

Student Success in Service-Learning: Building Ethical Citizen Scholars

In the university environment, student success is often equated with student retention. This study is not about success in student retention, but about student success equated with student engagement and the benefits of that engagement. Several factors such as the external learning environment and interactions within the community can facilitate this kind of student success and increase the university's effectiveness. Colleges that have integrated curriculums and offer students opportunities to participate in civic engagement or service-learning (SL) demonstrate a positive influence on the students, including expected gains in overall *moral development, judgment, values acquisition and reasoning*, contributing to the success of the student (Kenny, Simon, Kiley-Brabeck, & Lerner, 2002; Pascarella & Terenzini, 1991).

Student engagement has two key components that contribute to student success. The first is the amount of time and effort students put into their studies and other activities that lead to the experiences and outcomes that constitute student success. The second is the ways the institution allocates resources and organizes learning opportunities and services to participate in and benefit from such activities. What the institution does to foster student success is of particular interest, as those are practices which a college or university has some direct influence (Kuh, Kinzie, Schuh, & Whitt, 2005b, p. 9).

The purpose of this research is to examine whether students in a United States public four-year, comprehensive university with a 19,000 enrollment increase in their ethical development after the intervention of a college course with a service-learning component. A secondary rationale of this study is to investigate the ethical development of community partners and businesses and compare their moral reasoning development to the moral reasoning development of students after the SL intervention.

Service-learning contributes to Student Success

Directing students on a trajectory of success and achievement involves closing the gap between student expectations and actual student behavior (Kuh, 2007). Student culture with an effective learning environment contributes to student success and higher graduation rates (Kuh, Kinzie, Schuh, & Whitt, 2005a). To improve a university's effectiveness, retention, and graduation rates, research shows that student engagement is linked to numerous desirable outcomes. One method to increase student engagement is by establishing a service-learning support system on campus. Bringle, Philips and Hudson (2004) define service-learning as a "course based, credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility" (p. 5).

For students to learn about handling social difficulties, service learning offers experience in multiple contexts for problem solving complex issues in the community (Eyler & Giles, 1999). Service-learning helps attain two goals: service activities (1) are of benefit to the community (agency, clients, city, neighborhood, etc.) and (2) help the instructor reach specific educational objectives. Service-learning engages the students to become involved in their academic lessons, and allows them to integrate classroom theory with practice. Reflection activities such as journals or small group discussions enable the students to connect their community service activities to their academic activities, thereby providing experiences that can be further explored, studied, and analyzed (Bringle et al., 2004).

Learning through "hands-on" experience is beneficial to students because this enables them to utilize the knowledge learned in the classroom, and teaches them how to resolve and

respond to real issues. Critical reflective thought can add new meaning to service experiences, enrich the academic content of the course, and develop students' abilities to take informed actions in the future (Dewey, 1916, 1933; Hatcher & Bringle, 1997). As students engage in humanitarian projects, they not only acquire relevant work experience related to their studies, but also can attain a higher level of personal principles and personal satisfaction of achievement.

Evenbeck and Hamilton (2006) recognized that students participating in service-learning increased in their overall classroom knowledge and skills, and achieved a higher level of values and attitudes based on their experiences. "Service-learning has become one of the most powerful pedagogies in undergraduate education. It not only fuses attitude, behavior, and cognition, but also builds for citizenship" (p. 19). Student success achieved from combining attainment of personal principles, moral development and personal satisfaction (derived from the acquisition of skills during external engagement), motivates the student to involve himself or herself in purposeful civil activities throughout his or her post-college career. "Service-learning that integrates all facets of the mission of higher education may enable institutions to return to fostering the traditional core values of what it means to be an educated person" (Kenny et al., 2002, p. 7).

Service-learning in college can help cultivate moral development and reasoning and consequently, provide students with a broad range of intellectual, cultural, and social experiences (Pascarella & Terenzini, 1991). According to Kohlberg's theory of moral development (1981), college subjects an individual to an array of new experiences, new social relationships, a new independent lifestyle, and a need for self-reliance. These factors can generate positive cognitive moral conflict from new perspectives, resulting in a greater influence on a student's moral development (Pascarella & Terenzini, 1991). By exposing students to service-learning

engagement, students continue to foster moral development and reasoning through their new civic responsibilities and social interactions. The theoretical framework utilized for the present research is the cognitive developmental perspective, constructed from the works of Dewey, Piaget, Kohlberg (Brandenberger, 2005) and more recently, Rest (1979a).

Cognitive Developmental Perspective

Piaget (1932) claimed that children have two primary types of moral judgment; a young child will value authoritarianism and an older child will develop a concern for society. He believed that the “child should act on his environment,” (Ginsberg & Opper, 1969, p. 230) and contributed a body of research supporting Dewey’s (1963) “philosophy of experience,” with morality beginning in experience (Brandenberger, 2005). Kohlberg developed a six-stage model based on Piaget’s ideas that describes the development of moral reasoning and illustrates how rationale for moral choices grows over time (Cabot, 2005). Kohlberg’s universal typology uses the stage theory with the process proceeding in one direction and sequence while individuals advance at their own rate, not necessarily finishing at the highest stage (Callery, 1990). Stage one is the lowest level where individuals focus on themselves and conduct moral action merely to avoid punishment. Stage six is the highest level where individuals abide by collective principles, having a strong sense of personal ethics (Cabot, 2005; Turiel & Rothman, 1972). Rest was a student of Kohlberg and developed the Neo-Kohlbergian approach, arguing that Kohlberg’s six-stage model failed to address issues of moral sensitivity or incentives for individuals to act morally (Cabot, 2005).

Service-learning in a University Setting

Many universities include service-learning in their mission statement, but do not habitually support or encourage volunteerism. For volunteerism to be considered service-

learning, it must contain at least two components: (1) service-learning must be required to be a part of a class curriculum where participants receive academic credit for work and (2) students must work on a volunteer basis applying what is being learned in the classroom to a service project in a relevant and operational fashion. The goal is for students to practically apply knowledge to make a positive contribution to an organization in need (Bringle & Hatcher, 2000; Kirk & Riedle, 2005).

Markus, Howard, and King (1993) assert that this form of volunteerism closes the gap between childhood and adulthood because students' concern is extended beyond themselves as they fulfill the needs of an organization. Service-learning work is with a not-for-profit organization and thus students are taking care of others and working toward a selfless cause, an "education in citizenship." Students work in teams and strive to exercise professional ethics that coincide with the moral standards of the university and the organization with which the students are working. Students represent the university and ideally embody the university's mission while applying skills taught in the college setting (Kirk & Riedle, 2005). In many ways, service-learning mirrors internships, allowing students to retain first-hand experience in the student's major. Students frequently complain of carrying out busy work that does not expand knowledge during extensive internships; however, because service-learning is combined with course work, it is less likely that community partners will put students to work on irrelevant projects.

Service-learning has become more popular in the classroom since the 1980's. Billig's study (as cited by Shumer in Casey, Davidson, Billig, & Springer, 2006) demonstrates that service-learning has grown exponentially since 1984, when only 27 percent of high schools offered community service, compared to 1999 where 83 percent of high schools have some form of community service. Yet some institutions are hesitant to add such programs to the curriculum.

Many universities are financially strained and some faculty members resent the idea of university money being used off campus. Others argue that mandatory service-learning is in direct violation with the spirit of volunteerism, and that students need to be given the option of participating in these types of programs in order to successfully complete service-learning course work (Markus, Howard, & King, 1993).

Nevertheless, this type of volunteerism that creates a classroom extending beyond the university setting has enumerable benefits. Students bring what was learned externally to the general assembly of the classroom, constructing learning not only from personal experience, but also from the account of their peers (Kirk & Riedle, 2005; Markus et al., 1993). Principles taught in the classroom take on a new meaning with service-learning because ideas are practically applied. This type of experiential learning furthers interested pupils' grasps of the academic content of course material (Astin, Vogelgesang, Ikeda, & Yee, 2000); at the same time students realize whether or not they have what it takes to succeed in their particular area of study (Markus et al., 1993). Students' communication skills and confidence in ability have the potential to increase significantly as they engage professors, fellow students, and professionals in an organizational setting (Markus et al., 1993). Versatile problem-solving abilities emerge while students take on the challenge of the real world.

In representing the university, students act as liaisons between the extended community and the collegiate setting, nurturing mutually beneficial relationships with other students on the team, the professor and vital members of influence in the community, furthermore, professors gain a sense of the community beyond the university setting (Kirk & Riedle, 2005). Student success reflects positively on the university as all stakeholders continue to work toward a

common good. Networking with stakeholders such as former fellow students, professors, and professional partners in service-learning provides references essential to future job placement.

Service-learning during college exposes students to a broader world and thus nurtures moral development (Gorman & Duffy, 1994; Markus et al., 1993). In a study conducted at Boston College, students who took part in service-learning increased in their moral development compared to a control group assessed by the Defining Issues Test (DIT) (Gorman & Duffy, 1994). It can be argued that this study's pre-test, stimulus, post-test research design was weak, since the pretest was administered at mid-semester, rather than at the beginning. In addition, the students that participated in community projects were all enrolled in a social responsibility course that discussed social injustice and philosophical theories in contrast to the control group of students that were enrolled in a western culture course. Similarly, Boss (1994) tested students' moral development as a class requirement during an ethics course with the DIT, testing one class of students engaged in community service work compared to another class with no intervention. Boss found that there was a significant gain in the moral reasoning of the students who volunteered within the community and no gain in the control group. She included a discussion of relevant moral dilemmas in the classroom during the intervention, which developed cognitive reasoning and indicated this discussion was necessary for a change from conventional to post-conventional principled moral reasoning.

The present study did not include a classroom discussion of moral dilemmas as did the Boss (1994) study; however, even without an ethics classroom discussion, the findings of this study demonstrate a significant increase in students' moral development as revealed in the DIT2 results of students engaged in community service learning compared to a control group. In addition, this study utilized students from all majors and courses, not specifically students in

ethics courses, as did the Boss (1994) study or only test students in specific social responsibility courses compared to the control group of students in western culture courses, as did the Boston College study.

Service-learning at a Large Midwestern University

Universities situate service-learning specifically for that university and its needs. The Office of Citizenship and Service-Learning (CASL) at our institution is one vehicle by which we carry forward our mission in public affairs and fulfill our designation as a metropolitan university. The state general assembly granted our university its statewide mission in public affairs in 1995 and CASL was adopted in 1996 with a mission requiring a campus-wide commitment to foster competence and responsibility in the common vocation of citizenship and “developing educated persons.” In supporting faculty, students, and community partners in service-learning, the CASL office seeks to enhance experiential learning that results in engaged citizenship and advances teaching pedagogy to improve student learning in all participating disciplines. Beyond this, CASL helps the university share its resources (i.e., faculty, staff and students), with the community, impacting the community in a positive manner. The primary rudiments of the CASL program are the courses taught by faculty, which have service-learning as a significant pedagogical approach within each course. The CASL Oversight Committee, comprised of one faculty member from each college, monitors and evaluates the CASL program.

Students interested in earning academic credit for meaningful and productive community service have two options: the (1) *Component Course* or the (2) *Integrated Service-Learning Course*. In the *Component Course*, students earn an additional credit in selected courses in exchange for the learning acquired by completing 40 hours of service that is relevant to course content and benefits an external government or non-profit agency. A student who desires the

service-learning (SL) option will simultaneously register for the SL designated course and the SL component course. The service-learning credit is awarded for the demonstration of learning that results from the service rather than the service itself. A reflection component is key to the critical thinking that a student will engage in during the experiential learning with the community partner.

The second option, the *Integrated Service-Learning Course* (ISL), has all of the aspects of experiential education, reflection, and assessment integrated into the substance of the course. The community service experiences of the students are not just a sidebar, but are an integral part of the course. ISL courses are conceptualized as a pedagogical tool that connect meaningful community service experiences with academic course learning. When service-learning is integrated into an academic course, the course credit is assigned for both the customary academic learning as well as for a minimum of 15 hours of service with a community partner. The student's grade is for the quality of learning as identified through reflection mechanisms determined by the course instructor. The ISL option treats service-learning as another academic project in the course, on par with an exam, research paper, or other such project.

Community service-learning at our university is more than a specific number of community service hours spent volunteering, although during the 2006-2007 academic year, over 1500 service-learning students provided 37,000 hours of service to agencies throughout the region. Some examples of successful projects associated with classroom coursework include: accounting students collaborated with community agencies to operate the Volunteer Income Tax Assistance (VITA) program which enabled over 18,000 individuals to receive over \$6 million in tax refunds; public relations students planned and implemented events and created media kits for non-profit community partners; linguistic anthropology students served and interacted with

minority populations; art students partnered with a Native American museum to promote knowledge and understanding of native art from throughout the Americas; chemistry students applied their knowledge of chemistry in area hospices, hospitals and the Discovery Center; language students prepared an oral history of an older individual and presented that history formally to that person and his/her family; and teacher education students partnered with Head Start helping plan a new curriculum.

Community partners, students and faculty engage in what Boyer (1990) has termed *the scholarship of engagement* at this large Midwestern university. For 11 years, the CASL program has supported faculty in their careers of scholarship, community partners with agency needs, and students in their academic and civic goals. The public affairs theme at our university nurtures a learning environment where civic virtue is celebrated and practiced, where citizenship obligations are explored and encouraged, and where the capacity and commitment to think about the public implications of private behavior is cultivated.

To summarize, service-learning has many benefits for students, including: strengthening their knowledge of the community, increasing learning of course content, helping them become actively engaged as citizens, building strong resumes, creating worthwhile partnerships, gaining valuable experience, developing important contacts, and confirming or redirecting career choices. What is not documented is how service-learning as an intervention within an array of courses benefits the ethical development of principled moral reasoning of students. Rest (1979a) defines moral reasoning as “a particular type of social value, that having to do with how humans cooperate in the service of furthering human welfare and how they adjudicate conflict among individual interests” (p.3). This research seeks to inform the higher educational community about the benefits of service-learning for the ethical development of moral reasoning of students. This

study addresses how students in many different majors, taking service-learning integrated into the course or as a separate component, develop in their ethical framework throughout the semester from service-learning by the utilization of the DIT2 survey instrument and with the experimental design of a pre-test, stimulus, post-test and a control group for comparison.

H1: Students will increase in their ethical development after participating in a service-learning intervention during one semester, while students without the intervention will experience no increase in their ethical development.

H2: Non-profit organization directors will be more ethically developed than are students and for-profit owners/directors.

Method

Service-learning research has not tested ethical comprehension levels of students before and after participating in a service-learning intervention to find out if the intervention increased the development of social justice, except in a study by Boss (1994) who specifically researched students that took an ethics course and in a study at Boston College using the DIT. The present study used the DIT2 survey instrument to investigate ethical comprehension levels along with gender as an independent variable in college students, community partners, and business leaders.

Sample

Student participants enrolled in a service-learning course. University students enrolled in a service-learning course were from a cross-section of the university, all taking service-learning as a component or integrated into their wide-ranging courses, contrasted to Boss's (1994) study that only examined students taking ethics courses. Six hundred eighty-one students participated in component or integrated service-learning courses in each of the university's six colleges in fall 2006. The Office of Citizenship and Service-Learning randomly selected courses in which

sophomores and seniors were enrolled. A total of 56 students completed the pre and post-survey out of the 117 component service-learning students who were asked to participate, with a 48 percent response rate.

Student participants not enrolled in a service-learning course. A control group of university students not enrolled in any service-learning courses was randomly selected from sophomores to seniors across all six colleges. A total of 35 students out of a total of 51 students from three different classes completed the pre and post-survey, with a 69 percent response rate.

Not-for-profit participants. Thirty-nine directors completed the survey, with a 26 percent response rate. In addition, the Office of Citizenship and Service-Learning mailed letters to not-for-profit directors to request an interview by graduate students for qualitative data on ethics and eight out of 11 not-for-profit directors agreed to participate after one request. Graduate students completed eight interviews with consenting directors.

Business participants. Thirty-eight business leaders in the community completed the survey, with a 19 percent response rate. In addition, CASL mailed 30 letters to business leaders in three separate mailings and followed up with phone calls to solicit six consenting business leaders from the chamber of commerce's list to be interviewed by graduate students for qualitative data on ethics, with a 20 percent response rate.

Procedure

A pre-test-stimulus-post-test group compared to a control group design was utilized for this study. The independent variable was service-learning and the dependent variable was moral comprehension. Additionally, the demographic characteristic of gender was considered. The DIT2 survey, based on Kohlberg's (1969) moral development theory, was administered to four groups of individuals. All appropriate means for securing human participants were ethically

approved through the campus Institutional Review Board. Students, community partners and business leaders granted permission to use data from their questionnaires and interviews.

(1) CASL administered the DIT 2 randomly as a pre-test to university students enrolled in a service-learning course and again as a post-test after students completed their service-learning intervention. This experimental group completed integrated or component service-learning requirements as described in the previous section, *Service-learning at a Large Midwestern University*. CASL allows students to choose service-learning placements from 437 community partners. No lecture or discussion of ethics or morality was provided in any of the classes and the students were not aware of the hypotheses of the study.

(2) Teachers in randomly chosen courses administered the DIT2 at the beginning of the semester to a control group of university students not enrolled in any service-learning courses and again at the end of the semester. The teachers were briefed not to discuss the hypotheses of the study and the control group of students had no ethical discussion or training in their classes. All students' identities in the experimental and control groups were anonymous, with surveys being identified by the last four digits of their social security and students did not receive extra credit for taking the survey.

(3) The DIT2 was mailed to 150 not-for-profit directors with whom the university partners and thirty-nine directors returned the survey. (4) The Office of Citizenship and Service-Learning (CASL) obtained the list of the Springfield Area Chamber of Commerce's 1,970 members. A random list of 200 businesses was selected to receive the mailing, which included a letter, consent form and the DIT2 survey. Thirty-eight business leaders returned the survey.

Survey Instrument

DIT test. The DIT is a written paper and pencil test that was created for Rest's examination of moral comprehension (Narvaez & Bock, 2002) based on Kohlberg's theory (1981). Kohlberg's Moral Judgment Interviews are long and respondents have difficulty staying on track of moral issues. Assessing the interviews is a drawn out process and it is difficult for researchers to objectively assess participants' varied responses (Rest, Cooper, Coder, Masanz, & Anderson, 1974). Kohlberg and other psychologists initially doubted the effectiveness of the DIT, calling it a "quick and dirty" method of obtaining information (Rest, Narvaez, Bebeau, & Thoma, 1999a). The DIT and DIT2 allow for standardized responses rooted in recognition (Gorman & Duffy, 1994; Rest et al., 1974; Rest, Narvaez, Thoma, & Bebeau, 1999c).

DIT2 test. Rest revised the thirty-year old DIT to create the DIT2. The original DIT was used in the Boss (1994) study and included questions concerning Vietnam War and other dated scenarios. The DIT2 is shorter in length with five moral scenarios instead of six, retains more participants through participant reliability checks, does not sacrifice validity, and contains more detailed instructions than those in the DIT (Rest et al., 1999b). Beyond these differences, the tests function in highly similar fashion (Cabot, 2005). Both tests analyze moral reasoning while measuring one part of Rest's Four Component Model, moral judgment, by presenting theoretical moral dilemmas. The DIT and DIT 2 allow researchers to gather information on the personal construction of respondents (i.e., the participant's ideas on values, rights, civic obligations, integrity, and social structure). Assessment of the DIT differs from stair step analysis of the moral judgment interview, in that changes in ethics are viewed as linear development that is fluid and continuous. Moral stages are not labeled as better or worse (Rest et al., 1999b).

Narvaez and Bock (2002) assert that Rest provides greater support for stages five (social contract orientation) and six (universal ethics principle) in Kohlberg's model than Kohlberg does himself. Thoma, Barnett, Rest and Narvaez (1999) claim that the tests also have the potential to determine one's political affiliation, religious beliefs, class, ethnic background, standards of work ethic, geographic region, and social background, although the tests primarily assess moral development.

Definition of Schemas. Respondents interpret the DIT and DIT2 by comparing the scenarios listed to preexisting mental structures called schemas. Schemas are knowledge structures that exist to help individuals to compare current stimuli to past experience and are necessary to organize incoming cognitive data and stimuli gathered empirically. Knowledge could not be interpreted without these patterns of organization (Narvaez & Bock, 2002). Some schemas are activated automatically and require little effort to recall. Schemas set standards that help individuals in moral decision-making and are stored in the long-term memory (Rest et al., 1999a). The DIT tests measure shifts in three types of moral schemas that take place during early adulthood, contributing to moral judgment development. All three schemas examined in the DIT and DIT2 bring controversial political issues to light, but do not cover all aspects of ethical judgment (Derryberry & Thoma, 2005; Narvaez & Bock, 2002).

The first schema that both DIT tests measure is the *Personal Interest Schema*, which is derived from Kohlberg's stages two and three. This schema reflects underdeveloped thinking where individuals are concerned with self-preservation and reacting to impulses. Individuals are considering micromorality as a whole, but have not yet advanced to take society into account (Narvaez & Bock, 2002; Rest et al., 1999 a.). Respondents must possess a twelve-year-old reading level to participate in the both the DIT and DIT2 and thus these tests cannot assess

development that takes place in the stages of childhood (i.e., level one)(Narvaez & Bock, 2002). By the time individuals take the DIT, the personal interest schema is commonly regarded as having already developed, because respondents passed this schema during early adolescence (Rest et al., 1999a).

The *Maintaining Norms Schema* emerges during adolescence and reflects Kohlberg's stage four. Young adults begin to have concern for humanity outside of friends and family. How people should be treated is considered and a newfound respect for authority develops (Rest et al., 1999a). Individuals begin to need rules and norms to function effectively and understand the necessity of laws, moreover, a sense of duty emerges (Narvaez & Bock, 2002).

The *Postconventional Schema* is the third schema examined in the DIT and DIT2 and reflects Kohlberg's stages five and six. It involves making the world just and sharing the universal ideal. Individuals are presented the opportunity to become advocates of change based on their sense of morality and beliefs in human rights. At this stage one considers the validity of laws and rules. Macromorality comes into play as individuals progress from self-concern to awareness of others to awareness of society as a whole (Narvaez & Bock, 2002; Rest et al., 1999a). This is the peak of moral judgment development (Derryberry & Thoma, 2005).

Finally, the *N2 index* is an index that combines two schemas: the Postconventional Schema and the Personal Interest Schema. The N2 score investigates "the degree to which Postconventional items are prioritized . . . plus the degree to which Personal Interest items (lower stage items) receive lower ratings than the ratings given to Postconventional items (higher stage items)" (Bebeau & Thoma, 2003, p. 19). Two effects are evident from the N2 score; these are acquisition of a more sophisticated thinking and rejection of simplistic thinking.

Data Analyses

The University of Minnesota Center for the Study of Ethical Development is needed to score the DIT2 using their scoring structure. The survey has reliability checks integrated into the system. Cronbach alpha for the P score and the N2 score is in the upper .70s to low .80s with test-retest reliability about the same. Further, the DIT2 shows discriminant validity from verbal ability/general intelligence; that is, the information in a DIT2 score predicts to the validity criteria above and beyond that accounted for by verbal ability. The DIT2 is equally valid for males and females (Bebeau & Thoma, 2003).

To compare the ethical developmental levels of SL students and the control group of students for hypothesis one, one-way within subjects analysis of variance (ANOVA) and paired samples *t*-tests were used. A moderate sample size of at least 30 participants from each population was measured, since this size will yield a reasonably accurate *p* value (Green & Salkind, 2005). One-way within subjects ANOVAs and paired samples *t*-tests were employed to compare the ethical development levels and gender of the post survey results of SL students, community partners, and business leaders.

Results

Testing Hypothesis 1: SL Students increase in their Ethical Development while a Control Group of Students experience no increase in their Ethical Development during one semester.

A one-way within subjects ANOVA was conducted to evaluate the effect of length of time (one semester) on ethical development schema ratings of service-learning students. Time was the within subjects factor with two levels (pre and post survey administration) and the dependent variable was moral development (four schemas: personal interest, maintaining norms, postconventional and N2). The means and standard deviations are presented in Table 1. The

results for the ANOVA indicated a significant time effect, Wilk's $\Lambda = .83$, $F(4, 52) = 2.76$, $p < .05$, partial $\eta^2 = .18$. Four paired-samples t tests were computed to assess differences between moral development schemas at the two time intervals. A difference in mean rating of moral development between the pre and post-survey was significantly different for the N2 index, $t(55) = -2.16$, $p < .05$, partial $\eta^2 = .08$.

An additional one-way within subjects ANOVA was calculated to evaluate the effect of length of time (one semester) on ethical development schema ratings of a control group of students. Time was the within subjects factor with two levels (pre and post survey administration) and the dependent variable was moral development (four schemas: personal interest, maintaining norms, postconventional and N2). The means and standard deviations are displayed in Table 1. The results for the ANOVA indicated a non-significant time effect, Wilk's $\Lambda = .74$, $F(4, 27) = 2.40$, $p > .05$, partial $\eta^2 = .27$. Four paired-samples t tests were computed to assess differences between moral development schemas at the two time intervals. Differences in mean rating of moral development between the pre and post-survey were significantly different for the personal interest schema, $t(30) = 2.91$, $p < .01$, partial $\eta^2 = .22$, and the maintaining norms schema, $t(30) = -2.20$, $p < .05$, partial $\eta^2 = .14$. When comparing the total gain of both the SL students and the control by computing a repeated measures multivariate analysis of variance (MANOVA), the within variable, time, was not significant, $F(8, 76) = 3.71$, $p < .05$, partial $\eta^2 = .28$.

As shown in Table 1, the control group of students had a significant loss of 5.85 in the personal interest schema, when compared to the service-learning students who experienced a loss of 1.64 in the personal interest schema, with both groups starting at about the same baseline. The

control group of students made a significant gain of 5.03 in maintaining norms when compared to the service-learning students with a gain of .24. “In the control group, as in other studies of moral development in college students, students tended to move to a higher level of conventional reasoning rather than moving up into principled reasoning” (Boss, 1994, p. 189). The service-learning and control group of students were similar in their gains in the postconventional schema; however, the service-learning students had a significant gain of 5.35 in the N2 index when compared to the control group, which experienced a slight gain.

 Insert Table 1 about here

The *total* gain for both the service-learning students and control group of students was not significant for either group, although the time factor was significant for the service-learning students. The hypothesis that all ethical variables will be slightly stronger in the service-learning students’ DIT-2 post-test than in the DIT-2 pre-test because of an SL intervention was partially supported because of the significant increase in the N2 index of the SL students when compared to no increase in the N2 index by the control group of students.

Testing Hypothesis 2: Non-profit organization directors will be more ethically developed than students and for-profit owners/directors.

The SL students were composed of 44 females and 12 males; the community partners were composed of 30 females and 9 males; the business leaders were composed of 29 females and 8 males. Gender was found to be not significant for ethical development of any of the groups. A one-way within subjects ANOVA was conducted with the factor being number of groups (SL students, community partners, business leaders) the dependent variable being the ethical development scores (four schemas: personal interest, maintaining norms,

postconventional and N2), and the independent variable being gender. The results from the ANOVA indicated a significant main effect for personal interest, Wilk's $\Lambda = .83$, $F(2,34) = 3.50$, $p < .05$, partial $\eta^2 = .17$, with a significant linear effect, $F(1, 35) = 6.69$, $p < .05$, partial $\eta^2 = .16$; and a significant main effect for maintaining norms, Wilk's $\Lambda = .84$, $F(2,34) = 3.27$, $p = .05$, partial $\eta^2 = .16$, with a significant linear effect, $F(1, 35) = 5.20$, $p < .05$, partial $\eta^2 = .13$.

An additional one-way within subjects ANOVA was calculated to evaluate the difference between the groups (SL students, community partners, business leaders) on ethical development schema ratings without the independent variable of gender. The results for the ANOVA indicated a non-significant personal interest multivariate effect, Wilk's $\Lambda = .88$, $F(2, 35) = 2.36$, $p > .05$, partial $\eta^2 = .12$, with a significant linear effect, $F(1, 36) = 4.86$, $p < .05$, partial $\eta^2 = .12$; a significant maintaining norms multivariate effect, Wilk's $\Lambda = .80$, $F(2, 35) = 4.42$, $p < .05$, partial $\eta^2 = .20$, with a significant linear effect, $F(1, 36) = 6.58$, $p < .05$, partial $\eta^2 = .15$; a non-significant postconventional multivariate effect, Wilk's $\Lambda = .88$, $F(2, 35) = 2.37$, $p > .05$, partial $\eta^2 = .12$, with a significant quadratic effect, $F(1, 36) = 4.85$, $p < .05$, partial $\eta^2 = .12$; and a non-significant N2 index multivariate effect, Wilk's $\Lambda = .97$, $F(2, 35) = 2.36$, $p > .05$, partial $\eta^2 = .03$.

The linear and quadratic effects necessitated computing twelve paired-samples t tests to assess differences of moral development schema ratings between the three groups. As displayed in Table 2, the results indicate that the mean for SL students personal interest schema ($M = 23.42$, $SD = 12.37$) was significantly greater than the mean for business leaders (BL) personal interest schema ($M = 17.19$, $SD = 10.72$), $t(36) = 2.21$, $p < .05$; the mean for the BL maintaining norms schema ($M = 43.96$, $SD = 14.57$) was significantly greater than the mean for SL students

maintaining norms schema ($M = 36.51$, $SD = 13.33$), $t(36) = -2.56$, $p < .05$; the mean for the BL maintaining norms schema ($M = 43.96$, $SD = 14.57$) was significantly greater than the mean for community partners (CP) maintaining norms schema ($M = 35.14$, $SD = 15.38$), $t(36) = -2.40$, $p < .05$; the mean for the CP postconventional schema ($M = 41.18$, $SD = 14.41$) was significantly greater than the mean for the SL students postconventional schema ($M = 33.28$, $SD = 15.90$), $t(38) = -2.29$, $p < .05$; and the mean for the CP postconventional schema ($M = 41.38$, $SD = 14.77$) was significantly greater than the mean for the BL postconventional schema ($M = 32.88$, $SD = 14.87$), $t(36) = 2.11$, $p < .05$.

 Insert Table 2 about here

The community partners were found to be significantly higher in their moral development of the post-conventional schema than were both students and business owners/directors, illustrating that these community partners are the most well developed in moral judgment of the three groups tested and can serve as highly ethical role models for students. The business leaders were found to be significantly higher in the maintaining norms schema than were both students and community partners, demonstrating that they understand the necessity of laws and a sense of duty. Finally, SL students were found to be significantly higher in personal interest than the business leaders, indicating that they are concerned with self-preservation. The hypothesis that non-profit organization directors will be more ethically developed than students and for-profit owners/directors was supported.

Discussion

This study examined moral judgment development in students that were enrolled in service-learning courses for one semester compared to a control group of students at a large

Midwestern university. The DIT2 survey instrument was used to measure moral judgment development and utilized Rest's (1979b) ethical stages taken from Kohlberg's theory, which Rest identified as the Personal Interest Schema, Maintaining Norms Schema, Postconventional Schema, and the N2 Index. Gender was explored as a demographic factor and was found to be not significant. Hypothesis one was partially supported by the significant rise in the N2 index after the service-learning intervention by the SL students when compared to the control group. The N2 index demonstrates the increase from the Personal Interest Schema, the lowest stage, to the Postconventional Schema, the highest stage, and illustrates the acquisition of a more sophisticated thinking (i.e., moving toward Postconventional) and rejection of simplistic thinking (i.e., moving away from Personal Interest) by the SL students. This rise in moral development was not observed in the control group of students. Instead, the control group had a significant rise in the Maintaining Norms Schema, the middle stage, which is not as highly developed as the Postconventional Schema, and a significant drop in the Personal Interest Schema, which suggests these students function most effectively with rules, norms, and laws. The community partners were significantly higher in the Postconventional Schema, the top stage, than both the business leaders and the SL students, which supported hypothesis two. This study found no difference in gender. Although Gilligan (1982) accused Kohlberg of gender bias, most DIT studies have found few significant gender differences in moral judgment (Rest et al., 1999a).

Ethics as a Component of Education

“Professional practice is predominately a moral enterprise. Consequently, professional schools are concerned with the ethical development of students” (Bebeau, 2002, p. 271). Ethics have been part of education in communication sectors, but were often concealed in the regular curriculum (Cabot, 2005). Today ethics as part of a professional education is recognized as

essential. Some critics suggest that university students are too old to be taught ethics (Bebeau, 2002), yet Skoe and von der Lippe (2002) offer the following explanation as to why moral development continues though college:

As people grow older, they likely go through various experiences that initiate thinking and re-evaluation of life, self, and relationship. For example, in the beginning of young adulthood people usually encounter life issues with which they have to deal as independent adults without direct parental mediation or support. This is generally the period in which home leaving is achieved, serious career decisions must be confronted, and long-term relationships may be established for the first time...[these] crises both reveal and create character. (p. 487)

Age and moral development are positively correlated, but no significant change in ethics has been found *after* the college years (Rest et al., 1999c; Rogers, 2002). It is college education that greatly effects moral development (Cabot, 2005). While in college, students may be confronted with knowledge that challenges current thinking and forces students to correct contradictions by developing new views that often result in a moral adjustment (Skoe & von der Lippe, 2002). Challenges allow students to rely on postconventional moral schemas to reason through situations. The present study is an example of students participating in service-learning that acquired new views resulting in an increase in moral judgment, especially the acquisition of a more sophisticated thinking and rejection of simplistic thinking, while the control group of students only increased to the stage of understanding the necessity of laws and a sense of duty.

Assessing Moral Development in College Years with the DIT

College is a time of extreme change for students and mission statements of universities frequently include ethical undertones (Rogers, 2002). The DIT and DIT2 are often used to

measure the development of morality in college students and have contributed much to the understanding of students' moral growth (Bebeau, 2002; King & Mayhew, 2002, Rogers, 2002). "Moral judgment is a critical element of professional ethical development, and tests such as the DIT have a place in assessing lifespan moral judgment development" (Bebeau, 2002, p. 284). The positive social modification of students' ethics by the intervention of service-learning as shown by the significant rise in the N2 index indicating an increase from simplistic thinking to sophisticated thinking illustrates the ethical impact of service-learning engagement as suggested in the present study. One explanation for this significant increase in postconventional thinking could be the mentoring of the SL students by the non-profit directors.

Not-for-Profit Organizations vs. Business Leaders

In the present study, the not-for-profit community partners were found to be significantly more ethically developed than any of the other groups that were examined. Employees in the non-profit sector form a shared culture of values, norms and beliefs, which identifies what is morally acceptable in the organization (Agarwal & Malloy, 1999). Non-profits act as vehicles from which employees can promote personal ethics and societal ideals and not-for-profit workers report great job satisfaction, tending to feel as if their work contributes to the organizational mission and are trustworthy (Brower & Shrader, 2000; Mirvis & Hackett, 1983).

There are obvious monetary differences between the nonprofits and the for-profits. Although more professionals with higher education degrees work for non-profits, managers in for-profit and governmental organizations make more money than those individuals with high prestige jobs in not-for-profits. Employees of the not-for-profit sector believe their wages are fair although they are making less money than for profit workers (Roomkin & Weisbord, 1999). More women than men work in non-profits and are more likely to have significant others who

are working, which may be the primary reason why female workers are able to stay in the low paying non-profit sector. Non-profit employees believe that monetary reward is less essential than the benefit of enjoying a fulfilling job (Mirvis & Hackett, 1983). For some non-profit employees, sound financial compensation implies ethical hazards (Roomkin & Weisbord, 1999); consequently they are able to avoid the potential negative side effects of sizeable salaries entirely and like the appeal of selfless work. Nonprofit directors appear to focus on the betterment of society rather than the profit motive of the for-profit business leaders. This selfless attitude is linked to postconventional thinking that concentrates on problem solving strategies to handle ethical issues and awareness of moral problems that can influence the reasoning and judgment process with the opportunity to become an advocate of change. Perhaps adults self-select their careers based on their moral values; this concept would provide one reason for the difference in this study for the medium moral ethical standards of the business leaders when compared to the high ethical standards of the non-profit directors.

Conclusion

Determining why service-learning potentially leads to an increase in moral development requires more research. One initial theory would be that the mentoring of the student by the highly moral non-profit director provides the student with a real world role model to emulate. Also, the student discovers a world beyond him/herself and considers the rights of others less fortunate than him or her, moving away from a culture of narcissism and toward postconventional thinking (Cabot, 2005). This factor that drives students to look beyond themselves and care for others could be the same dynamic that contributes to the nonprofit directors having higher moral development represented by the ability to care about the rights and

problems of others and to unselfishly help the less fortunate. In addition, problem solving and a sense of community experienced by SL students play a role in their positive moral development.

The defining characteristic of postconventional thinking is that rights and duties are based on sharable ideals for organizing cooperation in society, and are open to debate and tests of logical consistencies, experience of the community, and coherence with accepted practice. (Rest et al., 1999a, p. 41)

In summary, the present research contributes scholarship pertaining to the positive ethical development of service-learning students to the corpus of knowledge in the service-learning and community engagement field. Lawrence Kohlberg's Six-Stage Model is a component of the cognitive developmental perspective, a well-articulated conceptual framework in service-learning research (Giles & Eyler, 1994) and led to the formation of the DIT moral judgment test (Rest, 1979b) that was revised to the DIT2. Both the DIT and DIT2 have been used to measure ethical development in the college years. According to the present study, students who took part in service-learning as in intervention in a college course during one semester increased their N2 index in the DIT2 scores, suggesting the positive impact of service-learning on their moral development, which may be related to working with highly moral employees of not-for-profit organizations. For this development to occur, students experience solving complex issues in multiple contexts in the community (Eyler & Giles, 1999) and as a result, have "an increased awareness of one's personal values" (Astin et al., 2000, p. iv). The ethical benefit for students derived from taking service-learning in their courses on campus is an educational advantage that can drive faculty to support and bring "service-learning from the margins to the mainstream" (Furco, 2002, p. 47). The integration of service-learning into the mainstream on campuses offers the probable advantage of building ethical citizen scholars.

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Appendix

Table1: Service-Learning (SL) Students' Schemas' ratings at Beginning and End of Semester (n = 56 matched pairs) compared to Control (C) Students' (n = 31 matched pairs) ratings

Schema	Mean at beginning	Mean at end	Mean difference	SD	<i>t</i>	Sig.
SL Personal interest	25.43	23.79	1.64	12.56	0.98	0.33
C Personal interest*	30.00	24.15	5.85	11.19	2.91	0.01
SL Maintaining norms	38.24	38.48	-0.24	15.93	-0.11	0.91
C Maintaining norms*	32.97	38.00	-5.03	12.72	-2.20	0.04
SL Post-conventional	30.73	30.90	-0.16	15.33	-0.08	0.94
C Post-conventional	31.48	32.68	-1.20	12.99	-0.51	0.61
SL N2* index	28.93	34.27	-5.35	18.49	- 2.16	0.03
C N2 index	29.46	31.65	-2.19	12.01	-1.01	0.32
SL Total	30.83	31.86	-1.03	5.60	-1.36	0.18
C Total	30.98	31.62	-0.64	3.67	-0.97	0.34

Note: * Means for pre and posttest results differ significantly, $p < 0.05$.

Table 2

Means and Standard Deviations of Service-Learning Students' (SL) Schemas Ratings at End of Semester (n = 56 matched pairs), Business Leaders' (BL) Ratings (n = 38) and Community Partners' (CP) Ratings (n = 39) in Paired Samples

Schema	Mean	SD	Schema	Mean	SD
<i>Pair 1</i>			<i>Pair 7*</i>		
SL Personal interest	23.61	12.07	SL Postconventional	33.28	15.90
CP Personal interest	20.18	11.29	CP Postconventional	41.18	14.41
<i>Pair 2</i>			<i>Pair 8*</i>		
BL Personal interest	17.19	10.72	BL Postconventional	32.88	14.87
CP Personal interest	20.12	11.39	CP Postconventional	41.38	14.77
<i>Pair 3*</i>			<i>Pair 9</i>		
SL Personal interest	23.42	12.37	SL Postconventional	34.47	15.42
BL Personal interest	17.19	10.72	BL Postconventional	32.88	14.87
<i>Pair 4</i>			<i>Pair 10</i>		
SL Maintain norms	37.04	13.63	SL N2 index	36.99	17.38
CP Maintain norms	35.05	14.98	CP N2 index	38.28	14.78
<i>Pair 5*</i>			<i>Pair 11</i>		
BL Maintain norms	43.96	14.57	BL N2 index	34.95	13.63
CP Maintain norms	35.14	15.38	CP N2 index	38.75	14.88
<i>Pair 6*</i>			<i>Pair 12</i>		
SL Maintain norms	36.51	13.33	SL N2 index	37.89	17.39
BL Maintain norms	43.96	14.57	BL N2 index	34.95	13.63

Note: * The Means for two groups differ significantly, $p < 0.05$.

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