A RESEARCH STUDY IN ETHICS EDUCATION AND TRAINING: PREDICTING ETHICAL BEHAVIOR

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ABSTRACT

An expanded application of project-based learning as a training delivery method, can be explored when specific project based service-learning is used as an intervention for an effective ethics educational experience that predicts future ethical behavior. This study presents a research project that included a pre and posttest of more than 500 students involved in service-learning experiences at 21 universities. The study examines a structured community service-learning activity as a factor that impacts perceived behavior control represented as ethical decision making abilities (ED-MA). As explained by the Theory of Planned Behavior, perceived behavioral control represents the direct antecedent and predictor of the intent to behave. This research project, by examining this antecedent relationship, increases efforts to understand and enable predictions for the intention toward ethical behavior.

The study has implications for the understanding and application of best-practice models in ethics education, ethics training and service-learning when using Azjen's theory of planned behavior to explain the intent to behave ethically. The findings report that those students whose perceived behavioral control, as ED-MA, is more developed have a stronger intent to make ethical decisions, the antecedent to the intent to behave ethically.

Key words: Ethical decision making, Theory of Planned Behavior, ethics education, ethics training, service learning

INTRODUCTION

The connection between business curriculums in higher education and ethics education has been solidified by accrediting agencies for business education. The AACSB in the US, AACSB International and EQUIS Europe, and AACSB International in Asia all serve to encourage and support the integration of business ethics training into the business curriculum. Those institutions that are not accredited by these agencies can use the accreditation standards as guidelines as they independently recognize the significance of developing future business leaders who have a working knowledge of important standards of conduct in the workplace that they aspire to influence. While the commitment to maintain this connection between business programs' efforts in addressing business ethics is evident there exists an uncertain future in two important dimensions relative to ethics education. The first dimension is timing and the second is impact. In general, ethics education in higher education is similar to the work environment's reactive response to ethical dilemmas. There is lag time between evidence of ethical hot spots (i.e. financial misconduct and accounting, software piracy and Information Technology, privacy issues and database management in Information Systems) and the responses to those ethical situations. Adjustments to codes of conduct, adding whistle blower laws, developing stronger

ethical advocate systems, and adding new cases to ethics training all come after these ethical situations have come to fruition. Although they might be successful in addressing ethical infractions in those areas they are largely ineffective in addressing ethical dilemmas not yet known. Business programs and other professional programs in higher education (education, health care, dentistry, engineering, information systems, etc.) also respond with this time lag by adjusting courses to include some reference (discussion, text vignette, case study, etc.) that addresses these "new" ethical hot spots. These lagged responses are not without merit as preparing others for similar ethical dilemmas can be an important aspect of any ethics education effort. However, providing ethics education that addresses the uncertainty of what specific ethical situations will occur while developing a decision making schema that can be used regardless of the familiarity of the situation should be an objective for all ethics education initiatives.

The second dimension that presents difficult challenges and increases the uncertainty of the future in ethics education is relative to impact. Questions of the level of positive impact ethics education has on preparing students in ethical decision making are not certain (Barrow, 2006). The connection between developed ethical decision making skills and schemas used for future decisions as a result of ethics education is also equivocal. In addition, the delivery methods of ethics education interventions are uncertain as to which method is most effective at developing ethical decision making (Ritter, 2006). Finally, the impact that developed ethical decision making has on future ethical (or unethical) behavior is most uncertain. The dynamic environment in which all organizations exist makes it difficult to know which functional area of organizations will be the next ethical hotspot (accounting, marketing, operations, product development, etc.). This changing and uncertain environment presents challenges in determining which industry sector will have the most pressing ethical dilemmas as well (health care, pharmaceutical, manufacturing, multinational, not-for-profit, higher education, banking/finance, insurance, real estate, etc.). The uncertainty is not whether there will be an industry with ethical issues or an area of organizations with more pressing ethical dilemmas but rather when will the dilemma be recognized and how will it be dealt with effectively. The extension of this uncertainty to higher education is heightened as curriculums struggle to positively influence ethical decision making in students while not being able to predict what types of ethical issues they will be exposed to when they enter organizations after their college experiences. The ongoing challenge for business programs in higher education and training programs in the workplace will be to find more effective delivery methods for meeting ethical development objectives in the dynamic environment of business.

Shaping this uncertain future, as it relates to ethics education and subsequent ethical behavior in the workplace, could be addressed if newer interventions were tested and used in ethics education. Desired interventions include those that concentrate on preparing students for a broader application of ethical standards, standards that apply regardless of the field or as an unidentified future ethical dilemma. While some researchers and practitioners have continued to examine the use of more traditional deliveries for ethics education and training, the testing of project-based approaches is a growing area of interest. This study examines the potential impact of a specific project based delivery of ethics training on ethical decision making and the intent to behave ethically.

REVIEW OF LITERATURE

A project-based delivery of ethics education has a growing number of advocates. Hartog and Frame conducted research based on two tested strengths of project-based learning and ethics education; learning can be enhanced when it is relevant and meaningful to the learner and when students direct their own learning (autonomy). Their study on a project integrated approach to teaching business ethics reported findings that suggest the approach is more likely to become integral in the future ethical awareness, attitudes, and emotions by increasing the level that students will take account of others' interests as well as their own when students enter the workplace (Hartog & Frame, 2004). Izzo, Langford, and Vitell, 2006 study on interactive ethics education reported significant differences in ethical reasoning after completing interactive training.

Service-learning, as a project based approach to ethics education and training, also has advocates suggesting the positive impact service-learning has on ethical decision-making. A 2000 study examined the impact that service-learning has on ethical decision-making factors. The study reported statistical improvement in college students' concern for social issues after participating in a service-learning experience and enrollment in an ethics course. The study also reported that students who participated in service-learning in addition to completing an ethics class were more profoundly impacted in social concerns (Weber & Glyptis, 2000). Other studies specifically connect the relationship between service-learning and Rest's construct for ethical decision making. A recent study found a statistically significant impact that service-learning had on ethical decision making when using Rest's construct. The study examined the influence that individual factors (service attitudes, career aspirations) and organizational factors (institutional commitment to service, service project types) as facilitated by service-learning experiences had on ethical decision making (Hoyt, 2008).

The connections between project-based service-learning experiences, ethics training, and ethical decision making potential can also be explained as to the extent to which service-learning experiences increase the ethical intensity of situations where ethics is being considered. The most complete explanation of this relationship is Jones's model of moral-intensity that incorporates individual and environmental factors that influence ethical decision making. The Jones model uses Rest's four-component model as a construct and posits that the moral intensity of a situation has an impact on an individual's ethical decision-making intentions as expressed by ethical sensitivity, ethical reasoning, ethical motivation, and ethical implementation. Jones identified six characteristics of the environment or context of an ethical situation that impact the intensity for individuals making ethical decisions. The six characteristics include: 1) magnitude of consequences, where the sum of benefits for beneficiaries is considered relative to the ethical act in question. 2) probability of effect, where an individual considers the probability that an action will actually take place and cause a benefit. 3) temporal immediacy, where an individual considers the length of time before an ethical action can be taken. 4) concentration of effect, where an individual considers the number of people impacted by an ethical action. 5) proximity, where an individual experiences the closeness (physical, psychological, & cultural) that an ethical action presents for beneficiaries. 6) social consensus, where an individual assesses the degree of social agreement that a proposed ethical action is good. Service-learning experiences, where learning takes place when engaged in community service, presents opportunities for

increased intensity when students consider ethical actions with an orientation toward others (Jones, 1991).

This study, in examining service-learning's impact on the intent to behave ethically, posits that service-learning experiences might intensify the ethical decision making environment as Jones defined intensity factors. Kelly and Elm's 2003 study reported that context is critical in affecting the ethical intensity of ethical issues. Subjects participating in the Kelly and Elm's study were positioned in community service work similar to subjects experiencing service-learning projects. Other research studies have supported the Jones's dimensional perspective of intensity and ethical decision-making construct. These studies examine factors that influence ethical decision making as aligned with Jones's 6 dimensions of intensity. One study reported environmental factors such as codes of ethics and organizational commitment to ethical decision making (Jones's Social Consensus) and size of organization (proximity) were associated with ethical decision making intentions (Paolillo & Vitell, 2002). Other studies linking situational intensity with ethical decision-making focused on; Social Consensus (Nill & Schibrowsky, 2005); Probability of Effect (Perri et al, 2009); and Magnitude of Consequence (Lincoln & Holmes, 2010). Meta-analysis studies support the relationship between Jones's intensity model with ethical decision making intentions (Miner & Petocz, 2003; Loe, et.al, 2000).

The following figure (fig.1) aligns the Jones model with research findings on the attributes of service-learning outcomes.

Figure 1
Ethical Intensity and Service-Learning Outcomes

Jones Intensity Model dimension	**Service-Learning outcome**	**Research citation**
Magnitude of consequence	Impact on organization's social responsibilities	(Sims, 2002)
Social consensus	Awareness of ethical issues	(Hartog & Frame, 2004; Nelson & Eckstein, 2008)
Probability of effect	Evaluation of alternatives, outcomes, and consequences	(LeClair & Ferrell, 2000)
Temporal immediacy	Stronger support for ethical development than lectures or seminars	(Colby, et.al in Strain, 2005)
Proximity	Benefits extend organizations that receive assistance and to society as a whole	(Toncar, et. al 2006, Ross 2011)
Concentration of effect	Applying business social responsibility theory through social action	(Weber & Sleeper, 2003)

Adapted to include service-learning applications per Jones 1991 intensity dimensions model

Einar Marnburg (2003) reported in his review of ethics-education studies one aspect that distinguishes courses that attempt to affect students' abilities to deal with ethical issues as value based (including attitudes and awareness) from those courses that focus on reasoning abilities (ethical decision making) to impact students' abilities to deal with ethical issues.

The theoretical framework for connecting external events such as community service-learning to antecedents of behavioral intent (attitudes, subjective norms, and perceived behavioral control), intent to make ethical decisions, and ultimately the predicting of ethical behavior is based on the Theory of Planned Behavior (TPB) (Ajzen, 1987). The TPB is a theoretical construct derived from the earlier theory of Reasoned Action (Ajzen & Fishbein, 1975, 1980). Reasoned action poses that intentions to behavior can be predicted from measuring attitudes toward the target behavior and subjective norms related to the target behavior. Central to this theory is that a person's intentions to behave are assumed to include motivational aspects that influence behavior and indicate how much effort individuals are willing to exert.

The first independent determinant, attitude, refers to the degree to which a person has a favorable or unfavorable evaluation of the target behavior. The second determinant, subjective norm refers to the perceived social pressure to perform or not perform the target behavior. The Theory of Planned Behavior extends the theory of reasoned action by adding a third independent determinant of intent to behave, perceived behavioral control, a factor referring to the perceived ease or difficulty of performing a behavior. This third determinant also assumes that past experiences, anticipated impediments and obstacles are considered when assessing control. Implied in this factor is the general acceptance that the more favorable the attitude and subjective norm relative to the target behavior and the greater the perceived behavioral control the stronger should be an individual's intention to perform the behavior under consideration will be (Ajzen, 1987). Ajzen's work further explains the theory of planned behavior with a focus on intention. Intention is viewed as one immediate antecedent of actual behavior. The stronger an individual's intentions to achieve a behavior target the more successful they are predicted to be. Ajzen offered two rationales for the hypothesis that perceived behavioral control together with intention (as influenced by attitude and subjective norms) can directly predict behavior. The first rationale is that while holding intent constant the effort expended to reach a target behavior will increase with perceived behavioral control. The higher level confidence (perceived control) that an individual has will strengthen their perseverance to achieve the target behavior as compared with an individual who doubts their ability to reach a goal. This rationale also assumes that intentions can be separately influenced by attitudes and subjective norms thus allowing for individuals with different perceived control able to have equally strong intentions to act. The second rationale addresses the direct link between perceived behavioral control and actual behavior by positing that perceived behavior control can be used as a substitute for a measure of actual control. The extent to which perceived control is realistic determines the extent it can be used to predict the probability of reaching a behavior target. To predict behavior may sometimes be sufficient to consider intentions (attitude and subjective norm) alone while other situations may require both intentions and behavioral control (Ajzen, 1987).

The application of this theoretical framework for this study targets the possible impact that an external factor (community service-learning) has on the antecedent of intent to make an ethical decision. The factors that impact ethical decision making are the attitudes toward ethical decisions, subjective norms of making ethical decisions, and the abilities to make ethical

decisions as perceived behavioral control. The usefulness of this model for this study is based on its ability to use quantitative measures on both the antecedents of intent to decide ethically and the intent to make ethical decisions. Most quantitative studies predicting ethical behavior where ethical values or scenario analysis is conducted are actually measuring intentions rather than actual behavior (Roozen, De Pelsmacker, & Bostyn, 2001). The strength of the Ajzen model, however, is that the studies suggest that intentions are good predictors of behavior in high involvement situations such as ethical dilemmas (Ajzen & Fishbein, 1977, 1980; Ajzen 2005, Ajzen, Brown, & Carvajal 2004; Teo & Lee, 2010; O'Leary & Pangemanan, 2007).

Early investigation for linking ethical decision making and the Theory of Planned Behavior includes a meta -analysis study by Rest and Thoma examining the relationship between moral judgment development and action. Their findings indicate the relationship between moral judgment and action intensifies as utilization increases. Their discussion emphasizes that the potential contributors to the judgment and action relationship should be assessed across situational domains (Thoma & Rest, 1991). This suggests that the more direct and fundamental a variable is in influencing ethical decision making the more consistent the results should be across groups and actions (intent to decide/behave). A 2001 meta-analysis of 185 independent Theory of Planned Behavior studies identified perceived behavioral control as contributing significantly to the variance in intention and behavior. Among the important conclusions of this analysis are the review's findings corroborating previous meta- analysis on: 1) the strength of predicting behavior from self-reported behavior, 2) independently predicted intentions and behavior occur in a wide number of domains, 3) measures of intention and self prediction possess discriminate validity, and 4) work on normative variables such as moral norms may increase the predictive power of the normative component of the model (Armitage & Conner, 2001).

Specific studies examining the Theory of Planned Behavior to predict ethical intentions include discipline based studies primarily in accounting and marketing and studies that focus on individual or organizational factors. Roozen, et al. (2001) investigated the influence of both organizational (objectives and commitment) and individual factors (personal values and socio-demographic characteristics) with individual factors demonstrating the strongest influence on behavioral intentions. Singhapakdi et al. (1999, 2000) also examined individual (ethical perceptions and personal moral philosophies) and organizational (corporate ethical values) influences on behavioral intentions with both dimensions indicating significant predictors of ethical intention. Additional studies examining organizational or individual influences on ethical behavior using the Theory of Planned Behavior to predict the intent to behave ethically at work include whistle blowing (Park & Blenkinsopp, 2009), IT behavior (Leonard, Cronan, & Kreie, 2004), and work time theft (Henle, Reeve, & Pitts, 2010). Cohen, Pant, and Sharp (2001) conducted a study investigating the ethical intentions of accountants when controlling for ethical awareness and orientation (level of education).

Buchan's 2005 study examined ethical behavioral intentions of accountants' individual attitudes toward ethical issues and organizational climate with individual attitudes (ethical sensitivity) a strong predictor of ethical behavior intentions. Chang's 1998 study compared the Theory of Reasoned Action and the Theory of Planned Behavior in predicting ethical intentions reported findings that the Theory of Planned Behavior was a stronger predictor of ethical behavioral intentions. The study also reported that perceived behavioral control was a better predictor of behavioral intention than attitude. Additional studies report individual influences on

ethical decision making and a strong predictor of ethically behavioral intentions (Barnett & Vaicys 2000; Carpenter & Reimers, 2005). Marketing studies that use the Theory of Planned Behavior to measure consumers' intent to behave ethically include research on pirating software behavior (Wang et al, 2009; Liao et al, 2010; Cronan & Al-Rafee, 2008; Fukukawa, 2002).

Service-learning experiences have been presented as a viable ethics training delivery that develops abilities to behave ethically. A 2006 study reported several benefits to students engaged in service-learning that reflect abilities individuals develop that contribute to future ethical behavior. The findings suggest that students develop practical skills, team building skills, increase satisfaction of giving back to community, and discover personal strengths and weaknesses. The study also reports that benefits are extended to the recipient organizations of service and to society as a whole (Toncar, et. al, 2006). Weber and Sleeper's 2003 study presented 2 approaches that could be used to deliver service-learning experiences that will develop individual abilities and confidence toward the target behavior serving others and intention toward community service involvement. They reported that providing a structured service learning experience can develop awareness and empathy for the needs of society, abilities related to responding to needs of others, social action, ethical decision-making, and facilitate students' connections between course content and real world applications. A 2002 study examines the impact of experiential learning when formal debriefing is used as an analysis providing insight when teaching business ethics. The account reviews the strengths of experiential learning including service-learning over other learning pedagogy when developing the potential for personal and emotional impact.

Experiential learning that emphasizes high participation and active learning and include prepared debriefing will engage students in analyzing ethical issues and identifying creative solutions (Sims, 2002). Strain's analysis of service-learning and ethical development used Rest's four component model to describe the process where students develop ethical skills. The skill set based on Rest's model is presented as being strengthened through service-learning experiences. The developed ethical decision making skill as influenced by a service-learning experiences contributes to students' confidence in their abilities to carry out ethical behaviors, perceived control over ethical behavior, and the perceived ease of performing an ethical action (Strain, 2005). This study, as described in the following sections, regards perceived behavioral control as a set of ethical abilities that contributes to an individual's intention to act ethically as influenced by the intensity of service-learning activities. Model 1 presents a view of this study's use of service-learning, Jones' intensity factors, Rest's ethical decision making as perceived behavioral control, and Ajzen's theory of planned behavior constructs.

OBJECTIVES AND HYPOTHESES OF THIS STUDY

This project used data from a quantitative design study to examine the impact perceived behavioral control, when facilitated by a service-learning experience, has on the dependent variable intent to behave ethically. The independent variable perceived behavioral control and the dependent variable intent to behave ethically are framed in Ajzen's theory of planned behavior. Findings may lead to a better understanding of the relationship between service-learning and ethical development within ethics education as well as the relationship between ethical decision making and the intent to behave ethically. The findings may also lead to the

development of more effective ethics-training interventions that then can be explored directly in workplace settings. The analysis tested the following hypotheses:

H1 – Service-learning experiences will increase the intensity dimensions for ethical decision making.
H2 – A higher intensity factor will have stronger perceived behavioral control toward the target behavior of intention to act ethically.
H3 – More developed perceived behavioral control will positively impact the intent to behave ethically.

METHODOLOGY

Sample and Data Collection

Data was used from a pre- and post-survey design that was implemented using two surveys. One survey addressed values and behavior and the second survey addressed service-learning experiences of respondents. Surveys were disseminated in undergraduate classes that included a service-learning component. The sample includes data from a control group that did not incorporate service-learning activities.

Colleges and Universities were targeted based on their integration of service-learning within curriculum as documented by institutional communications (i.e. website) and membership in service-learning consortiums (i.e. national or state Campus Compact). The 21 organizational participants included both faith-based and non faith-based institutions. Faith-based institutions identified themselves as faith-based school through its mission statement, stated denominational covenants, and faith commitment contracts by faculty and/or students.

The respondent data sample included over 500 usable cases. The data samples were undergraduate students from various majors and represented all 4 class status levels (freshmen through senior). Respondents reported a range of service-learning requirements in their course experience including; whether the service-learning course was a required course, the types of service-learning projects, service-learning course work as a % of total work required, total time spent in service-learning activities, and the level of service learning integration as orientation and reflections (Hoyt, 2008).

Survey Measures

This analysis used Braithwaite and Law's Goal and Mode values inventory as the measure of perceived behavioral control. The survey measures three domains: personal goals as guiding principles in their lives, modes of conduct as ways of behaving, and social goals as standards to make judgments to guide action. The goal and mode values inventory as adjusted has 78 items with a 7-point asymmetrical response format. The scale is affixed by "I reject this" and "I accept this as of the greatest importance" (Braithwaite & Law, 1985).

Perceived behavioral control was measured with adjustments to the Braithwaite and Law Goal and Mode of Behavior survey. General support for using this survey for examining relationships between service-learning and ethical development was reported in Bringle, Phillips,

and Hudson's 2003 review of research scales. The inventory, as adjusted, measures the Ethical Decision-Making Abilities as outlined in the set of subscales based on Rest's four-component moral-conduct construct (Narvaez & Rest, 1995). The set of abilities were used with this data set when examining Rest's decision-making abilities as a standard for ethical development and perceived behavioral control when considering the measure for intentions to behave ethically. The Rest 4 component construct is used as the measure of perceived behavioral control based on a number of studies using abilities, capabilities, and confidence to distinguish perceived behavioral control (Azjen2002, Armitage, & Conner, 2001). The Chronbach alpha test for reliability on Rest's model included ethical sensitivity (28 items with Cronbach alpha = .92), moral motivation (19 items = .88), moral reasoning and identity (21 items = .86), and 8 items = .74 for ethical implementation (Hoyt, 2008). The adjusted Goal and Mode of Behavior survey also was used for the intent to behave ethically measure. The construct included 14 items with a reliability index of .80.

The service-learning course inventory was constructed to measure students service-learning engagement experiences. The inventory uses a five-point Likert-style agreement scale with Strongly Agree and Strongly Disagree as the anchors. The service-learning inventory asks respondents to provide information on 12 demographic categories such as age, major, and gender as well as items about their service-learning experience including service project, time and load allocation, and volunteer experience (Hoyt, 2008). Researchers using similar subscales measuring students service-learning experiences reported Cronbach alpha reliability ranges from .64 to .72 (Shiarella, McCarthy, & Tucker, 2000).

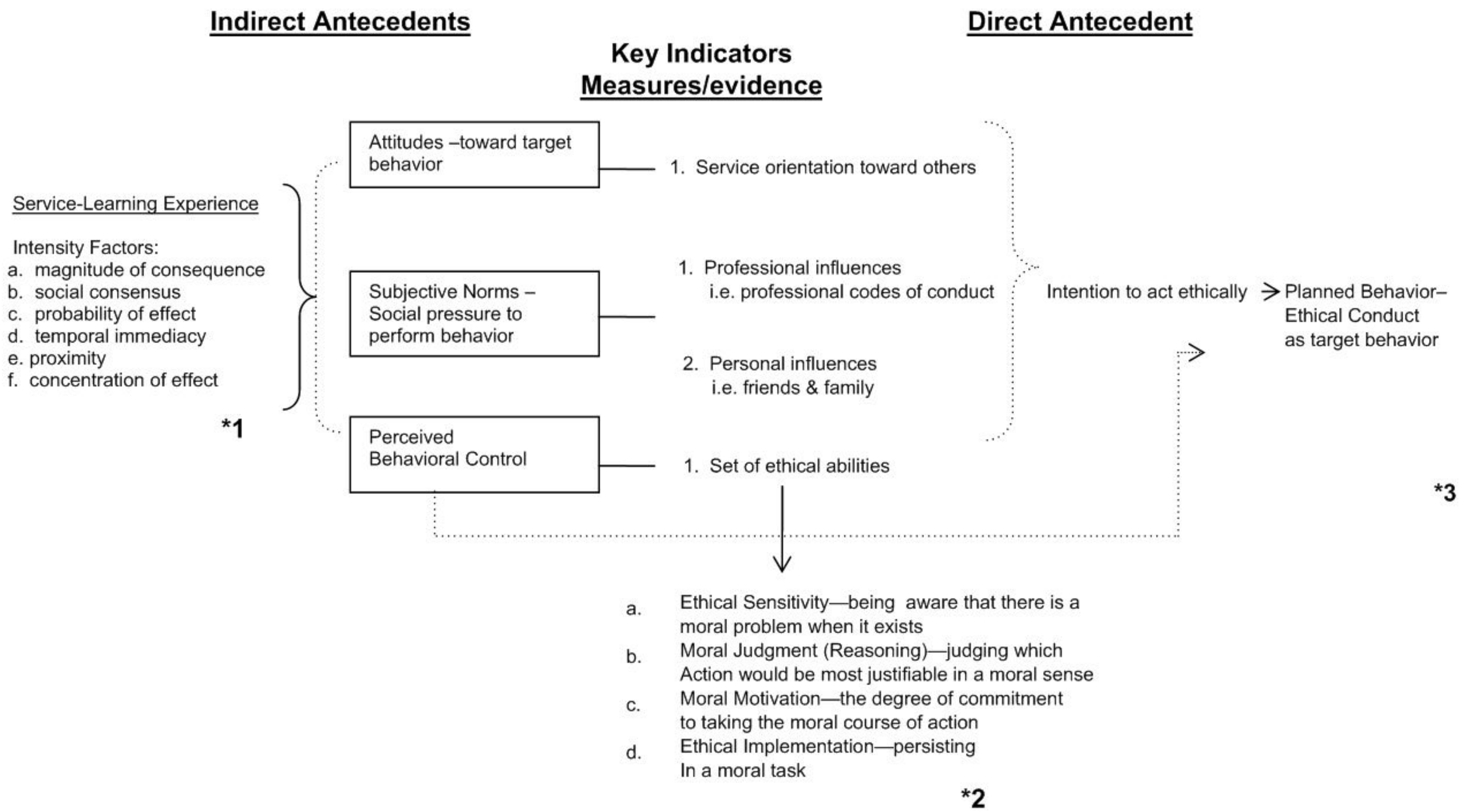
The intensity construct used items representing Jones (1991) multi-dimensional characteristics influencing ethical decision making and intention to act. The service-learning survey used between three and five items to represent each of the six dimensions.

RESULTS

The findings suggest that service-learning does have a positive impact on the dimensions of intensity (H1) as Jones explains factors that then contribute to the intent to behave ethically. The paired t-test results in table 1 display a statistical difference in intensity dimensions after a service-learning experience in 4 of the 6 individual dimensions. The total post intensity and 4 of 6 individual intensity dimensions had higher mean scores after service-learning experiences with 2 of the 4 statistically significant including social consensus ($p \leq .001$) and temporal immediacy ($p \leq .05$).

Model 1

PREDICTING ETHICAL BEHAVIOR: SERVICE LEARNING & PLANNED ETHICAL BEHAVIOR



***1** (Jones, 1991) ***2** (Rest, 1995) ***3** (Ajzen, 1991, 2000, 2005) ***4** Ajzen's Model of Planned Behaviors adjusted to include Jones & Rest constructs (Hoyt)

Table 1
Paired T-Test to Determine Mean Differences Comparing Pre/Post Intensity Scores

Paired T-test pre s-l vs. post s-l in intensity dimensions	Mean difference	Standard deviation	t	df	Sig.(2-tailed)
Total post intensity-total pre intensity	.37800	9.33882	.905	499	.366
Post Magnitude of consequences (MC) – Pre MC	.07393	2.73850	.612	513	.541
Post Social consensus (SC) – Pre SC	.51961	1.77258	6.620	509	.000***
Post Probability of effect (PE) – Pre PE	.08415	2.52260	.754	510	.451
Post Temporal immediacy (TI) – Pre TI	.24314	2.59887	2.113	509	.035*
Post Proximity (P) – Pre P	-.25245	2.70600	-2.109	510	.035*
Post Concentration of effect (CE) – Pre CE	-.28655	1.68569	-3.850	512	.000***

*Note: *p≤.05, **p≤.01, ***p≤.001.*

Table 2 presents the independent T-test that was calculated to determine if there were statistical differences in mean scores for the intensity dimensions between students who experienced service-learning and those that did not experience service-learning. The findings report that the aggregate intensity dimension and all 6 individual intensity dimensions had greater mean scores for those participating in service-learning. The total aggregate and 5 out of 6 individual intensity dimensions had greater means that were also statistically significant for those students participating in service-learning including total aggregate intensity (p≤.001), social consensus (p≤.01), probability of effect (p≤.001), temporal immediacy (p≤.05), proximity (p≤.001), and concentration of effect (p≤.05).

Table 3 presents the analysis that examines the impact that intensity has on perceived behavioral control (H2). An independent T-test was calculated to determine if there were mean score differences in perceived behavioral control between students with higher than average scores in the intensity dimensions and those students below average. The findings report that higher intensity measures have a stronger impact on perceived behavioral control. In the aggregate measure of intensity dimensions all components in the perceived behavioral control construct had statistically significant greater mean differences for students with greater than average intensity dimensions as compared to students with less than average intensity dimensions. In addition, an Independent T-test reported greater mean scores in PBC for those

students with higher intensity dimensions in 24 out of 24 of the individual intensity measures with 15 out of 24 statistically significant.

The findings on the intent to act ethically measures (H3) reported that the impact service-learning has on perceived behavioral control (PBC) and then the intent to act indicated mean differences and reported statistical significance. The intent to act construct was measured with 14 items from the service-learning survey reporting a .80 Cronbach alpha. Items representing the intent to act ethically construct express statements that address a broad ethics domain where ethics are duties or obligations of an individual to uphold a standard of right or wrong with an orientation toward others. Table 4 presents a paired T-test, calculated to display the statistical differences in the Intent to Decide Ethically after a service-learning experience as compared to pre service intent to act scores. The intent to act ethically reported a positive post paired difference mean of .55 (SD =6.5) and was statistically significant at t=1.9 (542), $p \leq .05$. Table 5 presents 2 independent T-tests calculated to display the statistical differences between groups in the intent to act ethically measures. The first analysis reported the difference between students who had above average perceived behavioral control as compared to those with below average PBC scores in the intent to act ethically. Students who scored above average in PBC reported a higher mean in intent to act ethically and was statistically significant at t= 4(364), $p \leq .001$. The second analysis reported the difference between students who experienced service-learning and those who did not in intent to act ethically. Students who experienced service-learning reported higher scores in the intent to act ethically but the difference was not statistically significant.

Table 2
Independent T-test Analysis to Determine Mean Differences in Intensity Dimensions When Comparing Students Who Participated in Service-Learning to Those Who Did Not

mean differences in intensity between s-l and non s-l	Mean difference description	t	df	Sig. (2-tailed)	Mean difference	Std. error difference
Aggregate total for dimensions	Greater mean for service-learning	-3.722	537	.000***	-7.29204	1.95930
Magnitude of consequences	Greater mean for service-learning	-1.363	547	.173	-.67886	.49800
Social consensus	Greater mean for service-learning	-2.661	544	.008**	-.83062	.31209
Probability of effect	Greater mean for service-learning	-3.779	544	.000***	-1.71680	.45425
Temporal immediacy	Greater mean for service-learning	-2.173	546	.030*	-1.02398	.47118
Proximity	Greater mean for service-learning	-3.899	544	.000***	-2.16841	.55608
Concentration of effect	Greater mean for service-learning	-2.404	546	.017*	-.78125	.32498

Note: *$p \leq .05$, **$p \leq .01$, ***$p \leq .001$.

Table 3
Independent T-test Measuring Differences in Perceived Behavioral Control between Students With Above Average Intensity Scores As Compared to Below Average Intensity

Intensity impact on perceived behavioral control	**Mean difference description**	**t**	**df**	**Sig. (2-tailed)**	**Mean difference**	Std. error difference
Perceived behavioral control (PBC) – Ethical sensitivity	> mean difference with above average intensity	3.317	340	.001***	5.25178	1.58340
PBC – Moral Reasoning	> mean difference with above average intensity	3.562	336	.000***	4.59567	1.29035
PBC- Moral Motivation	> mean difference with above average intensity	3.598	338	.000***	3.98840	1.10842
PBC – Ethical Implementation	> mean difference with above average intensity	3.300	341	.001***	1.81825	.55098

Note: *p≤.05, **p≤.01, ***p≤.001

Table 4
Paired T-Test Intent to Act Ethically Pre vs. Intent to Act Ethically Post Service Experience

Intent to act ethically pre vs. post service	**Mean**	**Std. deviation**	**t**	**df**	**Sig. (2-tailed)**
Pre sum – post sum	-.55249	6.54	-1.967	542	.05*

Note. *p≤.05 **p≤.01 ***p≤.001

Table 5
Independent T Tests to Determine Differences between Two Groups in Intent to Act Ethically

differences between groups in the intent to act ethically	Higher mean difference	T	Df	Sig. 2-tailed)	Mean difference	Std. error difference
Differences between the intent to act ethically	Higher mean difference for students with > avg. perceived behavioral control	4.074	364	.000***	2.96884	.72869
Differences between the intent to act ethically	Higher mean difference for students with service-learning experience	-1.412	541	.158	-1.68291	1.19165

Note. *p≤.05 **p≤.01 ***p≤.001

DISCUSSION

Overall, findings of the study revealed a positive impact on students' Perceived Behavioral Control (PBC) when involved in service-learning activities that have high intensity factors. Also, when PBC is higher the intent to act ethically is impacted positively. While the analysis suggests statistical connections between intensity factors and perceived behavioral control and PBC and the intent to behave ethically there were some individual intensity factors that were not statistically significant. These results may suggest that the effects of service-learning on students' intensity dimensions experiences are mixed and predictive power may be more limited than expected. The measures of pre and post analysis and comparison of service-learning and non service-learning when examining service-learning's affiliation with intensity was equivocal without all intensity dimensions statistically significant. The results are supported by other studies that have examined service-learning and the connection with intense experiences. Strain's 2005 review of service-learning and ethical development focuses on the differences between various pedagogy and practices used in ethics education. His report addressed the significance of the intensity element as part of service-learning experiences as a distinguishing characteristic as compared to other ethics education delivery methods. The assessment that service-learning experiences have "the power to evoke moral sensitivity and seriousness far better" than traditional methods used in classrooms supports this study's findings. Additional studies support this study's positive findings that service-learning has elements that increase the intensity of students' connection with ethical development (Colby, et. al 2003; Hoyt, 2008; Sims, 2002; Weber & Glyptis, 2000).

The findings supported the H2 prediction that a more intense service-learning experience would positively impact perceived behavioral control. Perceived behavioral control greater means were positively impacted by the intensity measures in total aggregate intensity and the six

individual intensity factors. This could be explained by the direct role that involvement plays in students' building confidence in ethical decision making abilities. An intense service experience that requires students' involvement in community activities is more likely to also require usage of ethical decision making abilities that could be attributed to the vibrant social learning context. Involvement in a community activity is posited as an enriched environment where students have more opportunities to practice and develop ethical decision making skills that reflect increased confidence in future decision making. The Loe, et al. meta analysis categorized several studies that examined ethical intention and the factors that contribute to intention. Several studies addressed situational moderators that impact the intention to behave ethically and generally support this study's findings (Liao, Lin, & Liu, 2010). Other studies that support the findings that increased intensity factors will impact an individual's ability to make ethical decisions include studies that use a case scenario approach to engage students (Paolillo & Vitell, 2002) and studies that use more interactive approaches such as project based deliveries (Izzo, et al., 2006).

The last prediction (H3) of this study, that perceived behavioral control as ethical decision making abilities, impacts the intent to behave ethically was reported to be positive. Students who reported higher confidence (scores on PBC measure) also had higher scores in the intent to behave ethically measure. The explanation for this component of the findings supports the large body of research suggesting the relationship between perceived behavioral control and the intent to behave. A 2001 meta analysis supports the strength of perceived behavioral control predicting intention and behavior. The study examined the strength of variance in intention and behavior by comparing attitudes, subjective norm, and behavioral control (Armitage & Conner, 2001). These findings may suggest that individuals can form intentions to behave ethically based on the level of confidence they have in their abilities to achieve the target behavior. The combination of findings then also suggest that service-learning experiences, when they increase the intensity of the experience, have an impact on individuals intention to behave ethically in the future.

IMPLICATIONS

The implications are numerous for service-learning as a delivery method for ethical development objectives, ethics education, and ethics training. When objectives for ethics education and ethics training are to develop skills that individuals can use in future situations to make ethical decisions and increase the likelihood that the individual will act ethically then service-learning is viable as delivery pedagogy. An additional implication is based on the potential of service learning to develop perceived behavioral control…the skill set for ethical decision making…that can be used to predict future ethical behavior when those future dilemmas are not yet known. Developing skills that are in place and can be flexible enough to be used when conflict between sets of obligations are presented rather than using rote responses based on past recollection of scenario based training outcomes. The specific implications of the findings are threefold…first, service-learning experiences can be more intense as related to ethical behavior intentions. Second, when service-learning experiences are more intense the impact is more predictable relative to the development of perceived behavioral control. Last, when perceived behavioral control that is influenced by service-learning experiences increases the intention to behave ethically also increases. These results suggest that efforts to develop ethical

decision making in ethics education should consider action-based delivery such as service-learning. Also suggested by the findings is that those activities should be directed toward service projects that increase the intensity of student engagement. The third implication, that an external intervention (service-learning) in ethics education could impact perceived behavioral control that strengthens an individual's ethical decision making schema and thus strengthening the intent to act ethically. This schema could be used by students to guide future ethical behavior as they transition into the workplace.

RECOMMENDATIONS FOR FUTURE RESEARCH

The findings of this study can provide suggestions for future research directed at the measuring of the important construct of ethical decision-making abilities and the intent to behave ethically. Although the reliability calculations for the intent to act ethically measures were strong the items as a measure require additional replicated studies. Not all studies reveal that perceived behavioral control is the most influential factor when evaluating the intention for ethical behavior. Carpenter and Reimers 2005 study of MBA students reported that Azjen's theory of planned behavior did predict the intention of ethical behaviors for accountants. While their study did not find statistical significance in the influence of perceived behavioral control they commented that their scenario based design might weaken PBC measures as compared to a project based design. Direct studies comparing project-based versus other ethics delivery pedagogy as to determine intentions for future ethical behavior as measured by the theory of planned behavior will advance the body of knowledge on ethics education.

LIMITATIONS

An additional research opportunity, based on a limitation of this study, is related to using a sample of students when generalizing to the workplace population. This is an important discussion when making predictions about future ethical behavior when measures of intention are taken with students and the predictions of future behavior will occur when those students are employees in the workplace. The literature is equivocal on the use of students as surrogates for other populations. However, important research by Locke (1986) concluded that both college students and employees respond similarly to goals, feedback, incentives, and participation. Another study examining accounting students as surrogates for accounting professionals when studying ethical issues concluded that students as surrogates was appropriate when the ethical issues used in the study were meaningful (not superficial). Business students who understand the magnitude of a presented ethical issue would consider the situation meaningful and respond with similar perspectives as practitioners (Bean & D'Aquila, 2003). Baack, Fogliasso, and Harris (2000) concluded that when students are more intimate (familiar) with an ethical issue it is a more meaningful as an ethical challenge and can be measured as intention that will impact ethical behavior. The continued research in this area will strengthen the predictive ability of the important research on ethical decision making and intentions to behave in the future for both ethical education and ethics training.

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