THE IMPACT OF TRANSFORMATIONAL ETHICS

INSTRUCTION METHODOLOGIES ON STUDENT MORAL

JUDGMENT IN A LEADERSHIP DEVELOPMENT COURSE AT A

LARGE PUBLIC UNIVERSITY IN TEXAS

A Dissertation

by

DAVID WARREN KELLER

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

DOCTOR OF PHILOSOPHY

August 2007

Major Subject: Agricultural Education

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Chair of Committee, Richard Cummins
Committee Members, Christine Townsend
                  Michael McCormick
                  Jamie Callahan
Head of Department, Christine Townsend

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ABSTRACT

The Impact of Transformational Ethics Instruction Methodologies

on Student Moral Judgment in a Leadership Development Course at a Large Public

University in Texas. (August 2007)

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Chair of Advisory Committee: Dr. Richard Cummins

The purpose of this quasi-experimental mixed-method study was to examine the impact of transformational ethics instruction methodologies on student moral judgment in a leadership development course. Quantitative and qualitative data collection and analyses were used to examine changes in moral judgment and moral thought processes, with particular emphasis on how those constructs influence leadership decisions. Eighty-eight students from the Corps of Cadets at Texas A&M University comprised the sample of this study. Over the course of the spring 2007 semester, these students received systematic ethics instruction in the context of a leadership development course. Treatment group participants received this instruction through largely transformational education strategies, while control group participants primarily received the instruction via traditional/ transactional methods. Over the course of the semester, participants completed pretest and posttest administrations of the Defining Issues Test, Version 2

(DIT2). Additional follow-up interviews were conducted with eight students, representing the treatment and control groups.

   Results indicated that transformational instructional methodology is a significant determinant regarding increases in student moral judgment. In contrast, students exposed to traditional/ transactional instructional methods did not demonstrate significant changes in moral judgment scores. Augmentative qualitative analyses identified three distinguishing themes that appear to be representative of shifts in moral or leadership perspectives: (1) deep personal application of moral concepts, (2) exposure to *significant emotional events* (or *disorienting dilemmas*), and (3) desire for personal change. Implications for ethics and leadership educators are presented, along with areas for future research.

DEDICATION

This achievement is dedicated to the glory of God and the loving members of my family who supported me unconditionally along the journey. I can truly do all things through Christ who strengthens me.

Traci – Your affirmations and unconditional support mean more than you will ever know. Thanks for being my best friend. I love you.

Travis and Stephanie – Your moral development matters more to me than anyone else in the world. Thanks for your support and encouragement along the way. I love you both more than you could possibly imagine.

Dad – You are my ultimate earthly role model. Thanks for showing me what a life of integrity looks like. This is your degree as well as mine. I love you.

Mom – You are my hero. Thanks for showing me what inner strength and dependence on God are really all about. This is your degree as well. I love you.

Mark – You have always been a consistent voice of encouragement for me—more than you know. Thanks. I love you.

Nanny and Irvin – You are so special to me. Thank you for everything. I love you both.

Mr. and Mrs. Grant – You've always been in my corner, cheering me on. Thank you both. I love you.

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A project like this is impossible without the help of some very important people. There is no way to adequately thank them all, but I would like to express my sincere gratitude to a special few who contributed so much to this accomplishment.

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Dr. Chris Townsend, thank you for your faith in me and for always filling me with confidence. I never interacted with you without coming away encouraged that I might actually get this thing done. Thank you, Ma'am.

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To all my professors, classmates, officemates, and colleagues, I thank you for your time and input into my life. I am better for it.

Finally, to the entire Texas A&M family, thank you for allowing me to experience The Spirit from the inside for the past three years. I always heard what a special place this was. Now I know it first-hand.

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CHAPTER I

INTRODUCTION

"To educate a person in mind and not in morals is to educate a menace to society."

- Theodore Roosevelt, 26th President of the United States (Smith, 2003, p. 48)

BACKGROUND

The concept of leadership development is not new. For centuries, societies have attempted to develop leaders for many reasons, to include increasing military might, fostering societal improvement, or advancing the human experience.

However, the unique challenges of the present world (technological advances, modern weaponry, population growth, various societal and ecological issues, etc.) seem to be calling for the development of leaders that not only have technical competencies, but also have a moral dimension as well. One might assert that the challenges of today's society have placed a premium on the concept of moral leadership, where elements of character are just as highly valued—perhaps *more* highly valued—than elements of mere technical competence.

If this is true, then it is logical to ask whether the concepts of moral leadership can be developed, and—if so—what are the most effective methodologies for developing leaders of character?

This dissertation follows the style of the *Journal of Educational Psychology.*

STATEMENT OF THE PROBLEM

Current moral climate of American youth and college students

Ethics surveys. In 2004, The Josephson Institute for Ethics conducted a nationwide study of nearly 25,000 high school students. Results showed:

- 98 percent believed "honesty and trust are essential in personal relationships"

- 97 percent said, "It's important to me that people trust me"

- 84 percent said, "It's not worth it to lie or cheat because it hurts your character"

While these results seemed uplifting, Josephson (2004) found that the conduct of these same students was not consistent with their stated beliefs. Consider these results from the same sample of students:

- 82 percent admitted they lied to a parent within the past 12 months about something significant (57 percent had lied two or more times)

- 62 percent admitted they lied to a teacher within the past 12 months about something significant (35 percent said they lied two or more times)

- 35 percent had copied an internet document within the past 12 months (18 percent copied from the internet two or more times)

- 62 percent had cheated during a test at school within the past 12 months (38 percent cheated during a test two or more times)

- 83 percent had copied another's homework within the past 12 months (64 percent copied homework two or more times)

- 27 percent stole something from a store within the past 12 months

    (13 percent did so two or more times)

The incongruence between stated attitudes and actual behavior is especially noteworthy. Josephson explains:

"Widespread and deep youth cynicism often reflects itself in a rationalization process that nullifies ethical judgment and condones conduct that is contrary to stated moral convictions. Thus, the same youngsters who speak of the importance of ethics, character and trust frequently lie, cheat and even steal without much guilt or hesitation" (Josephson, 2004).

These numbers were relatively stable when compared to Josephson Institute for Ethics data from previous surveys (Josephson, 2004). Furthermore, 29 percent of all respondents admitted to lying on at least one of the questions on the survey—typically an estimation of under-reported episodes of misconduct (Josephson, 2004).

However, the majority of students held very high perceptions of their own character and morality:

- 92 percent said they were "satisfied with my own ethics and character"
- 83 percent expected that half or more of all the people who knew them would list them as one of the most ethical people they know
- 74 percent say, "When it comes to doing what is right, I am better than most people I know"

Josephson commented that, "Despite admissions of high levels of lying, cheating and theft, high school students maintain a high self-image of their character and ethics both in relative and absolute terms" (Josephson, 2004).

Josephson's 2006 data show similar findings to the 2004 survey. In the 2006 edition, junior high students were also surveyed. Data showed that unethical behavior is behaviorally-evident in middle school across all dimensions, although high school students report higher instances of unethical instances in all areas (Josephson, 2006).

Collegiate data. The relatively high instances of reported unethical behavior in the Josephson studies are also seen at the collegiate level. The Center for Academic Integrity (2006) surveyed nearly 50,000 undergraduate students on more than 60 college campuses and revealed that, on most campuses, 70 percent of students admit to some cheating. Close to one-quarter of the participating students admitted to serious test cheating in the past year and a half admitted to one or more instances of serious cheating on written assignments. Students in business-related disciplines reported higher instances of academic dishonesty.

Moral rationalization. Tsang (2002) defines moral rationalization as a person's "ability to interpret his or her immoral actions as, in fact, moral. It arises out of a conflict of motivations and a need to see the self as moral" (p. 25). People often conduct an internal cost-benefit analysis prior to making a moral choice. If the cost of acting morally is high, Tsang contends that "instead of choosing to uphold moral principles, the individual may instead engage in moral rationalization and reconstrue potentially immoral behavior as being moral, or at least irrelevant to morality" (p. 27). This might

explain a disconnect between a student's perception of his or her own high moral integrity, while at the same time engaging in behavior that would be considered by most to be immoral or unethical. Josephson (2002) offers twelve common rationalizations, to include false necessity, differences between legality and morality, "everyone's doing it", and others (p. 27-29).

Callahan (2004) presents compelling data that "whatever it takes" mentalities in the high school and collegiate years are often related to unethical behavior in other areas, such as family and work places. Lapses of integrity often accompany high stakes situations, which can be especially tempting if past indiscretions have been undetected (Levine, 2006; Callahan, 2004; Josephson, 2002). Similarly, Reall, Bailey, and Stoll (1998) found that business students reasoned differently in competitive situations than non-competitive ones.

Summary of high school and collegiate data. Both high school and college students report high percentages of personal unethical behavior. These behaviors have been shown to be consistent over time (Josephson, 2006), indicating that the underlying processes that produce these behaviors are likely becoming habitual. This presents a unique challenge for collegiate-level educators because literature shows that automated processes are difficult to change (Massey, 1979). Furthermore, data seem to indicate that students engage in moral rationalization behaviors that could minimize their ability to want to change their underlying processes.

Moral development processes

Tremendous amounts of research have been done examining the ethical development of students at the K-12 grade levels (Berkowitz & Bier, 2005). However, comparatively little research has been done to examine the impact of systematic collegiate-level undergraduate moral development—particularly related to systematic ethics instruction presented within a leadership development context.

Traditional instructional methodologies that seek to merely heighten awareness of ethical issues—or simply transfer moral content—have been shown to have "serious problems with the effectiveness" (Kavathatzopoulos, 1993, p. 379). Research suggests this may be due to largely automated moral decision-making processes, developed over time, that are resistant to change. Massey (1979) contends that, by the time most individuals reach the age of 20, individual values are largely automated responses that are very stable and unlikely to change unless challenged by a Significant Emotional Event—one that challenges previously-held assumptions. Similarly, Mezirow proposes that a similar concept—the Disorienting Dilemma—is the first step in the transformational learning process (Cranton, 2006, p. 23).

Specifically, very little research has been done comparing the impact of transformational ethics instruction methodologies to traditional methods of ethics instruction. Furthermore, while both transformational and traditional methodologies might be useful in developing ethical knowledge and awareness of undergraduate

students, there has been little empirical evidence showing if either method appears to be more effective in producing a long-term shift in attitudes and behavior.

PURPOSE OF THE STUDY

The purpose of this mixed-method study is to examine the impact of transformational ethics instruction methodologies on student moral judgment in a leadership development course. First, this study will *quantitatively* examine changes in student moral judgment in a leadership development course. In addition, this study will *qualitatively* explore student perceptions of systematic ethics instruction on student moral and leadership development. The study will provide information to instructional designers, assisting them in developing future ethics-based leadership development opportunities. Additionally, it will provide insight into the types of salient educational opportunities that students feel are the most beneficial in preparing them for the ethical demands of leadership.

RESEARCH QUESTIONS

This study was guided by the overarching research question below*:*

- Is there a difference between transformational ethics instruction methodologies and transactional ethics instruction methodologies on student moral judgment in a leadership development course at a large public university in Texas?

The quantitative portion of this study was guided by the following research questions:

1. Is there a positive increase in student moral judgment following systematic ethics instruction in a leadership development course at a large public university in Texas?

2. Is there a quantitative difference between transactional and transformational ethics instruction methodologies on student moral judgment in a leadership development course at a large public university in Texas?

The qualitative portion of this study was guided by the following research questions:

1. Do transformational ethics instruction methodologies enable students to question previous assumptions and beliefs about the ethical demands of leadership?

2. Do transformational ethics instruction methodologies inspire students to challenge or change their existing moral behavior and decision-making processes?

OPERATIONAL DEFINITIONS

The findings of this study are to be reviewed within the context of the following definitions of operational terminology:

Corps of cadets, Texas A&M University. The purpose of the Corps of Cadets at TAMU is to "graduate exceptional leaders possessing character and competence", motivated for service to the State of Texas and United States (Corps of Cadets, 2006).

Ethics. "Theories of value, virtue, or of right (valuable) action," derived from a Greek word meaning "character" (Solomon & Martin, 2004, p. 482).

Impact. To force the impression of one thing on another; or have a major effect on something other than itself.

Large public university in Texas. Texas A&M University, College Station, Texas.

Leadership development. Formal and informal efforts to prepare present and/or future leaders for the responsibilities and challenges of leadership. This can be accomplished via a variety of methods, ranging from formal education of leadership theory and practices to informal techniques of storytelling and personal examples.

Moral development. Formal and informal efforts to prepare subjects to cope with anticipated ethical demands and dilemmas.

Moral judgment. Defined by Rest, Thoma, and Edwards (1997) as:

> "a psychological construct that characterizes the process by which people
>
> determine that one course of action in a particular situation is right and
>
> another course of action is wrong. Moral judgment involves defining
>
> what the moral issues are, how conflicts among parties are to be settled,
>
> and the rationale for deciding a course of action" (p. 5).

Morality. Objective rules of conduct about especially important human activities, i.e. "rules of right conduct" (Solomon & Martin, 2004, p. 486).

Perceptions. Opinions and value-judgments regarding a specific topic.

Systematic ethics instruction. Intentional, institutionally-sanctioned, formal instruction in moral, character, or ethical dimensions of personal development.

Transactional instruction methodologies. Educational techniques that focus primarily on exchanges that occur between instructors and their students. Information is typically presented using traditional techniques, to include direct presentation of class concepts and information.

Transformational instruction methodologies. Educational techniques that engage students in a "process by which uncritically assimilated assumptions, beliefs, values, and perspectives are questioned" (Cranton, 2006, p. 2). These techniques seek to go beyond transactional strategies. Instead, students are presented with perspectives that "may have been previously unexamined and unquestioned" (King, 2005, p. 12) and asked to engage in critical reflection and dialogue regarding those perspectives.

Transformational learning. Unique form of cognitive development that occurs when an individual has "reflected on assumptions or expectations about what will occur, has found these assumptions to be faulty, and has revised them" (Cranton, 1996, p.2).

Texas A&M University (TAMU). Located in College Station, Texas, United States of America, TAMU ranks as the seventh-largest university in the U.S. in enrollment, with more than 45,380 students on the main campus (TAMU, 2007).

ASSUMPTIONS

The findings of this study have been preceded by the following assumptions:

1. The participants in this study understand the purpose and significance of the research and will answer the interviewer's questions honestly and openly.

2. Leadership, ethics, and moral judgment are constructs that can be taught and developed.

3. Human experiences can be catalogued and described in order to learn how persons obtain meaning from educational experiences.

LIMITATIONS

This study is constrained by the following limitations:

1. This study is limited to participants in the Corps of Cadets at Texas A&M University.

2. This study is limited to the information gathered from the data collection, literature review, interviews, and institutional documentation.

3. The qualitative portion of this study is limited to the students who agreed to be interviewed.

4. This study is limited by the students' experiences and their individual abilities in articulating the quality of those experiences.

5. The researcher is aware of his position and recognizes the reality that impartiality and objectivity are virtually impossible in a study such as this one, particularly in the qualitative portion of the study. While efforts were made to reduce these biases, the reality is that true impartiality is largely unrealistic.

SIGNIFICANCE OF THE STUDY

The efforts of colleges and universities to teach ethics-based leadership principles are admirable. However, research conducted by Massey (1979), Thomas (1997) and others indicate that values and decision-making processes may be largely automated processes by the time these students reach early adulthood during their college years. Furthermore, current research indicates that many students may possess substantially flawed automated processes due to habitual dishonest behavior during formative years. If this is the case, then traditional transactional methodologies may be insufficient in challenging these processes.

The results and findings of this study will further the discussion regarding transformational instructional methodologies, especially those that contain intentional efforts at creating significant emotional events for students.

Educators will become more informed regarding potential classroom techniques aimed at challenging automated processes and encouraging students to reflectively examine previous assumptions.

Finally, the development of moral leadership processes is expected to, in turn, enable moral character and actions. These leadership qualities have been associated with increased trust and influence.

CHAPTER II

REVIEW OF LITERATURE

INTRODUCTION

The theoretical framework for this study occurs around a rather unique intersection of five major constructs: (1) moral development, (2) cognitive processes, (3) transformational teaching and leadership, (4) assessment, and (5) leadership development. An exhaustive review of all relevant literature on every one of these constructs is impractical in a study of this scope. Clearly, each construct contains decades of research and volumes of text that have been developed over time to refine, understand, and further their respective realms.

The purpose of this chapter, then, is to identify the relevant overarching and seminal concepts of each respective construct, with particular emphasis given to the integration and interaction of these concepts. To accomplish this, the chapter will explore the following areas, in sequence: (1) moral development, (2) cognitive processes, to include the eventual automaticity of those processes, (3) moral development through systematic ethics instruction, (4) transformational teaching and leadership, (5) assessment of moral development, (6) linkages between moral excellence and leadership development. Figure 1 presents a conceptual representation of this chapter.

Finally, an integrative summary of research is presented, with particular emphasis on the context of the current research study.

Moral &
Leadership
Schema
All prior experience
& reinforced behavior

Pre-
Intervention
Moral
Decision-
Making
Processes

AUTOMATICITY

Intervention
of
Systematic
Ethics
Instruction

• Focus on personal change
• Disorienting Dilemma or
  Significant Emotional Event
• Critical personal reflection
• Gaining new insights & knowledge
• Testing & Reintegration

TRANSFORMATIONAL
METHODOLOGIES

IMPROVED
Moral
Decision-Making
Processes

TRANSACTIONAL
METHODOLOGIES

LITTLE or
NO CHANGE
in Moral
Decision-Making
Processes

• Focus on exchange of knowledge
• Exchange of desired outcomes for
  performance
• Motivation through rational appeal
• Mutual respect

ASSESSMENT

Moral decisions and action

Leadership trust & influence

Improved
Moral
processes
enable
moral
actions

Moral
actions
result in
increased
leader trust
& influence
among
followers

Figure 1. Conceptual representation of literature review.

As depicted in Figure 1, moral decision-making processes are developed over time as a reflection of one's moral schema. Long before collegiate educators have an opportunity to influence a student, these moral schemas are being developed and reinforced in that student. In order for collegiate moral educators to maximize their instructional opportunities, an understanding of how morality is developed is important. Thus, the next two sections of this chapter explore the interaction of the major constructs of moral development and cognitive processing. An overview of classic moral development theories is presented, followed by a brief description of the Information Processing Model of human cognition. The researcher will then discuss how these two constructs relate to one another in the formation of moral decision-making processes, followed by the idea these decision-making processes may become largely automated over time.

MORAL DEVELOPMENT

The terms *morality* and *ethics* are extremely similar and are often used interchangeably. Indeed, ethicists Solomon and Martin (2004) contend that these two terms are "intimately related" and constantly influence one another. As a matter of practical distinction, Solomon and Martin define *morality* as rules of conduct that are concerned with the "interpretation and implementation of our values system", whereas *ethics* might be best defined as attempting to discern why certain actions are right or wrong (p. 2). Monroe (2004) uses a term called "virtue ethics", which takes into account

the *motivation* of the ethical actor—*why* someone behaved the way he or she did. It assumes that the character of a person can predict (or is at least highly correlated to) the behavior of that actor.

The distinction between ethics and morals may be important—and necessary—for certain philosophical discussions. However, in terms of this research study, it is determined that these two terms may be used interchangeably and refer to a general concept of using personal values to determine right and wrong behaviors. Thus, for this study, an "ethical choice" and a "moral choice" are determined by the researcher to be descriptive of the same essential concept.

The constructs of moral development and ethical decision-making have been discussed by great historical figures such as Aristotle, Socrates, Plato, religious leaders, and virtually every society throughout history. Modern theorists began to seriously explore the construct in the early 1900s, when John Dewey and others began to explore how people made ethical choices (Gibbs, 2003; Dewey, 1938). Later in that century, others added their ideas to those early concepts. Among these theorists, Piaget and Kohlberg stand above the crowd as being authors of two of the more seminal works on early moral development theory. A brief explanation of each is provided below.

Piaget

One of the very first modern ethical theorists was Jean Piaget. Piaget is widely regarded as one of the key figures in education theory and childhood cognitive development (Woolfolk, 2001). While moral theory was not the major thrust of his

work, he did provide one of the first meaningful conceptualizations of moral

development in the cognitive realm. To Piaget, children developed sequentially through

two stages of moral development. Having deemed the infant years as "pre-moral", Piaget

believed that children from the ages of around 4-9 were morally influenced by authority

figures in their lives (parents, teachers, etc.). He called this first phase the "morality of

constraint" or "heteronomous morality" (Crittenden, 1990, p. 64). Then, starting from

the age of 10 or so, children begin to become influenced by peer groups and social

influences, resulting in a move toward "moral autonomy" (Crittenden, 1990, p. 64).

Piaget's theories are almost universally appreciated by moral developmentalists,

although some have described them as being simplistic and difficult to empirically prove

(Gagné, Yekovich, & Yekovich, 1993).

Kohlberg

Perhaps the single greatest contribution to the construct of moral development came

from the work of Lawrence Kohlberg. One author suggests that "Kohlberg almost

single-handedly innovated the field of cognitive moral development in American

psychology" (Gibbs, 2003, p. 57). Founded on the work of Piaget, Kohlberg developed

six "stages" of moral judgment, divided into three main headings: Pre-conventional,

Conventional, and Post- conventional. These six stages are briefly identified and defined

as (Woolfolk, 2001; Crittenden, 1990):

1. Pre-Conventional

Stage 1: Punishment-obedience orientation. Rules are obeyed to avoid

punishment.

Stage 2: Instrumental purpose and exchange. Individualistic perspective where

personal needs determine right and wrong, while understanding that others have

those same needs.

2. Conventional

Stage 3: Mutual interpersonal expectations, relationships, and conformity.

Sometimes called the "good boy-nice girl" orientation, this stage is characterized

by choosing moral action based off of how likely it is to receive praise and

affirmation from others.

Stage 4: Law and order orientation. Duty and social order in society places a

heightened awareness of the importance of rules and authority.

3. Post-Conventional

Stage 5: Social contract orientation. Socially agreed-upon standards determine

right and wrong, with an emphasis on the concept of "utility", or the greatest

happiness/good for the greatest number.

Stage 6: Universal ethical principles. Individual conscience and self-chosen

ethical principles determine "right" actions, provided they do not damage the

social-contract principles of justice, human dignity, and equality.

While Kohlberg is, like Piaget, nearly universally appreciated for his efforts,

subsequent researchers have criticized his theory. It is often considered too rigid because

the stages are rarely mutually exclusive and perfectly sequential (Woolfolk, 2001;

Bandura, 1991). People can give multiple reasons for their choices that do not always

reflect one-and-only-one moral stage. Some researchers have noted that Kohlberg's

theory, while laudable, does little to predict the ways people actually make moral

decisions in their day-to-day lives (Krebs & Denton, 2005). In short, Kohlberg might

describe how people *think*, but some believe his theories do not describe how they

actually *act*.

Rest

Using the earlier works of Piaget and Kohlberg, James Rest introduced the Four

Component Model of moral development (Bebeau, Rest, & Narvaez, 1999). Figure 2

presents a conceptual representation of this model.
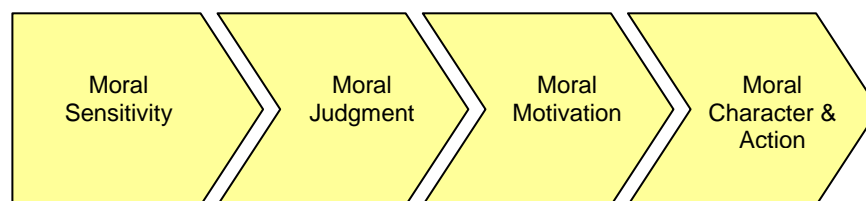
Figure 2. Conceptual representation of Rest's Four Component Model.
Source: Bebeau, Rest, & Narvaez, 1999.

Under the Four Component Model, moral development progresses along four

processes of morality. The first, and most basic, process is *moral sensitivity*. This refers

to awareness of moral issues, and recognizing possible outcomes of behavior. The

second process is *moral judgment*, which involves determining which actions are

morally right and wrong, based on moral schema and intuitions. The third process is *moral motivation*, where a person begins to place moral values over personal values. The fourth process is *moral character and action*, where a person begins to act in accordance with one's values and moral principles. The Four Component Model is useful in the context of the current research study, and will be examined further in the assessment portion of this chapter.

COGNITIVE PROCESSES

Information processing model

The study of complex human performance has often focused on mental processes. Gagné (1962) was instrumental in furthering this construct by examining complex cognitive developmental processes that inform human learning. An in-depth look at the complexities of the human mind is beyond the scope of this paper, but a quick look at the basic tenants of the information processing model can be very useful. Woolfolk (2001) defines several key terms (p. 242-255):

- *Information processing*. Human mind's activity of taking in, storing, and using information.

- *Declarative knowledge*. Verbal information; facts; "knowing that" something is the case.

- *Procedural knowledge*. Knowing how to perform a task. Sequencing knowledge into a meaningful method of action.

- *Elaborative rehearsal*. Keeping information in working memory by
  associating it with something you already know.

- *Automaticity*. The ability to perform thoroughly learned tasks without much
  mental effort.

- *Working memory*. The information one is focusing on at a given moment.

- *Long-term memory*. Permanent store of knowledge.

- *Schema*. Basic structures for organizing information and concepts; what is
  typical of a thing or category.

The integration of these terms forms the core of the information processing model of cognitive development. The concept of a schema is essential because schemas (also appropriately pluralized as schemata) are convenient ways for humans to represent information about common elements (Gagné et al., 1993). These researchers define schemas as:

> "Integrated units of declarative knowledge [that] include the concepts,
> attributes, and relations that typically occur in a category…Schemas are a
> convenient way for us to represent information when we encounter a new
> instance of the category, even if it is different in some small way, we can
> recognize it as having enough features in common with a typical instance
> that we treat it as a category members, rather than starting from scratch"
> (p. 80-81).

While schemas are adaptive ways to reduce the load on working memory, they can be problematic because they might be incorrectly formed, resulting in an incomplete

understanding of the specific phenomenon, or a tendency to stereotype without full

processing (Gagné et al., 1993). Likewise, *moral schemas* are similarly constructed.

They are built from experience and social interaction, and are "constructed automatically

from the brain noticing the elements in the socially-relevant environment" (Narvaez and

Bock, 2002, p. 302).

Integration of moral development theories with the information processing model

Moral schemas are constructed from experience and social interaction (Narvaez and

Bock, 2002). Piaget's concepts *assimilation* and *accommodation* are important when

trying to understand the formation of moral schemas. Assimilation is the idea of taking

something new and incorporating it into what is already known. In contrast,

accommodation occurs when an observation does not fit any known schema or mental

images. In such instances, according to Piaget, we change or adjust our structures to

account for the new information (Woolfolk, 2001).

Referring back to the Information Processing Model of cognitive development, when

humans are exposed new stimuli (a moral decision, for example), they use their existing

schemas, as well as varying forms of declarative and procedural knowledge from their

long-term memory, to form ideas about how to act in a given situation. For example, if a

young child is facing a "dilemma" about whether or not to take a toy away from another

child, he or she may remember (from existing schema from their long-term memory)

previous times when such actions were met with punishment or scolding. As a result,

this child may decide not to take the toy because the consequences would be too great.

If, on the other hand, previous experience had no undesirable consequences (i.e., a parent or teacher did not see it or ignored it), the child might not associate unpleasant outcomes with this action, and thus, is more likely to take the toy.

Using the above example, Piaget would classify this child in the "morality of constraint" stage, where the child is most influenced by the authority figures in his or her life. In comparison, Kohlberg would likely say that this child was operating in the Stage 1, or "Punishment-Obedience" orientation, where rules are obeyed to avoid punishment. As the child learns more, he or she might move to Stage 2, where a more individualistic type of orientation is seen.

In contrast, the usefulness of an information-processing perspective is that the cognitive processes take place regardless of stages or theories. The theories (and resultant stages or phases) are merely the interpretation of the input. For example, the concept of behavioral consequences is often synonymous with the reinforcement theories of behavioral scientists B.F. Skinner and others (Lussier & Achua, 2004). However, the cognitive psychological concept of the human information processing model does not disagree with Skinner—rather, it merely attempts to explain what is happening on a cognitive level.

In 1997, Thomas presented an integrated model of moral development, founded in the concept of the information processing model, where working- and long-term memories in the person interacted with the various realities of the external environment to enable the development of moral thought and processes. According to Thomas, the key to moral development is the appropriate coding of information into long-term memory. This long-

term memory then holds key pieces of information when a moral event is perceived.

Using the Moral-Decision Process from Thomas (1997, p. 33), the following sequence

occurs:

1. A moral event is perceived

2. Options are retrieved from long-term memory

3. Consequences are estimated using previously-learned causal relations in
   long-term memory

4. Advantages/disadvantages of consequences are estimated

5. Person acts on his/her decision

6. Consequences occur

7. Feedback of consequences received

8. Feedback influences moral contents of long-term memory and causal
   relations

Thomas' theory departs somewhat from the earlier works of Piaget and Kohlberg

because it does not define moral development in terms of rather rigid, or distinct, stages.

Rather, moral development is a "gradual, continuous progress in moral thinking rather

than stage-wise advances" (Thomas, 1997, p. 269). Repeated exposure to moral issues is

necessary for the development of moral issue schema development, especially if the

issues contain qualities of salience of vividness (Gautschi & Jones, 1998).

Schema accessibility in moral decision-making is explained further by Lapsley and

Narvaez (2004). They discuss the concept of how "chronically accessible" and

"chronically salient" schemas tend to be associated with "experts" in a given field (p.

199). In other words, an expert plumber has a different schema for fixing a leaking sink than a novice. Expert plumbers have more declarative and procedural knowledge than a novice. Experts also use their information more often and in more diverse ways (i.e., information is "chronically accessible" and "chronically salient"). These experts were not instinctively born with these processes; instead, they were developed over time. Additionally, experts typically do not spend much conscious thought on the processes they are employing—they have become automated in very large part.

Similarly, according to the Information Processing perspective, when faced with a moral problem or dilemma, the human brain attempts to retrieve useful information from long-term memory. The information stored in long term memory comes from prior learning and experience—often within the context of a moral schema of typical data and procedures associated with that phenomenon. Through retrieval, information is moved from long-term memory to working memory where it is accessed to aid in the resolution of the problem (Sousa, 2006; Woolfolk, 2001; Gagné et al., 1993). Over time, as an individual habitually responds to similar issues in consistent ways, these cognitive processes become automated to a large extent (Gagné et al., 1993).

Automaticity

The idea of automated processes is at the heart of moral development (Narvaez & Bock, 2002). Early attempts at learning a concept usually require conscious mental thought through each step of the act. In contrast, expert or automated processes require almost no conscious effort to accomplish the act. Thomas (1997) discussed this idea and

commented that "as the process is practiced time and time again, the (cognitive) links among the steps become so solidly established that the act no longer requires conscious guidance. The person need not think about what to do, because the process is now automatic" (p. 152).

It seems evident, then, that an information processing perspective of moral development is necessary to discuss these concepts in the adult learner. This is primarily due to the fact that most moral development theories—to include Piaget and Kohlberg— do not specifically address the development of adult learners. For this reason, a cognitive perspective allows for such development because it involves schema, long-term memory, and automated processes. When understood, these concepts have the ability to be modified under the right conditions.

Haidt (2001) asserts that moral judgment is a largely automated process, but offers a unique perspective on the source of that automaticity. Haidt proposes a Social Intuitionist Model which suggests that people tend to make quick moral decisions based largely on *innate intuition* of what is right and wrong. Under this theory, moral reasoning is merely a *post hoc* construction to rationalize a previously-made decision.

Haidt's theory was a sharp departure from Kohlberg (and others) who believed that moral reasoning—not intuition—was the root cause of moral judgments. Haidt's viewpoints were rapidly challenged by Pizarro and Bloom (2003), who presented evidence that fast and automatic moral intuitions were actually shaped and informed by prior reasoning. This perspective is more consistent with an Information Processing Model view.

Narvaez and Bock (2002) clearly fall in the cognitive developmental side of the debate. They contend that "ideas from cognitive science are increasingly influential and provide insight into the nature of moral judgment, [to include] modern schema theory, the frequency of automatic decision-making, and the implicit processes as the default mode of human processing" (p. 297), perception and decision-making are "supervised by pre-existing schemas" (p. 298). These researchers support the view of automatic, implicit cognitive processes in human behavior, explaining that automatic processing involves involuntary cognitive processes that are often initiated without intention.

The automaticity of a mental process can be both a blessing and a curse, however. If someone learns a process incorrectly or incompletely, then that automated process is likely flawed (Gagné et al., 1993). Moreover, once a process has been automated, it is extremely resistant to change or modification (Gregg, Seibt, & Banaji, 2006). For this reason, it is imperative that people develop appropriate moral processes early in life because, once automated, those processes are difficult to adjust.

Sims and Felton (2006) contend that automaticity often grows out of unexamined values and assumptions. As such, students should examine the bases of their values, understand their foundations, and their heritage. "Values are major determinants of approaches to decision-making and the decisions made" (Sims & Felton, 2006, p. 300).

SYSTEMATIC ETHICS INSTRUCTION

Referring back to Figure 1 at the beginning of this chapter, students develop moral decision-making processes using preexisting moral schemas. Systematic ethics

instruction at the collegiate level typically occurs after these processes are in place. Even at this point, however, students can learn much from intentional discussion of classic philosophy in professional ethics education (Klonoski, 2003).

Specifically, there are three classic categories of moral decision-making: Deontology, Teleology, and Reciprocity (Kidder, 1995). The educational intervention during the current research study used these three categories as basic starting points for class discussions and leadership implications. As such, each is briefly presented in the following sections of this chapter.

Deontology

Deontological discussions center around the focus of duty-based decision making. The term originates from the Greek words *deontos*, which means "duty" (Blackburn, 2001, p. 60), and *dein*, which means "to be obligated" (Solomon & Martin, 2004, p. 18). In general terms, according to deontological theories, an act is not justified by its consequences, but by the intent or "good will" of the actor.

German philosopher Immanuel Kant is the champion of this type of ethical thought process (Gini, 2005). Kant sharply departs from ends-based thinkers, stating that what is right is always right—regardless of consequences. "Good will" and intentions are the only parts of the equation that are under the complete control of the actor, and thus are paramount under the Kantian perspective (Solomon & Martin, 2004; Kidder, 1995). For example, a lie that led to happiness for many might be tolerated by ends-based theorists, but Kant would strongly denounce this course of action because the ends were caused by

dishonest means. At the root of this concept is Kant's idea of the "*Categorical Imperative*"—act only in accordance with the principle (Kant used the term "maxim") that one would wish to become universal law (Kidder, 1995, p. 24). In other words, one must only do what he or she would demand everyone else should do in the same situation—that is the ultimate duty (Kidder, 1995). People are to be treated as having intrinsic value, not as a means to achieve one's own purposes (Gini, 2005).

Teleology

The concept of teleological thinking is focused on a desired end-state or a certain ultimate purpose. The concept is derived from the Greek word *telos*, which means "purpose" or "end" (Solomon & Martin, 2004, p. 15; Kidder, 1995, p. 24). Often referred to as "ends-based" thinking, or "consequentialism" (Kidder, 1995), this concept was most famously proposed by Aristotle. Ends-based, or teleological, perspectives can take form in a multitude of theories, specifically utilitarianism, egoism, altruism, hedonism, Machiavellianism, and Aristotelian virtue-based ethics. While not a complete list of the ends-based theories, these six ideologies are certainly pragmatically useful and worthy of further explanation.

Utilitarianism. In its simplest terms, utilitarianism refers the "greatest good for the greatest number." This is—by far—the most common and influential form of ends-based thinking (Solomon & Martin, 2004; Kidder, 1995). Utilitarians choose actions by anticipating consequences and choosing the action that has the highest likelihood of resulting in the "greatest good (happiness) for the greatest number of people" (Kidder,

1995). The name most often associated with this type of thinking is John Stuart Mill, although philosophers David Hume and Jeremy Bentham are also proponents of this theory (Solomon & Martin, 2004; Blackburn, 2001; Kidder, 1995).

Egoism. This philosophy involves giving priority to one's own self-interests. Ethical egoists anticipate consequences and choose the course of action that offers the greatest personal benefit to themselves (Solomon & Martin, 2004). Ethicists sometimes distinguish between *psychological egoism* and *ethical egoism*. These are two distinct perspectives of this philosophy. Psychological egoism predicts that humans are predisposed biologically to act in their own best interests. Conversely, ethical egoism is the view that humans *ought* to act in their own best interests (Solomon & Martin, 2004). Further discussion is beyond the scope of this study, but the distinction is certainly worthy of mention.

Altruism. Generally considered to be the antithesis of egoism, altruism means giving priority to other people's best interests. Ethical altruists anticipate consequences and choose the course of action that offers the greatest personal benefit to others (Solomon & Martin, 2004).

Hedonism. Hedonism is a form of egoism that is primarily concerned with the pursuit of pleasure and/or the reduction of pain. Philosophers and biologists have argued for centuries about whether this is a natural predisposition for humans or whether people can choose non-hedonistic courses of action (Solomon & Martin, 2004).

Machiavellianism. Named for Italian political theorist Niccolò Machiavelli, this theory is grounded in the concept of "realism"—that the only thing that matters is the

end result. Taken to its extreme position, Machiavellian realists believe that morally

wrong actions may be necessary to achieve desired outcomes. Machiavelli is quoted as

saying that "great things" have been done by those who have "little regard for good

faith" (Bok, 1999, p. 23).

   Aristotelian virtue-based ethics. Solomon and Martin (2004) describe Aristotle's

concept of ethics as being a "teleological" concept. In this regard, it is similar to

utilitarianism because it is ends-based. However, Aristotelian ethics seem to be a merger

of ends- and rule-based thinking. While the ultimate ends (*telos*) of the decision are

considered, the method (motivations and rules) of the decision is also given high

consideration. Additionally, Aristotle continually stressed the importance of habit and

practice in the realm of morality. Wakin (1996) identifies the word "integrity" to

represent the Aristotelian notion of "those persons who consistently act from a firmly

established character pattern of doing the right thing" (p. 25). However, Wakin (1996)

acknowledges that Aristotelian concepts are especially challenging when one tries to

incorporate them into some sort of pre-professional training (such as an ethics course).

Reciprocity

   The general concept behind reciprocal moral philosophies is that one acts according

to a reasonable expectation (or desire) that others will act in a like manner. For many,

this theory takes form in either a "Golden Rule" or "Social Contract" theory. An

explanation of those two theories is offered, followed by a unique reciprocal theory from

the Machiavellian perspective.

Golden rule. This theory is grounded in a predominantly religious perspective of "do to others as you would want them to do to you", or "treat others the way you want to be treated" (Kidder, 1995, p. 25)

Social contract theory. This concept originated as a political theory, but also offers a "substantial moral theory" as well (Solomon & Martin, 2004, p. 20). Similar to the "Golden Rule", Social Contract Theory infers a stated or unstated agreement between members of a society to voluntarily forego certain liberties for the sake of the common good. Decisions made by Social Contract theorists would be those decisions which one could reasonably expect to be reciprocated by other members of society. Thomas Hobbes is most often associated with this theory (Solomon & Martin, 2004).

Machiavellian view of reciprocity. Finally, it is interesting to note that some would even propose categorizing Machiavelli—often considered to be the ultimate ends-based thinker—as a reciprocal theorist. In a 2005 article, Vasquez quotes Machiavelli:

> "For the manner in which men live is so different from the way in which they ought to live, that he who leaves the common course for that which he ought to follow will find that it leads him to ruin rather than to safety. For a man who, in all respects, will carry out only his professions of good, will be apt to be ruined amongst so many who are evil" (p. 310).

Similarly, Bok (1999) offers another quote from Machiavelli, regarding the foolishness of obeying rules that others will not obey:

> "A prudent ruler ought not to keep faith when by doing so it would be against his interest, and when the reasons which made him bind himself

no longer exist. If men were all good, this precept would not be a good

one; but as they are bad, and would not observe their faith with you, so

you are not bound to keep faith with them" (p. 137).

As can be seen in the quotes above, Machiavelli's concept of reciprocal morality is

seemingly reversed from the Golden Rule or Social Contract Theory. Instead, it seems to

involve mentality of 'do to others *before* they do to you', or perhaps, 'everyone else is

doing it.' This type of moral reasoning and logic has profound consequences in the realm

of ethical decision-making and moral judgment.

Need for appropriate instructional methodologies

Exploration of the three core categories of ethical decision-making is useful,

especially if they are presented within the context of case studies or moral dilemmas

(Sims & Felton, 2006). Many students find exposure to classic moral decision-making

processes helpful because they are unaware of their own underlying processes (Narvaez

& Bock, 2002). However, the mere presentation of moral concepts is not likely to

actually challenge preexisting thought patterns or decision-making processes at the

collegiate level (Trevino, 1992). This is because these processes are largely automated

by the time collegiate ethics instruction is introduced.

In short, open discussions of moral concepts might increase students' knowledge of

the construct of morality, but, without the correct methodology, these discussions may

not lead to long-term change in the individual. Thus, the next section of this report

examines the construct of transformational methodologies in the context of moral

decision-making.

TRANSFORMATIONAL LEADERSHIP AND TEACHING

Moral education opportunities at the collegiate level may be problematic, especially

when viewed in light of the information presented in the preceding sections. Referring

back to Figure 1 at the beginning of this chapter, by the time a collegiate moral educator

has an opportunity to present a systematic ethics intervention, the student already has

years of practice using decision-making processes that are highly automated. These

decision-making processes are—in all likelihood—resulting in behaviors that are

consistent with existing moral schemas.

The data presented in Chapter I of this report indicated that many high school and

collegiate students are admitting, in very high percentages, to behaviors that are

reflective of lapses in moral judgment. Additionally, if these behaviors result in desired

outcomes, they are likely to be repeated. Thus, a relatively strong case can be made that,

by the time students are seniors in college (as in the case of this study), they may have

entrenched automated moral processes that might lead many of these students to

unethical choices.

As previously discussed, automated processes are difficult to change. However,

transformational leadership and teaching theories offer unique insights into this issue.

The core premise of these theories is that, under the proper conditions, students can

indeed begin to challenge existing processes and develop new and improved

perspectives. The next few sections of this chapter, then, will explore the principles of transformational leadership and teaching theories in an effort to inform the current study regarding ethical growth in a collegiate leadership development setting. While transformational leadership and transformational teaching are not necessarily synonymous terms, they are presented together here for three reasons: (1) the underlying principles are extremely similar, (2) in most classroom settings, an instructor has the opportunity to be both a transformational teacher and leader, and (3) in the later sections of this chapter, the researcher will show a theoretical link between moral education and the development of transformational leadership qualities in students.

Transformation defined

Transformational leadership strategies were first suggested by Burns in 1978, and referred to the process of influencing major changes in the attitudes of employees to advance the organization (Carlson & Perrewe, 1995). In traditional *transactional* teaching or leadership paradigms, follower behavior is exchanged for desired outcomes from the leader. In comparison, transformational leadership refers to "a process whereby an individual engages with others and creates a connection that raises the level of motivation and morality in both the leader and the follower" (Northouse, 2004, p. 170). There is a substantial correlation between the use of the affective domain of learning and potential for a dramatic transition in values (Reed, 1997).

Transformational Leadership strategies are described as:

"(a) raising followers' levels of consciousness about the importance and

value of specified and idealized goals, (b) getting followers to transcend

their own self-interest for the sake of the team or organization, and (c)

moving followers to address higher-level needs" (Northouse, 2004, p.

173).

Likewise, transformational teaching is a form of instruction that is effective in jolting

learners to a new way of thinking (Trevino, 1992). Transformational teaching is

extremely similar to transformational leadership, except that it occurs specifically in the

classroom or other form of intentional instruction.

Transformative learning

Mezirow (2003) defined transformative learning as "learning that transforms

problematic frames of reference—sets of fixed assumptions and expectations (habits of

mind, meaning perspectives, mindsets)—to make them more inclusive, discriminating,

open, reflective, and emotionally able to change" (p. 58). Cranton (2006) discussed the

1975 research of Mezirow regarding transformational learning, to include the following

ten phases (p. 20):

1. Experiencing a disorienting dilemma

2. Undergoing self examination

3. Conducting an examination of critical assessment of internalized assumptions
   and feeling a sense of alienation from traditional social expectations

4. Relating discontent to the similar experiences of others—recognizing that the problem is shared

5. Exploring options for new ways of acting

6. Building competence and self-confidence in new roles

7. Planning a new course of action

8. Acquiring knowledge and skills for implementing a new course of action

9. Trying out new roles and assessing them

10. Reintegrating into society with the new perspective

Cranton (2006) further described Mezirow's concept of learning as that which occurs "when an individual encounters an alternative perspective and prior habits are called into question" (p. 23). Originally, Mezirow saw this type of learning as a single, dramatic event, which he termed a *disorienting dilemma*. Mezirow has since conceded that a disorienting dilemma might also be the result of a "gradual cumulative process" (Cranton, 2006, p. 23).

Similarly, King (2005, p. 49) offers a "Transformative Learning Opportunities Model" that prescribes the process for both the learner and the educator. Both should engage in critical reflection and be exposed to cultivating dialogue. Transformational strategies can be learned and developed by intentional interventions in behavioral skill training, knowledge-based training, and culture-building (Sashkin, 1995).

Recently, Brown, Trevino, and Harrison (2005) examined ethical development of leaders, using the Social Learning Theory as a theoretical basis, and found that leader cognitive moral development is positively related to transformational leadership, but not

transactional leadership (p. 118). Rudman, Ashmore, and Gary (2001) indicate that automatic biases may indeed be impacted by affective processes. In other words, strong emotional interventions may offer some hope into challenging previously-engrained, largely-automated processes. Turner and Barling (2002) found significant covariation between leaders' transformational behaviors and higher levels of moral reasoning. These researchers suggest that this finding has potentially profound implications for leadership training—namely, that future research should study the impact of simultaneous transformational leadership training and moral development.

Significant emotional events

Disorienting Dilemmas are profound in the context of the current study because they open the door for the transformational process to begin. Mezirow's work was similarly constructed by Massey (1979). Founded in Piaget's general framework of development, Massey contended that values "lock in" about the age of 20 and are unlikely to change— unless the person encounters something called a "Significant Emotional Event", or SEE, defined as a "challenge or disruption to our present behavior patterns and beliefs" (Massey, 1979, p. 18). SEEs (either experiential or educational) can cause a young adult to challenge prior thinking and consider the possibility of expanding their existing moral schema and cognitive processes.

Narvaez and Bock (2002) describe the importance of educational interventions that create a "cognitive disequilibrium" (p. 306) that enables the individual to accommodate the new information into a more post-conventional moral perspective. These episodes of

cognitive disequilibrium are essentially SEEs by another name. Likewise, Barlow, Jordan, and Hendrix (2003) describe "tipping points" of great leaders throughout history (p. 564). These points are descriptive of SEE experiences.

If this is indeed the case, then educational experiences for young adults designed to challenge prior moral decision-making skills must be able to function as an SEE. This SEE challenges or disrupts a student's existing belief system to the possibility that either (a) new information is worthy of assimilation into existing schema, (b) new information is worthy of accommodation by either modifying existing schema or creating a new schema for the information, or (c) new information is worthy of consideration, but is so outside of the norm that is should discarded altogether.

Although the concept of an SEE is sometimes described by other terms (trigger events, discontinuous events, etc.), the phenomenon has been confirmed in many types of research studies (Cope, 2003; Mezirow, 2003). Memory and recall are improved when trigger events are associated with intense emotions (Christianson, Loftus, Hoffman, & Loftus, 1991).

Specific instructional techniques

If transformational methods are useful—and perhaps necessary—in challenging existing moral processes, then a review of specific instructional techniques is warranted. Exactly how can a transformational change agent (teacher, supervisor, etc.) present a significant emotional learning event? Obviously, there are varying perspectives on this

(often due to the reality that an event that is significant for one person may not be significant for another). Cranton (2006, p. 162-163) offers the following suggestions:

- Demonstrate interest in and concern for student learning and development

- Share anecdotes from one's own personal lives and experience

- Establish shared professional or discipline-related goals with learners

- Illustrate and provide examples by drawing on one's own experience and encourage students to do the same

- Learn from one's students as they learn from the instructor

- Be accessible and encourage students to come see them outside of the classroom

- Be receptive in helping students with problems and issues

To be effective, transformational ethics instruction should be experience-based with a high emphasis on personal application (Sims and Felton, 2006). As instructors strive to match these educational components, an increased emphasis on trust is observed (Sims & Felton, 2006).

In the right context, many transformational instructional techniques are supported by research (King, 2005). Several of these are presented below.

Direct lecture, presentation, and discussions. While instructors should be careful not to "preach" to their students (Mintz, 1996), the importance of teaching values and virtue to students is especially important. Moral exposure increases the opportunity for the development of moral judgment, and, in turn, moral intent and moral behavior (Gautschi & Jones, 1998). A discussion-oriented exchange is particularly successful when issues

raised in the classroom continue to be discussed outside of the classroom (Sims & Felton, 2006).

Right versus right concepts. Unlike "right versus wrong" choices—where the decision-maker often already knows the "right" thing to do—ethicist Rushworth Kidder (2005) identified four types of "right versus right" dilemmas: (1) truth versus loyalty, (2) individual versus community, (3) short-term versus long-term, and (4) justice versus mercy (p. 89). These types of dilemmas were believed to be better for moral discussion because (a) moral arguments could be made for either side of the issue, and (b) they often demanded more complex resolution processes (Kidder, 1995; Bandura, 1977). Kidder contends that student moral awareness is heightened as they are made aware of the complexities of making right versus right choices. This exposure to moral issues is essential because it leads to moral schema development, and is an antecedent to the moral judgment that leads to moral behavior (Gautschi & Jones, 1998). Research tends to confirm this—the most effective educational programs appear to be those that involve dilemma discussion and last from four to twelve weeks in duration (Trevino, 1992).

Life stories. The use of life stories in leadership development can be very useful (Shamir & Eilam, 2005). Life stories can be useful in the development of leaders because they can be a source of self-knowledge or self-justification. Additionally, these stories can help leaders identify defining experience, sometimes referred to as "crucibles" that can transform a person (Shamir & Eilam, 2005, p. 404).

Similarly, Keller, Tarnow, and Soat (2001) explain the value of storytelling in moral development, particularly as pertains to values formation and the identification of moral exemplars.

Film. The value of film and video in teaching ethics is well documented (Sims & Felton, 2006; Champoux, 1999; Mintz, 1996). Champoux (1999) contends that film study can enhance the learning process in ways that are not available in other media. Furthermore, film can offer a visual portrayal of theories and concepts that may not be easily taught using other methods. Films offer a "greater feeling of reality" (Champoux, 1999, p. 206). Likewise, Sims & Felton (2006) explain that the diverse variety of characters in film "more closely simulates the complications of real-life situations" (p. 298).

Case studies. Case studies are useful in teaching ethics and values (Mintz, 1996). Cases can help students recognize reasoning strategies and resolution principles (Gini, 2005; Kidder, 1995). Gini (2005) cautions that cases, while potentially valuable, should not be used exclusively when teaching ethics. Instead, case study is more useful to the learner if it is accompanied by theoretical material. "At its worst, the method becomes a boring exposure to the prejudices of others" (Gini, 2005, p. 19).

Personal application. Mintz (1996) explains that virtue considerations should be presented in formal ethics curricula, not only as they apply to future action, but also to the students themselves as moral agents. This enables the student to see the inherent link between the moral agent and moral choice.

Active learning as a transformational methodology

Active learning theorists Dewey, Lewin, and Kolb maintain that the best manner for learning to take place is for a concrete experience to be followed by some form of reflection or judgment of the experience (Kolb, 1984). This reflection provides meaning to the experience. If done correctly, the learner modifies his or her beliefs and behaviors to match the new information and then uses that new information in subsequent attempts.

This concept holds tremendous promise in the realm of transformational instruction because these concrete experiences may sometimes serve the role of Mezirow's concept of the Disorienting Dilemma (Cranton, 2006), or Massey's concept of the Significant Emotional Event, or SEE.

Additionally, there is a physiological element to active learning techniques, particularly in regards to brain function. The left hemisphere of the brain is primarily concerned with speech, writing, calculation, etc. Conversely, the right half of the brain deals more with emotional meaning, art, creative thought, and spatial construction (Dacey, 1989; Kolb, 1984). Vitz (1990) explains how active learning has an advantage over other methods of ethical growth because it stimulates both the left and right hemispheres of the brain. The left hemisphere is associated with linear, analytical processing of verbal or written communication. In contrast, the right hemisphere is more closely associated with emotional "imagistic" meaning. Right hemisphere thinking allows for the creation of relationships and personal reflection. Vitz (1990) asserts that personal internalization is greatest when these two hemispheres are stimulated

simultaneously. Joplin (1981) discusses how the brain is "on" when it is "actively choosing, ordering, making decisions, etc. It is not 'on' when someone is attempting to pour information into it" (p. 18).

Vicarious learning

Similarly, Bandura's Social Learning Theory discusses the concept of vicarious learning and vicarious reinforcement (Woodfolk, 2001, p. 325). Here, a person can learn from the observation of others. In this example, the student would have the opportunity to learn vicariously through the consequences experienced by others, as presented in case studies or other critical incidents.

Vicarious learning can occur in case studies and storytelling (Keller et al., 2001), especially if the cases or stories are emotionally engaging and relevant to the listener.

Reflection

No conversation about active learning can be made without a thorough examination of the concept of reflection. Reflection has been an integral part of active learning since its inception. Joplin (1981) refers to this idea as "debriefing", where learning is "recognized, articulated, and evaluated" (p. 19). While the method of reflection might be private, Joplin argues that it needs to be made public at some point so it can become a "publicly verifiable articulation which makes experience and active learning capable of inclusion by the educational institutions" (p. 19).

King and Kitchener (1994) assert that adult capability of reflective judgment is indispensable for understanding the meaning of an experience. College students consistently earn higher scores on tests of reflective judgment (Mezirow, 2003). This indicates that college students are able to engage in reflective conversations that examine their own perspectives. This form of meta-cognitive reasoning is important in determining moral judgment processes in the aftermath of transformational instructional opportunities. Educators of adult learners have a unique responsibility to create the right conditions for transformative learning.

Caffarella and Barnett (1994) advise practitioners to use caution in the reflective process because reflection can sometimes "bring forth painful feelings" and "conflicting ideas" (p. 38). These painful experiences might be especially acute when dealing with "ethical dilemmas they have faced in their work or personal lives" (p. 38).

ASSESSMENT OF MORAL DEVELOPMENT

Referring back to Figure 1, moral decision-making processes are developed over time from moral schema. As these processes are repeated, they become automated to a large extent. Systematic ethics instruction can increase moral knowledge, but is unlikely to change moral processes or moral judgment unless presented using transformational methods.

However, one of the most critical—and problematic—aspects of moral development research is that of assessment. How does one determine if moral decision-making processes are improved? How does one measure a person's ethical qualities?

Indeed, the assessment of a seemingly unquantifiable construct such as morality is problematic (Barlow, Jordan, & Hendrix, 2003). However, there are instruments and techniques that seek to determine various aspects of moral development. While an exhaustive review of all literature is not appropriate for the scope of this study, this next section examines the historical context of assessing moral development.

Moral judgment interview

Kohlberg sought to determine the moral judgment of a subject by interviewing them after they had been exposed to a series of moral conflicts or dilemmas (Elm & Weber, 1994). Subjects were asked a series of open-ended probing questions. This method was known as the Moral Judgment Interview (MJI). The MJI was widely appreciated for its attempt to identify moral judgment processes. However, the MJI had several drawbacks, to include (a) using a discontinuous variable not conducive to statistical analysis, and (b) requiring a fully-trained examiner to administer the instrument (Elm & Weber, 1994).

One of the more vehement criticisms of Kohlberg comes from Bandura (1991). Bandura accuses the MJI of investing "extraordinary revelatory power" to a "simple assessment tool" with a "narrow range of moral conflicts" (p. 4).

Defining issues test

Rest, Cooper, Coder, Masanz, & Anderson (1974) sought to create an objective method of determining moral judgment that was theoretically consistent with Kohlberg, but (a) fully quantifiable, (b) more replicable, and (c) capable of full statistical analysis

(Elm & Weber, 1994). The result was the Defining Issues Test (DIT), first published in 1974. The DIT was a measure of moral judgment, the second process in the Rest's Four Component Model (refer back to Figure 2). The DIT contained six hypothetical dilemmas, comprising a wide variety of social moral issues. Subjects were asked to respond to each of these dilemmas by rating and ranking a series of 12 statements which corresponded to varying stages of moral reasoning (the statements were scenario-specific and different for each of the six dilemmas). Measurement of moral judgment was determined by how subjects rated and ranked the 12 statements. Subjects received scores that categorized them into one of three moral reasoning *schemas*: (1) Personal Interest schema, (2) Maintaining Norms schema, or (3) Postconventional schema. These schemas are closely associated with Kohlberg's aforementioned stages of moral development.

The DIT quickly became one of the seminal works in the field of moral judgment and development—and the most widely used assessment technique for measuring moral judgment (Trevino, 1992). Bebeau & Thoma (2003) identify over 1,500 reports that cite the DIT. King and Mayhew (2002) identified over 500 studies that used the DIT with college students alone—specifically relevant to this current study.

King and Mayhew (2002) present a comprehensive review of 172 studies specifically designed to use Rest's Defining Issues Test (DIT) to investigate the moral development of undergraduate college students. These studies were grouped into the following categories: (a) longitudinal studies, (b) differences between ethnic groups, (c) differences between institutional contexts, (d) differences between academic disciplines,

(e) intervention studies, and (f) relationship between moral judgment and moral behavior. Studies with significant findings were noted in each category.

Of particular interest to the current research were the studies examined by King and Mayhew (2002) that showed significant findings after an intentional intervention of direct ethics instruction. Many of the studies showed higher moral judgment scores, as measured by the DIT. Of particular note was a control group design study where the experimental group participated in 20 hours of community service learning as well as formal classroom ethics instruction. In contrast, the control group only received the formal classroom ethics instruction. In this case, only the students in the experimental group showed significantly higher P-Scores on the DIT. Integrating previously concepts, perhaps the community service served as a Significant Emotional Event for these students.

Rest and the DIT have come under criticism through the years, as critics have questioned the validity of the instrument because of perceived biases toward political values or verbal ability (Emler, Renwick, & Malone, 1983). Thoma, Narvaez, Rest, and Derryberry (1999) strongly disagree with this claim, and offer "unambiguous" evidence that "no variable or construct accounts for the validity trends of the DIT better than the DIT" (p. 338).

Although not as directly stated, Bandura's (1991) criticism of the MJI is also directed at the DIT. This is because the DIT focuses on *schemas* rather than *stages*. However, the fact that the DIT is founded on the principles of Kohlberg's research and involves "progression" of development keeps the DIT under the umbrella of Bandura's critical

assessment. Instead, Bandura (1991) believed moral judgment and thought is so complex that a single assessment instrument is insufficient to fully detect the intricacies of moral thought.

Rest and others recognized that the overarching construct of morality is much broader than the rather narrow construct of moral judgment (King & Mayhew, 2002), but contended the DIT was a useful tool in determining at least one aspect of morality. In 1999, Rest, Narvaez, Thoma, and Bebeau presented an updated version of the DIT, the Defining Issues Test, Version 2 (DIT2). This instrument was shorter, more reliable, and contained more updated dilemmas.

Behavioral desirability scale

Hendrix developed the Behavioral Desirability Scale (BDS) in an attempt to determine how respondents favor various attributes commonly correlated with character and ethical qualities (Barlow et al., 2003). This attempted to measure a concept of "Moral Knowing", which has been linked to moral action in some studies (Barlow et al., 2003). This assessment tool has shown promise, and has been shown to correlate with other moral dimensions, as well as discriminate between junior and senior military officers in terms of desired attributes (Barlow et al. 2003).

One issue with moral assessment is the problematic nature of self-reports and ratings. These concepts are often influenced by a desire to give a socially-desired response (Sarros & Cooper, 2006). One of the criticisms of the BDS is that subjects have shown a

tendency to give perceived socially-desirable responses. As a result, a separate

assessment of social desirability is often necessary to mediate when using the BDS.

Hendrix has used the BDS to differentiate levels of "moral knowing" between various

members of the United States military. More specifically, senior officers tend to score

higher on the instrument than junior officers, and junior officers score higher on the BDS

than cadets and newcomers. Because of the relative newness of the BDS instrument, it

remains to be seen how it performs when exposed to a larger portion of the population.

The BDS continues to hold promise as a seminal metric in the realm of ethical

assessment, although more research is needed to determine its utility in non-military

contexts.

Multidimensional ethics scale

Another attempt at measuring ethical dimensions of individuals was the

Multidimensional Ethics Scale (MES) proposed by Reidenbach and Robin (1990). This

instrument consists of eight items focused on the ethical dimensions of (a) moral equity,

(b) relativism, and (c) contractualism. This instrument has been used in several studies,

but has been plagued with questions regarding its utility (McMahon & Harvey, 2005;

Cohen, Pant, & Sharp, 1993; Skipper & Hyman, 1993; Hansen, 1992). The scale has

been shown to be useful in practice, and has shown promise within business ethics

instruction settings, although the instrument has not been fully tested for generalizability

(Cohen et al., 1993).

Qualitative assessment of moral development

Mezirow (2003) believes that qualitative research methods are more appropriate when attempting to understand the assumptions, intentions, and qualifications of learners. Qualitative methods may be useful when "uncovering how people process moral events" (Narvaez, 1999).

Schraw, Wadkins, and Olafson (2007) suggest qualitative research methods may be especially useful when attempting to understand how students view their own behavior, and how their underlying attitudes are aligned with prevailing literature. This method helps uncover additional aspects of a phenomenon that might explain issues that are not easily measured with traditional quantitative instruments.

Sadler (2004) used qualitative methods to better understand moral sensitivity to dilemmas and other moral issues. The result of the study was an "emergent taxonomy of moral concerns" (p. 339). Sadler also found that students often used a combination of moral and non-moral factors to arrive at their conclusions.

Types of change

Golembiewski, Billingsley, and Yeager (1976) identified three distinct forms of change: (a) alpha, (b) beta, and (c) gamma change.

Alpha change. This involves a variation in the level of some existential state. Typically, the same constantly-calibrated measurement instrument is used to measure the domain. Many pretest-posttest designs measure alpha change.

Beta change. This involves changes that occur when the measurement variable shifts while the conceptual domain remains constant. Open-ended self-report data involve this type of change because individuals often perceive and interpret scales differently.

Gamma change. This involves a redefinition of some domain; a fundamental shift in some perspective or frame of reference. Golembiewski et al. (1976) describe this type of change as "big bang" change, and admit that measuring gamma change is "extraordinarily difficult" (p. 138).

Using this as a framework, educational interventions involving a pretest-posttest methodology (using the same instrument for both assessments) might be able to show alpha change. However, if the researcher also wanted to examine the possibility of a fundamental cognitive change (gamma change), then a pretest-posttest design may be unable to detect this type of shift. However, qualitative approaches might be useful in determining gamma change because they enable researchers to probe deeper into subjects' underlying thought processes.

In the context of the current study, transformational methodologies are examined to determine shifts in moral processes. As such, while quantitative techniques may be useful in determining alpha changes, qualitative techniques may be better at identifying emerging shifts of perspective regarding moral judgment. According to Massey (1979), only a fundamental shift in perspective can bring about a long-term change in attitudes. Over time, these attitudes and perspectives can lead to new habits of moral action.

LINKING MORAL EXCELLENCE AND LEADERSHIP DEVELOPMENT

The final section of this chapter examines the relationship between moral excellence and leadership development. Following across Figure 1 at the beginning of this chapter, systematic ethics instruction provided via transformational instructional methodologies should result in improved moral decision-making processes. Using Rest's Four Component Model (refer back to Figure 2), improved moral processes are likely to produce moral character and actions. The following section presents research linking moral actions to improved leadership competencies, especially in the areas of trust and influence among followers.

U.S. Army General (Retired) H. Norman Schwarzkopf said, "If you choose to wear the mantle of leadership, it places a burden on you to conduct yourself differently than the average person" (as cited in Watt, 1995, p. 149). A strong set of core moral values is a necessary characteristic of transformational leaders (Carlson & Perrewe, 1995). Additionally, the ethical "values of the leader play a key role in the shaping of the organization's culture" (Carlson & Perrewe, 1995, p. 837).

Indeed, truly transformational leadership "must be grounded in moral foundations" (Bass & Steidlmeier, 1999, p. 181). Bass states that the moral character of a leader is the first pillar regarding the ethics of leadership, and that "authentic transformational leaders increase the awareness of what is right, good, important, and beautiful, when they … foster in others high moral maturity" (Bass & Steidlmeier, 1999, p. 191).

Trust is an important concept in leadership because it is one of the absolute requisite necessities of a leader (Josephson, 2002; Sashkin, 1995). A leader's impact is

"compromised (when) others no longer trust and believe in the leader" (Northouse,

2004, p. 315). The issue of trust in this discussion is not a non-trivial one. Consider the

words of Bok (1999):

> "Trust is a social good to be protected just as much as the air we
>
> breathe or the water we drink…When it is damaged, the community
>
> as a whole suffers; and when it is destroyed, societies falter and
>
> collapse … We live at a time when the harm done to trust can be seen
>
> first-hand. Confidence in public officials and in professionals has
>
> been seriously eroded" (p. 26-27).

Leaders have tremendous influence and a corresponding responsibility to act in ways

that are moral (Wakin, 2000). Patterson and Kim (1991) found that public trust of

government officials in the U.S. Federal government and U.S. Congress dropped 31 and

26 percent, respectively, from 1973 to 1989 (p. 216).

Wakin (1996) emphasizes the essential link between integrity and professional

practice: "Put in more direct terms, good teachers ought to be good persons, good

doctors ought to be good persons, good lawyers ought to be good persons, and good

military professionals ought to be good persons … Professional practices must always be

constrained by basic moral principles" (p. 28).

There is a link between trust and influence. Social researchers Bertram Raven and

John French identified five different bases of power: legitimate power, expert power,

referent power, coercive power, and reward power (Raven & French, 1958; Kinicki &

Kreitner, 2003). According to research, the combination of expert and referent power

tends to create the highest combination of influence over others (Kinicki & Kreitner, 2003).

Kidder (2005) identifies two distinct types of trust: (1) trust founded on confidence in one's technical abilities and experience, and (2) trust founded on values and virtues of one's inner being. These forms of trust are congruent and similar to expert and referent power, respectively. Thus, it follows that, as these respective forms of trust increase, one's expert and referent power will also increase. An increase in these two forms of power, which has been shown to be most effective in exerting influence in a situation, results in greater power and influence for a leader who possesses high levels of trust.

SUMMARY OF RESEARCH AND CONTEXT OF CURRENT STUDY

As depicted in Figure 1, moral decision-making processes are developed over time, as explained by the Information Processing Model of cognitive development, along with schema theory. Over time, these processes may become automated to a large extent. Once processes become automated, they are very resistant to change (Gagné et al., 1993).

Ethics instruction can impact moral development in college students. Sims and Felton (2006) contend that effective ethics courses help students "identify and understand the values that *really* guide their lives and decision-making" (p. 301). To date, however, little research has been done comparing instructional methods to the development of moral processes.

Transformational learning theory suggests that the introduction of a Disorienting Dilemma or Significant Emotional Event (SEE) can cause a person to question his or her current processes, and explore the possibility of change. It can be hypothesized, then, that students exposed to identical ethics interventions could experience differing levels of moral development depending on the type of methodology used in the intervention.

Educational research suggests that transformational teaching methods can be an effective delivery mechanism for the presentation of an SEE or Disorienting Dilemma. Mezirow (2003) describes schemas, stereotypical attitudes, and moral-ethical norms as being ripe for the opportunity for transformational influence because these strategies build trust, challenge assumptions, and encourage reflection. Additionally, active learning techniques can be used within a general transformational framework to encourage student engagement and reflection.

Change is possible. Trevino (1992) states that "moral education programs based upon moral development theory have succeeded in producing substantial gains in moral reasoning—especially with students in their twenties and thirties, " especially if accompanied by "internal cognitive conflict, leading the participant to question his or her own reasoning" (p. 454).

Assessment instruments can be used to quantitatively determine cognitive processes. A pretest-posttest design could be used to examine changes to those processes as a result of an education intervention (alpha change). Additionally, qualitative techniques could be used to examine underlying fundamental shifts in cognitive processing (gamma change).

Finally, the development of moral leadership processes is expected to, in turn, enable moral character and actions. These leadership qualities have been associated with increased trust and influence. As such, a compelling case can be made for research that examines ways to improve moral development of leaders. The current study attempts to further the research in this area by examining the impact of transformational instructional methods on student moral judgment.

CHAPTER III

METHODOLOGY

INTRODUCTION

This was a mixed-method study designed to examine the impact of transformational instructional techniques on student moral judgment in a leadership development course. Mixed method studies are appropriate when one is attempting to "assess a large number of participants using standardized scales and measures … in an experimental study … and then conduct … interviews with a subset of the original sample to derive a richer understanding of the phenomenon in question" (Rudestam & Newton, 2001, p. 44). Marshall and Rossman (1995) indicate that mixed methods designs—when used as an evaluation technique—can enhance the "pragmatic usefulness" (p. 124) of the evaluation to policy makers, and may be especially useful when the evaluated phenomenon is complex.

This study used both quantitative and qualitative perspectives. Richards and Morse (2007) confirm the utility of this form of research, and emphasize that quantitative and qualitative methods are not required to be weighted equally. Instead, one component is decided to provide the "analytic core" (p. 93) and the other component allows for additional insight and explanation into the findings of the core component. In addition, these researchers highlight the importance of "sequencing" (p. 95), where the secondary research can be either simultaneous or sequential in relation to the core research. This determination of weighting and sequencing is primarily derived from the core research question.

Using this general framework, the current study was designed as a primarily quantitatively-driven project (with a quantitative core) and a qualitative sequential component. Richards and Morse (2007) confirm that this methodology is very appropriate when using qualitative techniques to obtain some additional insight into the results of a core quantitative study.

Thus, the quantitative core of this research study was a quasi-experimental control-group, 2 x 2 factorial, pretest-posttest design. The qualitative component was subsequent to the quantitative portion and supplemental in nature. Participant perceptions were recorded to understand common themes and relationships related to the phenomenon in question (in this case, a leadership course at Texas A&M University). In addition, interviews were conducted with a relatively small number of students to gain deeper and richer insights into the phenomenon of the educational experience.

The following sections will examine the specific rationale behind the methodological choices used.

QUANTITATIVE POPULATION

The population used for this study was senior-level students in the Corps of Cadets at Texas A&M University (TAMU) who were enrolled in an Executive Leadership course. This course was offered through the Texas A&M University School of Military Science (SOMS). The course designation through the university was SOMS-481.

Context

Corps of cadets. The purpose of the TAMU Corps of Cadets is "to develop leaders of character who are prepared to provide values-based leadership in the public and private sectors of society" (Office of the Commandant, 2004, p. 1). There is a four-year sequence to the program: *Followership* is emphasized for freshman cadets; *Direct Leadership* is emphasized for sophomore cadets; *Indirect Leadership* is emphasized for junior cadets; *Executive Leadership* is emphasized for senior cadets.

Seniors in the TAMU Corps of Cadets are in one of two categories: contract and non-contract. Contract students are engaged in coursework and other preparations through the Reserve Officer Training Corps (ROTC) to enter into full-time commissioned military service in the United States armed forces. Non-contract cadets are not affiliated with the ROTC program, and are free to pursue any professional opportunities they choose upon graduation. However, non-contract cadets still must participate in Corps of Cadets training and activities. Thus, the Executive Leadership SOMS-481 course used in this study consists of non-contract cadets who are required to participate in a senior-level SOMS course as part of their Corps of Cadet responsibilities.

SOMS-481. The Corps Leadership Development Center created four SOMS leadership development courses, under the direction of the TAMU Commandant of Cadets. These courses are required for all non-contract cadets.

The first two courses (SOMS-380 and -381) are offered during the cadets' junior year. These courses focus on indirect leadership and introduce leadership theories and concepts to students. The second two courses (SOMS-480 and -481) are conducted

during the senior year. These courses emphasize executive leadership, with an emphasis on application and decision-making.

All SOMS courses are 50 minutes in duration and meet once per week. The typical class size is 18-24 students. Instructors are selected by the Leadership Development Center from candidates throughout the TAMU campus, to include military personnel, graduate students, instructors from other academic departments, or administrators. The senior spring-semester SOMS-481 course was the context of this research study—all participants in the study were students enrolled in that course. Specifically, the SOMS-481 course emphasized ethical leadership and development.

Participants

Quasi-experimental participants. The Corps of Cadets at Texas A&M University began the 2006-2007 academic year with a combined strength of 1,881 students (Office of the Commandant, 2007). During the 2007 spring academic semester, there were 222 non-contract seniors enrolled in the SOMS-481 Executive Leadership course. These 222 students were divided among 11 different offerings (sections) of the course. Student participants are generally allowed to select their own SOMS-481 course section, depending on their individualized class schedules and day/time preferences. Therefore, since the researcher lacked the ability to randomly assign students to groups, this was a quasi-experimental study.

Students from four SOMS-481 sections participated in the core quasi-experimental portion of the study: Sections 500, 550, 552, and 556. These four sections formed the

core quasi-experimental sample of the study (n=88). Table 1 shows the distribution of these participants by sections.

Table 1
SOMS-481 sections in the quasi-experimental portion of the study

SOMS-481 Section Number	Total enrolled	Total in Pretest sample	Total in Posttest sample	Instructor
SOMS-481-500	22	21	19	INSTRUCTOR A
SOMS-481-550	22	17	16	
SOMS-481-552	23	22	21	INSTRUCTOR B
SOMS-481-556	21	21	22*	
OVERALL TOTAL	88	81	78	

Note. * -- One student was added to the course roster on Week 3

The researcher chose these four sections because (a) only two instructors were involved—each taught two sections—thereby potentially reducing instructor variation, and creating larger sample sizes per instructor, (b) the instructors for those sections were the two most experienced instructors in the SOMS-481 course, (c) the instructors indicated that they were willing to participate in the study, and (d) the instructors indicated that, in past iterations of the SOMS-481 course, they typically preferred differing instructional methodologies (one preferred more traditional/transactional methods, and one preferred more transformational methods).

Comparative SOMS-481 participants. Since the researcher was unable to randomly assign students to SOMS-481 sections, additional analyses were conducted to investigate possible pre-existing differences between sections. One of these additional analyses

involved a comparison of DIT2 scores of students in the four quasi-experimental

sections to students in six other SOMS-481 sections. These six sections were not part of

the study, apart from being used as a comparative sample. Table 2 shows the distribution

of students in the comparative sample.

Table 2
Distribution of SOMS-481 students in quasi-experimental and comparative groups

Section Number	Day/Time of Week Offered	Total number enrolled	Total number in pretest sample
Quasi-experimental			
SOMS-481-500*	MON 0800-0850	22	21
SOMS-481-550*	MON 1130-1220	22	17
SOMS-481-552*	TUES 0935-1025	23	22
SOMS-481-556*	WED 1350-1440	21	21
Quasi-experimental total		88	81
Comparative			
SOMS-481-551	MON 1500-1550	24	24
SOMS-481-501	WED 0800-0850	20	18
SOMS-481-555	WED 1130-1220	19	16
SOMS-481-557	WED 1500-1550	21	18
SOMS-481-558	THURS 1110-1200	21	16
SOMS-481-559	THURS 1420-1510	8	7
Comparative total		113	99
OVERALL TOTAL		201	180

Note. * = Section in the core experimental sample

QUANTITATIVE INSTRUMENTATION

Defining issues test (DIT)

For the quantitative portion of the study, the researcher selected the Defining Issues

Test, Version 2 (DIT2) designed by Rest, Narvaez, Thoma, and Bebeau (1999). The

DIT2 is a paper-and-pencil measure of moral judgment based on Kohlberg's theory of

moral development. The instrument presents five moral dilemmas, followed by a series of questions. Respondents are required to rate and rank the questions in terms of perceived importance.

The DIT2 is an updated version of the original Defining Issues Test, described in detail in Chapter II of this report.

Rest and others acknowledged that morality is much broader than the rather narrow construct of moral judgment (King & Mayhew, 2002), but determined the DIT2 was useful in measuring moral judgment—an important aspect of morality. Moral judgment is a second process identified by Rest's Four Component Model (see Figure 2 in Chapter II of this report).

The DIT2 is described as a "neo-Kohlbergian" approach (Rest et al., 1999) because it advances the theory and methods of Kohlberg's original Moral Judgment Interview and moral development theory. Table 3 presents a comparison of Kohlberg stages to DIT2 moral reasoning schemas.

The DIT2 is theoretically consistent with Kohlberg, but fully quantifiable, more replicable, and capable of full statistical analysis (Elm & Weber, 1994). In terms of internal reliability, the DIT2 has an overall Cronbach's alpha level of .81 (Rest et al., 1999).

Table 3

Comparison of Kohlberg stages to DIT2 moral reasoning schemas

Kohlberg Stage	Definition of Stage	DIT2 Moral reasoning schema
STAGE 1 Punishment-Obedience	Rules are obeyed to avoid punishment	Not included
STAGE 2 Personal Reward	Direct advantages to the actor	Personal Interest Schema
STAGE 3 Good-Boy—Nice-girl	Good or evil intentions of the parties	
STAGE 4 Law and Order	Maintaining existing legal system and formal organization structure	Maintaining Norms Schema
STAGE 5 Social Contract	Appealing to consensus-producing procedures and due process	Postconventional Schema
STAGE 6 Universal Ethical Principles	Organizing social arrangements and intuitively-appealing ideals	

Note. Sources: Bebeau & Thoma, (2003, p. 18-19); Woolfolk (2001, p. 82).

Validity and reliability. Validity and reliability for the DIT2 are well-established (Bebeau & Thoma, 2003; Elm & Weber, 1994). DIT2 validity has been assessed using several criteria, to include:

1. *Differentiation of various age/education groups*. Studies show that moral judgment increases with age and education (Bebeau & Thoma, 2003, p. 30).

2. *Longitudinal gains*. Moral judgment was shown through numerous longitudinal studies to increase over time. A review of 12 studies involving college students

showed an effect size of .80, and show that gains in DIT scores are one of the more dramatic effects in college (Bebeau & Thoma, 2003, p. 30).

3. *Relation to cognitive capacity measures*. The DIT is significantly related to moral comprehension measures and Kohlberg's MJI, as well as other cognitive developmental measures (Bebeau & Thoma, 2003, p. 30).

4. *Sensitivity to moral interventions*. In a review of over 50 intervention studies, the DIT scores for participants who participated in dilemma discussions was significantly higher than for comparison groups (Bebeau & Thoma, 2003, p. 30).

5. *Linkage to decision-making behaviors*. One study examined 47 behaviors that were desired in the context of professional decision-making. This study found that DIT scores had statistically significant relationships between 32 of the 47 behaviors (Rest, Narvaez, Thoma, and Bebeau, 1999, p. 647).

Rest's original 1974 version of the DIT determined moral judgment using various metrics. However, the overall best single score of the original DIT was through a statistic called the "P-Score", which measured an individual's tendency toward postconventional thinking. In contrast, the DIT2 introduced the N2 index, which generally outperforms the P-Score on six criteria of construct validity (Bebeau & Thoma, 2003, p. 19). Like the P-Score, the N2 index represents the degree to which postconventional items are prioritized. However, the N2 index also considers the degree to which lower stage (personal interest schema) items are valued. N2 scores are adjusted to the same scale as the P-Score so that comparisons between P-score and N2 can be

made, especially in reference to previous research. In general, the N2 score is the most

valid single score on the DIT2 for each respondent (Bebeau & Thoma, 2003, p. 7).

Selection of the DIT2 for the current study. King and Mayhew (2002) reviewed 172

studies that used the DIT (either version) to investigate the moral development of

undergraduate college students, and concluded that "dramatic gains in moral judgment

are associated with collegiate participation" (p. 247). They further conclude that this

growth is not attributable to general maturation (p. 252). In many cases, increased DIT

scores took place over a one-term course, often with a specific ethical component within

the course material (p. 256). This demonstrates the ability of the DIT (more specifically,

the DIT2) instrument to identify shifts in moral judgment processes that might take place

during the SOMS-481 spring semester, particularly in a course with an intentional

emphasis on ethical issues, dilemmas, and resolution strategies.

In addition, the DIT (both versions) was designed within the boundaries of a

conceptual framework that proposes that humans do not always have direct access to

their cognitive operations (Rest et al., 1999). Thus, asking participants to fully explain

their thought processes during a moral judgment exercise (such as the MJI) is

problematic: "Perhaps people do not know how their minds work any more than they

know how their immunization or digestive systems work" (Rest, Narvaez, Thoma, and

Bebeau, 1999, p. 646). This appears to be consistent with the concepts of automaticity

mentioned in the literature review of this report. As such, the DIT2 allows the participant

to view common elements of a person's potential cognitive operations (i.e., the 12

statements that follow each dilemma). The DIT2 allows researchers to examine which

moral schemas a participant uses when wrestling with a moral issue or dilemma. This information can be useful in helping students achieve progress toward the course objectives in the SOMS-481 course, specifically as they (a) attempt to assess their own level of performance in leadership environments, (b) develop effective leadership strategies for various situations, and (c) understand the importance of ethical leadership qualities and the factors which often accompany ethical development.

Furthermore, the selection of the DIT2 for this study made sense from a pragmatic perspective. First, the DIT (both versions) has historically shown significant gains in moral education settings similar to the SOMS-481 semester timeframe. Research has shown significant increases have occurred in interventions lasting 3-15 weeks in duration, particularly in the college years (Bebeau & Thoma, 2003). Second, while the DIT2 is not a timed test, it typically can be completed in 35-45 minutes. This is within the 50-minute timeframe of a single SOMS-481 class period. Finally, the DIT2 is professionally scored and allows for appropriate collection of demographic responses, as well as participant identification (necessary for pretest-posttest designs).

QUANTITATIVE PROCEDURES

Pretest administration

Support for the research study was granted by the TAMU Leadership Development Center and the Commandant of the TAMU Corps of Cadets. The Leadership Development Center purchased DIT2 instruments and response forms from the Center for the Study of Ethical Development at the University of Minnesota in Minneapolis,

Minnesota. These items were received prior to the start of the TAMU spring 2007 semester.

The first part of the study involved administration of the DIT2 instrument to the quasi-experimental sections of the SOMS-481 class during the second week of classes (January 29, 2007 through February 1, 2007). The researcher administered the instrument to all sections, to include the four quasi-experimental sections and six comparative sample sections. The process was identical for all administrations.

Number 2 pencils were provided for all participants. Before beginning the assessment, all respondents were assigned a unique 5-digit identification number that could be used to include them in any future longitudinal or posttest studies, if they desired. The first digit of the identification number was specific to the section attended, and the remaining four digits were unique to the individual.

The instructions on the front page of the DIT2 state:

> "This questionnaire is concerned with how you define the issues in a social problem. Several stories about the social problems will be described. After each story, there will be a list of questions. The questions that follow each story represent different issues that might be raised by the problem. In other words, the questions / issues raise different ways of judging what is important in making a decision about the social problem. You will be asked to rate and rank the questions in terms of how important each one seems to you" (Center for the Study of Ethical Development, 1998, p. 1).

In addition, the inside cover page of the instrument asks participants to accomplish three tasks: (1) make a decision regarding the action they would prescribe in the story, (2) rate each of the 12 items according to their relative importance, and (3) rank which of the 12 items they consider to be the first, second, third, and fourth most important to them. The researcher repeated these instructions, along with visually demonstrating where these items were found on the response form.

As students completed the instrument, the researcher performed an initial, cursory quality check to ensure that the respondent had not overlooked any required actions. After administration, all completed instruments were checked a second time by the researcher to ensure that identification numbers were accurate, there were no stray marks on the page, and all erasures were clean. This is consistent with the guidance given in the administration checklist provided by the Center for the Study of Ethical Development (1998).

Completed and reviewed instruments were then sent for scoring to the Center for the Study of Ethical Development / 206-A Burton Hall / 178 Pillsbury Drive SE / University of Minnesota / Minneapolis, MN 55455. The instruments were mailed in a sealed container, protected with cardboard, as per the guidance given by the administration checklist. A "Job Submission Form" was included. Raw data were returned on a 3.5-inch diskette, along with a 24-page summary of results.

Systematic ethics intervention

King and Mayhew (2002) state that very few intervention studies involving the Defining Issues Test contain explicit details regarding the specific methodologies or interventions used. Therefore, this section of the report offers a detailed description of the types of instructional methodologies used in this study by participating instructors.

All students participating in the quasi-experimental study received an educational intervention in the form of a 14-week systematic ethics curriculum. This curriculum emphasized classical ethical theories and basic decision-making processes. Instructors A and B both utilized Kidder's (1995) general framework of dilemma discussion, moral theory, and classic resolution principles (see Table 4). Additional moral theories, as defined by Solomon and Martin (2004), were introduced and incorporated into the curriculum as well.

As can be seen by Table 4, the general topics covered by the instructors were nearly identical. This similarity is critical because the purpose of this study is to examine the impact of intentional transformational methodologies to the development of student moral judgment. In order to examine that phenomenon, it must first be established that the content of the course is consistent for all participants.

Table 4
Topics covered by SOMS-481 instructors

Topic	Instructor A	Instructor B
Common "Right vs. Right" Dilemmas		
Truth vs. Loyalty	X	X
Justice vs. Mercy	X	X
Individual vs. Community	X	X
Long-Term vs. Short-Term	X	X
Moral Theory & Resolution Frameworks		
Deontological (Duty-based)		
(Kant / Categorical Imperative)	X	X
Teleological (Ends-based)		
(Utilitarianism)	X	X
(Aristotelian ethics-based)	X	X
(Egoism)	X	X
(Altruism)	X	X
(Machiavellianism)	X	X
Reciprocal (Care-based)		
(Golden Rule)	X	X
(Social Contract)	X	X
Other topics		
Trust as a basis for leadership	X	X
Identifying root causes	X	X
Case studies of ethical events	X	X
Handling dishonest leadership	X	
Automated processes		X
Habitual unethical behavior		X
Legal issues	X	
Academic integrity statistics	X	X

Each instructor utilized both transactional and transformational strategies to some extent. This is to be expected, according to Bass and Stedlmeier (1999), because most leaders (in this case, educators) "have a profile of the full range of leadership that includes both transformational and transactional factors" (p. 184).

For this study, transactional teaching is defined according to Bass and Stedlmeier's (1999) verbiage as "contingent rewarding behavior" where students perform required activities "in exchange for implicit or explicit rewards" (p. 184). Using this definition, both instructors used some transactional strategies, to include assigning graded assignments, establishing mandatory attendance expectations, and distributing end-of-course grades in accordance with work performed and effort given.

In terms of transformational strategies, both instructors encouraged students to examine their own thought processes and reflect on the topics discussed. Each instructor challenged students to consider how course concepts could be valuable after college in professional settings.

The sequence of the instruction was similar for both instructors, with slight variations (see Table 5). Table 5 provides a week-by-week account of major topics covered by these instructors.

In addition, both instructors attempted to conduct their respective classrooms in accordance with the basic guidelines established by Cranton (2006). Each intentionally tried to (a) demonstrate genuine interest and concern for student learning, (b) build trust with students, (c) be accessible outside of the classroom, and (d) be eager to help students with problems and issues outside the classroom. While Cranton (2006) describes these techniques as being transformational in nature, many researchers assert that these methods are not unique to transformational teaching. Rather, they are simply reflections of good overall teaching strategies (McKeachie & Svinicki, 2006; Palmer, 1998).

Table 5

Major topics covered by Instructors A and B during the Spring 2007 semester

INSTRUCTOR A		INSTRUCTOR B
• University closed due to weather	Week 1	• University closed due to weather
• Welcome • Course overview	Week 2	• Welcome • Course overview
• DIT2 Pretest administration	Week 3	• DIT2 Pretest administration
• Right vs Right dilemmas • Article review / writing assignment • Josephson/McCabe statistics	Week 4	• Basic moral theories • Movie clip (*TV Show "24"*)
• Resolution principles • Case Studies	Week 5	• How far is too far? • Right vs Right dilemmas • Writing Assignment #1 • Movie clip (*Mississippi Burning*)
• Ethical dilemmas • Legal issues • Small and large-group discussion	Week 6	• Small group dilemma resolution • Personal example (truth/loyalty)
• Bookbinder's dilemma • Writing assignment #2 (In-class)	Week 7	• Justice/Mercy case study – late papers • Trust, power, & leadership • Movie clip (*Documentary—US Naval Academy cheating scandal*)
• Review/in-class critique of writing assignments	Week 8	• Immovable points of reference • Personal example (long/short-term) • Movie clip (*Apollo 13*)
• SPRING BREAK	N/A	• SPRING BREAK
• Handling dishonest leadership	Week 9	• Guest speaker
• Dilemma resolution • Identifying root causes	Week 10	• Personal integrity • Spring "check-up" mid-term exam • Movie (*Documentary on academic integrity—Part 1*)
• Dilemma resolution • Identifying root causes	Week 11	• Movie (*Documentary on academic integrity—Part 2*) • In-class discussion – root causes of unethical behavior • Josephson/McCabe statistics
• Movie (*Codebreakers*)	Week 12	• Habitual unethical behavior • Pain/pleasure Automated processes
• Movie (*Codebreakers*) • Writing Assignment #3	Week 13	• Shifting automated processes • Personal integrity • Realigning reward systems
• DIT2 Posttest administration	Week 14	• DIT2 Posttest administration

Both instructors met weekly to discuss and critique past lessons, preview upcoming lessons, and discuss their own personal development as leaders and educators. These sessions consisted of weekly informal one-on-one discussions, as well as formal weekly staff meetings of all SOMS-481 instructors.

Methodological differences within the intervention

The core distinguishing factor between Instructors A and B during the semester was a more substantive and direct emphasis on transformational teaching methods by Instructor B. Throughout the course of the semester, Instructor A presented course information primarily through lecture. Each class period, lectures were augmented with (a) case studies, (b) relevant examples of dilemmas, and (c) in-class discussion and debate. While primarily considered to be a more traditional methodology, this combination of lectures coupled with intentional efforts to engage students can be very effective (McKeachie & Svinicki, 2006; Gini, 2005). The final two weeks of the course, Instructor A showed the motion picture *Codebreakers* (Adelson & Holcomb, 2005), depicting a military training setting where students must choose between truth-telling or loyalty. This clip was shown in an attempt to reinforce previous learning in an engaging and relevant manner. It was the only intentional attempt by Instructor A at creating an in-class Significant Emotional Event (SEE). There was no in-class discussion after the film, although students were asked to complete a written one-page reflection following the film.

While both instructors used transformational strategies to some extent, Instructor B intentionally and systematically attempted to utilize transformational strategies in two distinct ways: (1) direct and overt emphasis on direct personal application of ethical/leadership principles learned, and (2) introduction of instructional events designed to be potential Significant Emotional Events (SEEs) and/or Disorienting Dilemmas for the students.

Emphasis on personal application. Individualized instruction that is based on personal application is one of the core components of effective ethics instruction (Sims & Felton, 2006). While both instructors in this study emphasized the importance of personal application of course concepts, Instructor B used a more intentional and widespread approach to this concept. Every graded assignment and course examination contained specific questions designed to make students connect course topics to their own personal experiences. For example, students were asked to identify Significant Emotional Events from their past, explain how their "Immovable Points(s) of Reference" guided their past decisions, and to explicitly state underlying questions that might be part of their automated decision-making processes.

In addition, many cadets hold formal and informal leadership positions in their respective Corps of Cadets organizations or, in some cases, in outside employment. Throughout the semester, students were encouraged to consider situations or dilemmas from their own roles as employees and reflect on how class concepts might interact with those realities. This type of technique can be effective because (a) it allows students to potentially see their own experiences as SEEs, and (b) it allows for reflection regarding

concrete experiences, which are the first two steps in the experiential learning cycle proposed by Dewey, Lewin, and Kolb (Kolb, 1984).

SEEs and disorienting dilemmas. Massey (1979) defined an SEE as a "dramatic change in the gut-level value system [that presents] a challenge and a disruption to our present behavior patterns and beliefs" (p. 18). According to Massey, SEEs may be artificially created in an educational setting, and they can occur as a slow buildup or through dramatic events. Massey's concept of the SEE is essentially identical to Mezirow's concept of the Disorienting Dilemma, where a particular life event creates an internal crisis that cannot be resolved through the application of previous problem-solving strategies (Merriam & Caffarella, 1999).

According to Mezirow's theory, the Disorienting Dilemma is the essential first step in the transformative learning process. It seems intuitive, then, that educators wishing to create transformational learning opportunities for their students should seek to introduce potential Disorienting Dilemmas into the educational experience. As a result, Instructor B attempted to systematically introduce a series of Disorienting Dilemmas (or SEEs) into the SOMS-481 course for this study.

Consistent with the work of Narvaez and Bock (2002), Trevino (1992), Christianson et al. (1991), and Massey (1978), these Disorienting Dilemmas were intentionally designed to produce an emotive response in students, with the belief that emotional stimuli can jolt students toward an affective threshold that can be conducive to experiencing a true Disorienting Dilemma. The following instructional events were (a)

unique to Instructor B, and (b) specifically intended to serve the function of a potential

Disorienting Dilemma for students:

1. *Guest speaker.* This can be an effective transformational technique because it

    allows for the sharing of personal anecdotes (Cranton, 2006) and for vicarious

    learning (Keller et al., 2001). On Week 9, a professional architect from a large

    city in Texas spoke to the students regarding two specific intense moments from

    his life. One involved being the victim of a violent crime in a life-and-death

    situation. The other involved being offered over $1 million dollars annual salary

    to participate in professional activities that—while legal—were well outside the

    acceptable boundaries of his personal value system. The speaker connected the

    two accounts by stating that the violent crime incident had solidified his own

    personal values to the point where even a large annual salary would not cause

    him to go against those values. Students asked questions and fully participated in

    the discussion.

    The week following the architect's presentation, Instructor B invited students

    to participate in a debriefing/discussion regarding the session. During this time,

    concepts presented in the guest speaker's presentation were connected to course

    terms and theories. In addition, students were asked to "role play" certain aspects

    of the presentation, while Instructor B made slight modifications to the context of

    the dilemma. Throughout the discussion, students were repeatedly asked to

    consider how they themselves might have responded in that situation, and how

their own personal decision-making processes might have worked in this situation.

2. *Personal examples from the instructor*. This technique can be effective in the transformational process (Cranton, 2006). Instructor B shared personal examples throughout the semester. However, there were two personal dilemmas shared with the intent of creating a Disorienting Dilemma or SEE.

The first of these occurred on Week 6 and involved a true-life truth versus loyalty dilemma. Instructor B shared the situation up to the point of decision and then stopped explaining. Students were then challenged to ask additional questions in an attempt to gain more information through a pseudo-investigative process. The instructor then asked students to objectively apply each of the main resolution principles to the scenario. Finally, students were challenged to provide their own personal decision in the dilemma, and provide justification for their choice in a small-group discussion.

The second personal dilemma was shared by Instructor B on Week 8. It involved a true life-and-death scenario that had long-term versus short-term (as well as truth versus loyalty) dimensions. Again, the instructor shared only certain elements of the scenario to the group, and students were encouraged to ask questions in order to gain additional information. This dilemma was substantially more involved and ambiguous than the Week 6 example, and the entire exercise took over half of the class period. At the end of the exercise, the instructor shared his actual decision in the case—which turned out to have devastating

consequences on several people's lives. Students were challenged to consider the implications of a decision that follows an honorable process but still leads to undesirable results. Instructor B then challenged the students to consider how they might have handled the situation, both cognitively and emotionally.

During the second personal dilemma, the instructor monitored the types of questions asked by the students throughout the class discussion. The following class period, the instructor held another in-class discussion regarding the types of questions asked, and attempted to connect that observation to previously-learned concepts—such as deontological, teleological, and reciprocal resolution strategies, to include utilitarianism, egoism, and altruism. Students were challenged to find appropriate labels for the types of questions they were asking during the discussion. This was intended as an entry-level exercise to help students begin to see the types of processes they use to resolve dilemmas.

3. *Film clips*. Sims and Felton (2006) and Champoux (1999) are among those who contend that media clips have a unique way of connecting with learners, especially in a college setting. Film allows for a reality-based visual view of class concepts and can often be valuable in achieving emotional responses from viewers (Champoux, 1999). Throughout the semester, Instructor B utilized film extensively in the classroom to introduce or reinforce class concepts. Of those sessions, a few were designed to be capable of creating a Disorienting Dilemma or SEE for the students. Those film sessions are discussed in the following paragraphs.

During Weeks 4 and 5, two film clips allowed students to wrestle with questions of competing "right" choices (Kidder, 1995). These clips were from the television series *24* (Sutherland, 2003) and from the motion picture *Mississippi Burning* (Zollo & Parker, 1988). In each of these clips, law-enforcement officers were tempted to use unapproved interrogation techniques in order to obtain time-sensitive information from apprehended suspects. Students watched the clips, and were then asked to discuss these scenes using class concepts (identify the type of dilemma, offer rationale for specific resolution strategies, etc.). Students then had to complete a writing assignment that asked them to explain rationale for both sides of the issue, and then make a decision that reflected their personal beliefs regarding this issue.

During Week 7, another film clip was used to create a possible SEE or Disorienting Dilemma. This clip was from a television broadcast of the CBS investigative program *48 Hours* (Zirinsky, 2002). In this segment, several former cadets from a United States service academy were interviewed following their dismissal from the institution due to cheating on a graded examination. SOMS-481 students in Instructor B's class were asked to determine the thought processes that might have led these former cadets to compromise their integrity. Students were then challenged to examine their own processes to see if they might be tempted to compromise under similar circumstances.

On Week 8, Instructor B showed a clip from the motion picture *Apollo 13* (Grazer & Howard, 1998). In this scene, astronauts used a fixed reference point

in space to ensure they were on the correct reentry trajectory. Class discussion identified this scene as an example of an "Immovable Point of Reference"—analogous to the core components of a person's value system. These personal "Immovable Point(s) of Reference" can serve as beacons to help guide decisions. Students then spent time in class reflecting on their own personal "Immovable Point(s) of Reference." Students shared their answers with other class members in small groups. Additionally, both the mid-term and final examinations asked students to reflect on and discuss their "Immovable Point(s) of Reference," and to understand how these reference points can be instrumental in guiding a person through an ethical dilemma.

4. *Direct confrontation.* Sometimes, learners can experience a SEE when they are confronted with information that brings current or past behaviors into question (Massey, 1979). As a result, Instructor B attempted to highlight areas where behaviors of some students might be indications of underlying flawed decision-making processes.

   One such event occurred on Week 7. Several students failed to turn in their writing assignment the previous week. Instructor B took time during this class period to discuss appropriate sanctions for those students who had failed to meet the timelines of the assignment. This in-class discussion was designed to be interactive rather than punitive in nature. The instructor presented the issue as a justice-versus-mercy case study, and asked students to help determine what sanctions—if any—should be applied in these individual cases. This exercise was

intended to (a) illustrate a personal example of a right-versus-right, justice-versus-mercy dilemma, (b) enable students to gain an appreciation for the instructor perspective of late assignments, (c) highlight how trust is a critical dimension between an instructor and his or her students, (d) take advantage of a "teachable moment" (Merriam & Caffarella, 1999, p. 102) to utilize a setting where students might be particularly receptive to new perspectives.

A second example of direct confrontation occurred on Weeks 10 and 11. Instructor B showed extended clips from the ABC investigative television program *Primetime Live* (Weinraub, 2004). This program investigated the cheating "epidemic" on American campuses, and highlighted statistical data from Josephson (2004) and McCabe, Trevino, and Butterfield (2002). The program discussed some root causes regarding why students lie and/or cheat, to include pressure for grades, pressure from parents, and advances in technology. This video enabled a frank and open discussion in the SOMS-481 setting regarding personal integrity. Instructor B presented cheating statistics from the Center for Academic Integrity (2006) where approximately 70 percent of college students admitted to some form of cheating. Instructor B then used the SOMS-481 forum for an open discussion of current academic integrity issues. Students were asked to consider the possibility that they might have been part of that 70 percent in the past, and, if so, what pressures and other factors might have led them to compromise in that manner.

Educational events that might potentially become Significant Emotional Events or Disorienting Dilemmas for students are very difficult to create or measure. Merriam and Caffarella (1999) remind hopeful transformational educators that what is significant (or disorienting) for one person may not be significant for another. Thus, in this study, SEEs were introduced within multiple contexts and techniques in an effort to create some type of meaningful experience for as many students as possible. However, it was recognized that there are inherent differences in student learning styles, personality, and social contexts (Cranton, 2006), and these differences make it highly unlikely that a single instructional event will be emotional or disorienting for all students.

Posttest administration

DIT2 posttest. During the final week of the spring 2007 semester (April 23-27, 2007), all student participants in the pretest-posttest portion of the study were administered the DIT2 assessment a second time.

Unlike the pretest administration of the DIT2 instrument, the posttest administration was not deemed to be part of the normal evaluative process of the SOMS-481 course. As a result, the researcher sought, and was granted, permission to conduct the posttest portion of this study from the Institutional Review Board (IRB) prior to the second administration of the DIT2. The researcher read a script to all participants, advising them of their right to abstain from any part of the posttest portion of the study (Appendix A). As with the first administration, completed assessments were again mailed to the Center

for the Study of Ethical Development at the University of Minnesota for scoring and initial analysis.

    <u>End-of-course feedback</u>. Participating students were also asked to complete an confidential end-of-course feedback sheet (Appendix B). Per guidance given by Lawson (1998), this feedback sheet collected quantitative student information—using Likert-scale statements—on the following topics: (a) instructor communication skills, (b) instructor knowledge, (c) course impact on thought processes, (d) presentation of alternate perspectives, (e) opportunities for reflection, (f) overall perceptions, (g) course impact on leadership development, and (h) potential for future use of course concepts. Participants were also asked to indicate if they had received any formal ethics training prior to the SOMS-481 course. Participants used the same identification number they used for the DIT2 assessments. For this reason, the information provided was confidential, but not anonymous. This allowed quantitative end-of-course feedback and demographic information to be linked to DIT2 responses. All end-of-course feedback information was transposed into the SPSS program and used for additional analyses.

    The researcher was particularly interested in collecting data on instructor skills and prior ethics training. Wide gaps in perceived instructor competencies, for example, would likely introduce additional error due to variation not attributable to instructional interventions and methodologies. Likewise, prior ethics training could also be a confounding variable if not considered and accounted for in the analysis phase.

Quantitative data analysis

Collected DIT2 assessments were processed and initially scored at the University of Minnesota's Center for the Study of Ethical Development. Raw data were then analyzed further using a statistical software program (SPSS Version 12.0 for Windows).

The quantitative core of this research study was a quasi-experimental control-group, 2 x 2 factorial, pretest-posttest design. The independent variable was *method of instruction*, as defined and differentiated by classroom section. The dependent variable was participant *N2 scores* on the DIT2 assessment instrument. Data were analyzed to determine interaction effects or simple main effects were present. Multiple displays such as charts and tables will be used to present findings. An alpha level of .05 was used for all tests of statistical significance.

Comparison analyses involving demographic and end-of-course feedback data were based on mean scores through the use of t-tests or analysis of variance (ANOVA). Again, an alpha level of .05 was used for all tests of statistical significance. Analyses and interpretation of the data followed the principles prescribed in Gall, Borg, and Gall (1996).

QUALITATIVE PORTION

As previously stated, the qualitative portion of the study was intended to only be a supplemental augmentation to the core quantitative portion, as prescribed by Richards and Morse (2007). Information was specifically examined to gain additional insight, derive a richer understanding of the SOMS-481 experience, and to enhance the

pragmatic usefulness of the research (Marshall & Rossman, 1995). Qualitative

information is particularly useful when the researcher is attempting to gain a deeper

understanding about an evaluation—especially when two groups received different

levels of an intervention (Richards & Morse, 2007). Qualitative inquiry can allow

researchers access to thought processes and meanings that are difficult to ascertain using

quantitative methods (Denzin & Lincoln, 1998).

This study was a limited and modified version of a phenomenological study, intended

to augment the information gained from the core quantitative part of the study.

Phenomenology studies attempt to understand the essence of a shared experience—in

this case, the spring SOMS-481 course.

Qualitative data collection and procedures

Open-ended written comments. The researcher collected qualitative information for

this study using two primary techniques. First, per guidance given by Lawson (1998),

students were given the opportunity to provide open-ended written comments as part of

their end-of-course feedback (see Appendix C). Unlike the quantitative end-of-course

portion, these written comments were completely anonymous. These comments were

collected during the first 20 minutes of the last class period of the semester. The

researcher elected to request this information at the beginning of the class period so

participants would not try to rush through the exercise in an attempt to leave early.

Instructors were not present in the room at the time of administration. Instead, another

person read the script and collected the information. All student participants were (a)

given the opportunity to decline participation, (b) encouraged to provide honest

feedback, whether positive or negative, and (c) reminded that the information provided

was anonymous and would not be read until after grades for the course had been posted.

Completed response forms were placed in a sealed envelope and were stored by a

member of the Commandant's staff until SOMS-481 grades had been submitted.

All participating students were asked to complete identical forms. Specifically,

students were asked to provide written feedback regarding four areas: (1) overall

perceptions of the course, to include how the spring SOMS-481 course related to

previous SOMS experiences, (2) especially meaningful lessons or topics, (3) lessons or

topics that should be considered for elimination, and (4) feedback regarding their

instructor. A copy of this form is included at Appendix C.

The written feedback form was not especially detailed and did not include direct

questions about radical perspective change, SEEs, or perceived attitudinal change. While

this would have ultimately been desired, the researcher decided to use the same written

form that had been used in previous years, to enable SOMS-481 developers to compare

spring 2007 responses to previous iterations of the SOMS-481 course. The researcher

acknowledges that this decision reduced the richness of the end-of-course written

responses. However, since the same written form was used for all participating sections,

the researcher determined that the questionnaire used, while not optimal, was acceptable.

Interviews of selected students. Additional qualitative data was collected via personal

interviews of selected students. These interviews lasted approximately 30 minutes each

and consisted of semi-structured open-ended questions. This type of data collection is

consistent with guidance provided by Caffarella (2002) and Lawson (1998). Participant interviews were tape-recorded. As recommended by Lawson (1998), interviews were conducted approximately one week after the completion of the course.

For the interviews, a total of eight students were selected (two from each SOMS-481 section). Selected students were chosen through stratified purposeful sampling (Creswell, 1998; Miles & Huberman, 1994) in an effort to gather rich and descriptive narrative data from students in both comparison groups. Specifically, participants were recommended by their respective instructors as being a typical student who was likely to share openly about the positive and negative aspects of the SOMS-481 experience. Instructors used their own judgments based off of student participation habits in class.

All eight students received an e-mail script of the purpose and context of the interview process (see Appendix D). All eight students agreed without complications and made appointments for their interviews.

The last student scheduled inadvertently missed his appointment. After several attempts to contact the student, the researcher learned that the student had departed the campus for summer break and could not be reached. At that time, the researcher determined that this student would not participate in the study. Unfortunately, by this time, other students had already departed campus for summer break. After consultation with the director of the Leadership Development Center, the researcher decided to move forward with the data already collected from the seven previous interviews. As a result, only seven interviewees were included in this study—three from Instructor A, and four from Instructor B.

The researcher conducted semi-structured qualitative interviews with all interviewees. This allowed participants to elaborate on responses and allowed the researcher to ask appropriate follow-up questions during the interview. On the day of the interview, each participant read and signed a copy of the consent form found at Appendix E. In addition, the researcher verbally reminded each interviewee of their right to withdraw from the study at any time, or to refrain from answering any specific questions. IRB and Leadership Development Center personnel approved all interview questions. All interviews lasted about 30 minutes in duration.

At the beginning of each interview, all participants were reminded (a) that they were being audio-recorded, and (b) to be very honest and open with their responses. The researcher began all interviews by asking students to describe their overall impressions of the spring SOMS-481 course (as shown at Appendix F). From there, each interview was conducted slightly differently, depending on the type of follow-up or probing questions asked. In the end, though, all interviews were extremely similar in both questions and process.

Qualitative data analysis

Phenomenology studies attempt to ascertain the "essence of the experience" by examining the statements, meanings, and themes regarding the "general description of the experience" (Creswell, 1998, p. 65). Additionally, though, this was a comparative-design phenomenological study, where the researcher attempted to understand the phenomenon from the mutual perspectives of two distinct groups, in order to determine

similarities and differences between these groups (Richards & Morse, 2007). As stated in the introduction to this section of the chapter, this was most accurately described as a limited or modified version of a phenomenological study, because it was only intended to describe and augment very specific aspects of the phenomenon. Specifically, the qualitative portion of the study examined student perceptions of the spring 2007 SOMS-481 experience as they pertained to subtle shifts in perspectives regarding (a) instructional methods, (b) moral or leadership development, or (c) ethical decision-making processes.

The first step in the analysis process was an attempt by the researcher to suspend and set aside all prejudgments (Creswell, 1998). This was done through the process of bracketing—setting aside—previous theories, knowledge, and experience (Richards & Morse, 2007).

Bracketing involves explicit statements of known previous assumptions and potential biases. In this study, the researcher acknowledged several sources of potential bias. First, the researcher was intimately involved in all aspects of the study, to include his role as interviewer and Instructor B. The researcher acknowledged these biases in the bracketing phase of the qualitative analysis, as well as in the limitations section in Chapter V of this report.

Second, a qualitative thematic strategy was employed to categorize and make judgments about the interpretation of the data (Boyatzis, 1998). Individual participants were the unit of analysis because the primary focus of the data collection is to compare affective responses of individuals to the phenomenon in question—in this case, the

SOMS-481 experience (Boyatzis, 1998, p. 64). Subject interviews and written responses were the units of coding (Boyatzis, 1998). This procedure allowed for themes and categories to emerge inductively from data collected across interviews and participants. As themes emerged from individual interviews, the researcher identified recurring themes among all participants.

Qualitative information was analyzed in accordance with the six-step process identified by Creswell (2003):

1. *Organization of the data.* This involved techniques such as transcribing the interviews, documenting field notes and instructor observations, and preserving student responses to relevant coursework.

2. *Obtaining a general sense of the overall meaning and tone of the information.* The researcher gained a general sense of the tone and overall meaning of the data.

3. *Initial coding.* The researcher grouped the data into meaningful associations and assigning initial titles to these groups.

4. *Generation of a description.* The researcher used a coding process to describe the categories or themes, creating a detailed account of the events associated with specific occurrences.

5. *Representation of descriptions and themes in a qualitative narrative.* A detailed understanding of themes and findings was developed.

6. *Interpreting the data.* This final step involved ascribing meaning to the information.

Following the process identified above, the initial phase of data analysis involved the transcription of all end-of-course information and interview recordings. As prescribed by Boyatzis (1998), all information was read once in order to gain an overall impression of the information. During the second reading, the researcher used color-coding strategies, in accordance with Marshall and Rossman (2006), to identify common themes and similar meanings among statements (Creswell, 1998). Subsequent readings identified sub-elements to themes. Then, common responses were grouped and examined to determine the overall meaning of the identified theme. Additional comparative analyses were conducted to examine differences, if any, in themes between groups of participants. Finally, meaning was ascribed to the qualitative information, particularly information that helped make meaning of quantitative results. Findings are presented in the following chapter.

CHAPTER IV

RESULTS

INTRODUCTION

This was a mixed-method study designed to examine the impact of transformational instructional techniques on student moral judgment in a leadership development course at Texas A&M University (TAMU). This chapter will present the results from both the quantitative and qualitative portions of the study. As discussed in the preceding chapter, students participated in this study during their spring 2007 SOMS-481 course. This course was offered through the TAMU Leadership Development Center under the overarching guidance of the Corps of Cadets. Student participants completed the DIT2 assessment on two occasions—once at the beginning of the semester and once at the end of the semester. The DIT2 is a measure of moral judgment and offers insight into the types of moral decision-making processes people use when presented with dilemmas.

Additionally, students gave feedback regarding various aspects of the SOMS-481 experience through open-ended written questionnaires and a Likert-scale instrument. Seven students were purposefully-selected to offer additional insight through interviews conducted approximately one week after the completion of the course.

All information was gathered in an attempt to answer the research questions presented in Chapter I. The overarching research question for this study was: Is there a difference between transformational ethics instruction methodologies and transactional ethics instruction methodologies on student moral judgment in a leadership development course at a large public university in Texas?

In order to fully explore the issue, additional research questions were developed. The core quantitative portion of this study was guided by the following research questions:

1. Is there a positive increase in student moral judgment following systematic ethics instruction in a leadership development course at a large public university in Texas?

2. Is there a quantitative difference between transactional and transformational ethics instruction methodologies on student moral judgment in a leadership development course at a large public university in Texas?

As noted in Chapter III of this report, the qualitative portion of this study was secondary to the core quantitative portion and was designed to augment the quantitative findings. The qualitative portion of the study was driven by two additional research questions:

1. Do transformational ethics instruction methodologies enable students to question previous assumptions and beliefs about the ethical demands of leadership?

2. Do transformational ethics instruction methodologies inspire students to challenge or change their existing moral behavior and decision-making processes?

This chapter will present data and information relevant to all of these aforementioned research questions. Quantitative results are presented first.

QUANTITATIVE RESEARCH QUESTIONS

Tests for preexisting differences

A pretest administration of the DIT2 was given to the four core quasi-experimental

sections taught by Instructors A and B. As stated in Chapter III, the researcher lacked the

ability to randomly assign students to groups. Instead, students chose particular sections

of SOMS-481 based on their personal schedules. Therefore, it was necessary to account

for any preexisting differences between

Previous research has shown that the most valid single score of moral judgment on

the DIT2 is the N2 score (Bebeau & Thoma, 2003). As a result, the researcher compared

mean N2 scores from the pretest administration of the DIT2 for all of Instructor A's

students and all of Instructor B's students. Table 6 shows the pretest mean N2 scores for

these groups. An independent-samples t-test showed that there was not a significant

difference between these two groups with respect to pretest N2 scores ($p = .119$, alpha =

.05).

Table 6
Pretest mean N2 scores for quasi-experimental groups

	PRETEST N2 SCORE	Standard Deviation
INSTRUCTOR A (N = 38)	37.709	10.3568
INSTRUCTOR B (N = 42)	33.586	12.7661

Next, the researcher compared pretest mean N2 scores for the four quasi-experimental groups to a comparative sample of six other SOMS-481 sections. Table 7 presents mean scores for all sections.

Table 7
Pretest DIT2 mean N2 scores for quasi-experimental SOMS-481 sections and a comparative sample of SOMS-481 sections

Section	Mean Pretest N2 Score	N (After Purges)	Standard Deviation
Quasi-experimental sections			
SOMS-481-500 *(Instr. A)*	37.71	21	9.99667
SOMS-481-550 *(Instr. A)*	37.70	17	11.09643
SOMS-481-552 *(Instr. B)*	30.86	22	13.02442
SOMS-481-556 *(Instr. B)*	35.92	21	12.16380
Comparative sample sections			
SOMS-481-501	35.06	18	15.10218
SOMS-481-551	35.01	23	15.63940
SOMS-481-555	33.09	16	12.54143
SOMS-481-557	26.69	18	15.91024
SOMS-481-558	32.54	16	15.47312
SOMS-481-559	38.43	7	9.91052
Overall means	34.09	179	13.53198

As shown, the average pretest N2 score for all SOMS-481 students was 34.09. An Analysis of Variance (ANOVA) test was conducted to examine potential differences in mean N2 scores across sections. As shown in Table 8, results of this analysis were not statistically significant, indicating that no individual section's mean N2 score was statistically different than any other ($p = .280$; alpha = .05).

Table 8
ANOVA data of mean pretest DIT2 N2 scores for quasi-experimental
SOMS-481 sections and a comparative sample of SOMS-481 sections

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2002.654	9	222.517	1.229	.280
Within Groups	30591.737	169	181.016		
Total	32594.391	178			

Additionally, the researcher conducted an independent sample t-test to examine

potential preexisting differences in Grade Point Ratios (GPRs) between Instructor A's

students and Instructor B's students. The mean GPR for Instructor A was 2.88, and the

mean GPR for Instructor B was 2.81. This test did not produce significant results (p =

.490).

Also, a non-parametric Chi-Square test examined preexisting differences among

quasi-experimental groups regarding self-reported instances of prior ethics training.

Again, no significant preexisting differences were found (p = .278).

The collective results of all of these analyses indicate that there were no preexisting

statistical differences between the two quasi-experimental groups. As a result, the

inability to randomly assign cadets to SOMS-481 sections likely did not introduce

unacceptable levels unexplained variation (error) to the study.

Research question 1: Is there a positive increase in student moral judgment following systematic ethics instruction in a leadership development course at a large public university in Texas?

Combined sample. For the Research Question 1, the researcher combined all sections of the quasi-experimental group to determine if the overall total sample showed an increase in moral judgment, as measured by the DIT2 instrument. Eighty-one students from the quasi-experimental sample completed the DIT2 assessment during the initial pretest administration. Seventy-eight students completed the DIT2 assessment during the posttest administration. However, due to (a) subject mortality, (b) absences during one or both of the DIT2 administrations, (c) respondents who were purged due to unreliable responses, and (d) students who elected not to participate in the research study, only 68 of these students successfully completed both the pretest and posttest versions of the DIT2.

As a result, for the remainder of this chapter, all subsequent quantitative data that examines changes in student DIT2 scores over time will reflect only those 68 participants from the quasi-experimental sample who successfully completed both the pretest and the posttest administrations of the instrument. Table 9 shows the overall distribution of usable DIT2 scores.

Table 9
Distribution of usable DIT2 pretest-posttest student responses

Instructor	SOMS-481 Section Number	Total enrolled	Total in Pretest sample	Total in Posttest sample	Total Usable DIT2 in Both Pretest & Posttest
INSTRUCTOR A	500	22	21	19	17
	550	22	17	16	12
INSTRUCTOR B	552	23	22	21	18
	556	21	21	22*	21
OVERALL TOTAL		88	81	78	68

Note. * -- One student was added to the course roster on Week 3.

Defining issues test results. Research Question 1 sought to determine the impact of ethics instruction on student moral judgment—independent of instructional methodology. Again, all of the 68 usable responses were examined together to see if differences occurred. King and Mayhew (2002) noted that positive increases in DIT scores occurred in a majority of intervention studies. As such, it was predicted that the systematic ethics instruction presented in the SOMS-481 course would result in an increase in overall student moral judgment.

The pretest N2 mean for these 68 students was determined to be 36.61. The mean N2 posttest score for these same 68 students was 39.16. Table 10 shows pretest and posttest scores for the entire quasi-experimental sample.

Table 10
Mean N2 scores for entire quasi-experimental sample

	PRETEST (N=68)	POSTTEST (N=68)
Total quasi-experimental sample	36.6112	39.1584

A paired samples, repeated-measures t-test was conducted to see if the increase in N2 scores was statistically significant at the alpha = .05 level. Analyses showed a significant increase (p = .031) in N2 scores for the total group. This indicates that moral judgment processes for the total quasi-experimental sample made a significant shift toward postconventional reasoning during the SOMS-481 semester.

DIT2 type indicator. The DIT2 allows researchers to examine the degree to which a respondent demonstrates a consistent pattern of discrimination among items. Respondents who show a pattern of consistency are referred to as being *consolidated*. Conversely, respondents showing little evidence of consistent discrimination are termed to be *transitional* (Bebeau & Thoma, 2003, p. 20). These two terms can be used in conjunction with the three moral schemas (personal interest, maintaining norms, and postconventional) to form seven different types of moral judgment processes (Bebeau & Thoma, 2003, p. 20):

- *Type 1*. Predominant in Personal Interests schema, and consolidated
- *Type 2*. Predominant in Personal Interests schema, but transitional

- *Type 3*. Predominant in Maintaining Norms schema, but transitional; Personal Interests secondary schema

- *Type 4*. Predominant in Maintaining Norms schema, and consolidated

- *Type 5*. Predominant in Maintaining Norms schema, but transitional; Postconventional secondary schema

- *Type 6*. Predominant in Maintaining Norms schema, but transitional

- *Type 7*. Predominant in Postconventional schema, and consolidated

These types are described in Table 11.

Table 11
DIT2 Type indicators

	Personal Interest Schema	Maintaining Norms Schema	Postconventional Schema
TYPE 1	CONSOLIDATED		
TYPE 2	Primary	Secondary	
TYPE 3	Secondary	Primary	
TYPE 4		CONSOLIDATED	
TYPE 5		Primary	Secondary
TYPE 6		Secondary	Primary
TYPE 7			CONSOLIDATED

As can be seen in Table 11, Types 1, 4, and 7 are consolidated and Types 2, 3, 5, and 6 are transitional. There is a progressive sequence to the Type indicators, and researchers are encouraged to examine these indicators in the case of educational intervention

studies such as this one (Bebeau & Thoma, 2003). In many studies, shifts in Type

indicators allow for a more detailed and sensitive examination of pretest and posttest

scores—often identifying patterns or shifts in moral judgment processes even when there

appears to be no change in N2 scores (Bebeau & Thoma, 2003).

Figure 3 shows pretest Type indicators for the overall quasi-experimental sample, and

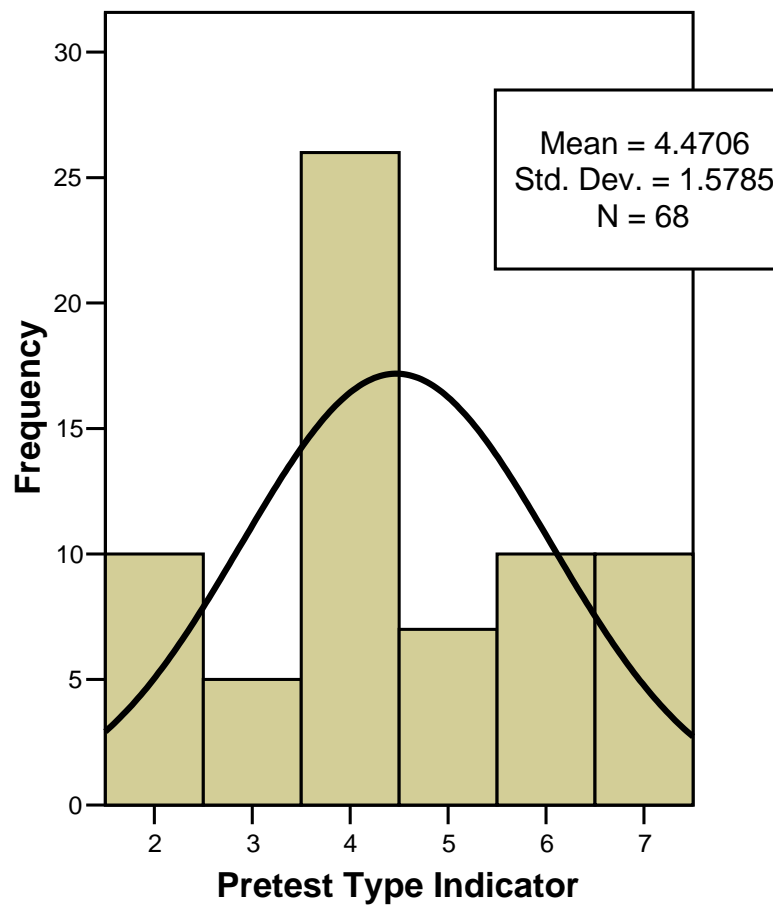Figure 4 shows posttest Type indicators for the quasi-experimental sample.

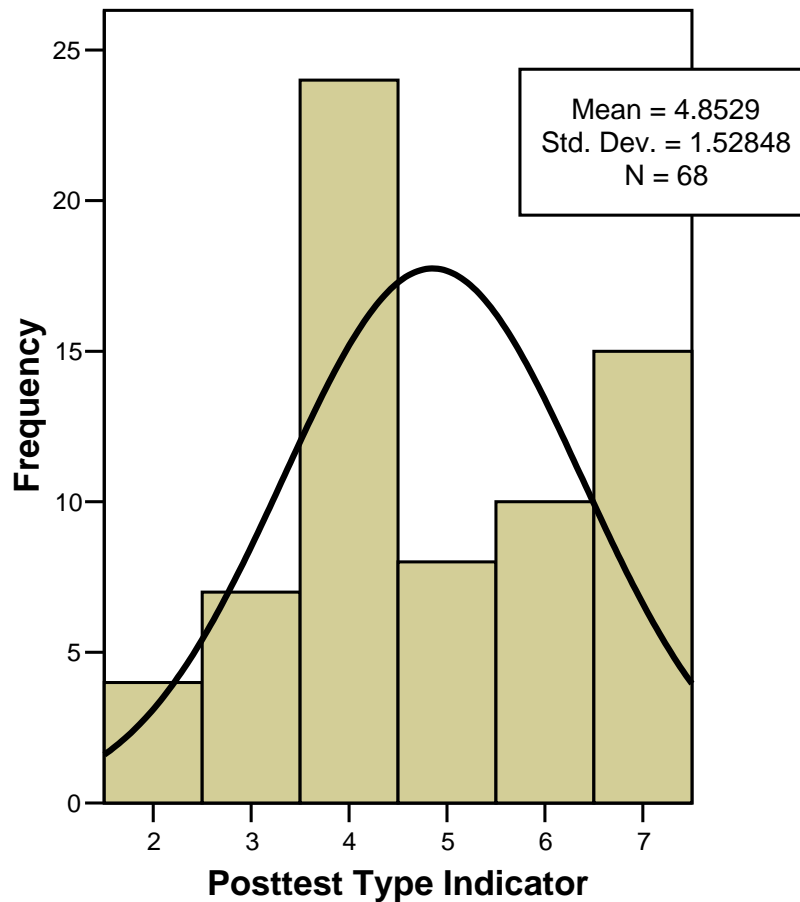*Figure 3*. Pretest Type indicator for entire quasi-experimental sample.

Figure 4. Posttest Type indicator for entire quasi-experimental sample.

As shown in Figures 3 and 4, the distribution of Type indicators for students in the

quasi-experimental sample showed an increase in the overall Type mean over time. The

pretest Type mean was a 4.47, while the posttest Type mean was 4.85. Type 2 instances

were reduced while Type 7 instances were increased. This indicates that subtle shifts in

moral judgment appear to be taking place as students transition to higher levels of moral

cognition (Bebeau & Thoma, 2003).

End-of-course quantitative feedback. In addition to DIT2 data, core quasi-experimental students completed a series of quantitative end-of-course ratings (see Appendix B). These ratings can be an important step in determining program success, but should not be used exclusively to determine training effectiveness (Lawson, 1998).

The collection of this information allowed the researcher to examine the direction and intensity of respondents' ratings (Lawson, 1998). Participants were given a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This process yielded the following information (depicted graphically in Figure 3):

- 97 percent indicated the SOMS-481 course challenged them to consider alternative perspectives (58 percent "Strongly Agree"; 39 percent "Slightly Agree")

- 90 percent indicated the SOMS-481 course challenged them to question prior decision-making thought patterns and habits (57 percent "Strongly Agree"; 33 percent "Slightly Agree")

- 86 percent indicated the SOMS-481 course was a valuable part of their development as a leader (55 percent "Strongly Agree"; 31 percent "Slightly Agree")

- 78 percent indicated that, as a result of the SOMS-481 course, they were more likely to make different choices in the future (55 percent "Strongly Agree"; 23 percent "Slightly Agree")

- 97 percent indicated the SOMS-481 course gave them opportunities to reflect on presented material (64 percent "Strongly Agree"; 33 percent "Slightly Agree")

- 97 percent indicated that they enjoyed the SOMS-481 course (75 percent "Strongly Agree"; 22 percent "Slightly Agree")
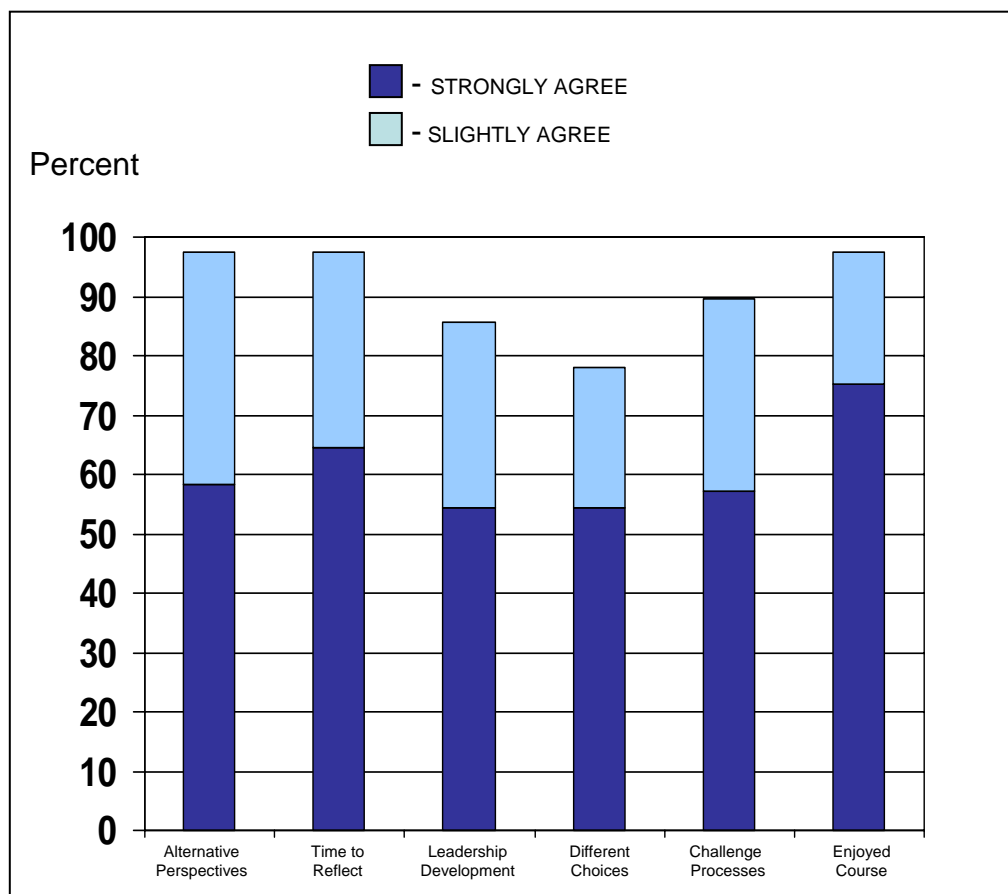
Figure 5 presents this information graphically.

Figure 5. Bar graph depicting favorable ratings for end-of-course issues.

This information is reflective of all 78 respondents who provided end-of-course ratings, not just those who also had an acceptable pretest DIT2 score. These data indicate a strong positive response to the SOMS-481 experience by these cadets. These data will be discussed further in the qualitative results section of this report.

Research question 2: What is the impact of transformational ethics instruction methodologies on student moral judgment in a leadership development course at a large public university in Texas?

In comparison to previous research question, this Research Question 2 sought to determine if differences in instructional methodology have an impact on the degree and magnitude of student moral judgment, as measured by the DIT2.

As described in Chapters II and III of this report, prior research indicated that students exposed to transformational teaching strategies may show greater increases in moral judgment than students exposed to transactional teaching strategies. Therefore, it was hypothesized that students in the SOMS-481 sections that used transformational methods (Instructor B) would show a greater increase in moral judgment, as measured by the DIT2 instrument, than students in the SOMS-481 sections that used more transactional/traditional teaching methods (Instructor A).

Defining issues test results. For the second research question, the researcher sought to determine the impact transformational ethics instruction methodologies on student moral judgment in a leadership development course. Unlike the first research question, instructional methodology was considered in the analysis.

Therefore, the quasi-experimental sample was separated into two distinct groups. The first group was the *control group*, taught by Instructor A. This group of students was given systematic ethics instruction—using primarily transactional/traditional education methods—within the context of the SOMS-481 leadership development course. Instructor A had 44 students enrolled, and 29 of these students had usable pretest and posttest DIT2 data.

The second group of students formed the *treatment group*. This group was taught by Instructor B and also received systematic ethics instruction. However, Instructor B primarily used transformational education methods during the semester. Instructor B had 44 students enrolled, and 39 had usable pretest and posttest data.

Table 12 shows the mean N2 scores for the control and treatment groups.

Table 12
Mean N2 scores for control and treatment groups in the quasi-experimental sample

	PRETEST N2 SCORE	POSTTEST N2 SCORE
INSTRUCTOR A (N = 29) (Control Group; Traditional Methods)	39.3506	39.1309
INSTRUCTOR B (N = 39) (Treatment Group; Transformational Methods)	34.5742	39.1788

Figure 6 depicts the changes in N2 ratings over time for both the control and treatment groups in this study.
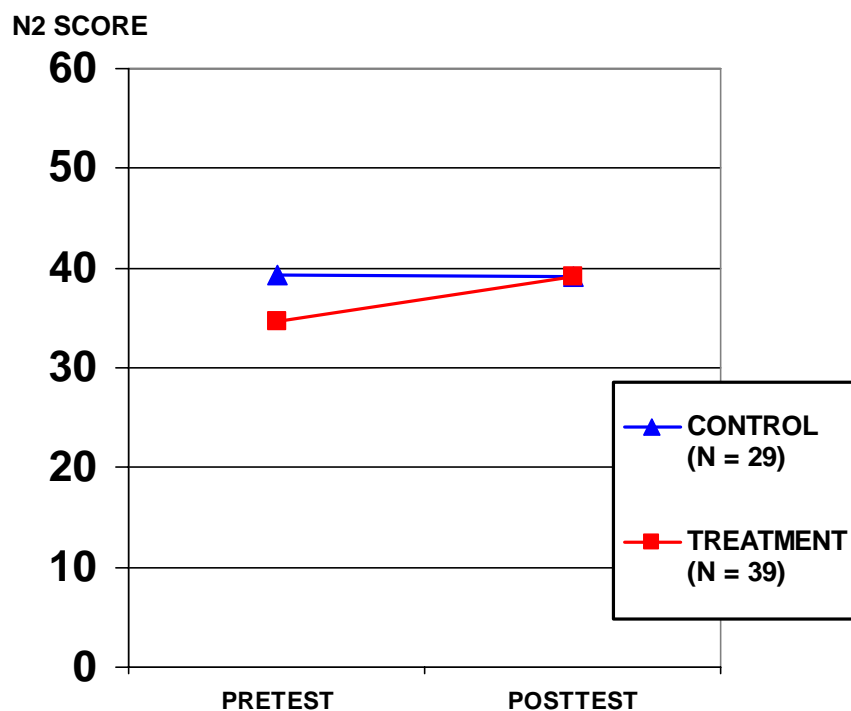
Figure 6. Changes in N2 ratings over time for control and treatment groups.

As shown, the differences in slope show N2 scores in the treatment group increased at a higher rate than the control group as a function of instructional methodology.

Using the data in Table 12, the researcher performed a 2 x 2 ANOVA with repeated measures on the second factor. Tab1e 13 shows source-table results for this ANOVA.

In this case, it was hypothesized that N2 scores for the treatment group would increase at a higher rate than the control group. If this were the case, then a significant interaction effect would be present between method of instruction and N2 score. This would indicate that slopes representing changes in N2 scores over time are different for the control group and the treatment group. Indeed, as shown in Table 13, a significant interaction effect was found (p = .038).

Table 13

SPSS Source Table for 2 x 2 Repeated Measures ANOVA

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Time	Sphericity Assumed	159.898	1	159.898	3.688	.059	.053	.473
Time * Method	Sphericity Assumed	193.546	1	193.546	4.464	.038	.063	.549
Error(Time)	Sphericity Assumed	2861.615	66	43.358				

Note. Significance computed using alpha = .05

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Intercept	192730.138	1	192730.138	939.469	.000	.934	1.000
Method	185.939	1	185.939	.906	.345	.014	.155
Error	13539.766	66	205.148				

Note. Significance computed using alpha = .05

Since a significant interaction was found, additional analyses were conduced to examine simple main effects. Simple Main Effects test the differences in all levels of one factor at a specified level of the other factor. In this case, because the dimensionality of the ANOVA was a 2 x 2, comparative mean t-tests were appropriate measurements of Simple Main Effects.

Four tests for Simple Main Effects were conducted:

1. *Testing for N2 differences across Method for the Pretest condition only*. This post hoc test did not show significant differences in pretest N2 scores between control and treatment groups ($p = .081$; alpha = .05).

2. *Testing for N2 differences across Method for the Posttest condition only*. This post hoc test did not show significant differences in posttest N2 scores between control and treatment groups ($p = .986$; alpha .05).

3. *Testing for N2 differences across Time for the Control group only*. This post hoc test did not show significant differences between pretest and posttest N2 scores for the control group ($p = .875$; alpha = .05).

4. *Testing for N2 differences across Time for the Treatment group only*. This post hoc test did show significant differences between pretest and posttest N2 scores for the treatment group ($p = .009$; alpha = .05).

These results indicate that the significant interaction was explained by the actual differences in pretest and posttest N2 scores for the treatment group. In other words, significant increases in N2 scores were seen for the treatment group, but not for the control group. No significant differences were found across groups at the pretest condition alone, or at the posttest condition alone. A medium Effect Size of .063 was produced. Reliability for this repeated-measures ANOVA was .79.

DIT2 type indicator analysis. As explained in the results of Research Question 1, the Type indicator distribution can be a helpful metric used to detect shifts in moral judgment processes. In this case, it is useful to determine if changes have occurred among control or treatment groups.

Type indicator results indicate that students in the control group (Figures 7 and 8) showed few changes in Type over time.

In contrast, students in the treatment group (Figures 9 and 10) showed a more dramatic shift of Type indicators, to include a shift in overall Type mean from a 4.21 to a 5.08. This appears to confirm a shift in moral judgment processes over time for the treatment group.
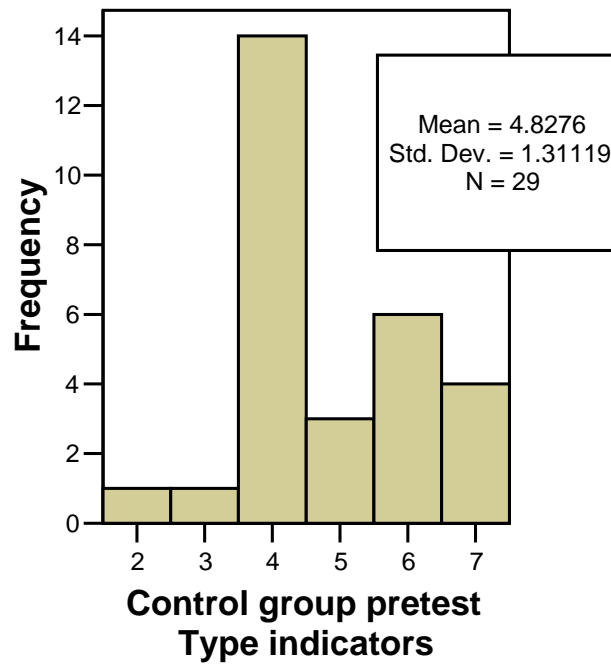
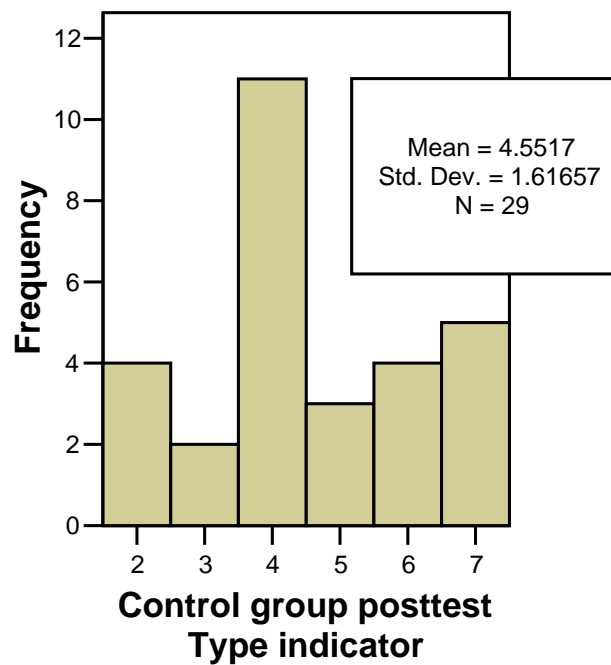*Figure 7.* Type indicators for control group pretest portion.

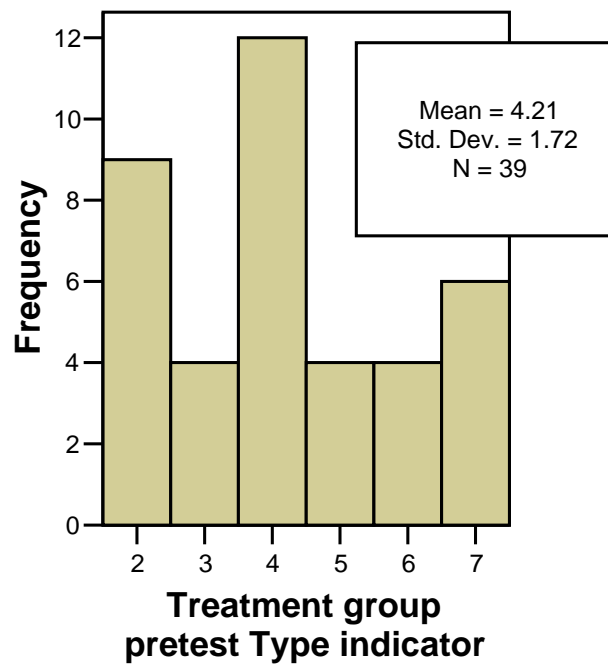*Figure 8.* Type indicators for control group posttest portion.

Figure 9. Type indicators for treatment group pretest portion.
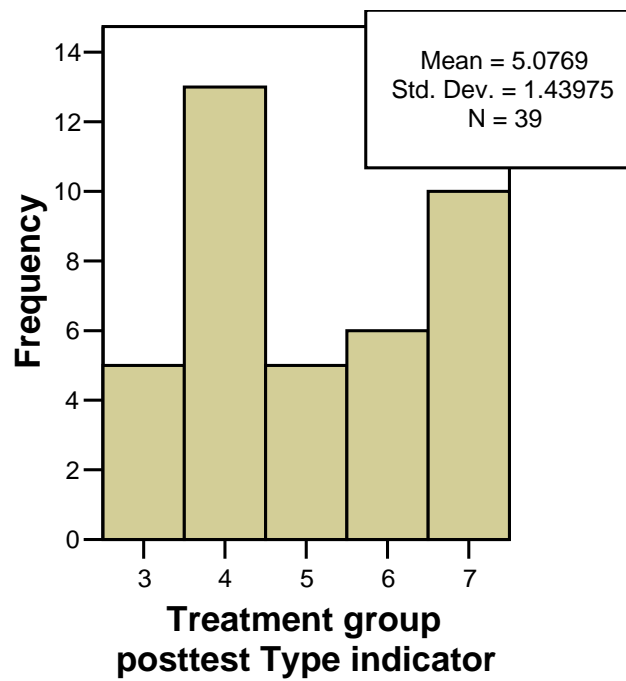
Figure 10. Type indicators for treatment group posttest portion.

End-of-course review data. These data were examined to see if differences were seen between control and treatment groups. Instructor-specific ratings were examined first. Respondents were asked to rate their instructor on their ability to communicate well with students and their perceived subject-matter knowledge.

If differences were seen in either of these two ratings, it might indicate differences in the instructors themselves—not the instructional methodology—were the primary factors in the differences between control and treatment groups. Data from all respondents were included—not merely the students who had completed the pretest.

Figure 11 shows end-of-course ratings for both the control group and the treatment group. All ratings are relatively high for both groups. Treatment group responses were found to be significantly higher in all categories, except three: (1) instructor ability to communicate, (2) instructor knowledge of course material, and (3) time to reflect on course material.

Figure 11. End-of-course ratings for control and treatment groups

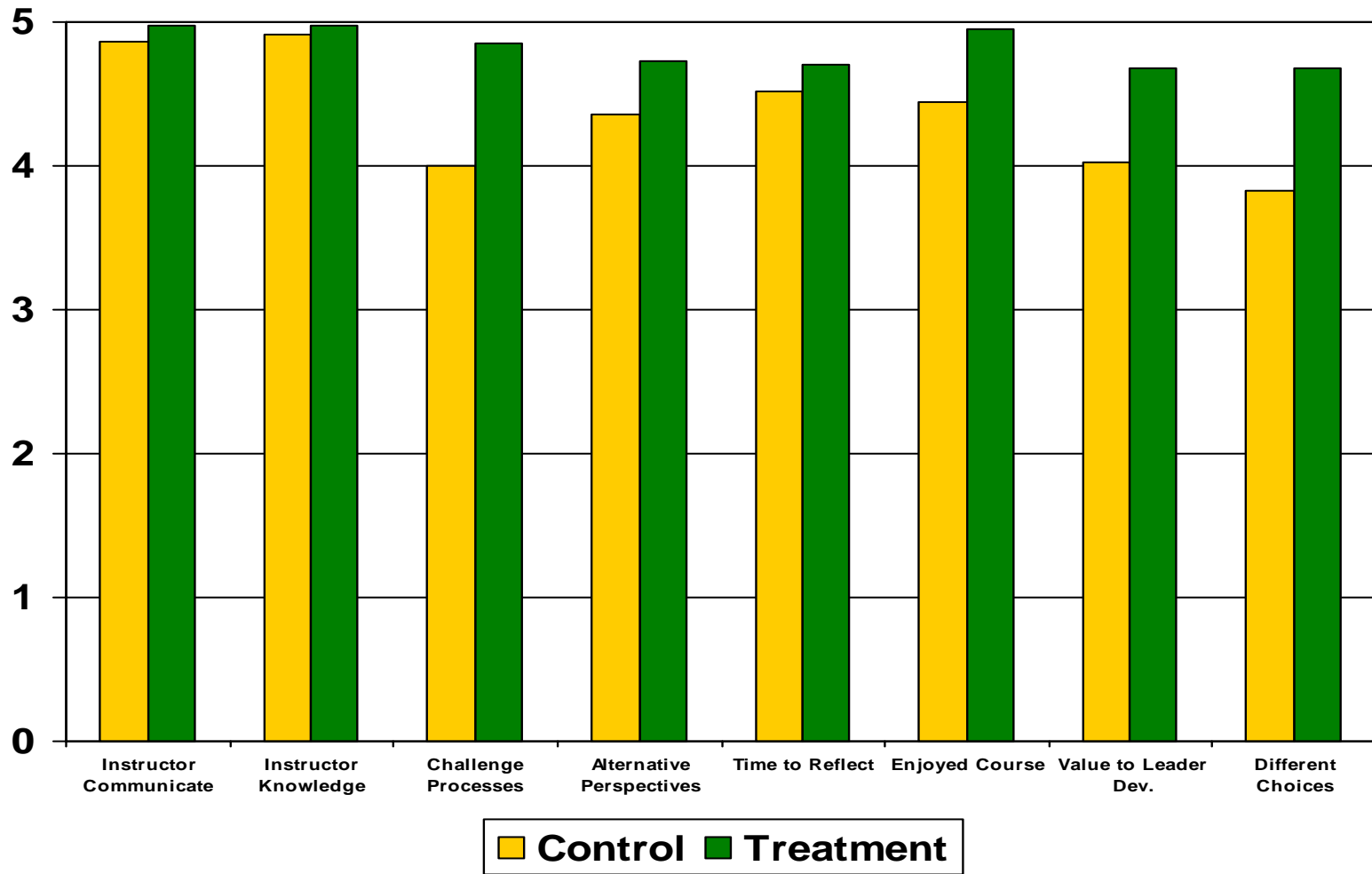These ratings indicate that there are meaningful differences in the student perceptions of the course, but these differences do not appear to be due to differences in the instructors or in the time given to reflect upon coursed material. The largest differences in ratings were (1) challenges to prior thought processes, (2) perceived value to leadership development, and (3) belief that different choices will be made in the future.

Table 14 shows mean ratings for each of the end-of-course categories.

Table 14
Mean end-of-course ratings for control and treatment groups

	Group	N	Mean	Std. Deviation	Std. Error of Mean	Test for Significance
Instructor Communicate	CONTROL	36	4.861	.3507	.0585	.080
	TREATMENT	40	4.975	.1581	.0250	
Instructor Knowledge	CONTROL	36	4.917	.2803	.0467	.276
	TREATMENT	40	4.975	.1581	.0250	
Challenge decision-making processes	CONTROL	36	4.000	.7171	.1195	.000
	TREATMENT	41	4.854	.4220	.0659	
Alternative perspectives	CONTROL	36	4.361	.5929	.0988	.003
	TREATMENT	41	4.732	.4486	.0701	
Time to reflect	CONTROL	35	4.514	.6122	.1035	.131
	TREATMENT	41	4.707	.4606	.0719	
Enjoyed course	CONTROL	36	4.444	.6947	.1158	.000
	TREATMENT	41	4.951	.2181	.0341	
Value to Leadership Development	CONTROL	36	4.028	.9098	.1516	.000
	TREATMENT	41	4.683	.5674	.0886	
Different choices	CONTROL	36	3.833	1.0000	.1667	.000
	TREATMENT	41	4.683	.5674	.0886	

Note. Levene's Test for equality of variances was performed for each category. Significance data did not assume equal variance.

Since most students gave high ratings to nearly all categories, the variation among respondents was relatively small. Consequently, seemingly small mean differences sometimes resulted in statistically significant results. This can sometimes be an issue

with end-of-course reaction data, so researchers are encouraged to use this data in combination with other determinants in order to get the most accurate picture of differences (Fitzpatrick, Sanders, & Worthen, 2004; Lawson, 1998).

Summary of quantitative results

Significant increases in moral judgment scores, as measured by the DIT2 instrument, were observed for the overall quasi-experimental sample. Additional analyses indicated that these increases were significant for the treatment group, but not for the control group.

DIT2 Type indicators suggested shifts in cognitive processes for respondents. Treatment group respondents showed a greater shift toward postconventional thought processes.

End-of-course data were positive for both the control and treatment groups. However, significantly higher ratings were given by treatment group respondents in several key categories.

The quantitative results, on the whole, indicate actual differences between transformational ethics instruction methodologies and transactional ethics instruction methodologies on student moral judgment in a leadership development course. However, research indicates that additional information can be used to gain additional insight into the more complex dimensions of human thought. To that end, findings and results of the qualitative portion of the study are presented in the following section of this report.

QUALITATIVE ANALYSIS

Introduction

As previously stated, the qualitative portion of this study seeks to augment the core quantitative findings by providing additional insight into the cognitive processes of students enrolled in the SOMS-481 course. Specifically, the researcher wanted to better understand student perceptions of their moral and leadership development at the conclusion of the course. As previously described, qualitative information was collected from two main sources:

End-of-course perceptions. Anonymous, written responses to a series of open-ended questions were provided by participants in the quasi-experimental portion of the study. These questions are located at Appendix C.

Interviews. Interviews were conducted with purposefully-selected members of both Instructor A's and Instructor B's classes. Responses from a total of seven interviews are included: Three interviewees were from Instructor A's classes, and four interviewees were from Instructor B's classes (one interviewee from Instructor A's classes was unable to participate). For the reporting of findings—as outlined in the script to these participants, and in accordance with IRB guidance—pseudonyms were given to all interviewees. To reduce confusion, pseudonyms for Instructor A's students began with the letter A: Andrew, Aaron, and Adam. Likewise, all of Instructor B's students were given pseudonyms that began with the letter B: Blake, Brandon, Bob, and Brian.

All findings are presented according to thematic groupings, in accordance with guidance from Creswell (2003). Where appropriate, anonymous end-of-course findings

are annotated by instructor. All interviewee information is presented with appropriate pseudonym references. While the terms *control group* and *treatment group* are typically more likely to be associated with quantitative studies, the following qualitative portions will continue to use these terms to maintain consistent terminology for participant groups. Overall thematic findings are presented in the following sections.

Thematic similarities among both groups of participants

Several recurring themes emerged from the analysis of narrative responses. Five themes emerged that were common to nearly all participants, regardless of instructor or section. These themes were (1) excellence of instructors, (2) dislike of junior-year SOMS courses, (3) praise for SOMS-481, (4) appreciation for discussion-based instruction, and (5) future applicability of course material.

Excellence of instructors. Respondents and interviewees indicated very positive perceptions of the SOMS-481 instructors. While not exhaustive, a sample of supporting evidence is provided.

For Instructor A, representative end-of-course write-in comments were as follows:

- Absolutely fantastic, (Instructor A)! Don't change a thing. You were great!

- I really enjoyed (Instructor A's) perspective and approach to this course.

- I really appreciate the respect and dignity with which I was treated. My opinions seemed to matter which encouraged me to participate because my efforts were validated.

- (Instructor A) was the best SOMS instructor I have had.

- (Instructor A) cares a lot more and is a much more effective teacher than most other SOMS professors.

- I liked how (Instructor A) made sure we learned the material.

- This was a very knowledgeable instructor and made a great impact on my learning.

- I enjoyed the fact that (Instructor A) made us get involved and facilitated discussion rather than make us listen to (him). I think it was much more effective this way!

- (Instructor A) had a lot of respect from me as well as the rest of the class. He allowed us to have a good time but also think and learn what we needed. He always had the class under control and kept my attention.

- I have nothing but positive feedback for my instructor. The class was great.

Interviewees gave similar responses regarding Instructor A:

- I had (Instructor A). He was absolutely fantastic! … (This) turned out to be one of my favorite classes and I think—I know—it was because of (Instructor A). … I can't really tell you why he was so much better, but he really was. I think it was because of the way that he handled it (due to his) business background, but it was just a fantastic class. (Andrew)

- I think (Instructor A) is definitely of a different caliber than some of the other professors who teach SOMS courses. (Adam)

- (Instructor A) did a great job. … In class, he gave us a scenario and we would make a decision based on the scenarios. I thoroughly enjoyed it. (Aaron)

Instructor A received very little negative feedback. However, a small number of comments were received that generally referred to ambiguity in the classroom discussions or writing assignments:

- The assignments were sometimes unclear on if we had to write a paper or if it would be a class discussion.

- Structure of the discussions could be improved – it seemed to go off topic sometimes.

- Be a little more specific on what you are looking for, it's easy to be open-ended, but may cause more confusion than excitement.

Similarly, Instructor B also received positive write-in responses from students:

- (Instructor B) made me think and kept things open-ended as to promote individual and creative thought. His sense of humor is refreshing and helps me focus easier in a day or week full of class after class.

- (Instructor B) is the epitome of what a teacher should be—much less a SOMS teacher. Great lectures, made topics interesting, respected students, great role model. Other (instructors) should take a class with him as well.

- I just really enjoyed being in this class and the instructor was awesome. He really was educated and broke it down to allow me to understand.

- To be totally honest, (Instructor B) was the best college professor I have ever had. No professor has ever inspired me to think about human interaction and leadership as much as him. Keep up the good work.

- This I by far the best instructor I have ever had. He required student participation, but did not rely on it. He is well qualified and proved it time & time again without question. He never stood on a podium above anyone, but left himself to be questioned or criticized if any student felt it needed to be done. *Excellent* job.

As noted with Instructor A, Instructor B received comparatively little negative feedback. The following statements were noted:

- Sometimes there were points when I didn't know where the class was going—and (Instructor A) kept adding blocks to the game but not yet building the blocks upon another—but I still didn't have a big picture of where the blocks were going either so it left me a little distracted or bored.
- I'd say the last couple classes were kind of abrupt. I don't know if anyone has said that.
- Great stories, but I would like you to force student interaction early in the class. I believe few student voices were able to dominate discussion.
- Good job at the guilt trip this semester.

Despite these relatively few negative comments, both instructors were appreciated and respected by students to a very large extent. This information is consistent with the end-of-course quantitative data regarding instructor communication skills and subject-matter knowledge. Combined, this information does seem to suggest that, in terms of perceived instructor competence, these instructors were viewed similarly by students.

Dislike of junior-year SOMS courses. Comments referring to junior-year SOMS courses were overwhelmingly negative, with only a few exceptions. While this thematic finding may not appear to be meaningful in the context of this study, it is valuable to the extent that one appreciates the mindset many students have when going into senior-level SOMS courses. Thus, this finding is important for understanding the structure and context of the overall SOMS experience. Full examination of this finding is beyond the scope of this study, but a few salient and representative comments are included:

- My last SOMS class could have been substituted into that scene from *Ferris Bueller's Day Off* (Junior SOMS class) … A root canal would have been preferred to (that) class. (Brian)

- We used to come back from SOMS and say that was absolutely pointless. What a waste of an hour. (Blake)

- When I just went to SOMS my junior year you would expect to just sit there and be bored for an hour. I can't even really tell you what I learned, really. I don't remember what it was. (Andrew)

- Junior year … I couldn't help but feel my time was being wasted. (Aaron)

- Junior year … I really don't think I could tell you any one or two specific things about that I took away from that course that ever stuck … I felt pretty much like that was a complete waste of my life. (Adam)

Praise for SOMS-481. Students in all participating sections indicated that the spring 2007 iteration of SOMS-481 was very well received. Representative end-of-course comments were:

- This class completely changed my perception and opinion of SOMS courses in general. Instead of it being a class I dreaded, it was one I looked forward to and actually learned in.

- Without a doubt this has been the GREATEST experience in a SOMS class I have had.

- This semester was by FAR the best SOMS course I ever took. Instead of cramming vocabulary words down our throats, (Instructor B) actually gave a damn if we learned the concepts he was teaching. I will take away more from this class than all others combined.

- This was by far the best SOMS course I have taken.

- Not only did I learn more in this SOMS section, I also enjoyed it as well. This class is by far the best SOMS class I have taken. It challenged me to rethink myself as a person and leader.

- This was, by far, the most effective (SOMS) class—and my personal favorite—because it was extremely interactive and presented dilemmas and conflicting views in a non-hostile environment.

- This course way by FAR much more interesting and applicable than previous SOMS courses. (Instructor A) was a fantastic professor, one of the best I have ever had.

- This was the best SOMS course—if not the best course—I have ever taken.

- This SOMS course was far more practical and in depth. In the past, courses have brushed over topics and discussions were not all that substantive.

Interviewees—from all sections—provided similar comments as well.

- It was absolutely the best SOMS class that I've had. Period. It was one of my favorite classes, not just SOMS class—which is generally looked at as not being one of cadets' favorite classes. (Andrew)

- It wasn't until this semester that I actually felt like this was a useful one-hour class. (Blake)

- This one was head and shoulders above the one I had my junior year. (Adam)

- I think it kept everyone's attention. Attention was good, especially towards the end on the course, whereas most classes, attention can be kind of wandering as you go from subject to subject. Typically a SOMS course is topical so you have some unrelated topics. This course built upon the weeks before and reinforced learning. And so the learning was a high amount of retention … students were kind of anticipating the next thing—what will be built on next and what will be the next level? There were probably fewer absences as the course developed and the material got more captivating. (Brandon)

In contrast, there were a small number of students that had negative perceptions of the course. These comments are reflected below:

- Make it optional. Let other classes count for it. For example, I took an engineering ethics class that went more in depth … I would of rather spent the time on courses in my major. (Instructor A student)

- It seemed like the same material rose a lot. (Instructor A student)

- This class focused on morality in leadership, rather than on leadership. I would have liked to spend more time discussing management and crisis leadership. (Instructor B student)

- I suggest keeping the video clips less than 5 minutes and (not more than) 15 minutes in any class period. Have a brief quiz each class. (Instructor B student)

- Some of the vocabulary was pulled out of the air and we spent too much time on it. Maybe move faster. (Instructor B student)

Appreciation for discussion-based instruction. Both the control and treatment groups often used the instructional technique of in-class discussions. This was valued by students. Some write-in comments on this topic were:

- (The) approach made the class feel much more conversational. Feels more like I'm sitting in a room discussing topic with a group of friends rather than being lectured to in a class.

- More discussions and involvement, instead of mainly paper (notes) based lessons in previous classes.

- (There was) a lot more class discussion/interaction—talked *with* instead of talked *to*.

- Excellent – great discussions.

- It was a useful course with good theoretical discussions on ethics. It was a good addendum to the practical experience we've had over our corps careers.

- (The class) was more discussion than anything else … More relaxed, but very effective.

Interviewees from all sections reinforced this point. Two examples are:

- I think what really made it so much better was … the exercises in class primarily where we'd be given a case scenario … and we'd work off the theories we had in class (and) we'd have to formulate a response to it, like, here's what we'd do and why … We could just kind of experiment and take a position that was completely nonsensical and one that you would never do in real life, but you could really try to test and see how the theories hold up, you know, nobody actually really seems to employ Machiavellianism in any basic business sense but we were able to take on that position and just see how it would play out and get to talk about the ethical issues associated with that and those things were extremely beneficial ... (Because of these discussions), the actual quality of the class just gets so much better, just because it really invites dialogue and the students are asked to express an opinion about something and that opinion is listened to and respected, and so we'll talk more because we feel like our opinions are valued, and then we get feedback on it and then we really get to test things out. (Adam)

- Everyone was getting involved and there were times it could get heated, people arguing one side over the other. And people off to the side like me were just … looking over and asking our buddies, like, 'What do you think?' and we'd just start arguing ourselves. And we'd bring it outside of class and

start asking ourselves questions and choosing sides and trying to discuss and

debate. We took it to the dorm. (Bob)

Future applicability of course material. Students from both the control and treatment

groups believed that the material presented in the course had real-world applicability in

the future. Consider these anonymous end-of-course comments:

- The material was extremely relevant to the challenges we face in leadership

  and the world. I learned things which will undoubtedly help me in the future.

- This course had more relevant real-world situations.

- It actually made me think about the way people make decisions. It was very

  relevant to my future.

- I feel this was better in terms of application of leadership learned. We were

  able to look at real situations and try to come up with tough decisions using a

  good decision making process.

- I felt that actually learned valuable ideas I could apply in a real world setting.

Interviewee comments were especially focused on future applicability of learning

outcomes:

- I would say that it was the first time in a class that I actually saw myself in a

  position in the future dealing with a situation like (the bookbinder dilemma).

  (Andrew)

- It really taught you the whole, you know, here are some scenarios to show

  you that it's going to be hard. And that was truly beneficial for what I want to

  try to develop as a leader. (Aaron)

- It makes you realize that this is real-world stuff. This isn't just leadership

  stuff in the Corps; this is life—the world. And this is stuff you may

  experience or end up going through and you just don't know. (Bob)

Thematic differences between both groups of participants

As previously stated, the above reported findings were common to both the control

and treatment groups in the study. In comparison, the following sections will concentrate

on differences identified between transactional/ traditional methodologies (control

group) and transformational methodologies (treatment group).

Deep personal application. Students from all sections—and across both core

methodologies—commented on the personal applicability of course material. However,

treatment group respondents and interviewees appeared to have a more intense focus on

personal applicability regarding course material. Consider the following end-of-course

comments from treatment group respondents:

- Not just the SOMS courses, but out of all the courses that I have taken thus

  far, this course has been the one to really grab my attention and help me to

  understand and focus on what makes a truly great leader.

- While it was longer, I never left feeling like I hadn't learned something that

  would make me a better person.

- Thank you for teaching this class. Hopefully your hard work will be seen in

  the changes I go through and in me.

- (Instructor B) was able to show me how this material relates to ME. He was able to make me think and I always looked forward to coming to class.

- I began my own list of sometimes conflicting ideals, and I decided which ones I believe are more important as a guideline/ standard from reference decisions.

- This SOMS class has been the most self-actualizing class of my college career.

Interviewees from treatment group sections expanded on these thoughts:

- I think it kind of made me realize that my only responsibilities in life are negligible at best. I've just got to make enough money to go buy beer on Friday night…my only responsibilities are mostly to myself … That being said, most of my decision-making processes have been about what's best for me, and I think that I—it's just one of those things. You don't sit down in life and go 'well, that's called egoist thinking' … to hear those terms and ... to make us apply those different types of thinking to those scenarios really helped me to understand where I was. Kind of after this course, you think maybe that's not really the best way to think. (Blake)

- For me in particular, the experience … gave me the ability to step outside myself and sort of ask myself that I can see that my actions and behavior are leading me down this road, and I can see further down the road and say, 'Ok this is the road I want to go down?' What I was doing wasn't working. And I think it's very difficult for people to assess their own behavior—more

importantly, understand *why* they are doing the things they do. Bit by bit, that

if you do it in the trivial things … it's going to be much harder for you to

make the right decision on the big things. And that was the whole running

theme for the semester. (Brian)

- I look at things a little different. And then it's funny because I start being the

observer. I start watching other leaders make decisions and I start picking it

apart, like, 'What kind of leader and what paradigm they fall under?' And a

lot of time I try to help them see from a different perspective. … The class

helped me see things in a different way and help others see that to. (Bob)

The control group also had some comments that indicated deep personal application, such as:

- I noticed that I sometimes don't make the best decisions and my decision

making is highly based on the way I was brought up. Reflections on my

ethics is important because one recognizes one's own bias and better

decisions are made when one knows this. (Anonymous)

- At one point, I pictured my dad (works in oil business) having to make a

difficult decision and thought, 'Wow! Some people might not actually like

my father!' Because of some of the things he had to do. But I really respect

him for making a decision like that—that doesn't make everybody happy but

is the right thing to do at that time. (Andrew)

However, by comparison, many of the comments from the control group involved a

less personally-introspective theme:

- For me, I don't think it really changed much for me. I've been exposed to a lot of this in my (undergraduate) degree. A lot of this put definitions to things I already knew and operated under. I just didn't know what the formal definitions were. So I think this helped to put a different perspective on things. But as far as, 'Did I walk out of this course with a whole different set of values and ethics, and a completely different structure for determining what to do?' No. (Adam)

- Personally, I don't think they challenged my thought processes. And I believe that might be that I go in with an open mind. It gave me new perspectives, but it didn't challenge me. (Aaron)

Significant emotional events (or disorienting dilemmas). No one can truly determine what is "significant" in the life of another. However, there appeared to be a difference in how students from the treatment group discussed certain lessons than students in the control group. For example, several students in the treatment group identified the guest speaker as being an emotionally-engaging lesson. Consider these examples:

- (The guest) speaker—hearing about the tough choices he faced helped me put my own life and morality in perspective.

- Guest lecture (added great) personal insight. The stories and process thinking made me think outside of my little world and how to go about making the difficult decisions that have yet to come in my life.

Interviewees had similar opinions:

- The guest speaker … shared with us and … I was trying to put myself in his shoes and see what I would do. I knew—he was telling us what he did—but I wanted to see what I would do. Would I have done something else? That's what I loved about the class compared to the others. The others didn't make me think. I really think the guest speaker was a great addition because it was a different perspective that people in the outside world do go through this stuff. You take his experience and you bring in all the SOMS terms, vocabulary, and it makes you realize that this is real-world stuff. (Bob)

- (The guest speaker) stood out to me. Partially because his stories were so intense, but also because he was just an average guy doing average things. Any one of us could be doing the same things. And those extraordinary things happened to him and so it kind of makes you sit there and think, 'Well hang on! Maybe I need to look at what I'm doing, how I think, what are my immovable points of reference?' Just because something like that can pop up and there's no way you can plan for those types of things. (Blake)

As referenced in Blake's comment above, the concept of an "Immovable Point of Reference" (explained in Chapter III) was also a recurring theme regarding Significant Emotional Events. Anonymous end-of-course treatment-group comments include:

- The lesson about immovable points of references hit me hard because the noble things I thought I set my sights on, in theory, didn't always match up in practice and I realized a need for change.

- Points of reference; it made me see that what is important to me now may not be so in the future. I started looking ahead more and trying to plan.

Treatment students also identified a wide array of specific lessons or movie clips that were especially meaningful for them. For example, lessons on cheating, automated processes, and building personal trust were all cited.

Two interviewees mentioned a specific lesson where in-class discussion centered around the implications of backing out of a driveway in a car and hitting a child's tricycle. From a process viewpoint, it was determined that it was irrelevant if a child was actually on the tricycle—the process used was still horribly flawed. Specific comments regarding this class discussion were:

- The one thing that really drove it home was the analogy of backing up out of the driveway and running over the kid because that explained my behavior to a "T" and how—when I get myself in a jam—I think to myself, 'Whew! Glad I got myself out of that one!' instead of, 'WOW! This could've had dire consequences! What do I have to do to make sure this doesn't happen again?' That was one of the most significant things that impacted me because I so strongly associated my own behavior with it. (Brian)

- One example in particular was backing up in your driveway and does it matter or not if you hit a –what was it?—a tricycle. Does it matter if there was a little kid on the bike? I was actually one of the ones to say that it doesn't matter, I mean, you know, you lucked out. But actually thinking about it, and understanding that there's a knowledge process that becomes

automated, it makes sense. All the stuff that I'm learning … was starting to become common sense, and, for me, that's what I look for—wisdom. I want to be wise, so this is the kind of stuff I enjoy.

In contrast, students in the control group were far more likely to refer to less specific terms as in-class discussions or decision-making as meaningful lessons. However, two common replies were (a) the *Codebreakers* movie, and (b) the bookbinder's scenario. These two lessons were obviously relevant to many students.

Perhaps the best way to convey the distinction between the control group and the treatment group, regarding SEEs, is through the comments of the control-group interviewees. When asked if they had experienced any lessons that caused them examine themselves, they replied:

- For me, (the class) put a name to previous knowledge. It's just vocabulary terms like hedonism, utilitarianism, Machiavellianism, to previous knowledge. Now I'm able to classify. (Aaron)

- I wouldn't say I had a big event. (Andrew)

- I never thought about that. *(Long pause)*   I think we *missed* an opportunity. I don't think there was a point when we were like 'Whoa!' There was never a 'wow moment.' But we watched the ESPN movie *Codebreakers* over the last class period and then wrote a paper…that movie was kind of the last thing we did…and I think it really had the potential to be very impactful *(sic)* just because it set in a situation that's so similar to the Corps of Cadets—those kind of situations pop up all the time in the Corps of Cadets, usually on a

smaller scale than something like that. How do we deal with something like

that? I think if we had had one more class period to focus on it and really

draw out a semi-fictional scenario for the Corps of Cadets that says "how do

you deal with this?" Especially when—I think those 'wow' moments come

from not the classes where we're talking about black and white issues, where

it is so obvious what you should do and what you shouldn't do, but every

now and then we'd almost get to the point in some of the class discussions

where, there really was no clear best choice of action. I think the problem

was they were just kind of silly fictional scenarios that it was really hard to

get invested into one position or another, and I think that—if we were able to

make the examples and the scenarios a lot more personal to the Corps—

maybe even use Corps examples—fictitious examples—but make it an

example that some of us would have actually been through in our time. You

know, the stuff that we're not supposed to say actually ever happens in the

Corps, but actually does, you know, because that is stuff we're invested in. I

think that—if we're forced to deal with those kinds of situations then the

whole ethical frame-working thing becomes a lot more real and a lot more

pertinent. I feel like we'd really begin to grasp the significance of a

difference between, you know, us doing what is 'textbook right', and maybe

what's in the best interest of the outfit, what's in the best interest of the

Corps, what's in the best interest of the individual…I think 90 percent of the

time most everybody in the class would say 'Oh, you've got to do what's

textbook right', because the connection to the scenario wasn't there and so

the emotional investment that usually clouds ethical decisions in the real

world isn't there. It just seems simple to make the black and white decision.

(Adam)

Desire for personal change. Students in both the control and treatments groups

indicated how the course had inspired them to change certain aspects of their lives. Only

two such comments were observed in the end-of-course write-in responses from the

control group:

- This course focused more on decision making and made me reflect more on

  how I make decisions.

- This really challenged my way of thinking and enhanced my views on how to

  deal with ethical dilemmas.

Similarly, while control-group interviewees had unanimous praise for the overall

SOMS-481 experience, none of them talked about it creating a desire for change.

In contrast, however, this theme was much more prevalent in the treatment group

than the control group. Representative end-of-course write-in comments were:

- After this class, I have had to re-evaluate how I make decisions and what is

  really important to me.

- (Discussing) leadership styles and ethics … really made me evaluate myself

  and allowed me more information to become who I want to be.

- I sometimes fall into the trap of thinking of myself more than others and

  sometimes bending my morals and character a little more than I really wanted

to or should have. Like we discussed in class, I have seen where I have probably come up with some automated processes because of these. I told myself it was alright to do it this one time or to go this far until that became automated and then I pushed it a little further and further. This isn't good and I definitely think it is something I need to work on, changing some of my automated processes.

- What I have found most depressingly in this discovery is that morally and ethically speaking, I am dog *(expletive)* (please forgive the vulgarity). Perhaps my soul is as well, if such a thing exists. But as GI Joe says at the end of every episode, 'Knowing is half the battle.' With that being said, perhaps there is a fleeting glimmer of hope for me yet. That glimmer is in the form of desire for change.

Treatment group interviewees gave similar responses:

- I think there were probably a lot of kids who went in (class) and it went in one ear and out the other. Maybe it made them stop and think a little bit, but they didn't stop and think real long. Because maybe they didn't like what they were thinking about! Or how it related to them. They weren't really ready to get up to that next level. But there were probably a fair amount of kids in there who are at that same spot (as me) where it's kind of like its time to grow up. I need to think about how I make my decisions. (Blake)

- I liked the SOMS course I just went through because it actually made me think about what it is to be a leader, to put me in tight spots and different

situations. It really tested me. My morals, my beliefs. It was like poking holes

in my foundation and just trying to help rebuild me up and help me to see

things that I haven't been seeing. Just a different perspective. (Bob)

- But I'd say students definitely got—what would you call it? Like a wake-up

call, I guess. Got their eyes opened by some of the course material and how

you proceed from one thing to the next and how that builds and what

processes you go through. … And because of the course, (I have) thought,

'What would be the end result over years and years of (my current

processes)? I think I've changed some of the ways I do things based on

thinking about that. (Brandon)

- I desperately need to change my behavior in order to achieve success and

happiness in life. (Instructor B was) instrumental in helping me discover this

epiphany. I do not know if you recall this, but during one of our first private

discussions, I became unsettled to the point of having to fight back tears.

Perhaps you noticed this, perhaps you didn't. In either case, it was

emblematical of holding up a mirror to my face of how people viewed me,

and needless to say, I did not like what I saw. (Brian)

Qualitative research questions

Research questions for the qualitative portion of the study were:

Qualitative research question 1. Do transformational ethics instruction methodologies enable students to question previous assumptions and beliefs about the ethical demands of leadership?

Qualitative research question 2. Do transformational ethics instruction methodologies inspire students to challenge or change their existing moral behavior and decision-making processes?

The findings presented identified several themes that emerged in the treatment group at a much higher rate than the control group. These were (a) an emphasis on personal application, (b) Significant Emotional Events, and (c) a desire for change. These themes are all commonly linked to transformational teaching strategies (Cranton, 2006).

The qualitative portion of this study was useful in augmenting the core quantitative portion of the research. A thorough examination of how these findings relate to the research questions is included in the following chapter of this report.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION

This chapter presents a discussion of the results and findings presented in Chapter IV, followed by recommendations for future consideration. There are six sections in this chapter: (1) a summary of results and findings, (2) discussion and interpretation of results and findings, (3) recommendations for future character and leadership development efforts, (4) limitations of the study, (5) recommendations for future research, and (6) conclusions.

SUMMARY OF RESULTS AND FINDINGS

This was a mixed-method study designed to examine the impact of transformational instructional techniques on student moral judgment in a leadership development course. The overarching research question for this study was:

- Is there a difference between transactional and transformational ethics instruction methodologies on student moral judgment in a leadership development course at a large public university in Texas?

In order to fully explore the issue, additional research questions were presented. The core quantitative portion of this study was guided by the following research questions:

1. Is there a positive increase in student moral judgment following systematic ethics instruction in a leadership development course at a large public university in Texas?

2. Is there a quantitative difference between transactional and transformational ethics instruction methodologies on student moral judgment in a leadership development course at a large public university in Texas?

The qualitative portion of this study was secondary to the core quantitative portion and was designed to augment the quantitative findings. The qualitative portion of the study was driven by two additional research questions:

1. Do transformational ethics instruction methodologies enable students to question previous assumptions and beliefs about the ethical demands of leadership?

2. Do transformational ethics instruction methodologies inspire students to challenge or change their existing moral behavior and decision-making processes?

Significant quantitative results

The quantitative portion of the study showed a significant increase in student moral judgment scores, as measured by the Defining Issues Test, Version 2 (DIT2), over the course of the semester for the entire quasi-experimental sample. Further quantitative analyses determined that, in actuality, students in the treatment group showed significant increases in moral judgment scores, while students in the control group did not show significant changes in moral judgment scores.

Students in the treatment group indicated significantly higher perceptions of the SOMS-481 course in the following areas: (a) overall impact on thought processes, (b)

presentation of alternate perspectives, (c) overall perceptions, (d) course impact on leadership development, and (e) potential to use course concepts in the future.

In contrast, significant differences were not found regarding student ratings for instructor communication skills or instructor knowledge.

Qualitative findings

Qualitative information sought to augment the core quantitative results by adding additional insight and information regarding student perceptions and processes. Thematic groupings were identified and interpreted according to guidance provided by Creswell (2003). Five common themes were found for both the treatment and control groups:

- Excellence of instructors

- Dislike for junior-year SOMS courses

- Praise for SOMS-481

- Appreciation for discussion-based instruction

- Future applicability of course material

In contrast, qualitative differences between treatment and control groups were noticed in the following areas:

- Deep personal application

- Significant Emotional Events (or Disorienting Dilemmas)

- Desire for personal change

DISCUSSION AND INTERPRETATION OF RESULTS AND FINDINGS

Throughout this report, quantitative data and qualitative information have been separated. In this section, however, the two are integrated in order to gain a deeper understanding of the results and findings of this study.

DIT2 results and findings

Treatment group results. The researcher anticipated the increase in overall moral judgment scores, as measured by the DIT2, for students in the quasi-experimental group (i.e., treatment and control groups combined). The review of literature indicated that systematic ethics instruction often resulted in increased DIT2 scores in interventions lasting between 3-15 weeks in duration (Bebeau & Thoma, 2003).

The rather dramatic increase in DIT2 scores for students in the treatment group was *theoretically* anticipated. Transformational teaching methodologies tend to create learning environments that challenge processes and inspire change, and these changes could cause shifts in the moral cognitive processes of participants. While DIT2 increases were anticipated from a theoretical perspective, there was little empirical evidence either supporting or discounting this hypothesis. Very little actual research had been done within the theoretical framework of instructional methodologies. Instead, much of the prevailing DIT2 research had examined either (a) different content-based interventions designed to determine the impact of certain curricula on moral judgment, or (b) differences between gender, race, or other demographic groups (King & Mayhew, 2002). The results of the current study can be used to further the study of transformational

methodologies, particularly in the context of moral development and the opportunity to challenge largely-automated processes.

Indeed, one of the reasons this study was designed as a mixed method study was an attempt to examine students' underlying, sometimes subtle, processes. Qualitative analysis revealed that the transformational methods used did enable students to question previous assumptions, thought patterns, and decision-making processes. Student responses to qualitative prompts provided confirmatory evidence that such a shift may have occurred in the minds of some students.

As discussed in Chapter II, Golembiewski (1976) introduced the concept of *gamma change*, or a radical shift in perspectives. Results of this study are inconclusive regarding true long-term gamma change in any of the participating students. However, the dramatic rise in DIT2 moral judgment scores, coupled with several of the particularly salient personal reflections identified in the qualitative portion, seem to suggest that at least some students may be progressing toward gamma change regarding the processes that guide their moral or leadership development.

Control group results. The researcher expected that both the treatment and control groups would show increases in moral judgment across time—the treatment group would merely show a greater rate of increase than the control group. However, this was not the case. Comparative mean statistical analyses indicated that control students scored essentially identically on the pretest and posttest administrations of the DIT2 instrument. This result was particularly intriguing after examining the qualitative findings, where students appeared to like the course format and instructor, and gave very strong positive

feedback on their perceptions of course content. Perhaps students in the control group experienced more in the realm of *alpha change*, or a shift in knowledge and facts regarding a particular topic, rather than a true shift in perspectives (Golembiewski, 1976).

Transformational versus transactional methodologies

Clearly, there were noticeable differences between the treatment and control groups at the end of the semester. These differences are reflected in the quantitative results and qualitative findings outlined in the preceding chapter. In addition, these differences did not appear to be reflective of an inherent difference in instructor abilities or competence—both quantitative and qualitative evidence indicate very few differences in this area.

As previously discussed, there were a number of areas where both control and treatment groups were very similar. However, the qualitative process identified three core thematic areas of distinction between these groups: deep personal application, Significant Emotional Events (or Disorienting Dilemmas), and a desire for personal change. These three areas are all prominent concepts in transformational education theory (Cranton, 2006; King, 2005). This suggests that transformational methodologies could be the main distinguishing factor in the development of these differences.

If that is indeed the case—if transformational methodologies tend to develop moral judgment at a higher rate than transactional methodologies—then a logical next step

might be to determine which specific techniques were most effective in facilitating this shift. A brief analysis of each of the three distinguishing thematic findings is presented:

Significant emotional events (SEEs) or disorienting dilemmas. As reported in Chapter IV, two primary events were commonly cited by treatment-group students as being "significant" to them personally. The most commonly-cited SEE was the guest speaker on Week 9, and the second was the discussion of the Immovable Points of Reference in Week 8. Both of these classroom events had been designed specifically to be potential SEEs for the students. This finding has potentially far-reaching applications because it indicates that artificially-created SEEs can have an impact on students, instead of merely waiting or hoping for students to have an SEE on their own. "Experiencing a disorienting dilemma" is the first step in Mezirow's transformative learning theory (Cranton, 2006, p. 20).

It was interesting, however, that several classroom events, exercises, and techniques that had been intentionally designed to be SEEs for the students *were not*, in fact, SEEs for students—at least not to the extent that students listed them on their end-of-course feedback sheets or discussed them in interviews. For example, movie clips were designed to be emotionally-engaging representations of class concepts. However, only a comparatively small number of treatment-group students mentioned movie clips as being significant moments in the course.

Clearly, it is understood that what is "significant" in the mind of one person may not be "significant" in the mind of another. Simply because a student does overtly identify

an event in a free-recall written exercise does not mean it did not serve the function of an SEE at the time it was presented.

Deep personal application. As outlined in Chapter III, Instructor B intentionally and repeatedly encouraged students to apply course concepts to their personal development. Written assignments, examinations, and reflection exercises were all aimed at intentional life application. Students were continually directed to try to connect course material to their own personal experiences, goals, and opportunities. "Undergoing self-examination" is the second step in Mezirow's transformative learning theory (Cranton, 2006, p. 20).

Desire for personal change. This concept is crucial to the transformational educational experience because it is a requisite affective state for the process. Many students in the treatment group expressed a desire to change their current moral decision-making processes. "Conducting a critical self-assessment of internalized assumptions and feeling a sense of alienation" is the third step in Mezirow's transformative learning theory (Cranton, 2006, p. 20).

It is interesting to note that these perspectives are, as stated, identical to the first three phases of the overall transformational learning process of Mezirow's theory (outlined in Chapter II of this report). The next two phases of the process, (a) relating discontent to the similar experiences of others and (b) exploring options for new ways of acting were observed in qualitative insights of some students.

The final five phases of Mezirow's transformational process deal with actual testing and trials of new behavior and reintegration back into society. These were not observed in this study to any substantive extent. This is a critical point. The progress identified in

both the quantitative and qualitative portions of the study only reflect a realization of current processes, dissatisfaction with current state, and a desire for change. While a few student respondents had already started making small behavioral changes, most simply expressed a desire to change based on new perspectives. Will these students actually analyze, choose, or behave differently when faced with future dilemmas? This study does not provide adequate information to answer that question. This is a prime area for future longitudinal research (discussed later in this chapter).

Blake, one of the interviewees identified in Chapter IV, was asked during his interview if he believed—based on his insights gained from the SOMS-481 course—that he would make different choices in the future. He replied, rather introspectively:

> "Well, I would *like* to say yes. I would like to believe that I've grown enough this semester—and this course has helped me grow enough—to be able to make a better choice. Will it? I guess we'll see. I can tell you that, before I make it, I'll definitely be more conscious of the decision and the decision-making process that I'll be going through. These things will be running through my minds, whereas beforehand it might've just been, 'What's best for me?' I think now there will be other questions in my head now. But will the decision be different? I don't know. I won't know until I'm there."

Other observations based on previous literature and research

Active and vicarious learning. As described in Chapter II, active learning theorists Dewey, Lewin, Kolb, and others all maintain that learning is a cyclical process. Typically, this process begins with a concrete experience, followed by some form of reflection or judgment of the experience (Kolb, 1984). This reflection provides meaning to the experience. If done correctly, the learner modifies his or her beliefs and behaviors to match the new information and then uses that new information in subsequent attempts.

Likewise, Bandura's Social Learning Theory discusses the concept of vicarious learning and vicarious reinforcement (Woodfolk, 2001, p. 325). In this form of learning, students have an opportunity to learn vicariously through the consequences experienced by others, as presented in case studies or other critical incidents.

The results of this study appear to indicate an integration—perhaps even a synergistic combination—of the active and vicarious learning theories. Instructional techniques—such as guest speakers, case studies, some film clips, and personal stories—provided a form of a *vicarious concrete experience*, where students replaced the principle actor(s) in the example with themselves and tried to determine how they would handle a given dilemma. Then, they intentionally reflected on the experience, with the added guidance and feedback of the instructor and other participants. The opportunity to experience this type of learning environment was appreciated and noted by several students and/or interviewees.

Micro- and macro-ethics

Qualitative analysis identified apparent differences in the degree and intensity of personal application of course content between students in the treatment and control groups. Comments and interviews from the control group indicated appreciation for the class concepts, terminology, and future application. Conversely, comments and interviews from treatment group participants indicated a much greater emphasis on personal reflection and discovery.

This appears to indicate that there is a profound difference between learning *about* ethical concepts and *becoming* a more ethical person. This is consistent with the transformational adult learning principles presented by Cranton (2006), King (2005), Hillier (2005), Mezirow (2003), and others. Deep personal reflection and internal wrestling with issues seem to be requisite qualities of transformational classroom settings.

This seems to indicate a distinction between *micro-ethics* (personal application) and *macro-ethics* (study about ethical concepts theories, etc.). While both may be important, it appears that micro-ethics may lead to greater shifts in moral development, as evidenced in the DIT2 results of this study and qualitative findings.

Prior to this study, the researcher was not aware of existing research examining the distinction between micro- and macro-ethics. Subsequent inquiries identified a relatively small but emerging body of research in this area, particularly in the context of

engineering ethics. The results of the current study indicate a ripe opportunity for future research in this area in leadership development settings.

Usefulness of the mixed-method design

The results and findings of this study seem to validate the mixed-method design. Significant quantitative results were observed that identified differences between treatment and control groups in both moral development and overall student perceptions. However, the augmentation of qualitative information allowed for a richer understanding of the issues.

Either method alone would have been insufficient in determining the influence of transformational methodologies on student moral judgment. For example, Likert-scale end-of-course feedback data, by itself, would have given an incomplete picture of the learning processes that appear to have taken place. Likewise, qualitative research alone would not have provided a form of standardized data, such as student N2 scores on the DIT2 that can be used to measure changes and serve as a comparative baseline for future research.

Lack of perfection

This study seemed to underscore the reality that measuring constructs like leadership, ethics, and moral development is an exceedingly inexact science. The results and findings of this study appear to answer some questions, but perhaps raise even more.

In addition, the results of this study clearly showed that the process does not work the same for all learners. For example, one student called the transformational teaching strategies of Instructor B to be a weekly "guilt trip." Another felt like the emphasis on ethical leadership was unnecessary and irrelevant. This highlights other areas of future research, to include learning preferences, personality traits, and other attitudinal perspectives.

RECOMMENDATIONS FOR FUTURE CHARACTER AND LEADERSHIP DEVELOPMENT EFFORTS

Implications for educators

The results and findings of this study appear to have implications for character and leadership educators. An exhaustive list of all possible implications is not realistic. Instead, the following areas are emphasized:

In the right context, many students are interested in studying ethics. Students in both the control and treatment groups showed an overall high regard for the content and concepts of the SOMS-481 course—particularly lessons that dealt with ethical decision making.

Significant emotional events are valuable. As previously stated, different people may respond differently to the same stimuli. However, the intentional introduction of potential SEEs to the educational experience does appear to initiate processes that may impact student development. Students in the treatment group indicated that SEEs were

an important part of their development throughout the course. Multiple SEEs may need to be introduced in order to impact a wider range of students.

Discussion-based settings are valued by students. Students in both the control and treatment groups consistently indicated that the discussion-based format of the SOMS-481 course was appreciated and valuable to them. Case studies and personal dilemmas seem to be especially conducive to the benefits of discussion-based instruction.

Safety and trust are essential elements in the process. Safety and trust are essential elements in classroom settings where potentially-divisive issues are being discussed. The current study confirmed this, as students from both the control and treatment groups expressed appreciation for these elements. In addition, King (2005) states that building safety and trust is essential to the transformational learning process, indicating that other transformation strategies may be irrelevant if safety and trust are missing.

Personal relationships provide rich contexts for leadership and moral development. Many students indicated that they felt a bond between themselves and the instructors in this study. They genuinely felt like both instructors cared about the class and about them personally.

Reflection and emphasis on personal growth is valuable. Students in the treatment group were given multiple opportunities for reflection—many of which were part of formal assessment techniques (such as examinations). Students were continually encouraged to apply course concepts to their own lives and situations. Treatment group students were told very early in the semester that the SOMS-481 class was not about leadership or moral development concepts—instead, the course was about *them*.

Specifically, it was about how they were developing as leaders of character. Results and findings from this study seem to confirm this as an important educational element.

    <u>Patience and realism are needed along the way</u>. The processes of leadership and moral development can be frustrating. It is hard for an instructor to know his or her impact. Were it not for the formalized research initiated in this study, it is unlikely either instructor would have known the full spectrum of student perceptions. The process of challenging students to become values-based leaders may often require navigating the murky waters of educational ambiguity.

LIMITATIONS OF THE STUDY

    Despite the implications and anticipated benefits, it is important to highlight some potential limitations of the current study. Some of the more important limitations are discussed below.

    First, as previously mentioned, this study contained a very limited timeframe. If many students do indeed have flawed automated decision-making processes, as suggested in the literature, then even the most successful educational interventions can only begin the change process. New habits must be preceded by new behaviors, and those behaviors must be maintained over time for more sustainable automated processes to emerge. A one-semester course is simply not capable of encompassing the entire change process. Perhaps a well-designed and implemented intervention can get students started on the proper trajectory, but a long-term approach is needed to assess long-term growth.

Second, the researcher was intimately involved in the study, to include instructing the two treatment sections, conducting all interviews, and interpreting data. While much effort was taken to attempt to remain unbiased, it is acknowledged that true impartiality is extremely difficult, if not impossible. Future studies attempting to validate these findings are encouraged to use non-participatory research methods, as this will be useful in moving this type of research forward.

Third, the population was limited. The Corps of Cadets at Texas A&M University is a unique context. These students enter the SOMS-481 course after seven full semesters of the corps experience, which purports to develop leaders of character. Their experience is not a typical one compared to the majority of students at the university. In addition, there is little gender or racial diversity within the Corps of Cadets. The unique context of the Corps of Cadets decreases the generalizability of the current study.

Fourth, while several attempts were made to account for potential differences among instructors in the study, it is possible that some differences existed. Quantitative results showed no significant differences in perceived instructor knowledge or communications skills. However, it is possible that other differences may have existed, for which there was no accounting. For example, teaching style, enthusiasm, age, professional backgrounds, and prior experience might have been confounding variables in the study.

Fifth, as previously mentioned, there was a lack of gender and racial diversity in the population and quasi-experimental sample of this study. While this was outside the control of the researcher, it still is a limitation worthy of mention because it severely limits the generalizability of the results and findings.

Sixth, qualitative data collection could have been improved by collecting qualitative data early in the semester. In this way, qualitative changes could have been examined over the course of the semester as well. As a result, the researcher was only able to gain insight from end-of-course qualitative data. Future designs that solicit qualitative information at the beginning of the semester will have an advantage over the current study.

Seventh, despite efforts to ensure content consistency across all of the quasi-experimental sections, some differences existed. As a result, the qualitative interview protocol design used language that was familiar to the treatment group, but not the control group. This may have resulted in different levels of understanding during the interview process, which possibly reduced the overall richness of the data.

RECOMMENDATIONS FOR FUTURE RESEARCH

The results and findings of this study indicate many possibilities for future research. Several of these areas have already been identified in this chapter. While an exhaustive list is not possible, the following recommendations are provided:

Larger sample sizes. Replication studies that look at different samples of the transactional/transformational continuum can be useful. These studies have a potential for increased Effect Sizes and greater opportunity for generalizability.

More diverse populations. Replication studies that examine methodological differences with a more diverse set of students would be useful. The current study used only students in a quasi-military context at a relatively-conservative public university.

Replication studies that examined differences in other settings would aid in the generalizability of the findings.

Systematic examination of SEEs. This study used a wide array of potential SEEs, to include movie clips, personal stories, guest speakers, and direct confrontation. Studies that attempt to isolate specific forms of SEEs, possibly even in combination with accounting for student learning styles, might yield compelling results.

Journaling. Journaling can be an effective method for student reflection and personal application. No intentional journaling opportunities were presented in this study. Journaling could possibly provide insight regarding individual lessons and how those lessons did or did not influence student learning.

Longitudinal studies. Longitudinal studies, especially ones that link transformational learning to actual changes in behavior or moral decision-making would be extremely beneficial.

Personality indicators. Future research that examined how different personality types responded to transformational methodologies would be beneficial.

CONCLUSIONS

As stated in the introduction of this report, the purpose of this mixed-method study was to examine the impact of transformational ethics instruction methodologies on student moral judgment in a leadership development course. Having completed the planning, data collection, analysis, and interpretation phases, the following conclusions are provided in light of the research questions that guided this study.

Quantitative and qualitative supporting research questions

Is there a positive increase in student moral judgment following systematic ethics instruction a leadership development course at a large public university in Texas? Quantitative data showed a significant positive increase in student moral judgment following a systematic ethics instruction intervention, as measured and defined by the Defining Issues Test, Version 2.

Is there a quantitative difference between transactional and transformational ethics instruction methodologies on student moral judgment in a leadership development course at a large public university in Texas? Quantitative results showed a significant increase in moral judgment for students exposed to transformational methodologies. In contrast, students exposed to predominantly traditional/transactional methodologies did not show a significant increase in moral judgment scores.

Do transformational ethics instruction methodologies enable students to question previous assumptions and beliefs about the ethical demands of leadership? Qualitative findings clearly show that students exposed to transformational ethics instruction methodologies do indeed question previous assumptions regarding their perceived abilities and preparedness regarding the ethical demands of leadership. In addition, a comparatively lower number of students in the control group also made statements regarding enlightenment regarding the types of decisions they were likely to face. Furthermore, quantitative data analysis showed significant differences between control and treatment groups regarding challenges to previously-held assumptions.

Do transformational ethics instruction methodologies inspire students to challenge or change their existing moral behavior and decision-making processes? Students exposed to transformational ethics instruction methodologies show an increased desire to question and potentially modify their existing moral behavior and processes. Qualitative and quantitative information both confirm this desire. Qualitative findings showed modified intentions and perceptions regarding personal change between students in the treatment group, but relatively few changes in control-group students. Likewise, quantitative results confirm this by showing significant differences regarding challenges to decision-making processes and perceived likelihood of behavioral modifications—both of these were significantly higher for treatment-group students. However, as previously stated, the qualitative and quantitative data regarding this question only indicate a desire to change. It remains unclear whether behavioral changes will actually occur.

Overarching research question

The results and findings of this study, as presented above, enable the researcher to respond to the overarching research question for this study:

- Is there a difference between transformational ethics instruction methodologies and transactional ethics instruction methodologies on student moral judgment in a leadership development course?

As shown in the various results and findings of the study, determined using both quantitative and qualitative research methods, transformational instructional

methodology is a significant determinant regarding increases in student moral judgment. In contrast, changes in moral judgment for students exposed to transactional instructional methods were not significant, and may be less common or more subtle in nature.

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APPENDIX A

SCRIPT FOR POSTTEST DIT2 ADMINISTRATION

SCRIPT FOR POSTTEST DIT2 ADMINISTRATION

Good morning / afternoon. I am <NAME> and I am one of the instructors for the Leadership Development Center in the Corps of Cadets. We are conducting research that examines the impact of different types of teaching techniques on leadership development and moral judgment.

Part of the research we are conducting involves examining the ways students make decisions. We are using the data we gathered earlier in the semester (as part of the normal course evaluation procedures) with the Defining Issues Test (DIT)—and examining it a little deeper in order to better understand (a) how students make decisions, and (b) what instructional techniques work best when trying to teach ethical decision-making principles. In order to do this, we are asking certain sections of SOMS to take the DIT a second time at the end of the semester. Your section has been identified as being one of those sections.

You are under no obligation to participate in the research. Should you decide to participate, your decision will not earn you any additional credit or benefits in the class. Should you decide not to participate, your decision will have absolutely no impact on your grade in the course.

That said, we would love for all of you to participate in the study because we feel like your information can help us design better SOMS courses in the future. If you choose to participate, you are asked to simply complete the DIT, as well as some end-of-course and background questions.

All answers to these research questions are completely confidential, and personally-identifying information will NEVER be used in the reporting of the data. For research purposes, you will be assigned a unique participant identification number, but that number will be used for data processing purposes only.

We want to stress that your responses to the DIT, as well as the end-of-course and background questions, will have absolutely no impact on your status or grade in the course. To ensure your trust in the confidentiality of your responses, this data is not being collected by your actual instructor. The answers you provide will be sealed and stored with the Office of the Commandant staff until after final grades have been posted.

Thank you very much for your consideration of this research project. Have a great day.

APPENDIX B

QUANTITATIVE END-OF-COURSE FEEDBACK FORM

END-OF-COURSE FEEDBACK – SOMS-481

STRONGLY DISAGREE	SLIGHTLY DISAGREE	NEITHER AGREE NOR DISAGREE	SLIGHTLY AGREE	STRONGLY AGREE
1	2	3	4	5

Using the scale provided above, please indicate the degree to which you agree or disagree with the following statements:

My instructor was excellent at communicating with students:	1	2	3	4	5	N/A
My instructor was very knowledgeable about the subject matter in the course	1	2	3	4	5	N/A
This course challenged me to question prior decision-making thought patterns and habits	1	2	3	4	5	N/A
This course challenged me to consider alternative perspectives	1	2	3	4	5	N/A
This course gave me opportunities to take time to reflect on the material presented	1	2	3	4	5	N/A
I enjoyed this course	1	2	3	4	5	N/A
This course was a valuable part of my development as a member of the Corps of Cadets	1	2	3	4	5	N/A
As a result of things discussed in this course, there is a good chance I will make different choices in the future	1	2	3	4	5	N/A

Survey ID # _____

APPENDIX C

END-OF-COURSE WRITTEN FEEDBACK QUESTIONS

COURSE FEEDBACK

In your opinion, how did this course compare to previous SOMS courses you have experienced?

What lesson or topic discussed in the course this semester (if any) was the most beneficial/ memorable for you? Why?

What parts of the course (if any) should be eliminated or greatly improved?

Any comments—either positive or negative—for your <u>instructor</u> specifically? (i.e., teaching style, teaching philosophy, respect/treatment of students, areas for improvement, etc, etc?)
Be honest, please…this will NOT impact your grade at all!

APPENDIX D

SCRIPT OF E-MAIL TO POTENTIAL INTERVIEWEES

SCRIPT OF E-MAIL TO POTENTIAL INTERVIEWEES

E-Mail script:

You are one of 8 students who are being asked to participate in a research study about the instructional techniques used in your executive leadership course (SOMS 481).

Part of the research we are conducting involves examining (a) how students make decisions, and (b) what instructional techniques work best when trying to teach ethical decision-making principles. You have been identified by your SOMS instructor as being a person who would be able to provide insight into these topics, based off of your experiences in the SOMS 481 course.

If you are willing to participate, we would ask for about 30-minutes to one-hour of your time. We would like to conduct an interview with you to ask your perceptions of the topics covered in SOMS, your overall perceptions of leadership, as well as the instructional techniques used in the course.

You are under no obligation to participate in the research. Grades have already been posted, so your decision to participate will not earn you any additional credit or benefits in the class. Should you decide not to participate, your decision will have absolutely no impact on your grade in the course.

That said, we would love for you to participate in the study because we feel like your information can help us design better SOMS courses in the future, and gain valuable insight into the best strategies for teaching character-based leadership to future students. Only two students per section are being asked to participate in this research.

All answers to these research questions are completely <u>confidential</u>, and personally-identifying information will NEVER be used in the reporting of the data. If you consent to this portion, the interview will be audio recorded to assist the researcher in correctly remembering your responses. Your name and other identifiers will never be used in the reporting of the data. All data obtained through this research will be presented using pseudonyms (fake names), and all audio tapes will be destroyed once the data has been transcribed. There are no risks or tangible benefits associated with this study.

If you agree to this study, would you please respond to this e-mail with a brief statement that (1) you agree to participate, and (b) a time that you would be available in the next few days so we can schedule your interview.

Thank you very much for your consideration of this research project. Have a great day.

APPENDIX E

CONSENT FORM FOR INTERVIEWEES

CONSENT FORM

Study name: *THE IMPACT OF TRANSFORMATIONAL ETHICS INSTRUCTION METHODOLOGIES ON STUDENT MORAL JUDGMENT IN A LEADERSHIP DEVELOPMENT COURSE AT A LARGE PUBLIC UNIVERSITY IN TEXAS*

You are one of 8 students who have been asked to participate in a research study **about the instructional techniques used in your executive leadership course (SOMS 481)**.

If you agree to be in this study, you will be asked to **participate in a 30-minute to one-hour interview where you will be asked about your perceptions regarding the instruction you received during your spring SOMS experience. These interviews consist of standardized questions about the instructional techniques used, overall perceptions of the course, and reflections regarding some previously-completed coursework in the class.**

If you consent to this interview, it will be audio-recorded to assist the researcher in correctly remembering your responses. Your name and other identifiers will never be used in the reporting of the data. All data obtained through this research will be presented using pseudonyms (fake names), and audio tapes will be destroyed once the data has been transcribed. As previously stated, this portion of the study will take an additional **30-minutes to one-hour of your time.** There are **no risks or tangible benefits** associated with this study.

This study is **confidential. Any and all responses given will be maintained only by the researchers. At no point will your information be presented in a manner that could identify you.** The records of this study will be kept private. No identifiers linking you to the study will be included in any sort of report that might be published. Research records will be stored securely and only the principle researcher, **David W. Keller,** will have access to the records. **As previously stated, audio tapes for those being interviewed will be destroyed once the data has been transcribed.**

Your decision whether or not to participate will NOT affect your current or future relations with Texas A&M University, or your standing in the Corps of Cadets. If you decide to participate, you are free to refuse to answer ANY of the questions that may make you uncomfortable. You can withdraw at any time without your relations with the University, job, benefits, etc., being affected. **You can contact Dr Richard L. Cummins with any questions about this study. He is located in the Quad area at Texas A&M, Lounge F, 979-458-0436, dcummins@corps.tamu.edu.**

The results of this study will be used to evaluate existing SOMS courses, and some of the data will be used as part of the dissertation of David Keller. This research study has been reviewed by the Institutional Review Board - Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Melissa McIlhaney, IRB Program Coordinator, Office of Research Compliance, (979) 458-4067, mcilhaney@tamu.edu.

Please be sure you have read the above information, asked questions and received answers to your satisfaction. A copy of this consent form is available for your records upon request. By signing this document, you consent to participate in the study.

Signature of Participant: _____ Date: _____

Signature of Investigator: _____ Date: _____

APPENDIX F

GENERAL INTERVIEW QUESTIONS

INTERVIEW QUESTIONS – GENERAL TEMPLATE

1. Please tell me about your most recent spring semester SOMS experience. What were your overall impressions of the course?

2. Were there any particular lessons that stood out as being especially meaningful? Why was that lesson meaningful to you?

3. Do you think the course challenged any of your previous thought processes? In what way?

4. Do you think your fellow students had any of their previous assumptions challenged?

5. Tell me about the types of methods your instructor used during the course? Would you consider these methods to be unusual or especially creative, or were these methods more traditional in nature?

6. Do you think any of those lessons might have created a significant emotional event for the students? Explain.

7. *<Student is shown a prior response to previously-accomplished coursework>* This information is from one of your assignments earlier in the semester. Do you feel that your perception of *<leadership topic>* changed over the course of the semester? In what way?

8. Based off of your experience in the course, how do you think you are going to behave in the future when faced with tough ethical dilemmas? Do you think you will choose radically differently, or basically maintain the same basic processes (perhaps with a little more academic knowledge about terms, etc)?

9. Consider this an open forum to say anything you want about your overall SOMS experience. Lessons learned, opportunities missed, instructors, perceptions…anything. What would you like to say that I did not ask you?

VITA

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Texas A&M University, Texas, 2007.

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B.S., Human Behavior and Leadership
United States Air Force Academy, Colorado, 1990.

Military Education: Graduate, Air Command and Staff College, 2002.
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**Professional
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