.377	.217	.398	.050
	E1R	.271	.203	.022	.309	.097	.336	.236
	E1S	.253	.149	.572	.282	.292	.342	.181
	E1T	.243	.164	.166	.150	.240	.319	.403
	E1U	.297	.157	.507	.261	.290	.280	.193
	E1V	.344	.344	.256	.294	.160	.380	.108
	E1W	.227	.188	.031	.340	.200	.374	.205
	E1X	.086	.207	.073	.354	.143	.147	.096

## Correlation Matrix

		E1H	E1I	E1J	E1K	E1L	E1M	E1N
Correlation	E1A	.198	.355	.228	.182	.196	.161	.451
	E1B	.130	.317	.241	.261	.376	.091	.351
	E1C	.093	.132	.154	.252	.158	.535	.263
	E1D	.150	.452	.228	.306	.323	.204	.407
	E1E	.202	.160	.180	.198	.199	.337	.224
	E1F	.244	.581	.275	.238	.360	.235	.471
	E1G	.314	.074	.264	.256	.262	.152	.272
	E1H	1.000	.173	.356	.288	.204	.209	.151
	E1I	.173	1.000	.210	.188	.456	.159	.424
	E1J	.356	.210	1.000	.520	.151	.217	.221
	E1K	.288	.188	.520	1.000	.197	.204	.147
	E1L	.204	.456	.151	.197	1.000	.146	.224
	E1M	.209	.159	.217	.204	.146	1.000	.250
	E1N	.151	.424	.221	.147	.224	.250	1.000
	E1O	.191	.175	.133	.290	.112	.505	.355
	E1P	.273	.145	.374	.433	.185	.389	.176
	E1Q	.203	.472	.183	.071	.194	.194	.384
	E1R	.355	.359	.298	.205	.305	-.082	.277
	E1S	.058	.200	.208	.258	.260	.506	.240
	E1T	.319	.272	.344	.315	.245	.119	.210
	E1U	.191	.151	.190	.233	.136	.412	.223
	E1V	-.006	.387	.052	.018	.154	.141	.412
	E1W	.246	.343	.239	.214	.380	.014	.164
	E1X	.104	.116	.228	.349	.347	.168	.113



## Correlation Matrix

	E1O	E1P	E1Q	E1R	E1S	E1T	E1U
Correlation E1A	.297	.230	.376	.271	.253	.243	.297
E1B	.266	.253	.239	.203	.149	.164	.157
E1C	.671	.440	.184	.022	.572	.166	.507
E1D	.152	.160	.377	.309	.282	.150	.261
E1E	.357	.298	.217	.097	.292	.240	.290
E1F	.236	.198	.398	.336	.342	.319	.280
E1G	.233	.094	.050	.236	.181	.403	.193
E1H	.191	.273	.203	.355	.058	.319	.191
E1I	.175	.145	.472	.359	.200	.272	.151
E1J	.133	.374	.183	.298	.208	.344	.190
E1K	.290	.433	.071	.205	.258	.315	.233
E1L	.112	.185	.194	.305	.260	.245	.136
E1M	.505	.389	.194	-.082	.506	.119	.412
E1N	.355	.176	.384	.277	.240	.210	.223
E1O	1.000	.600	.227	-.006	.587	.204	.522
E1P	.600	1.000	.228	.061	.485	.282	.425
E1Q	.227	.228	1.000	.464	.195	.187	.261
E1R	-.006	.061	.464	1.000	.033	.239	.056
E1S	.587	.485	.195	.033	1.000	.182	.641
E1T	.204	.282	.187	.239	.182	1.000	.299
E1U	.522	.425	.261	.056	.641	.299	1.000
E1V	.185	.098	.156	.025	.191	.095	.184
E1W	.079	.242	.260	.547	.215	.487	.242
E1X	.027	.297	.178	.358	.299	.191	.253

## Correlation Matrix

		E1V	E1W	E1X
Correlation	E1A	.344	.227	.086
	E1B	.344	.188	.207
	E1C	.256	.031	.073
	E1D	.294	.340	.354
	E1E	.160	.200	.143
	E1F	.380	.374	.147
	E1G	.108	.205	.096
	E1H	-.006	.246	.104
	E1I	.387	.343	.116
	E1J	.052	.239	.228
	E1K	.018	.214	.349
	E1L	.154	.380	.347
	E1M	.141	.014	.168
	E1N	.412	.164	.113
	E1O	.185	.079	.027
	E1P	.098	.242	.297
	E1Q	.156	.260	.178
	E1R	.025	.547	.358
	E1S	.191	.215	.299
	E1T	.095	.487	.191
E1U	.184	.242	.253	
E1V	1.000	.169	-.005	
E1W	.169	1.000	.482	
E1X	-.005	.482	1.000	

## KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.820
Bartlett's Test of Sphericity	Approx. Chi-Square	1057.539
	df	276
	Sig.	.000

**Communalities**

	Initial	Extraction
E1A	1.000	.512
E1B	1.000	.562
E1C	1.000	.666
E1D	1.000	.587
E1E	1.000	.353
E1F	1.000	.632
E1G	1.000	.657
E1H	1.000	.586
E1I	1.000	.602
E1J	1.000	.671
E1K	1.000	.728
E1L	1.000	.550
E1M	1.000	.538
E1N	1.000	.569
E1O	1.000	.730
E1P	1.000	.634
E1Q	1.000	.721
E1R	1.000	.680
E1S	1.000	.731
E1T	1.000	.603
E1U	1.000	.622
E1V	1.000	.574
E1W	1.000	.734
E1X	1.000	.745

Extraction Method: Principal Component Analysis.

## Total Variance Explained

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	6.873	28.638	28.638
2	2.640	11.001	39.639
3	1.941	8.088	47.727
4	1.352	5.634	53.361
5	1.110	4.624	57.985
6	1.072	4.465	62.450
7	.909	3.788	66.238
8	.847	3.529	69.767
9	.827	3.445	73.212
10	.760	3.166	76.378
11	.643	2.680	79.058
12	.634	2.640	81.699
13	.552	2.301	84.000
14	.544	2.268	86.269
15	.491	2.047	88.316
16	.477	1.989	90.305
17	.430	1.791	92.096
18	.383	1.597	93.693
19	.334	1.393	95.086
20	.301	1.256	96.342
21	.255	1.064	97.405
22	.251	1.044	98.449
23	.198	.823	99.273
24	.175	.727	100.000

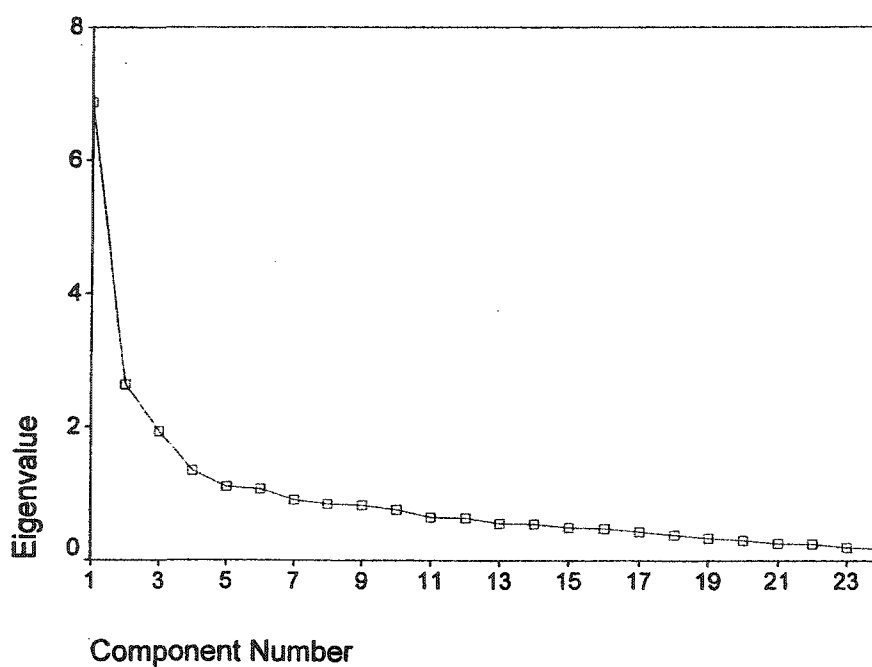
Extraction Method: Principal Component Analysis.

## Total Variance Explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.873	28.638	28.638	3.869	16.122	16.122
2	2.640	11.001	39.639	3.331	13.879	30.001
3	1.941	8.088	47.727	2.156	8.984	38.985
4	1.352	5.634	53.361	1.919	7.996	46.981
5	1.110	4.624	57.985	1.889	7.872	54.853
6	1.072	4.465	62.450	1.823	7.597	62.450
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

Extraction Method: Principal Component Analysis.

## Scree Plot



Component Matrix<sup>a</sup>

	Component					
	1	2	3	4	5	6
E1F	.695	.250	-.271	8.439E-02	5.042E-03	7.924E-02
E1S	.616	-.483	5.215E-03	-.317	4.268E-02	.123
E1D	.598	.280	-.210	-.235	3.975E-02	-.224
E1O	.597	-.596	-7.074E-02	8.144E-02	-8.554E-02	1.447E-02
E1A	.594	.118	-.312	.169	-9.970E-02	-9.402E-02
E1U	.594	-.418	5.393E-02	-.191	-.127	.198
E1N	.589	.113	-.405	.180	-4.161E-02	-.107
E1P	.584	-.393	.288	-9.390E-02	-2.430E-02	-.215
E1I	.580	.373	-.338	-8.514E-02	-5.387E-02	-5.694E-02
E1W	.527	.426	.287	-.276	-4.793E-03	.341
E1T	.514	.148	.338	.258	-5.174E-03	.369
E1B	.513	.138	-.172	.135	.445	-.185
E1K	.511	-3.811E-02	.456	.100	.240	-.435
E1L	.506	.286	3.801E-02	-.191	.360	.210
E1J	.497	9.609E-02	.407	.258	9.044E-03	-.428
E1E	.489	-.192	1.152E-02	.120	-5.648E-02	.244
E1H	.422	.137	.372	.390	-.315	-9.591E-03
E1R	.449	.587	.192	-7.643E-02	-.301	1.553E-02
E1C	.562	-.578	-.117	1.002E-02	2.093E-02	4.389E-02
E1M	.497	-.523	-2.006E-02	-5.681E-02	-.112	-3.450E-02
E1V	.402	4.619E-02	-.565	7.376E-02	.292	3.432E-02
E1X	.423	.185	.408	-.568	.203	-4.649E-02
E1G	.441	7.134E-02	.181	.517	.220	.330
E1Q	.529	.229	-.222	-.155	-.549	-.116

Extraction Method: Principal Component Analysis.

a. 6 components extracted.

Rotated Component Matrix<sup>a</sup>

	Component					
	1	2	3	4	5	6
E1O	.804	.185	-.123	.132	.130	2.210E-02
E1S	.791	.140	.292	-6.163E-03	2.286E-02	-7.666E-03
E1C	.773	.221	-5.424E-02	8.209E-02	7.312E-02	-6.844E-02
E1U	.735	6.678E-02	.203	.134	-8.137E-03	.134
E1M	.713	9.520E-02	-3.835E-02	1.064E-02	.126	6.251E-02
E1P	.628	1.351E-02	.155	3.278E-02	.457	7.704E-02
E1E	.439	.166	5.679E-02	.350	-5.833E-03	8.539E-02
E1V	.148	.720	2.664E-03	2.101E-02	-.135	-.122
E1N	.206	.662	-7.022E-02	.122	8.549E-02	.247
E1F	.187	.639	.189	.273	3.998E-02	.279
E1I	4.919E-02	.634	.234	4.296E-02	2.169E-02	.375
E1B	7.508E-02	.623	.165	.114	.309	-.180
E1A	.215	.580	-4.218E-02	.155	.116	.299
E1D	.126	.561	.342	-.116	.194	.297
E1X	.153	-1.524E-02	.793	-8.524E-02	.280	8.171E-02
E1W	4.248E-02	.115	.703	.358	6.422E-03	.312
E1L	6.585E-02	.383	.584	.230	3.928E-02	-5.682E-02
E1G	.104	.230	3.644E-02	.744	.150	-.128
E1T	.162	6.751E-02	.257	.685	.131	.141
E1H	9.342E-02	-2.963E-02	-5.014E-02	.518	.382	.400
E1K	.209	.103	.217	.121	.781	-4.686E-02
E1J	9.952E-02	.119	6.291E-02	.222	.749	.181
E1Q	.205	.329	7.936E-02	-4.668E-02	1.325E-02	.750
E1R	-.160	.170	.388	.256	.176	.615

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.

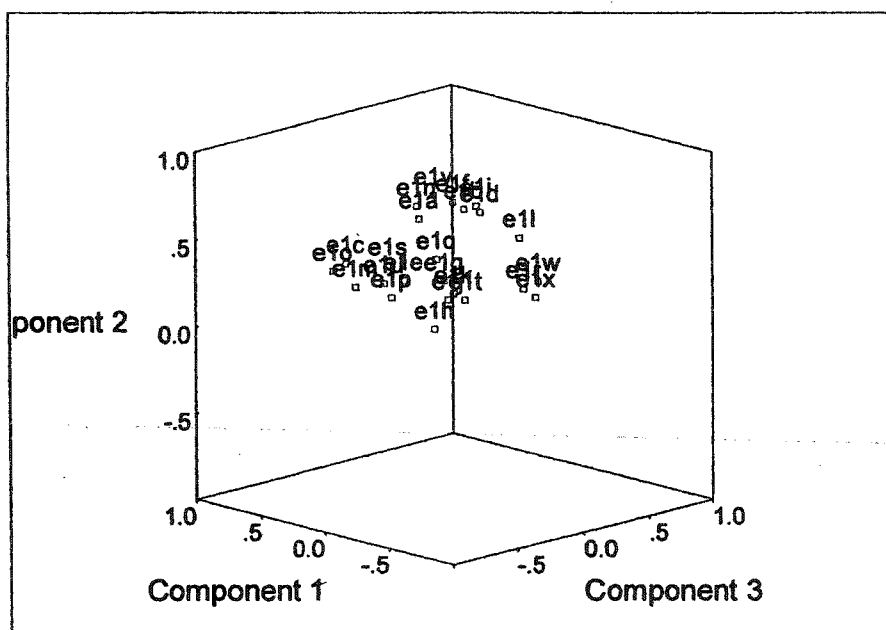
a. Rotation converged in 7 iterations.

Component Transformation Matrix

Component	1	2	3	4	5	6
1	.558	.541	.331	.321	.310	.296
2	-.791	.286	.363	.159	.022	.368
3	-.014	-.695	.354	.334	.529	-.013
4	-.178	.148	-.683	.639	.240	-.115
5	-.134	.313	.323	.020	.157	-.869
6	.115	-.149	.250	.593	-.736	-.097

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.

## Component Plot in Rotated Space





**Appendix P:  
Non-significant Findings for Altruism**

## Oneway

## Descriptives

		N	Mean	Std. Deviation	Std. Error
A2A	no service-learning	68	4.8235	2.46129	.29848
	yes service learning	56	4.3571	2.25976	.30197
	missing value	1	1.0000	.	.
	Total	125	4.5840	2.38674	.21348
A2B	no service-learning	68	7.5882	1.46843	.17807
	yes service learning	56	7.2857	1.49805	.20019
	missing value	1	5.0000	.	.
	Total	125	7.4320	1.49373	.13360
A2C	no service-learning	69	5.5217	2.29199	.27592
	yes service learning	56	5.5357	2.07114	.27677
	missing value	1	5.0000	.	.
	Total	126	5.5238	2.17886	.19411
A2D	no service-learning	69	7.8986	1.39479	.16791
	yes service learning	56	8.0000	1.26491	.16903
	missing value	1	9.0000	.	.
	Total	126	7.9524	1.33181	.11865
A2E	no service-learning	69	4.7101	1.97857	.23819
	yes service learning	56	4.7500	1.75032	.23390
	missing value	1	5.0000	.	.
	Total	126	4.7302	1.86510	.16616
A2H	no service-learning	68	3.4118	2.71115	.32877
	yes service learning	56	3.8214	2.55206	.34103
	missing value	1	5.0000	.	.
	Total	125	3.6080	2.63015	.23525
A2I	no service-learning	68	5.2353	2.25347	.27327
	yes service learning	56	5.7143	1.23162	.16458
	missing value	1	5.0000	.	.
	Total	125	5.4480	1.86416	.16674
A2J	no service-learning	68	7.5882	1.42719	.17307
	yes service learning	56	7.5714	1.46296	.19550
	missing value	1	5.0000	.	.
	Total	125	7.5600	1.45025	.12971
A2K	no service-learning	68	7.1471	1.59537	.19347
	yes service learning	56	6.8571	1.56587	.20925
	missing value	1	5.0000	.	.
	Total	125	7.0000	1.58623	.14188
A2L	no service-learning	67	3.3881	2.06673	.25249
	yes service learning	54	2.7778	2.00628	.27302
	missing value	1	5.0000	.	.
	Total	122	3.1311	2.05282	.18585
A2M	no service-learning	69	5.7826	1.78943	.21542
	yes service learning	56	5.4643	1.52511	.20380
	missing value	1	5.0000	.	.
	Total	126	5.6349	1.67142	.14890
A2N	no service-learning	68	4.2059	2.24312	.27202
	yes service learning	55	4.8545	1.53259	.20665
	missing value	1	5.0000	.	.
	Total	124	4.5000	1.96928	.17685

## Descriptives

		N	Mean	Std. Deviation	Std. Error
A2P	no service-learning	68	6.4118	1.92575	.23353
	yes service learning	55	6.3818	1.71584	.23136
	missing value	1	5.0000	.	.
	Total	124	6.3871	1.82445	.16384
A2Q	no service-learning	66	5.2727	2.55129	.31404
	yes service learning	56	5.3929	2.39453	.31998
	missing value	1	5.0000	.	.
	Total	123	5.3252	2.46116	.22192
A2R	no service-learning	69	5.2609	2.44740	.29463
	yes service learning	54	5.1852	1.87409	.25503
	missing value	1	5.0000	.	.
	Total	124	5.2258	2.19696	.19729
A2S	no service-learning	66	5.9091	2.11025	.25975
	yes service learning	55	5.2909	1.60638	.21660
	missing value	1	5.0000	.	.
	Total	122	5.6230	1.90835	.17277
A2T	no service-learning	69	6.1014	2.07325	.24959
	yes service learning	56	5.6071	1.90386	.25441
	missing value	1	5.0000	.	.
	Total	126	5.8730	1.99994	.17817
ALTRUISM	no service-learning	69	112.3478	22.57655	2.71790
	yes service learning	56	115.0893	16.25398	2.17203
	missing value	1	104.0000	.	.
	Total	126	113.5000	19.90246	1.77305

## Descriptives

		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
A2A	no service-learning	4.2278	5.4193	1.00	9.00
	yes service learning	3.7520	4.9623	1.00	9.00
	missing value	.	.	1.00	1.00
	Total	4.1615	5.0065	1.00	9.00
A2B	no service-learning	7.2328	7.9437	5.00	9.00
	yes service learning	6.8845	7.6869	5.00	9.00
	missing value	.	.	5.00	5.00
	Total	7.1676	7.6964	5.00	9.00
A2C	no service-learning	4.9711	6.0723	1.00	9.00
	yes service learning	4.9811	6.0904	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	5.1396	5.9080	1.00	9.00
A2D	no service-learning	7.5635	8.2336	3.00	9.00
	yes service learning	7.6613	8.3387	5.00	9.00
	missing value	.	.	9.00	9.00
	Total	7.7176	8.1872	3.00	9.00
A2E	no service-learning	4.2348	5.1854	1.00	9.00
	yes service learning	4.2813	5.2187	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	4.4013	5.0590	1.00	9.00
A2H	no service-learning	2.7555	4.0680	1.00	9.00
	yes service learning	3.1380	4.5049	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	3.1424	4.0736	1.00	9.00
A2I	no service-learning	4.6898	5.7808	1.00	9.00
	yes service learning	5.3845	6.0441	3.00	9.00
	missing value	.	.	5.00	5.00
	Total	5.1180	5.7780	1.00	9.00
A2J	no service-learning	7.2428	7.9337	5.00	9.00
	yes service learning	7.1796	7.9632	5.00	9.00
	missing value	.	.	5.00	5.00
	Total	7.3033	7.8167	5.00	9.00
A2K	no service-learning	6.7609	7.5332	3.00	9.00
	yes service learning	6.4378	7.2765	3.00	9.00
	missing value	.	.	5.00	5.00
	Total	6.7192	7.2808	3.00	9.00
A2L	no service-learning	2.8839	3.8922	1.00	9.00
	yes service learning	2.2302	3.3254	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	2.7632	3.4991	1.00	9.00
A2M	no service-learning	5.3527	6.2125	1.00	9.00
	yes service learning	5.0559	5.8727	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	5.3402	5.9296	1.00	9.00
A2N	no service-learning	3.6629	4.7488	1.00	9.00
	yes service learning	4.4402	5.2689	1.00	7.00
	missing value	.	.	5.00	5.00
	Total	4.1499	4.8501	1.00	9.00

## Descriptives

		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
A2P	no service-learning	5.9456	6.8779	1.00	9.00
	yes service learning	5.9180	6.8457	3.00	9.00
	missing value	.	.	5.00	5.00
	Total	6.0628	6.7114	1.00	9.00
A2Q	no service-learning	4.6455	5.8999	1.00	9.00
	yes service learning	4.7516	6.0341	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	4.8859	5.7645	1.00	9.00
A2R	no service-learning	4.6729	5.8488	1.00	9.00
	yes service learning	4.6737	5.6967	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	4.8353	5.6163	1.00	9.00
A2S	no service-learning	5.3903	6.4279	1.00	9.00
	yes service learning	4.8566	5.7252	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	5.2809	5.9650	1.00	9.00
A2T	no service-learning	5.6034	6.5995	1.00	9.00
	yes service learning	5.0973	6.1170	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	5.5204	6.2256	1.00	9.00
ALTRUISM	no service-learning	106.9243	117.7713	62.00	162.00
	yes service learning	110.7364	119.4421	76.00	154.00
	missing value	.	.	104.00	104.00
	Total	109.9909	117.0091	62.00	162.00

## Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
A2A	.850	2	122	.430
A2B	1.449	2	122	.239
A2C	1.039	2	123	.357
A2D	2.075	2	123	.130
A2E	1.296	2	123	.277
A2H	2.237	2	122	.111
A2I	3.650	2	122	.029
A2J	1.696	2	122	.188
A2K	.892	2	122	.413
A2L	1.777	2	119	.174
A2M	2.370	2	123	.098
A2N	8.051	2	121	.001
A2P	1.193	2	121	.307
A2Q	.862	2	120	.425
A2R	2.655	2	121	.074
A2S	3.950	2	119	.022
A2T	1.605	2	123	.205
ALTRUISM	3.556	2	123	.032

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
A2A	Between Groups	19.629	2	9.814	1.744	.179
	Within Groups	686.739	122	5.629		
	Total	706.368	124			
A2B	Between Groups	8.773	2	4.386	1.998	.140
	Within Groups	267.899	122	2.196		
	Total	276.672	124			
A2C	Between Groups	.283	2	.141	.029	.971
	Within Groups	593.146	123	4.822		
	Total	593.429	125			
A2D	Between Groups	1.424	2	.712	.398	.673
	Within Groups	220.290	123	1.791		
	Total	221.714	125			
A2E	Between Groups	.122	2	.061	.017	.983
	Within Groups	434.703	123	3.534		
	Total	434.825	125			
A2H	Between Groups	7.107	2	3.554	.510	.602
	Within Groups	850.685	122	6.973		
	Total	857.792	124			
A2I	Between Groups	7.248	2	3.624	1.044	.355
	Within Groups	423.664	122	3.473		
	Total	430.912	124			
A2J	Between Groups	6.615	2	3.308	1.588	.209
	Within Groups	254.185	122	2.083		
	Total	260.800	124			
A2K	Between Groups	6.613	2	3.307	1.321	.271
	Within Groups	305.387	122	2.503		
	Total	312.000	124			
A2L	Between Groups	14.658	2	7.329	1.761	.176
	Within Groups	495.244	119	4.162		
	Total	509.902	121			
A2M	Between Groups	3.539	2	1.769	.630	.535
	Within Groups	345.668	123	2.810		
	Total	349.206	125			
A2N	Between Groups	13.046	2	6.523	1.701	.187
	Within Groups	463.954	121	3.834		
	Total	477.000	123			
A2P	Between Groups	1.967	2	.983	.292	.747
	Within Groups	407.452	121	3.367		
	Total	409.419	123			
A2Q	Between Groups	.544	2	.272	.044	.957
	Within Groups	738.448	120	6.154		
	Total	738.992	122			
A2R	Between Groups	.225	2	.112	.023	.977
	Within Groups	593.452	121	4.905		
	Total	593.677	123			
A2S	Between Groups	11.856	2	5.928	1.645	.197
	Within Groups	428.800	119	3.603		
	Total	440.656	121			

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
A2T	Between Groups	8.321	2	4.161	1.041	.356
	Within Groups	491.647	123	3.997		
	Total	499.968	125			
ALTRUISM	Between Groups	323.294	2	161.647	.404	.668
	Within Groups	49190.206	123	399.920		
	Total	49513.500	125			

**Appendix Q:  
Additional Findings for Altruism**



## Oneway

### Descriptives

		N	Mean	Std. Deviation	Std. Error
A2F	no service-learning	69	7.7536	1.68388	.20272
	yes service learning	56	8.4643	.97168	.12985
	missing value	1	7.0000	.	.
	Total	126	8.0635	1.44635	.12885
A2G	no service-learning	68	5.7353	2.04149	.24757
	yes service learning	56	6.7500	2.02035	.26998
	missing value	1	5.0000	.	.
	Total	125	6.1840	2.08057	.18609
A2O	no service-learning	68	4.0000	2.40646	.29183
	yes service learning	56	5.6071	2.15473	.28794
	missing value	1	7.0000	.	.
	Total	125	4.7440	2.42269	.21669

## Descriptives

		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
A2F	no service-learning	7.3491	8.1581	3.00	9.00
	yes service learning	8.2041	8.7245	5.00	9.00
	missing value	.	.	7.00	7.00
	Total	7.8085	8.3185	3.00	9.00
A2G	no service-learning	5.2411	6.2294	1.00	9.00
	yes service learning	6.2089	7.2911	1.00	9.00
	missing value	.	.	5.00	5.00
	Total	5.8157	6.5523	1.00	9.00
A2O	no service-learning	3.4175	4.5825	1.00	9.00
	yes service learning	5.0301	6.1842	1.00	9.00
	missing value	.	.	7.00	7.00
	Total	4.3151	5.1729	1.00	9.00

## Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
A2F	13.399	2	123	.000
A2G	1.183	2	122	.310
A2O	3.188	2	122	.045

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
A2F	Between Groups	16.752	2	8.376	4.210	.017
	Within Groups	244.740	123	1.990		
	Total	261.492	125			
A2G	Between Groups	33.033	2	16.516	4.000	.021
	Within Groups	503.735	122	4.129		
	Total	536.768	124			
A2O	Between Groups	84.451	2	42.225	8.007	.001
	Within Groups	643.357	122	5.273		
	Total	727.808	124			

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
SL	1.5952	1.72594	126
UNDERGRA	1.6182	.48806	110
GRADUATE	1.7589	.42966	112

### Correlations

		SL	UNDERGRA	GRADUATE
SL	Pearson Correlation	1	-.057	.076
	Sig. (2-tailed)		.552	.424
	N	126	110	112
UNDERGRA	Pearson Correlation	-.057	1	.255**
	Sig. (2-tailed)	.552	.	.008
	N	110	110	106
GRADUATE	Pearson Correlation	.076	.255**	1
	Sig. (2-tailed)	.424	.008	.
	N	112	106	112

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Appendix R:  
Educational History Findings for Service-Learning Educators

## Frequencies

### Statistics

		UCC	GCC
N	Valid	51	49
	Missing	7	9

## Frequency Table

### UCC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	21	36.2	41.2	41.2
	2.00	30	51.7	58.8	100.0
	Total	51	87.9	100.0	
Missing	System	7	12.1		
Total		58	100.0		

### GCC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	10	17.2	20.4	20.4
	2.00	39	67.2	79.6	100.0
	Total	49	84.5	100.0	
Missing	System	9	15.5		
Total		58	100.0		

Appendix S:  
Educational History Findings for Non-Service-Learning Educators

## Frequencies

### Statistics

		UCC	GCC
N	Valid	59	63
	Missing	68	64

## Frequency Table

### UCC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	21	16.5	35.6	35.6
	2.00	38	29.9	64.4	100.0
	Total	59	46.5	100.0	
Missing	System	68	53.5		
Total		127	100.0		

### GCC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	17	13.4	27.0	27.0
	2.00	46	36.2	73.0	100.0
	Total	63	49.6	100.0	
Missing	System	64	50.4		
Total		127	100.0		

Appendix T:  
Non significant Findings for Work Experience



## Oneway

### Descriptives

		N	Mean	Std. Deviation	Std. Error
HIGHERED	no service-learning	66	17.3182	9.40566	1.15776
	yes service learning	55	15.2545	9.93352	1.33944
	Total	121	16.3802	9.66373	.87852
INDUSTRY	no service-learning	65	5.5385	9.23661	1.14566
	yes service learning	54	8.5926	10.68859	1.45453
	Total	119	6.9244	9.99590	.91632

## Descriptives

		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
HIGHERED	no service-learning	15.0060	19.6304	1.00	39.00
	yes service learning	12.5691	17.9400	1.00	38.00
	Total	14.6408	18.1196	1.00	39.00
INDUSTRY	no service-learning	3.2497	7.8272	.00	40.00
	yes service learning	5.6752	11.5100	.00	35.00
	Total	5.1098	8.7389	.00	40.00

## Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
HIGHERED	.567	1	119	.453
INDUSTRY	4.444	1	117	.037

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
HIGHERED	Between Groups	127.758	1	127.758	1.372	.244
	Within Groups	11078.755	119	93.099		
	Total	11206.512	120			
INDUSTRY	Between Groups	275.128	1	275.128	2.795	.097
	Within Groups	11515.191	117	98.420		
	Total	11790.319	118			

**Appendix U:**  
**Non significant Findings for Honors and Awards**

## Oneway

### Descriptives

TEACHING

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
1.00	21	1.5238	1.07792	.23522	1.0331	2.0145
2.00	15	1.7333	.88372	.22817	1.2439	2.2227
20.00	1	3.0000				
Total	37	1.6486	1.00599	.16538	1.3132	1.9841

### Descriptives

TEACHING

	Minimum	Maximum
1.00	.00	4.00
2.00	1.00	4.00
20.00	3.00	3.00
Total	.00	4.00

### Test of Homogeneity of Variances

TEACHING

Levene Statistic	df1	df2	Sig.
1.090	2	34	.348

### ANOVA

TEACHING

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.261	2	1.131	1.125	.336
Within Groups	34.171	34	1.005		
Total	36.432	36			

## Frequencies

### Statistics

#### TEACHING

N	Valid	38
	Missing	89

#### TEACHING

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	2	1.6	5.3	5.3
	1.00	18	14.2	47.4	52.6
	2.00	12	9.4	31.6	84.2
	3.00	3	2.4	7.9	92.1
	4.00	3	2.4	7.9	100.0
	Total	38	29.9	100.0	
Missing	System	89	70.1		
Total		127	100.0		

Appendix V:  
Non significant Findings for Institutional Service

## Oneway

### Descriptives

INSTSERV

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
no service-learning	33	4.2727	2.84245	.49481	3.2648	5.2806
yes service learning	30	4.0333	1.77110	.32336	3.3720	4.6947
Total	63	4.1587	2.37736	.29952	3.5600	4.7575

### Descriptives

INSTSERV

	Minimum	Maximum
no service-learning	1.00	15.00
yes service learning	1.00	8.00
Total	1.00	15.00

### Test of Homogeneity of Variances

INSTSERV

Levene Statistic	df1	df2	Sig.
1.112	1	61	.296

### ANOVA

INSTSERV

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.901	1	.901	.157	.693
Within Groups	349.512	61	5.730		
Total	350.413	62			

Appendix W:  
Non significant Findings for Community Service



## Oneway

### Descriptives

CXSERV

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
no service-learning	45	2.1111	2.62178	.39083	1.3234	2.8988
yes service learning	41	2.5610	2.85525	.44591	1.6597	3.4622
Total	86	2.3256	2.72868	.29424	1.7406	2.9106

### Descriptives

CXSERV

	Minimum	Maximum
no service-learning	.00	13.00
yes service learning	.00	13.00
Total	.00	13.00

### Test of Homogeneity of Variances

CXSERV

Levene Statistic	df1	df2	Sig.
.422	1	84	.518

### ANOVA

CXSERV

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.342	1	4.342	.580	.448
Within Groups	628.542	84	7.483		
Total	632.884	85			

Appendix X:  
Professional Experiences

## Oneway

## Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
PUBLICAT	DE	12	66.2500	106.20146	30.65772	-1.2272	133.7272
	DI	11	12.2727	14.45054	4.35700	2.5647	21.9807
	MI	42	6.9048	8.63009	1.33165	4.2154	9.5941
	BG	15	14.0000	25.25018	6.51957	.0169	27.9831
	A	19	2.4211	4.74126	1.08772	.1358	4.7063
	Total	99	14.9091	42.36770	4.25811	6.4590	23.3592
PRESENTA	DE	13	63.5385	93.39398	25.90283	7.1010	119.9759
	DI	10	23.0000	29.27646	9.25803	2.0569	43.9431
	MI	37	17.7568	15.95028	2.62221	12.4387	23.0748
	BG	15	16.6000	10.67574	2.75646	10.6880	22.5120
	A	19	11.7895	24.24316	5.56176	.1046	23.4743
	Total	94	23.2553	41.36045	4.26600	14.7839	31.7268
GRANTS	DE	13	9.6923	11.38262	3.15697	2.8139	16.5708
	DI	9	5.8889	6.27384	2.09128	1.0664	10.7114
	MI	41	3.1951	5.97587	.93327	1.3089	5.0813
	BG	15	3.2667	3.63449	.93842	1.2540	5.2794
	A	21	1.5238	1.80607	.39412	.7017	2.3459
	Total	99	3.9495	6.51900	.65518	2.6493	5.2497

## Descriptives

		Minimum	Maximum
PUBLICAT	DE	.00	350.00
	DI	.00	36.00
	MI	.00	41.00
	BG	1.00	100.00
	A	.00	20.00
	Total	.00	350.00
PRESENTA	DE	9.00	350.00
	DI	1.00	100.00
	MI	.00	50.00
	BG	3.00	40.00
	A	.00	100.00
	Total	.00	350.00
GRANTS	DE	.00	32.00
	DI	.00	15.00
	MI	.00	26.00
	BG	.00	12.00
	A	.00	5.00
	Total	.00	32.00

## Test of Homogeneity of Variances

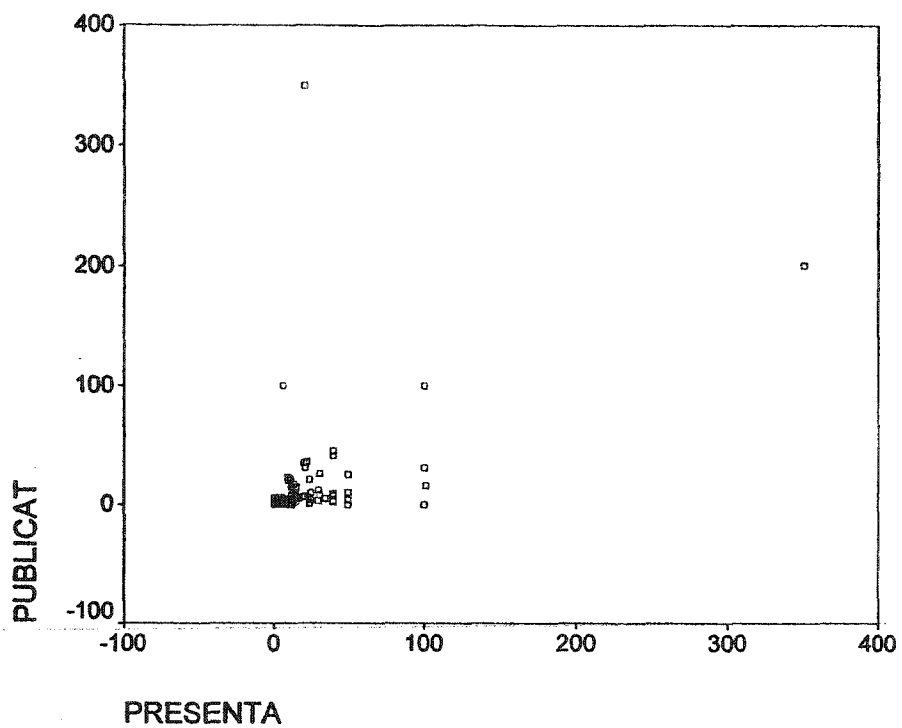
	Levene Statistic	df1	df2	Sig.
PUBLICAT	18.420	4	94	.000
PRESENTA	8.273	4	89	.000
GRANTS	10.161	4	94	.000

## ANOVA

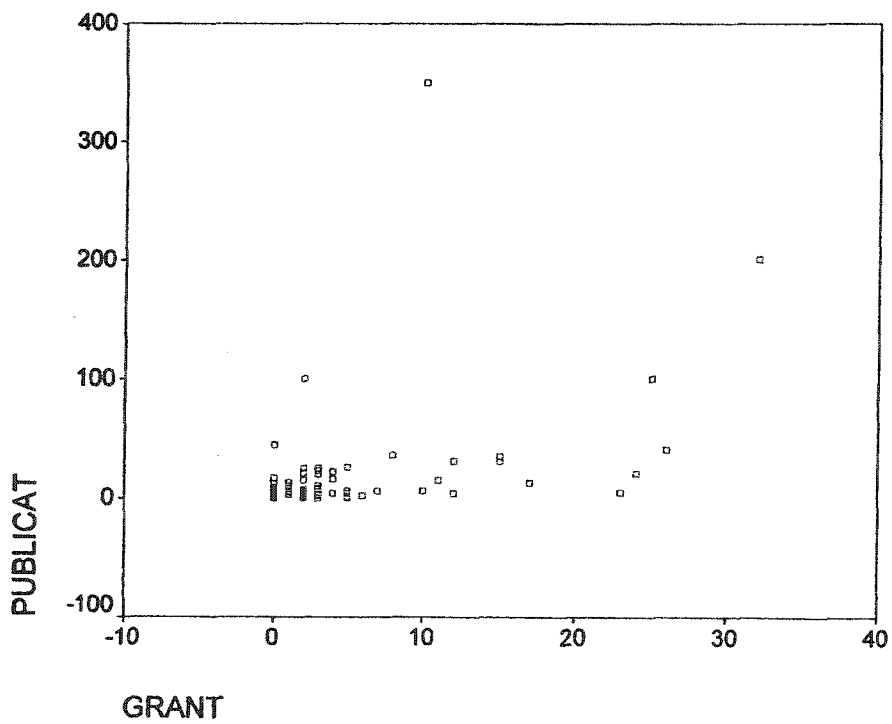
		Sum of Squares	df	Mean Square	F	Sig.
PUBLICAT	Between Groups	37373.499	4	9343.375	6.340	.000
	Within Groups	138538.68	94	1473.816		
	Total	175912.18	98			
PRESENTA	Between Groups	25377.073	4	6344.268	4.223	.004
	Within Groups	133716.80	89	1502.436		
	Total	159093.87	93			
GRANTS	Between Groups	616.479	4	154.120	4.083	.004
	Within Groups	3548.269	94	37.748		
	Total	4164.747	98			

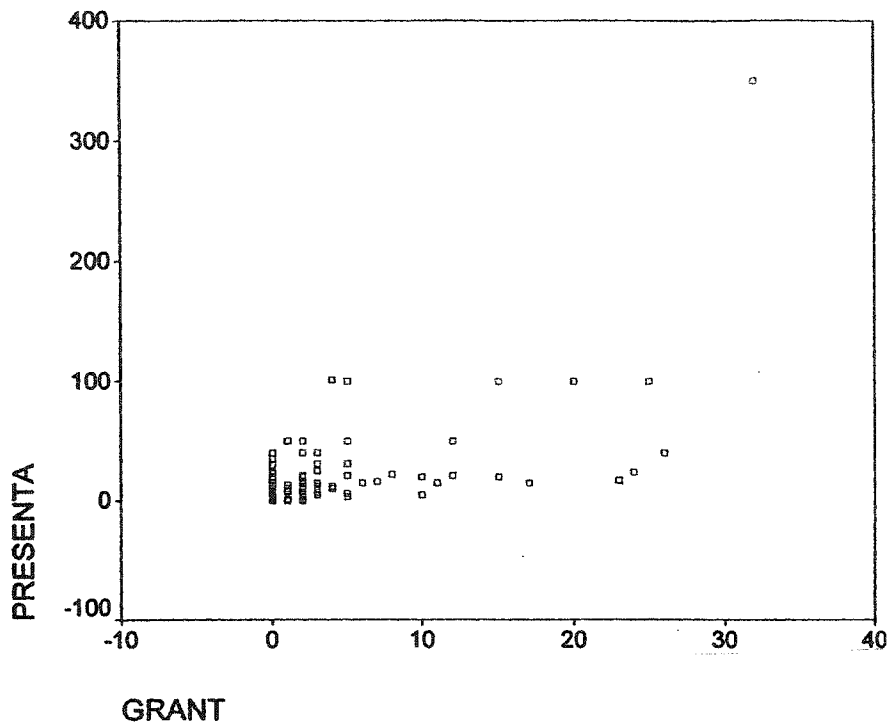
Appendix Y:  
Scatterplots for Bivariate Correlations

Graph

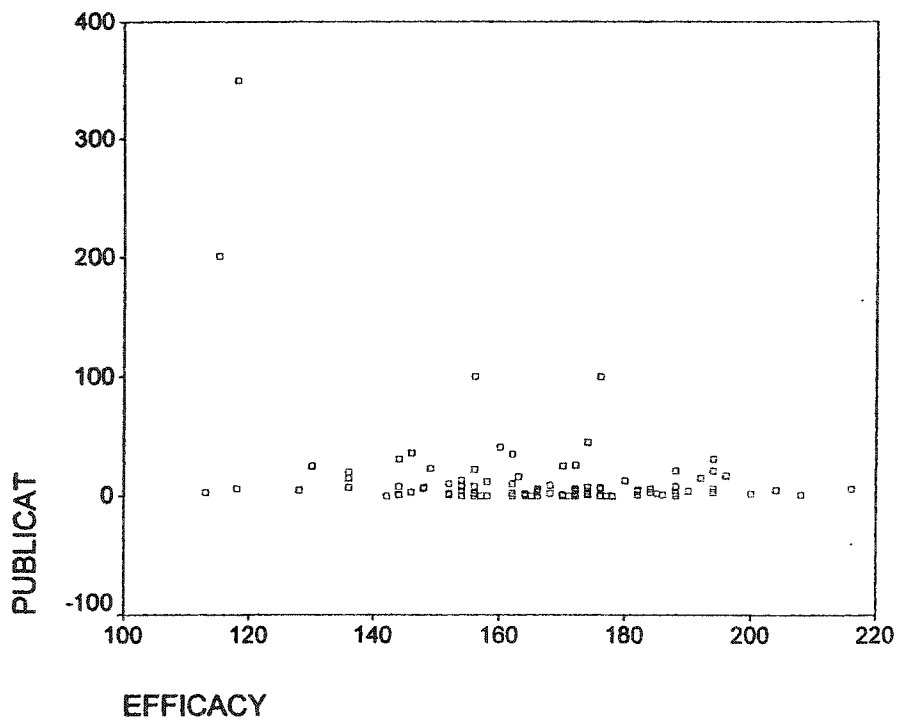


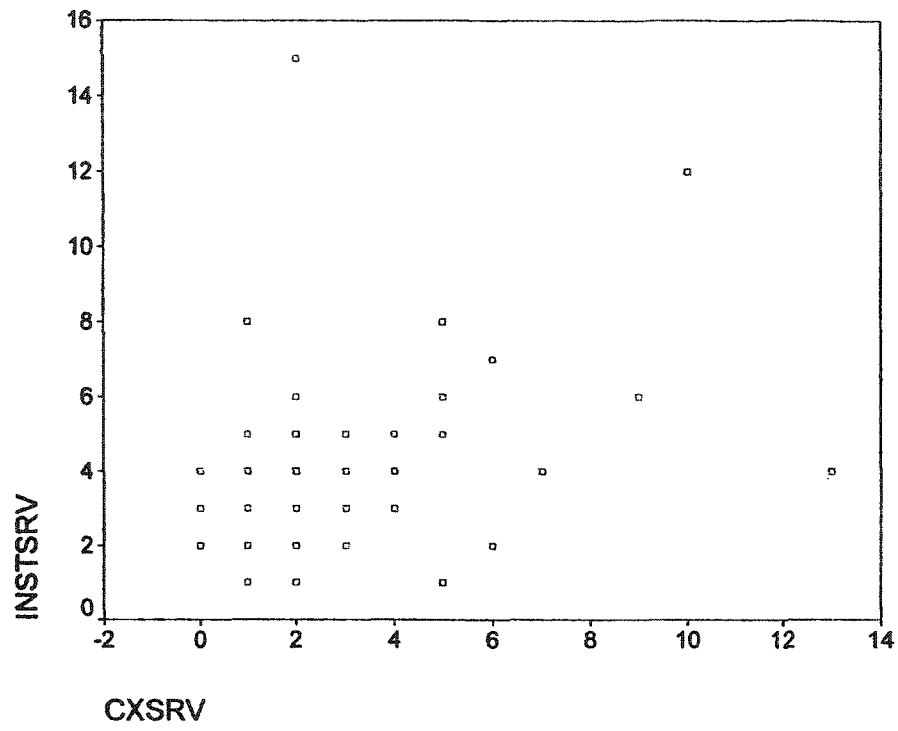
Graph



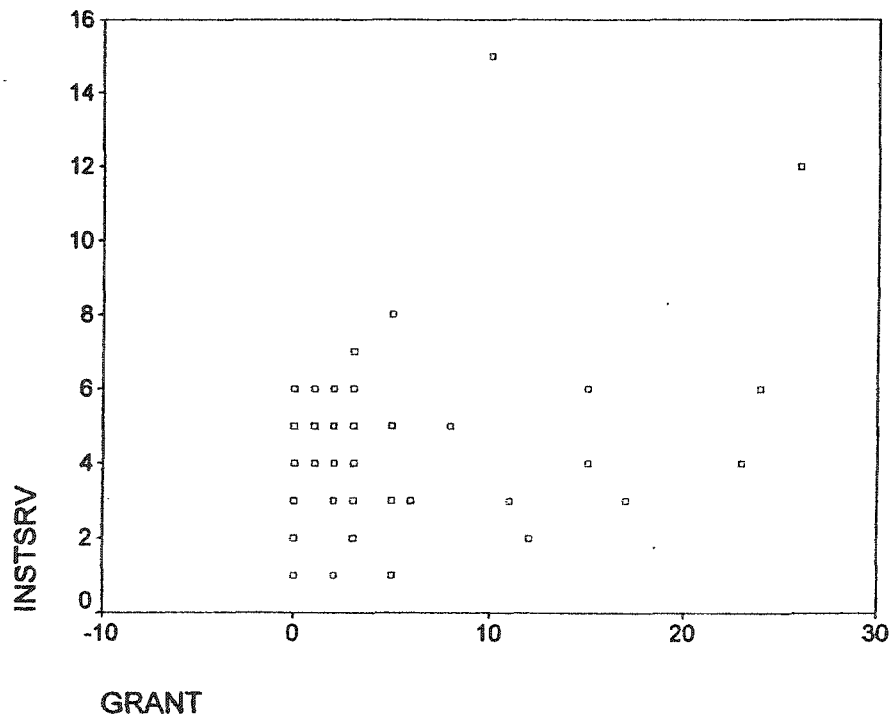


Graph

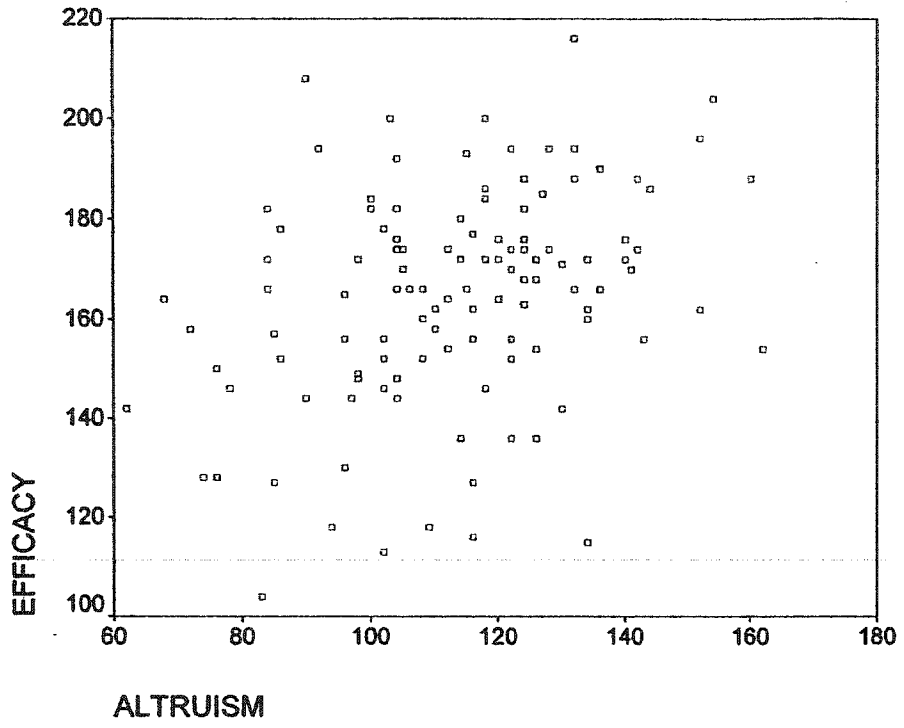




**Graph**







**Appendix Z:**  
**Positive Correlations between Professional Experiences**

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
PUBLICAT	14.5825	41.56981	103
PRESENTA	22.7245	40.58916	98
GRANTS	3.8738	6.40416	103

### Correlations

		PUBLICAT	PRESENTA	GRANTS
PUBLICAT	Pearson Correlation	1	.457**	.451**
	Sig. (2-tailed)	.	.000	.000
	N	103	93	99
PRESENTA	Pearson Correlation	.457**	1	.588**
	Sig. (2-tailed)	.000	.	.000
	N	93	98	95
GRANTS	Pearson Correlation	.451**	.588**	1
	Sig. (2-tailed)	.000	.000	.
	N	99	95	103

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Appendix AA:  
Correlation between Publications and Efficacy

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
EFFICACY	165.0476	21.03363	126
PUBLICAT	14.5825	41.56981	103

### Correlations

		EFFICACY	PUBLICAT
EFFICACY	Pearson Correlation	1	-.341**
	Sig. (2-tailed)	.	.000
	N	126	103
PUBLICAT	Pearson Correlation	-.341**	1
	Sig. (2-tailed)	.000	.
	N	103	103

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Appendix BB:**  
**Correlation between Community Service and Institutional Service**

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
CXSERV	2.3256	2.72868	86
INSTSERV	4.1587	2.37736	63

### Correlations

		CXSERV	INSTSERV
CXSERV	Pearson Correlation	1	.284*
	Sig. (2-tailed)	.	.031
	N	86	58
INSTSERV	Pearson Correlation	.284*	1
	Sig. (2-tailed)	.031	.
	N	58	63

\*. Correlation is significant at the 0.05 level (2-tailed).

**Appendix CC:**  
**Correlation between Institutional Service and Grants**



## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
INSTSERV	4.1587	2.37736	63
GRANTS	3.8738	6.40416	103

### Correlations

		INSTSERV	GRANTS
INSTSERV	Pearson Correlation	1	.375**
	Sig. (2-tailed)	.	.003
	N	63	59
GRANTS	Pearson Correlation	.375**	1
	Sig. (2-tailed)	.003	.
	N	59	103

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Appendix DD:**  
**Bivariate Correlations of Continuous Variables**

## Correlations

### Descriptive Statistics

	Mean	Std. Deviation	N
E1A	5.9683	1.78409	126
E1B	7.1429	1.47900	126
E1C	7.5440	1.30448	125
E1D	5.6984	1.66503	126
E1E	8.2381	1.12732	126
E1F	6.9841	1.50723	126
E1G	7.7840	1.24164	125
E1H	7.8730	1.19989	126
E1I	6.6000	1.52400	125
E1J	7.1111	1.27262	126
E1K	7.5556	1.20370	126
E1L	6.5968	1.48663	124
E1M	7.5238	1.24396	126
E1N	5.9206	1.42325	126
E1O	7.0159	1.50723	126
E1P	7.2114	1.46686	123
E1Q	6.4603	1.62801	126
E1R	7.1120	1.63241	125
E1S	7.1774	1.39714	124
E1T	7.9194	1.25974	124
E1U	6.6774	1.66039	124
E1V	3.7000	2.35718	120
E1W	7.0164	1.55337	122
E1X	7.5280	1.44007	125
EFFICACY	165.0476	21.03363	126
A2A	4.5840	2.38674	125
A2B	7.4320	1.49373	125
A2C	5.5238	2.17886	126
A2D	7.9524	1.33181	126
A2E	4.7302	1.86510	126
A2F	8.0635	1.44635	126
A2G	6.1840	2.08057	125
A2H	3.6080	2.63015	125
A2I	5.4480	1.86416	125
A2J	7.5600	1.45025	125
A2K	7.0000	1.58623	125
A2L	3.1311	2.05282	122
A2M	5.6349	1.67142	126
A2N	4.5000	1.96928	124
A2O	4.7440	2.42269	125
A2P	6.3871	1.82445	124
A2Q	5.3252	2.46116	123
A2R	5.2258	2.19696	124
A2S	5.6230	1.90835	122
A2T	5.8730	1.99994	126
ALTRUISM	113.5000	19.90246	126

## Correlations

		E1A	E1B	E1C	E1D	E1E	E1F
E1A	Pearson Correlation	1	.384**	.295**	.482**	.274**	.482**
	Sig. (2-tailed)	.	.000	.001	.000	.002	.000
	N	126	126	125	126	126	126
E1B	Pearson Correlation	.384**	1	.226*	.323**	.296**	.446**
	Sig. (2-tailed)	.000	.	.011	.000	.001	.000
	N	126	126	125	126	126	126
E1C	Pearson Correlation	.295**	.226*	1	.206*	.303**	.247**
	Sig. (2-tailed)	.001	.011	.	.021	.001	.006
	N	125	125	125	125	125	125
E1D	Pearson Correlation	.482**	.323**	.206*	1	.183*	.604**
	Sig. (2-tailed)	.000	.000	.021	.	.040	.000
	N	126	126	125	126	126	126
E1E	Pearson Correlation	.274**	.296**	.303**	.183*	1	.407**
	Sig. (2-tailed)	.002	.001	.001	.040	.	.000
	N	126	126	125	126	126	126
E1F	Pearson Correlation	.482**	.446**	.247**	.604**	.407**	1
	Sig. (2-tailed)	.000	.000	.006	.000	.000	.
	N	126	126	125	126	126	126
E1G	Pearson Correlation	.254**	.244**	.197*	.127	.203*	.273**
	Sig. (2-tailed)	.004	.006	.028	.159	.023	.002
	N	125	125	124	125	125	125
E1H	Pearson Correlation	.230**	.200*	.104	.173	.235**	.273**
	Sig. (2-tailed)	.010	.025	.250	.053	.008	.002
	N	126	126	125	126	126	126
E1I	Pearson Correlation	.380**	.396**	.174	.443**	.195*	.600**
	Sig. (2-tailed)	.000	.000	.054	.000	.029	.000
	N	125	125	124	125	125	125
E1J	Pearson Correlation	.290**	.349**	.176*	.295**	.238**	.401**
	Sig. (2-tailed)	.001	.000	.050	.001	.007	.000
	N	126	126	125	126	126	126
E1K	Pearson Correlation	.224*	.351**	.235**	.316**	.267**	.269**
	Sig. (2-tailed)	.012	.000	.008	.000	.002	.002
	N	126	126	125	126	126	126
E1L	Pearson Correlation	.220*	.437**	.169	.338**	.247**	.420**
	Sig. (2-tailed)	.014	.000	.062	.000	.006	.000
	N	124	124	123	124	124	124
E1M	Pearson Correlation	.231**	.150	.539**	.224*	.355**	.260**
	Sig. (2-tailed)	.009	.093	.000	.012	.000	.003
	N	126	126	125	126	126	126
E1N	Pearson Correlation	.490**	.408**	.264**	.456**	.281**	.529**
	Sig. (2-tailed)	.000	.000	.003	.000	.001	.000
	N	126	126	125	126	126	126
E1O	Pearson Correlation	.339**	.272**	.682**	.174	.346**	.254**
	Sig. (2-tailed)	.000	.002	.000	.051	.000	.004
	N	126	126	125	126	126	126
E1P	Pearson Correlation	.285**	.310**	.472**	.232**	.314**	.311**
	Sig. (2-tailed)	.001	.000	.000	.010	.000	.000
	N	123	123	123	123	123	123
E1Q	Pearson Correlation	.369**	.285**	.212*	.400**	.280**	.453**
	Sig. (2-tailed)	.000	.001	.018	.000	.002	.000
	N	126	126	125	126	126	126

## Correlations

		E1A	E1B	E1C	E1D	E1E	E1F
E1R	Pearson Correlation	.294**	.253**	.028	.323**	.151	.362**
	Sig. (2-tailed)	.001	.004	.761	.000	.092	.000
	N	125	125	124	125	125	125
E1S	Pearson Correlation	.295**	.206*	.569**	.296**	.312**	.339**
	Sig. (2-tailed)	.001	.021	.000	.001	.000	.000
	N	124	124	124	124	124	124
E1T	Pearson Correlation	.244**	.210*	.129	.181*	.279**	.314**
	Sig. (2-tailed)	.006	.019	.155	.045	.002	.000
	N	124	124	123	124	124	124
E1U	Pearson Correlation	.353**	.247**	.516**	.344**	.341**	.376**
	Sig. (2-tailed)	.000	.006	.000	.000	.000	.000
	N	124	124	124	124	124	124
E1V	Pearson Correlation	.359**	.346**	.274**	.284**	.166	.368**
	Sig. (2-tailed)	.000	.000	.003	.002	.071	.000
	N	120	120	119	120	120	120
E1W	Pearson Correlation	.259**	.282**	-.005	.338**	.234**	.378**
	Sig. (2-tailed)	.004	.002	.961	.000	.009	.000
	N	122	122	122	122	122	122
E1X	Pearson Correlation	.136	.310**	.073	.371**	.207*	.226*
	Sig. (2-tailed)	.129	.000	.421	.000	.021	.011
	N	125	125	124	125	125	125
EFFICACY	Pearson Correlation	.619**	.603**	.516**	.605**	.529**	.716**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	126	126	125	126	126	126
A2A	Pearson Correlation	.149	.106	.095	.155	-.021	.166
	Sig. (2-tailed)	.098	.239	.296	.084	.814	.064
	N	125	125	124	125	125	125
A2B	Pearson Correlation	.080	.059	-.007	.108	.022	.129
	Sig. (2-tailed)	.378	.513	.941	.230	.807	.151
	N	125	125	124	125	125	125
A2C	Pearson Correlation	.099	.096	-.110	.101	-.006	.178*
	Sig. (2-tailed)	.270	.286	.222	.259	.951	.046
	N	126	126	125	126	126	126
A2D	Pearson Correlation	.174	-.005	.185*	.087	.040	.135
	Sig. (2-tailed)	.051	.959	.039	.331	.660	.131
	N	126	126	125	126	126	126
A2E	Pearson Correlation	.127	.118	.167	.113	.054	.203*
	Sig. (2-tailed)	.156	.186	.063	.209	.551	.022
	N	126	126	125	126	126	126
A2F	Pearson Correlation	.119	.213*	.206*	.061	.108	.155
	Sig. (2-tailed)	.186	.017	.021	.496	.227	.084
	N	126	126	125	126	126	126
A2G	Pearson Correlation	.160	.216*	.187*	.097	.033	.134
	Sig. (2-tailed)	.074	.016	.037	.281	.714	.136
	N	125	125	124	125	125	125
A2H	Pearson Correlation	.043	.110	-.030	-.072	-.135	-.139
	Sig. (2-tailed)	.637	.224	.744	.426	.134	.123
	N	125	125	124	125	125	125
A2I	Pearson Correlation	.265**	.105	.141	.198*	.027	.265**
	Sig. (2-tailed)	.003	.245	.118	.027	.766	.003
	N	125	125	124	125	125	125

## Correlations

		E1A	E1B	E1C	E1D	E1E	E1F
A2J	Pearson Correlation	.134	.157	-.023	.046	.009	.207*
	Sig. (2-tailed)	.137	.080	.803	.613	.924	.020
	N	125	125	124	125	125	125
A2K	Pearson Correlation	.253**	.137	.203*	.123	.108	.284**
	Sig. (2-tailed)	.004	.128	.024	.172	.231	.001
	N	125	125	124	125	125	125
A2L	Pearson Correlation	.084	-.026	.130	-.066	-.069	-.041
	Sig. (2-tailed)	.359	.775	.154	.472	.452	.652
	N	122	122	121	122	122	122
A2M	Pearson Correlation	.136	.067	.198*	.012	.004	.118
	Sig. (2-tailed)	.130	.459	.027	.895	.964	.187
	N	126	126	125	126	126	126
A2N	Pearson Correlation	.116	.156	.133	.114	.106	.170
	Sig. (2-tailed)	.198	.083	.141	.209	.241	.060
	N	124	124	123	124	124	124
A2O	Pearson Correlation	.162	.093	.202*	.116	.116	.060
	Sig. (2-tailed)	.071	.302	.025	.196	.197	.508
	N	125	125	124	125	125	125
A2P	Pearson Correlation	.272**	.182*	.089	.136	.036	.120
	Sig. (2-tailed)	.002	.043	.329	.132	.691	.184
	N	124	124	123	124	124	124
A2Q	Pearson Correlation	.126	.084	-.106	.031	.006	.082
	Sig. (2-tailed)	.163	.356	.245	.734	.950	.365
	N	123	123	122	123	123	123
A2R	Pearson Correlation	.253**	.089	.188*	.222*	.097	.327**
	Sig. (2-tailed)	.005	.325	.037	.013	.284	.000
	N	124	124	123	124	124	124
A2S	Pearson Correlation	.252**	.108	.012	.113	-.005	.257**
	Sig. (2-tailed)	.005	.238	.898	.217	.960	.004
	N	122	122	121	122	122	122
A2T	Pearson Correlation	.138	.120	.025	.104	-.015	.111
	Sig. (2-tailed)	.124	.182	.781	.248	.869	.217
	N	126	126	125	126	126	126
ALTRUISM	Pearson Correlation	.325**	.242**	.183*	.199*	.042	.295**
	Sig. (2-tailed)	.000	.006	.041	.025	.640	.001
	N	126	126	125	126	126	126

## Correlations

		E1G	E1H	E1I	E1J	E1K	E1L
E1A	Pearson Correlation	.254**	.230**	.380**	.290**	.224*	.220*
	Sig. (2-tailed)	.004	.010	.000	.001	.012	.014
	N	125	126	125	126	126	124
E1B	Pearson Correlation	.244**	.200*	.396**	.349**	.351**	.437**
	Sig. (2-tailed)	.006	.025	.000	.000	.000	.000
	N	125	126	125	126	126	124
E1C	Pearson Correlation	.197*	.104	.174	.176*	.235**	.169
	Sig. (2-tailed)	.028	.250	.054	.050	.008	.062
	N	124	125	124	125	125	123
E1D	Pearson Correlation	.127	.173	.443**	.295**	.316**	.338**
	Sig. (2-tailed)	.159	.053	.000	.001	.000	.000
	N	125	126	125	126	126	124
E1E	Pearson Correlation	.203*	.235**	.195*	.238**	.267**	.247**
	Sig. (2-tailed)	.023	.008	.029	.007	.002	.006
	N	125	126	125	126	126	124
E1F	Pearson Correlation	.273**	.273**	.600**	.401**	.269**	.420**
	Sig. (2-tailed)	.002	.002	.000	.000	.002	.000
	N	125	126	125	126	126	124
E1G	Pearson Correlation	1	.321**	.080	.218*	.252**	.238**
	Sig. (2-tailed)	.	.000	.377	.014	.005	.008
	N	125	125	124	125	125	123
E1H	Pearson Correlation	.321**	1	.208*	.376**	.326**	.220*
	Sig. (2-tailed)	.000	.	.020	.000	.000	.014
	N	125	126	125	126	126	124
E1I	Pearson Correlation	.080	.208*	1	.321**	.225*	.505**
	Sig. (2-tailed)	.377	.020	.	.000	.011	.000
	N	124	125	125	125	125	123
E1J	Pearson Correlation	.218*	.376**	.321**	1	.523**	.252**
	Sig. (2-tailed)	.014	.000	.000	.	.000	.005
	N	125	126	125	126	126	124
E1K	Pearson Correlation	.252**	.326**	.225*	.523**	1	.236**
	Sig. (2-tailed)	.005	.000	.011	.000	.	.008
	N	125	126	125	126	126	124
E1L	Pearson Correlation	.238**	.220*	.505**	.252**	.236**	1
	Sig. (2-tailed)	.008	.014	.000	.005	.008	.
	N	123	124	123	124	124	124
E1M	Pearson Correlation	.126	.249**	.177*	.246**	.253**	.137
	Sig. (2-tailed)	.161	.005	.048	.006	.004	.130
	N	125	126	125	126	126	124
E1N	Pearson Correlation	.267**	.181*	.426**	.296**	.203*	.268**
	Sig. (2-tailed)	.003	.042	.000	.001	.022	.003
	N	125	126	125	126	126	124
E1O	Pearson Correlation	.199*	.205*	.227*	.166	.295**	.134
	Sig. (2-tailed)	.026	.022	.011	.063	.001	.137
	N	125	126	125	126	126	124
E1P	Pearson Correlation	.054	.284**	.228*	.459**	.420**	.231*
	Sig. (2-tailed)	.555	.001	.011	.000	.000	.011
	N	122	123	122	123	123	121
E1Q	Pearson Correlation	.044	.210*	.486**	.245**	.105	.266**
	Sig. (2-tailed)	.629	.018	.000	.006	.241	.003
	N	125	126	125	126	126	124

## Correlations

		E1G	E1H	E1I	E1J	E1K	E1L
E1R	Pearson Correlation	.220*	.360**	.362**	.331**	.262**	.333**
	Sig. (2-tailed)	.014	.000	.000	.000	.003	.000
	N	124	125	124	125	125	123
E1S	Pearson Correlation	.163	.099	.215*	.243**	.305**	.236**
	Sig. (2-tailed)	.071	.274	.017	.007	.001	.009
	N	123	124	123	124	124	122
E1T	Pearson Correlation	.400**	.315**	.247**	.332**	.335**	.257**
	Sig. (2-tailed)	.000	.000	.006	.000	.000	.004
	N	123	124	123	124	124	122
E1U	Pearson Correlation	.171	.226*	.219*	.292**	.269**	.182*
	Sig. (2-tailed)	.059	.012	.015	.001	.003	.045
	N	123	124	123	124	124	122
E1V	Pearson Correlation	.076	.005	.407**	.103	.055	.198*
	Sig. (2-tailed)	.408	.954	.000	.263	.549	.032
	N	119	120	119	120	120	118
E1W	Pearson Correlation	.211*	.256**	.345**	.274**	.292**	.400**
	Sig. (2-tailed)	.020	.004	.000	.002	.001	.000
	N	121	122	121	122	122	120
E1X	Pearson Correlation	.097	.139	.181*	.318**	.404**	.387**
	Sig. (2-tailed)	.283	.121	.044	.000	.000	.000
	N	124	125	124	125	125	123
EFFICACY	Pearson Correlation	.358**	.437**	.618**	.544**	.518**	.547**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	125	126	125	126	126	124
A2A	Pearson Correlation	.202*	-.006	.056	.098	.037	.098
	Sig. (2-tailed)	.025	.944	.536	.277	.684	.281
	N	124	125	124	125	125	123
A2B	Pearson Correlation	.038	.110	.189*	.177*	.151	.095
	Sig. (2-tailed)	.679	.222	.036	.048	.093	.297
	N	124	125	124	125	125	123
A2C	Pearson Correlation	.029	.044	.217*	.083	.083	.146
	Sig. (2-tailed)	.746	.625	.015	.357	.353	.106
	N	125	126	125	126	126	124
A2D	Pearson Correlation	.036	.096	.032	.088	.146	-.099
	Sig. (2-tailed)	.686	.283	.725	.327	.102	.275
	N	125	126	125	126	126	124
A2E	Pearson Correlation	-.060	-.080	.130	.107	.096	-.012
	Sig. (2-tailed)	.505	.375	.150	.233	.286	.894
	N	125	126	125	126	126	124
A2F	Pearson Correlation	.002	.198*	.167	.092	.154	.075
	Sig. (2-tailed)	.980	.026	.063	.307	.085	.411
	N	125	126	125	126	126	124
A2G	Pearson Correlation	-.132	-.033	.206*	.120	.068	.123
	Sig. (2-tailed)	.145	.715	.022	.184	.453	.176
	N	124	125	124	125	125	123
A2H	Pearson Correlation	-.002	.033	.001	-.097	.044	.117
	Sig. (2-tailed)	.980	.711	.989	.281	.624	.196
	N	124	125	124	125	125	123
A2I	Pearson Correlation	.089	.010	.233**	.087	.002	.182*
	Sig. (2-tailed)	.328	.914	.009	.334	.980	.044
	N	124	125	124	125	125	123



## Correlations

		E1G	E1H	E1I	E1J	E1K	E1L
A2J	Pearson Correlation	.075	.085	.129	.123	.133	.162
	Sig. (2-tailed)	.409	.345	.154	.173	.140	.073
	N	124	125	124	125	125	123
A2K	Pearson Correlation	.098	.101	.174	.159	.168	.082
	Sig. (2-tailed)	.277	.260	.053	.076	.060	.365
	N	124	125	124	125	125	123
A2L	Pearson Correlation	.051	-.273**	-.057	-.106	-.135	-.135
	Sig. (2-tailed)	.579	.002	.534	.246	.137	.141
	N	122	122	122	122	122	120
A2M	Pearson Correlation	.244**	.168	.025	.102	.125	.066
	Sig. (2-tailed)	.006	.060	.780	.256	.162	.468
	N	125	126	125	126	126	124
A2N	Pearson Correlation	.043	-.099	.216*	.035	.037	.143
	Sig. (2-tailed)	.634	.272	.016	.696	.679	.117
	N	123	124	123	124	124	122
A2O	Pearson Correlation	-.048	.178*	.183*	.197*	.137	.165
	Sig. (2-tailed)	.598	.047	.041	.027	.128	.068
	N	124	125	124	125	125	123
A2P	Pearson Correlation	.094	.101	.158	.110	.169	.063
	Sig. (2-tailed)	.301	.262	.081	.224	.061	.491
	N	123	124	123	124	124	122
A2Q	Pearson Correlation	-.067	.025	.120	.019	.027	-.025
	Sig. (2-tailed)	.467	.788	.186	.839	.765	.783
	N	122	123	122	123	123	121
A2R	Pearson Correlation	-.024	-.003	.279**	.120	.014	.134
	Sig. (2-tailed)	.795	.977	.002	.184	.875	.142
	N	123	124	123	124	124	122
A2S	Pearson Correlation	.137	.115	.220*	.146	.040	.163
	Sig. (2-tailed)	.133	.206	.015	.109	.659	.075
	N	121	122	121	122	122	120
A2T	Pearson Correlation	.014	-.053	.093	.024	.089	.018
	Sig. (2-tailed)	.880	.552	.303	.786	.320	.839
	N	125	126	125	126	126	124
ALTRUISM	Pearson Correlation	.058	.085	.303**	.156	.148	.177*
	Sig. (2-tailed)	.517	.342	.001	.082	.098	.049
	N	125	126	125	126	126	124

## Correlations

		E1M	E1N	E1O	E1P	E1Q	E1R
E1A	Pearson Correlation	.231**	.490**	.339**	.285**	.369**	.294**
	Sig. (2-tailed)	.009	.000	.000	.001	.000	.001
	N	126	126	126	123	126	125
E1B	Pearson Correlation	.150	.408**	.272**	.310**	.285**	.253**
	Sig. (2-tailed)	.093	.000	.002	.000	.001	.004
	N	126	126	126	123	126	125
E1C	Pearson Correlation	.539**	.264**	.682**	.472**	.212*	.028
	Sig. (2-tailed)	.000	.003	.000	.000	.018	.761
	N	125	125	125	123	125	124
E1D	Pearson Correlation	.224*	.456**	.174	.232**	.400**	.323**
	Sig. (2-tailed)	.012	.000	.051	.010	.000	.000
	N	126	126	126	123	126	125
E1E	Pearson Correlation	.355**	.281**	.346**	.314**	.280**	.151
	Sig. (2-tailed)	.000	.001	.000	.000	.002	.092
	N	126	126	126	123	126	125
E1F	Pearson Correlation	.260**	.529**	.254**	.311**	.453**	.362**
	Sig. (2-tailed)	.003	.000	.004	.000	.000	.000
	N	126	126	126	123	126	125
E1G	Pearson Correlation	.126	.267**	.199*	.054	.044	.220*
	Sig. (2-tailed)	.161	.003	.026	.555	.629	.014
	N	125	125	125	122	125	124
E1H	Pearson Correlation	.249**	.181*	.205*	.284**	.210*	.360**
	Sig. (2-tailed)	.005	.042	.022	.001	.018	.000
	N	126	126	126	123	126	125
E1I	Pearson Correlation	.177*	.426**	.227*	.228*	.486**	.362**
	Sig. (2-tailed)	.048	.000	.011	.011	.000	.000
	N	125	125	125	122	125	124
E1J	Pearson Correlation	.246**	.296**	.166	.459**	.245**	.331**
	Sig. (2-tailed)	.006	.001	.063	.000	.006	.000
	N	126	126	126	123	126	125
E1K	Pearson Correlation	.253**	.203*	.295**	.420**	.105	.262**
	Sig. (2-tailed)	.004	.022	.001	.000	.241	.003
	N	126	126	126	123	126	125
E1L	Pearson Correlation	.137	.268**	.134	.231*	.266**	.333**
	Sig. (2-tailed)	.130	.003	.137	.011	.003	.000
	N	124	124	124	121	124	123
E1M	Pearson Correlation	1	.286**	.525**	.445**	.204*	-.029
	Sig. (2-tailed)	.	.001	.000	.000	.022	.746
	N	126	126	126	123	126	125
E1N	Pearson Correlation	.286**	1	.351**	.249**	.396**	.305**
	Sig. (2-tailed)	.001	.	.000	.005	.000	.001
	N	126	126	126	123	126	125
E1O	Pearson Correlation	.525**	.351**	1	.593**	.251**	.025
	Sig. (2-tailed)	.000	.000	.	.000	.005	.779
	N	126	126	126	123	126	125
E1P	Pearson Correlation	.445**	.249**	.593**	1	.278**	.070
	Sig. (2-tailed)	.000	.005	.000	.	.002	.445
	N	123	123	123	123	123	122
E1Q	Pearson Correlation	.204*	.396**	.251**	.278**	1	.453**
	Sig. (2-tailed)	.022	.000	.005	.002	.	.000
	N	126	126	126	123	126	125

## Correlations

		E1M	E1N	E1O	E1P	E1Q	E1R
E1R	Pearson Correlation	-.029	.305**	.025	.070	.453**	1
	Sig. (2-tailed)	.746	.001	.779	.445	.000	.
	N	125	125	125	122	125	125
E1S	Pearson Correlation	.566**	.276**	.584**	.532**	.212*	.061
	Sig. (2-tailed)	.000	.002	.000	.000	.018	.501
	N	124	124	124	122	124	123
E1T	Pearson Correlation	.092	.249**	.155	.245**	.192*	.243**
	Sig. (2-tailed)	.312	.005	.085	.007	.033	.007
	N	124	124	124	121	124	123
E1U	Pearson Correlation	.453**	.304**	.524**	.512**	.310**	.076
	Sig. (2-tailed)	.000	.001	.000	.000	.000	.405
	N	124	124	124	122	124	123
E1V	Pearson Correlation	.156	.402**	.231*	.127	.193*	.062
	Sig. (2-tailed)	.089	.000	.011	.174	.035	.504
	N	120	120	120	117	120	119
E1W	Pearson Correlation	.030	.207*	.070	.198*	.228*	.570**
	Sig. (2-tailed)	.747	.022	.443	.030	.011	.000
	N	122	122	122	120	122	122
E1X	Pearson Correlation	.185*	.188*	.040	.340**	.202*	.376**
	Sig. (2-tailed)	.039	.036	.654	.000	.024	.000
	N	125	125	125	122	125	124
EFFICACY	Pearson Correlation	.502**	.599**	.558**	.600**	.570**	.490**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	126	126	126	123	126	125
A2A	Pearson Correlation	.074	.195*	.073	-.046	.163	.136
	Sig. (2-tailed)	.410	.029	.417	.613	.069	.130
	N	125	125	125	122	125	125
A2B	Pearson Correlation	.102	.083	.068	.047	.227*	.166
	Sig. (2-tailed)	.260	.358	.449	.606	.011	.065
	N	125	125	125	122	125	124
A2C	Pearson Correlation	-.102	.039	-.071	-.022	.216*	.074
	Sig. (2-tailed)	.256	.662	.431	.807	.015	.413
	N	126	126	126	123	126	125
A2D	Pearson Correlation	.237**	.125	.120	.115	.150	.113
	Sig. (2-tailed)	.007	.164	.181	.206	.093	.209
	N	126	126	126	123	126	125
A2E	Pearson Correlation	.130	.227*	.081	.315**	.131	.041
	Sig. (2-tailed)	.146	.011	.366	.000	.144	.648
	N	126	126	126	123	126	125
A2F	Pearson Correlation	.186*	.127	.242**	.266**	.354**	.100
	Sig. (2-tailed)	.037	.157	.006	.003	.000	.269
	N	126	126	126	123	126	125
A2G	Pearson Correlation	.155	.127	.117	.140	.157	.050
	Sig. (2-tailed)	.085	.159	.194	.123	.080	.581
	N	125	125	125	122	125	124
A2H	Pearson Correlation	.098	.038	.103	.012	.030	.013
	Sig. (2-tailed)	.277	.678	.253	.898	.737	.888
	N	125	125	125	122	125	124
A2I	Pearson Correlation	.036	.158	.135	.133	.248**	.141
	Sig. (2-tailed)	.689	.079	.134	.143	.005	.119
	N	125	125	125	122	125	124

## Correlations

		E1M	E1N	E1O	E1P	E1Q	E1R
A2J	Pearson Correlation	.067	.121	.099	.037	.167	.273**
	Sig. (2-tailed)	.458	.179	.273	.685	.063	.002
	N	125	125	125	122	125	124
A2K	Pearson Correlation	.179*	.157	.161	.181*	.187*	.176
	Sig. (2-tailed)	.045	.081	.072	.046	.037	.051
	N	125	125	125	122	125	124
A2L	Pearson Correlation	.000	.076	-.032	-.153	-.068	-.153
	Sig. (2-tailed)	.996	.406	.728	.096	.459	.094
	N	122	122	122	119	122	121
A2M	Pearson Correlation	.177*	-.006	.250**	.197*	.045	-.015
	Sig. (2-tailed)	.047	.951	.005	.029	.620	.872
	N	126	126	126	123	126	125
A2N	Pearson Correlation	.069	.162	.090	.085	.196*	.038
	Sig. (2-tailed)	.445	.073	.322	.353	.029	.677
	N	124	124	124	121	124	123
A2O	Pearson Correlation	.002	.134	.073	.213*	.299**	.351**
	Sig. (2-tailed)	.979	.138	.417	.019	.001	.000
	N	125	125	125	122	125	124
A2P	Pearson Correlation	.073	.114	.125	.152	.158	.108
	Sig. (2-tailed)	.422	.206	.165	.097	.079	.235
	N	124	124	124	121	124	123
A2Q	Pearson Correlation	-.034	.043	-.012	.025	.166	.114
	Sig. (2-tailed)	.708	.635	.898	.787	.067	.211
	N	123	123	123	120	123	123
A2R	Pearson Correlation	.086	.244**	.155	.098	.342**	.291**
	Sig. (2-tailed)	.342	.006	.086	.287	.000	.001
	N	124	124	124	121	124	123
A2S	Pearson Correlation	.048	.167	-.007	.054	.272**	.265**
	Sig. (2-tailed)	.602	.066	.938	.562	.002	.003
	N	122	122	122	119	122	122
A2T	Pearson Correlation	.072	.075	-.047	.038	-.002	.029
	Sig. (2-tailed)	.423	.403	.600	.677	.986	.750
	N	126	126	126	123	126	125
ALTRUISM	Pearson Correlation	.162	.240**	.165	.206*	.353**	.244**
	Sig. (2-tailed)	.070	.007	.065	.022	.000	.006
	N	126	126	126	123	126	125

## Correlations

		E1S	E1T	E1U	E1V	E1W	E1X
E1A	Pearson Correlation	.295**	.244**	.353**	.359**	.259**	.136
	Sig. (2-tailed)	.001	.006	.000	.000	.004	.129
	N	124	124	124	120	122	125
E1B	Pearson Correlation	.206*	.210*	.247**	.346**	.282**	.310**
	Sig. (2-tailed)	.021	.019	.006	.000	.002	.000
	N	124	124	124	120	122	125
E1C	Pearson Correlation	.569**	.129	.516**	.274**	-.005	.073
	Sig. (2-tailed)	.000	.155	.000	.003	.961	.421
	N	124	123	124	119	122	124
E1D	Pearson Correlation	.296**	.181*	.344**	.284**	.338**	.371**
	Sig. (2-tailed)	.001	.045	.000	.002	.000	.000
	N	124	124	124	120	122	125
E1E	Pearson Correlation	.312**	.279**	.341**	.166	.234**	.207*
	Sig. (2-tailed)	.000	.002	.000	.071	.009	.021
	N	124	124	124	120	122	125
E1F	Pearson Correlation	.339**	.314**	.376**	.368**	.378**	.226*
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.011
	N	124	124	124	120	122	125
E1G	Pearson Correlation	.163	.400**	.171	.076	.211*	.097
	Sig. (2-tailed)	.071	.000	.059	.408	.020	.283
	N	123	123	123	119	121	124
E1H	Pearson Correlation	.099	.315**	.226*	.005	.256**	.139
	Sig. (2-tailed)	.274	.000	.012	.954	.004	.121
	N	124	124	124	120	122	125
E1I	Pearson Correlation	.215*	.247**	.219*	.407**	.345**	.181*
	Sig. (2-tailed)	.017	.006	.015	.000	.000	.044
	N	123	123	123	119	121	124
E1J	Pearson Correlation	.243**	.332**	.292**	.103	.274**	.318**
	Sig. (2-tailed)	.007	.000	.001	.263	.002	.000
	N	124	124	124	120	122	125
E1K	Pearson Correlation	.305**	.335**	.269**	.055	.292**	.404**
	Sig. (2-tailed)	.001	.000	.003	.549	.001	.000
	N	124	124	124	120	122	125
E1L	Pearson Correlation	.236**	.257**	.182*	.198*	.400**	.387**
	Sig. (2-tailed)	.009	.004	.045	.032	.000	.000
	N	122	122	122	118	120	123
E1M	Pearson Correlation	.566**	.092	.453**	.156	.030	.185*
	Sig. (2-tailed)	.000	.312	.000	.089	.747	.039
	N	124	124	124	120	122	125
E1N	Pearson Correlation	.276**	.249**	.304**	.402**	.207*	.188*
	Sig. (2-tailed)	.002	.005	.001	.000	.022	.036
	N	124	124	124	120	122	125
E1O	Pearson Correlation	.584**	.155	.524**	.231*	.070	.040
	Sig. (2-tailed)	.000	.085	.000	.011	.443	.654
	N	124	124	124	120	122	125
E1P	Pearson Correlation	.532**	.245**	.512**	.127	.198*	.340**
	Sig. (2-tailed)	.000	.007	.000	.174	.030	.000
	N	122	121	122	117	120	122
E1Q	Pearson Correlation	.212*	.192*	.310**	.193*	.228*	.202*
	Sig. (2-tailed)	.018	.033	.000	.035	.011	.024
	N	124	124	124	120	122	125

## Correlations

		E1S	E1T	E1U	E1V	E1W	E1X
E1R	Pearson Correlation	.061	.243**	.076	.062	.570**	.376**
	Sig. (2-tailed)	.501	.007	.405	.504	.000	.000
	N	123	123	123	119	122	124
E1S	Pearson Correlation	1	.160	.656**	.206*	.210*	.326**
	Sig. (2-tailed)	.	.077	.000	.025	.020	.000
	N	124	123	124	119	122	124
E1T	Pearson Correlation	.160	1	.308**	.086	.494**	.242**
	Sig. (2-tailed)	.077	.	.001	.354	.000	.007
	N	123	124	123	119	121	124
E1U	Pearson Correlation	.656**	.308**	1	.198*	.223*	.315**
	Sig. (2-tailed)	.000	.001	.	.031	.013	.000
	N	124	123	124	119	122	124
E1V	Pearson Correlation	.206*	.086	.198*	1	.186*	.027
	Sig. (2-tailed)	.025	.354	.031	.	.044	.767
	N	119	119	119	120	118	120
E1W	Pearson Correlation	.210*	.494**	.223*	.186*	1	.516**
	Sig. (2-tailed)	.020	.000	.013	.044	.	.000
	N	122	121	122	118	122	122
E1X	Pearson Correlation	.326**	.242**	.315**	.027	.516**	1
	Sig. (2-tailed)	.000	.007	.000	.767	.000	.
	N	124	124	124	120	122	125
EFFICACY	Pearson Correlation	.588**	.458**	.631**	.448**	.546**	.463**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	124	124	124	120	122	125
A2A	Pearson Correlation	.052	.249**	.110	-.009	.073	.068
	Sig. (2-tailed)	.570	.006	.225	.922	.425	.455
	N	123	123	123	119	122	124
A2B	Pearson Correlation	.025	.245**	.070	-.020	.210*	.162
	Sig. (2-tailed)	.787	.006	.439	.825	.021	.072
	N	123	123	123	119	121	124
A2C	Pearson Correlation	-.114	.263**	.018	-.057	.115	.006
	Sig. (2-tailed)	.206	.003	.844	.538	.206	.950
	N	124	124	124	120	122	125
A2D	Pearson Correlation	.205*	-.050	.095	-.061	-.103	.036
	Sig. (2-tailed)	.022	.583	.291	.508	.260	.688
	N	124	124	124	120	122	125
A2E	Pearson Correlation	.331**	.145	.357**	.134	.128	.214*
	Sig. (2-tailed)	.000	.107	.000	.144	.161	.017
	N	124	124	124	120	122	125
A2F	Pearson Correlation	.259**	-.014	.157	.052	-.053	.098
	Sig. (2-tailed)	.004	.876	.082	.569	.564	.279
	N	124	124	124	120	122	125
A2G	Pearson Correlation	.071	-.023	.051	.177	-.033	.068
	Sig. (2-tailed)	.433	.803	.573	.054	.716	.453
	N	123	123	123	119	121	124
A2H	Pearson Correlation	-.004	.044	-.076	-.035	.077	.048
	Sig. (2-tailed)	.969	.628	.404	.705	.402	.596
	N	123	123	123	119	121	124
A2I	Pearson Correlation	.107	.194*	.139	.117	.053	.019
	Sig. (2-tailed)	.238	.032	.126	.204	.566	.837
	N	123	123	123	119	121	124

## Correlations

		E1S	E1T	E1U	E1V	E1W	E1X
A2J	Pearson Correlation	.081	.267**	.138	-.010	.171	.077
	Sig. (2-tailed)	.371	.003	.129	.913	.061	.396
	N	123	123	123	119	121	124
A2K	Pearson Correlation	.102	.221*	.222*	.155	.081	-.042
	Sig. (2-tailed)	.260	.014	.013	.092	.379	.640
	N	123	123	123	119	121	124
A2L	Pearson Correlation	-.075	.070	.019	.061	-.065	-.076
	Sig. (2-tailed)	.414	.449	.839	.514	.483	.409
	N	120	120	120	116	118	121
A2M	Pearson Correlation	.078	.247**	.235**	.043	.035	-.017
	Sig. (2-tailed)	.388	.006	.009	.639	.704	.848
	N	124	124	124	120	122	125
A2N	Pearson Correlation	-.017	.201*	.019	.102	.003	.038
	Sig. (2-tailed)	.849	.027	.835	.273	.977	.677
	N	122	122	122	118	120	123
A2O	Pearson Correlation	.111	.090	.228*	-.008	.123	.178*
	Sig. (2-tailed)	.223	.322	.011	.933	.180	.048
	N	123	123	123	119	121	124
A2P	Pearson Correlation	.069	.356**	.116	.019	.109	.085
	Sig. (2-tailed)	.448	.000	.204	.835	.236	.348
	N	122	122	122	118	120	123
A2Q	Pearson Correlation	-.133	.207*	-.091	-.036	.157	.050
	Sig. (2-tailed)	.147	.022	.321	.702	.087	.585
	N	121	121	121	117	120	122
A2R	Pearson Correlation	.168	.255**	.200*	.173	.253**	.137
	Sig. (2-tailed)	.064	.005	.027	.061	.005	.130
	N	122	122	122	118	120	123
A2S	Pearson Correlation	-.087	.187*	.102	.124	.139	-.030
	Sig. (2-tailed)	.347	.040	.268	.182	.132	.747
	N	120	121	120	117	119	121
A2T	Pearson Correlation	-.080	.099	-.030	.092	.090	.017
	Sig. (2-tailed)	.380	.274	.737	.320	.325	.855
	N	124	124	124	120	122	125
ALTRUISM	Pearson Correlation	.101	.327**	.212*	.127	.176	.131
	Sig. (2-tailed)	.267	.000	.018	.168	.053	.145
	N	124	124	124	120	122	125

## Correlations

		EFFICACY	A2A	A2B	A2C	A2D	A2E
E1A	Pearson Correlation	.619**	.149	.080	.099	.174	.127
	Sig. (2-tailed)	.000	.098	.378	.270	.051	.156
	N	126	125	125	126	126	126
E1B	Pearson Correlation	.603**	.106	.059	.096	-.005	.118
	Sig. (2-tailed)	.000	.239	.513	.286	.959	.186
	N	126	125	125	126	126	126
E1C	Pearson Correlation	.516**	.095	-.007	-.110	.185*	.167
	Sig. (2-tailed)	.000	.296	.941	.222	.039	.063
	N	125	124	124	125	125	125
E1D	Pearson Correlation	.605**	.155	.108	.101	.087	.113
	Sig. (2-tailed)	.000	.084	.230	.259	.331	.209
	N	126	125	125	126	126	126
E1E	Pearson Correlation	.529**	-.021	.022	-.006	.040	.054
	Sig. (2-tailed)	.000	.814	.807	.951	.660	.551
	N	126	125	125	126	126	126
E1F	Pearson Correlation	.716**	.166	.129	.178*	.135	.203*
	Sig. (2-tailed)	.000	.064	.151	.046	.131	.022
	N	126	125	125	126	126	126
E1G	Pearson Correlation	.358**	.202*	.038	.029	.036	-.060
	Sig. (2-tailed)	.000	.025	.679	.746	.686	.505
	N	125	124	124	125	125	125
E1H	Pearson Correlation	.437**	-.006	.110	.044	.096	-.080
	Sig. (2-tailed)	.000	.944	.222	.625	.283	.375
	N	126	125	125	126	126	126
E1I	Pearson Correlation	.618**	.056	.189*	.217*	.032	.130
	Sig. (2-tailed)	.000	.536	.036	.015	.725	.150
	N	125	124	124	125	125	125
E1J	Pearson Correlation	.544**	.098	.177*	.083	.088	.107
	Sig. (2-tailed)	.000	.277	.048	.357	.327	.233
	N	126	125	125	126	126	126
E1K	Pearson Correlation	.518**	.037	.151	.083	.146	.096
	Sig. (2-tailed)	.000	.684	.093	.353	.102	.286
	N	126	125	125	126	126	126
E1L	Pearson Correlation	.547**	.098	.095	.146	-.099	-.012
	Sig. (2-tailed)	.000	.281	.297	.106	.275	.894
	N	124	123	123	124	124	124
E1M	Pearson Correlation	.502**	.074	.102	-.102	.237**	.130
	Sig. (2-tailed)	.000	.410	.260	.256	.007	.146
	N	126	125	125	126	126	126
E1N	Pearson Correlation	.599**	.195*	.083	.039	.125	.227*
	Sig. (2-tailed)	.000	.029	.358	.662	.164	.011
	N	126	125	125	126	126	126
E1O	Pearson Correlation	.558**	.073	.068	-.071	.120	.081
	Sig. (2-tailed)	.000	.417	.449	.431	.181	.366
	N	126	125	125	126	126	126
E1P	Pearson Correlation	.600**	-.046	.047	-.022	.115	.315**
	Sig. (2-tailed)	.000	.613	.606	.807	.206	.000
	N	123	122	122	123	123	123
E1Q	Pearson Correlation	.570**	.163	.227*	.216*	.150	.131
	Sig. (2-tailed)	.000	.069	.011	.015	.093	.144
	N	126	125	125	126	126	126



## Correlations

		EFFICACY	A2A	A2B	A2C	A2D	A2E
E1R	Pearson Correlation	.490**	.136	.166	.074	.113	.041
	Sig. (2-tailed)	.000	.130	.065	.413	.209	.648
	N	125	125	124	125	125	125
E1S	Pearson Correlation	.588**	.052	.025	-.114	.205*	.331**
	Sig. (2-tailed)	.000	.570	.787	.206	.022	.000
	N	124	123	123	124	124	124
E1T	Pearson Correlation	.458**	.249**	.245**	.263**	-.050	.145
	Sig. (2-tailed)	.000	.006	.006	.003	.583	.107
	N	124	123	123	124	124	124
E1U	Pearson Correlation	.631**	.110	.070	.018	.095	.357**
	Sig. (2-tailed)	.000	.225	.439	.844	.291	.000
	N	124	123	123	124	124	124
E1V	Pearson Correlation	.448**	-.009	-.020	-.057	-.061	.134
	Sig. (2-tailed)	.000	.922	.825	.538	.508	.144
	N	120	119	119	120	120	120
E1W	Pearson Correlation	.546**	.073	.210*	.115	-.103	.128
	Sig. (2-tailed)	.000	.425	.021	.206	.260	.161
	N	122	122	121	122	122	122
E1X	Pearson Correlation	.463**	.068	.162	.006	.036	.214*
	Sig. (2-tailed)	.000	.455	.072	.950	.688	.017
	N	125	124	124	125	125	125
EFFICACY	Pearson Correlation	1	.165	.201*	.087	.145	.220*
	Sig. (2-tailed)	.	.066	.024	.334	.105	.013
	N	126	125	125	126	126	126
A2A	Pearson Correlation	.165	1	.295**	.366**	.066	.139
	Sig. (2-tailed)	.066	.	.001	.000	.467	.123
	N	125	125	124	125	125	125
A2B	Pearson Correlation	.201*	.295**	1	.354**	.228*	.215*
	Sig. (2-tailed)	.024	.001	.	.000	.011	.016
	N	125	124	125	125	125	125
A2C	Pearson Correlation	.087	.366**	.354**	1	.091	.153
	Sig. (2-tailed)	.334	.000	.000	.	.309	.087
	N	126	125	125	126	126	126
A2D	Pearson Correlation	.145	.066	.228*	.091	1	.143
	Sig. (2-tailed)	.105	.467	.011	.309	.	.110
	N	126	125	125	126	126	126
A2E	Pearson Correlation	.220*	.139	.215*	.153	.143	1
	Sig. (2-tailed)	.013	.123	.016	.087	.110	.
	N	126	125	125	126	126	126
A2F	Pearson Correlation	.265**	-.093	.293**	.106	.583**	.119
	Sig. (2-tailed)	.003	.300	.001	.237	.000	.184
	N	126	125	125	126	126	126
A2G	Pearson Correlation	.191*	-.064	.036	-.077	.343**	.025
	Sig. (2-tailed)	.033	.483	.688	.391	.000	.779
	N	125	124	124	125	125	125
A2H	Pearson Correlation	.007	.162	.089	.122	.007	-.110
	Sig. (2-tailed)	.935	.073	.323	.176	.938	.221
	N	125	124	124	125	125	125
A2I	Pearson Correlation	.233**	.428**	.316**	.339**	.254**	.266**
	Sig. (2-tailed)	.009	.000	.000	.000	.004	.003
	N	125	124	124	125	125	125

## Correlations

		EFFICACY	A2A	A2B	A2C	A2D	A2E
A2J	Pearson Correlation	.181*	.276**	.599**	.364**	.170	.294**
	Sig. (2-tailed)	.043	.002	.000	.000	.058	.001
	N	125	124	124	125	125	125
A2K	Pearson Correlation	.282**	.227*	.383**	.218*	.244**	.261**
	Sig. (2-tailed)	.001	.011	.000	.015	.006	.003
	N	125	124	124	125	125	125
A2L	Pearson Correlation	-.105	.261**	.112	.141	.110	.233**
	Sig. (2-tailed)	.248	.004	.222	.122	.230	.010
	N	122	121	121	122	122	122
A2M	Pearson Correlation	.163	.422**	.291**	.374**	.057	.240**
	Sig. (2-tailed)	.067	.000	.001	.000	.527	.007
	N	126	125	125	126	126	126
A2N	Pearson Correlation	.148	.314**	.168	.263**	.068	.038
	Sig. (2-tailed)	.101	.000	.064	.003	.453	.674
	N	124	123	123	124	124	124
A2O	Pearson Correlation	.225*	-.003	.063	.043	.285**	.029
	Sig. (2-tailed)	.011	.970	.489	.635	.001	.744
	N	125	124	124	125	125	125
A2P	Pearson Correlation	.202*	.182*	.249**	.248**	.050	.168
	Sig. (2-tailed)	.025	.044	.006	.005	.579	.063
	N	124	123	123	124	124	124
A2Q	Pearson Correlation	.068	.179*	.241**	.220*	.165	.081
	Sig. (2-tailed)	.457	.048	.007	.015	.068	.372
	N	123	123	122	123	123	123
A2R	Pearson Correlation	.289**	.468**	.260**	.304**	.159	.251**
	Sig. (2-tailed)	.001	.000	.004	.001	.078	.005
	N	124	123	123	124	124	124
A2S	Pearson Correlation	.169	.438**	.339**	.399**	.197*	.240**
	Sig. (2-tailed)	.062	.000	.000	.000	.029	.008
	N	122	122	121	122	122	122
A2T	Pearson Correlation	.092	.495**	.260**	.107	.118	.210*
	Sig. (2-tailed)	.307	.000	.003	.232	.189	.019
	N	126	125	125	126	126	126
ALTRUISM	Pearson Correlation	.335**	.546**	.504**	.514**	.395**	.385**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	126	125	125	126	126	126

## Correlations

		A2F	A2G	A2H	A2I	A2J	A2K
E1A	Pearson Correlation	.119	.160	.043	.265**	.134	.253**
	Sig. (2-tailed)	.186	.074	.637	.003	.137	.004
	N	126	125	125	125	125	125
E1B	Pearson Correlation	.213*	.216*	.110	.105	.157	.137
	Sig. (2-tailed)	.017	.016	.224	.245	.080	.128
	N	126	125	125	125	125	125
E1C	Pearson Correlation	.206*	.187*	-.030	.141	-.023	.203*
	Sig. (2-tailed)	.021	.037	.744	.118	.803	.024
	N	125	124	124	124	124	124
E1D	Pearson Correlation	.061	.097	-.072	.198*	.046	.123
	Sig. (2-tailed)	.496	.281	.426	.027	.613	.172
	N	126	125	125	125	125	125
E1E	Pearson Correlation	.108	.033	-.135	.027	.009	.108
	Sig. (2-tailed)	.227	.714	.134	.766	.924	.231
	N	126	125	125	125	125	125
E1F	Pearson Correlation	.155	.134	-.139	.265**	.207*	.284**
	Sig. (2-tailed)	.084	.136	.123	.003	.020	.001
	N	126	125	125	125	125	125
E1G	Pearson Correlation	.002	-.132	-.002	.089	.075	.098
	Sig. (2-tailed)	.980	.145	.980	.328	.409	.277
	N	125	124	124	124	124	124
E1H	Pearson Correlation	.198*	-.033	.033	.010	.085	.101
	Sig. (2-tailed)	.026	.715	.711	.914	.345	.260
	N	126	125	125	125	125	125
E1I	Pearson Correlation	.167	.206*	.001	.233**	.129	.174
	Sig. (2-tailed)	.063	.022	.989	.009	.154	.053
	N	125	124	124	124	124	124
E1J	Pearson Correlation	.092	.120	-.097	.087	.123	.159
	Sig. (2-tailed)	.307	.184	.281	.334	.173	.076
	N	126	125	125	125	125	125
E1K	Pearson Correlation	.154	.068	.044	.002	.133	.168
	Sig. (2-tailed)	.085	.453	.624	.980	.140	.060
	N	126	125	125	125	125	125
E1L	Pearson Correlation	.075	.123	.117	.182*	.162	.082
	Sig. (2-tailed)	.411	.176	.196	.044	.073	.365
	N	124	123	123	123	123	123
E1M	Pearson Correlation	.186*	.155	.098	.036	.067	.179*
	Sig. (2-tailed)	.037	.085	.277	.689	.458	.045
	N	126	125	125	125	125	125
E1N	Pearson Correlation	.127	.127	.038	.158	.121	.157
	Sig. (2-tailed)	.157	.159	.678	.079	.179	.081
	N	126	125	125	125	125	125
E1O	Pearson Correlation	.242**	.117	.103	.135	.099	.161
	Sig. (2-tailed)	.006	.194	.253	.134	.273	.072
	N	126	125	125	125	125	125
E1P	Pearson Correlation	.266**	.140	.012	.133	.037	.181*
	Sig. (2-tailed)	.003	.123	.898	.143	.685	.046
	N	123	122	122	122	122	122
E1Q	Pearson Correlation	.354**	.157	.030	.248**	.167	.187*
	Sig. (2-tailed)	.000	.080	.737	.005	.063	.037
	N	126	125	125	125	125	125

## Correlations

		A2F	A2G	A2H	A2I	A2J	A2K
E1R	Pearson Correlation	.100	.050	.013	.141	.273**	.176
	Sig. (2-tailed)	.269	.581	.888	.119	.002	.051
	N	125	124	124	124	124	124
E1S	Pearson Correlation	.259**	.071	-.004	.107	.081	.102
	Sig. (2-tailed)	.004	.433	.969	.238	.371	.260
	N	124	123	123	123	123	123
E1T	Pearson Correlation	-.014	-.023	.044	.194*	.267**	.221*
	Sig. (2-tailed)	.876	.803	.628	.032	.003	.014
	N	124	123	123	123	123	123
E1U	Pearson Correlation	.157	.051	-.076	.139	.138	.222*
	Sig. (2-tailed)	.082	.573	.404	.126	.129	.013
	N	124	123	123	123	123	123
E1V	Pearson Correlation	.052	.177	-.035	.117	-.010	.155
	Sig. (2-tailed)	.569	.054	.705	.204	.913	.092
	N	120	119	119	119	119	119
E1W	Pearson Correlation	-.053	-.033	.077	.053	.171	.081
	Sig. (2-tailed)	.564	.716	.402	.566	.061	.379
	N	122	121	121	121	121	121
E1X	Pearson Correlation	.098	.068	.048	.019	.077	-.042
	Sig. (2-tailed)	.279	.453	.596	.837	.396	.640
	N	125	124	124	124	124	124
EFFICACY	Pearson Correlation	.265**	.191*	.007	.233**	.181*	.282**
	Sig. (2-tailed)	.003	.033	.935	.009	.043	.001
	N	126	125	125	125	125	125
A2A	Pearson Correlation	-.093	-.064	.162	.428**	.276**	.227*
	Sig. (2-tailed)	.300	.483	.073	.000	.002	.011
	N	125	124	124	124	124	124
A2B	Pearson Correlation	.293**	.036	.089	.316**	.599**	.383**
	Sig. (2-tailed)	.001	.688	.323	.000	.000	.000
	N	125	124	124	124	124	124
A2C	Pearson Correlation	.106	-.077	.122	.339**	.364**	.218*
	Sig. (2-tailed)	.237	.391	.176	.000	.000	.015
	N	126	125	125	125	125	125
A2D	Pearson Correlation	.583**	.343**	.007	.254**	.170	.244**
	Sig. (2-tailed)	.000	.000	.938	.004	.058	.006
	N	126	125	125	125	125	125
A2E	Pearson Correlation	.119	.025	-.110	.266**	.294**	.261**
	Sig. (2-tailed)	.184	.779	.221	.003	.001	.003
	N	126	125	125	125	125	125
A2F	Pearson Correlation	1	.309**	-.119	.146	.284**	.323**
	Sig. (2-tailed)	.	.000	.186	.105	.001	.000
	N	126	125	125	125	125	125
A2G	Pearson Correlation	.309**	1	.156	.220*	.035	.156
	Sig. (2-tailed)	.000	.	.082	.014	.698	.082
	N	125	125	125	125	125	125
A2H	Pearson Correlation	-.119	.156	1	.095	-.005	-.093
	Sig. (2-tailed)	.186	.082	.	.290	.952	.303
	N	125	125	125	125	125	125
A2I	Pearson Correlation	.146	.220*	.095	1	.408**	.327**
	Sig. (2-tailed)	.105	.014	.290	.	.000	.000
	N	125	125	125	125	125	125

## Correlations

		A2F	A2G	A2H	A2I	A2J	A2K
A2J	Pearson Correlation	.284**	.035	-.005	.408**	1	.561**
	Sig. (2-tailed)	.001	.698	.952	.000	.	.000
	N	125	125	125	125	125	125
A2K	Pearson Correlation	.323**	.156	-.093	.327**	.561**	1
	Sig. (2-tailed)	.000	.082	.303	.000	.000	.
	N	125	125	125	125	125	125
A2L	Pearson Correlation	-.168	.111	.176	.370**	.085	.060
	Sig. (2-tailed)	.064	.223	.053	.000	.354	.510
	N	122	122	122	122	122	122
A2M	Pearson Correlation	.116	-.071	.057	.454**	.382**	.412**
	Sig. (2-tailed)	.198	.431	.525	.000	.000	.000
	N	126	125	125	125	125	125
A2N	Pearson Correlation	.116	.359**	.110	.497**	.095	.196*
	Sig. (2-tailed)	.198	.000	.228	.000	.295	.030
	N	124	123	123	123	123	123
A2O	Pearson Correlation	.244**	.126	.019	.210*	.195*	.236**
	Sig. (2-tailed)	.006	.162	.835	.019	.030	.008
	N	125	124	124	124	124	124
A2P	Pearson Correlation	.125	.175	.171	.363**	.348**	.404**
	Sig. (2-tailed)	.165	.053	.059	.000	.000	.000
	N	124	123	123	123	123	123
A2Q	Pearson Correlation	.196*	.116	.095	.248**	.336**	.326**
	Sig. (2-tailed)	.029	.205	.297	.006	.000	.000
	N	123	122	122	122	122	122
A2R	Pearson Correlation	.148	.183*	.040	.552**	.400**	.293**
	Sig. (2-tailed)	.100	.043	.657	.000	.000	.001
	N	124	123	123	123	123	123
A2S	Pearson Correlation	.082	.112	.095	.525**	.497**	.474**
	Sig. (2-tailed)	.367	.222	.299	.000	.000	.000
	N	122	121	121	121	121	121
A2T	Pearson Correlation	.008	.181*	.100	.342**	.195*	.243**
	Sig. (2-tailed)	.926	.043	.270	.000	.029	.006
	N	126	125	125	125	125	125
ALTRUISM	Pearson Correlation	.331**	.364**	.251**	.708**	.613**	.594**
	Sig. (2-tailed)	.000	.000	.005	.000	.000	.000
	N	126	125	125	125	125	125

## Correlations

		A2L	A2M	A2N	A2O	A2P	A2Q
E1A	Pearson Correlation	.084	.136	.116	.162	.272**	.126
	Sig. (2-tailed)	.359	.130	.198	.071	.002	.163
	N	122	126	124	125	124	123
E1B	Pearson Correlation	-.026	.067	.156	.093	.182*	.084
	Sig. (2-tailed)	.775	.459	.083	.302	.043	.356
	N	122	126	124	125	124	123
E1C	Pearson Correlation	.130	.198*	.133	.202*	.089	-.106
	Sig. (2-tailed)	.154	.027	.141	.025	.329	.245
	N	121	125	123	124	123	122
E1D	Pearson Correlation	-.066	.012	.114	.116	.136	.031
	Sig. (2-tailed)	.472	.895	.209	.196	.132	.734
	N	122	126	124	125	124	123
E1E	Pearson Correlation	-.069	.004	.106	.116	.036	.006
	Sig. (2-tailed)	.452	.964	.241	.197	.691	.950
	N	122	126	124	125	124	123
E1F	Pearson Correlation	-.041	.118	.170	.060	.120	.082
	Sig. (2-tailed)	.652	.187	.060	.508	.184	.365
	N	122	126	124	125	124	123
E1G	Pearson Correlation	.051	.244**	.043	-.048	.094	-.067
	Sig. (2-tailed)	.579	.006	.634	.598	.301	.467
	N	122	125	123	124	123	122
E1H	Pearson Correlation	-.273**	.168	-.099	.178*	.101	.025
	Sig. (2-tailed)	.002	.060	.272	.047	.262	.788
	N	122	126	124	125	124	123
E1I	Pearson Correlation	-.057	.025	.216*	.183*	.158	.120
	Sig. (2-tailed)	.534	.780	.016	.041	.081	.186
	N	122	125	123	124	123	122
E1J	Pearson Correlation	-.106	.102	.035	.197*	.110	.019
	Sig. (2-tailed)	.246	.256	.696	.027	.224	.839
	N	122	126	124	125	124	123
E1K	Pearson Correlation	-.135	.125	.037	.137	.169	.027
	Sig. (2-tailed)	.137	.162	.679	.128	.061	.765
	N	122	126	124	125	124	123
E1L	Pearson Correlation	-.135	.066	.143	.165	.063	-.025
	Sig. (2-tailed)	.141	.468	.117	.068	.491	.783
	N	120	124	122	123	122	121
E1M	Pearson Correlation	.000	.177*	.069	.002	.073	-.034
	Sig. (2-tailed)	.996	.047	.445	.979	.422	.708
	N	122	126	124	125	124	123
E1N	Pearson Correlation	.076	-.006	.162	.134	.114	.043
	Sig. (2-tailed)	.406	.951	.073	.138	.206	.635
	N	122	126	124	125	124	123
E1O	Pearson Correlation	-.032	.250**	.090	.073	.125	-.012
	Sig. (2-tailed)	.728	.005	.322	.417	.165	.898
	N	122	126	124	125	124	123
E1P	Pearson Correlation	-.153	.197*	.085	.213*	.152	.025
	Sig. (2-tailed)	.096	.029	.353	.019	.097	.787
	N	119	123	121	122	121	120
E1Q	Pearson Correlation	-.068	.045	.196*	.299**	.158	.166
	Sig. (2-tailed)	.459	.620	.029	.001	.079	.067
	N	122	126	124	125	124	123

## Correlations

		A2L	A2M	A2N	A2O	A2P	A2Q
E1R	Pearson Correlation	-.153	-.015	.038	.351**	.108	.114
	Sig. (2-tailed)	.094	.872	.677	.000	.235	.211
	N	121	125	123	124	123	123
E1S	Pearson Correlation	-.075	.078	-.017	.111	.069	-.133
	Sig. (2-tailed)	.414	.388	.849	.223	.448	.147
	N	120	124	122	123	122	121
E1T	Pearson Correlation	.070	.247**	.201*	.090	.356**	.207*
	Sig. (2-tailed)	.449	.006	.027	.322	.000	.022
	N	120	124	122	123	122	121
E1U	Pearson Correlation	.019	.235**	.019	.228*	.116	-.091
	Sig. (2-tailed)	.839	.009	.835	.011	.204	.321
	N	120	124	122	123	122	121
E1V	Pearson Correlation	.061	.043	.102	-.008	.019	-.036
	Sig. (2-tailed)	.514	.639	.273	.933	.835	.702
	N	116	120	118	119	118	117
E1W	Pearson Correlation	-.065	.035	.003	.123	.109	.157
	Sig. (2-tailed)	.483	.704	.977	.180	.236	.087
	N	118	122	120	121	120	120
E1X	Pearson Correlation	-.076	-.017	.038	.178*	.085	.050
	Sig. (2-tailed)	.409	.848	.677	.048	.348	.585
	N	121	125	123	124	123	122
EFFICACY	Pearson Correlation	-.105	.163	.148	.225*	.202*	.068
	Sig. (2-tailed)	.248	.067	.101	.011	.025	.457
	N	122	126	124	125	124	123
A2A	Pearson Correlation	.261**	.422**	.314**	-.003	.182*	.179*
	Sig. (2-tailed)	.004	.000	.000	.970	.044	.048
	N	121	125	123	124	123	123
A2B	Pearson Correlation	.112	.291**	.168	.063	.249**	.241**
	Sig. (2-tailed)	.222	.001	.064	.489	.006	.007
	N	121	125	123	124	123	122
A2C	Pearson Correlation	.141	.374**	.263**	.043	.248**	.220*
	Sig. (2-tailed)	.122	.000	.003	.635	.005	.015
	N	122	126	124	125	124	123
A2D	Pearson Correlation	.110	.057	.068	.285**	.050	.165
	Sig. (2-tailed)	.230	.527	.453	.001	.579	.068
	N	122	126	124	125	124	123
A2E	Pearson Correlation	.233**	.240**	.038	.029	.168	.081
	Sig. (2-tailed)	.010	.007	.674	.744	.063	.372
	N	122	126	124	125	124	123
A2F	Pearson Correlation	-.168	.116	.116	.244**	.125	.196*
	Sig. (2-tailed)	.064	.198	.198	.006	.165	.029
	N	122	126	124	125	124	123
A2G	Pearson Correlation	.111	-.071	.359**	.126	.175	.116
	Sig. (2-tailed)	.223	.431	.000	.162	.053	.205
	N	122	125	123	124	123	122
A2H	Pearson Correlation	.176	.057	.110	.019	.171	.095
	Sig. (2-tailed)	.053	.525	.228	.835	.059	.297
	N	122	125	123	124	123	122
A2I	Pearson Correlation	.370**	.454**	.497**	.210*	.363**	.248**
	Sig. (2-tailed)	.000	.000	.000	.019	.000	.006
	N	122	125	123	124	123	122

## Correlations

		A2L	A2M	A2N	A2O	A2P	A2Q
A2J	Pearson Correlation	.085	.382**	.095	.195*	.348**	.336**
	Sig. (2-tailed)	.354	.000	.295	.030	.000	.000
	N	122	125	123	124	123	122
A2K	Pearson Correlation	.060	.412**	.196*	.236**	.404**	.326**
	Sig. (2-tailed)	.510	.000	.030	.008	.000	.000
	N	122	125	123	124	123	122
A2L	Pearson Correlation	1	.177	.284**	-.089	.092	.058
	Sig. (2-tailed)	.	.052	.002	.332	.316	.534
	N	122	122	120	121	120	119
A2M	Pearson Correlation	.177	1	.352**	-.070	.413**	.151
	Sig. (2-tailed)	.052	.	.000	.435	.000	.096
	N	122	126	124	125	124	123
A2N	Pearson Correlation	.284**	.352**	1	.118	.366**	.337**
	Sig. (2-tailed)	.002	.000	.	.192	.000	.000
	N	120	124	124	123	123	121
A2O	Pearson Correlation	-.089	-.070	.118	1	.146	.189*
	Sig. (2-tailed)	.332	.435	.192	.	.107	.037
	N	121	125	123	125	124	123
A2P	Pearson Correlation	.092	.413**	.366**	.146	1	.267**
	Sig. (2-tailed)	.316	.000	.000	.107	.	.003
	N	120	124	123	124	124	122
A2Q	Pearson Correlation	.058	.151	.337**	.189*	.267**	1
	Sig. (2-tailed)	.534	.096	.000	.037	.003	.
	N	119	123	121	123	122	123
A2R	Pearson Correlation	.224*	.312**	.396**	.196*	.351**	.290**
	Sig. (2-tailed)	.014	.000	.000	.030	.000	.001
	N	120	124	123	123	123	121
A2S	Pearson Correlation	.311**	.445**	.259**	.161	.305**	.304**
	Sig. (2-tailed)	.001	.000	.004	.077	.001	.001
	N	118	122	120	121	120	120
A2T	Pearson Correlation	.252**	.216*	.289**	.060	.264**	.265**
	Sig. (2-tailed)	.005	.015	.001	.506	.003	.003
	N	122	126	124	125	124	123
ALTRUISM	Pearson Correlation	.367**	.524**	.542**	.329**	.542**	.508**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	122	126	124	125	124	123



## Correlations

		A2R	A2S	A2T	ALTRUISM
E1A	Pearson Correlation	.253**	.252**	.138	.325**
	Sig. (2-tailed)	.005	.005	.124	.000
	N	124	122	126	126
E1B	Pearson Correlation	.089	.108	.120	.242**
	Sig. (2-tailed)	.325	.238	.182	.006
	N	124	122	126	126
E1C	Pearson Correlation	.188*	.012	.025	.183*
	Sig. (2-tailed)	.037	.898	.781	.041
	N	123	121	125	125
E1D	Pearson Correlation	.222*	.113	.104	.199*
	Sig. (2-tailed)	.013	.217	.248	.025
	N	124	122	126	126
E1E	Pearson Correlation	.097	-.005	-.015	.042
	Sig. (2-tailed)	.284	.960	.869	.640
	N	124	122	126	126
E1F	Pearson Correlation	.327**	.257**	.111	.295**
	Sig. (2-tailed)	.000	.004	.217	.001
	N	124	122	126	126
E1G	Pearson Correlation	-.024	.137	.014	.058
	Sig. (2-tailed)	.795	.133	.880	.517
	N	123	121	125	125
E1H	Pearson Correlation	-.003	.115	-.053	.085
	Sig. (2-tailed)	.977	.206	.552	.342
	N	124	122	126	126
E1I	Pearson Correlation	.279**	.220*	.093	.303**
	Sig. (2-tailed)	.002	.015	.303	.001
	N	123	121	125	125
E1J	Pearson Correlation	.120	.146	.024	.156
	Sig. (2-tailed)	.184	.109	.786	.082
	N	124	122	126	126
E1K	Pearson Correlation	.014	.040	.089	.148
	Sig. (2-tailed)	.875	.659	.320	.098
	N	124	122	126	126
E1L	Pearson Correlation	.134	.163	.018	.177*
	Sig. (2-tailed)	.142	.075	.839	.049
	N	122	120	124	124
E1M	Pearson Correlation	.086	.048	.072	.162
	Sig. (2-tailed)	.342	.602	.423	.070
	N	124	122	126	126
E1N	Pearson Correlation	.244**	.167	.075	.240**
	Sig. (2-tailed)	.006	.066	.403	.007
	N	124	122	126	126
E1O	Pearson Correlation	.155	-.007	-.047	.165
	Sig. (2-tailed)	.086	.938	.600	.065
	N	124	122	126	126
E1P	Pearson Correlation	.098	.054	.038	.206*
	Sig. (2-tailed)	.287	.562	.677	.022
	N	121	119	123	123
E1Q	Pearson Correlation	.342**	.272**	-.002	.353**
	Sig. (2-tailed)	.000	.002	.986	.000
	N	124	122	126	126

## Correlations

		A2R	A2S	A2T	ALTRUISM
A2J	Pearson Correlation	.400**	.497**	.195*	.613**
	Sig. (2-tailed)	.000	.000	.029	.000
	N	123	121	125	125
A2K	Pearson Correlation	.293**	.474**	.243**	.594**
	Sig. (2-tailed)	.001	.000	.006	.000
	N	123	121	125	125
A2L	Pearson Correlation	.224*	.311**	.252**	.367**
	Sig. (2-tailed)	.014	.001	.005	.000
	N	120	118	122	122
A2M	Pearson Correlation	.312**	.445**	.216*	.524**
	Sig. (2-tailed)	.000	.000	.015	.000
	N	124	122	126	126
A2N	Pearson Correlation	.396**	.259**	.289**	.542**
	Sig. (2-tailed)	.000	.004	.001	.000
	N	123	120	124	124
A2O	Pearson Correlation	.196*	.161	.060	.329**
	Sig. (2-tailed)	.030	.077	.506	.000
	N	123	121	125	125
A2P	Pearson Correlation	.351**	.305**	.264**	.542**
	Sig. (2-tailed)	.000	.001	.003	.000
	N	123	120	124	124
A2Q	Pearson Correlation	.290**	.304**	.265**	.508**
	Sig. (2-tailed)	.001	.001	.003	.000
	N	121	120	123	123
A2R	Pearson Correlation	1	.568**	.388**	.670**
	Sig. (2-tailed)	.	.000	.000	.000
	N	124	120	124	124
A2S	Pearson Correlation	.568**	1	.480**	.735**
	Sig. (2-tailed)	.000	.	.000	.000
	N	120	122	122	122
A2T	Pearson Correlation	.388**	.480**	1	.559**
	Sig. (2-tailed)	.000	.000	.	.000
	N	124	122	126	126
ALTRUISM	Pearson Correlation	.670**	.735**	.559**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	124	122	126	126

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

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