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Teachers and Cheating: The Relationship Between the Classroom Environment and High School Student Cheating

Colby James Boysen

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LOYOLA MARYMOUNT UNIVERSITY

Teachers and Cheating: The Relationship Between the
Classroom Environment and High School Student Cheating

by

Colby J. Boysen

A dissertation presented to the Faculty of the School of Education,
Loyola Marymount University,
in partial satisfaction of the requirements for the degree
Doctor of Education

2007

Teachers and Cheating: The Relationship Between the
Classroom Environment and High School Student Cheating

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by

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This dissertation written by Colby J. Boysen, under the direction of the Dissertation Committee, is approved and accepted by all committee members, in partial fulfillment of requirements for the degree of Doctor of Education.

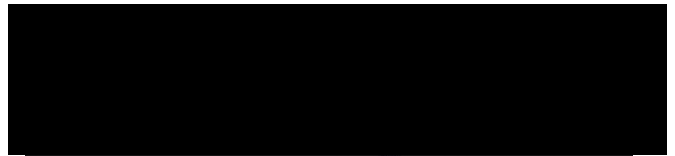
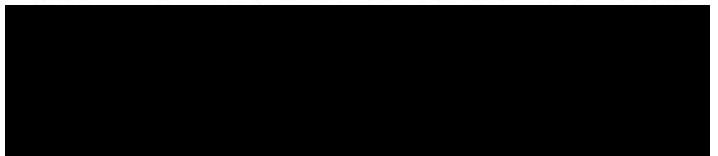
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I would like to thank my parents, Jeffrey and Diane, for instilling in me a passion for learning; my sisters Elisa and Emily for their constant love and support; my wife Tania who helped me more than anyone during this process, and my baby son, Ambrose, for reminding me about the simple beauties in life.

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DEDICATION

I dedicate this dissertation to my wife, Tania. Her hard work, loving sacrifices, and passion for kindness and integrity have been my inspiration in both my professional and academic careers. More than any other person my wife has taught me about the profound importance of a loving and caring environment. Without her constant support, thoughtful guidance, and unwavering encouragement I would not have been able to finish this process.

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ABSTRACT

Teachers and Cheating: The Relationship Between the Classroom Environment and High School Student Cheating

By

Colby J. Boysen

Academically dishonest behaviors pose a major threat to education. High rates of cheating have been reported at all levels of education, and by most accounts seem to be on the rise. Classroom environment research has demonstrated that environments created by classroom teachers have a significant impact on many aspects of education. Using a mixed methods approach, the current study investigated the relationship between cheating and the high school classroom environment. Quantitative data were collected from two surveys. The Academic Integrity Survey (AIS) asked students to self report cheating behaviors, and the Classroom Environment Scale (CES) asked students about their perceptions of the classroom environment. Qualitative data were collected from classroom observations and student interviews. The results of this study indicate that the classroom environment is significantly related to student cheating; the more positive the environment, the less students will cheat. Regression analyses indicated that 2 CES subscales, order and organization and involvement, were negatively related to student cheating and explained 40% and 23% of the variance respectively. The regression

analyses also indicated that 3 other study variables, school sports participation, after school employment, and grade level were positively related to student cheating and explained 15%, 12%, and 11% of the variance, respectively. Qualitative analyses yielded 5 major findings. It was found that students cheat more in environments where students are not involved, that lack order and organization, and that lack teacher control. Students cheat more when their teachers are oblivious and are not respected, and larger systemic issues are related to student cheating behaviors. This study represents rare attempts to access the student perspective on cheating as well as to understand teachers' role in student cheating. This study concludes that teachers can reduce the rates of cheating in their classes by improving their classroom environments, especially in the areas of order and organization and student involvement, and by increasing their use of authentic standards based assessments. However, most of these improvements will only impact students' opportunity to cheat. Educators will have a difficult time affecting students' desire to cheat until larger systemic problems with the current educational system are addressed.

CHAPTER 1

INTRODUCTION

There are a wide range of behaviors considered academically dishonest. The most typical behaviors are cheating on examinations and homework, and plagiarizing papers. Other cheating behaviors include sabotaging another student's work, inventing laboratory data, forging official documents, not participating in a group project, studying from past tests, making false excuses for missing assignments or exams, and failing to report grading errors. While this list is certainly not exhaustive, it does offer an idea as to the scope of dishonest behaviors.

Research questions surrounding academic dishonesty are as diverse as methods of dishonesty themselves. Theories explaining student cheating range from academic characteristics such as GPA (Diekhoff et al., 1996; Genereux & McLeod, 1995), work habits (Roig & De Tommaso, 1995), and laziness (Schab, 1991), to moral development (Lanza-Kaduce & Klug, 1986), perceived peer norms (Eisenberg, 2004), intense external pressure (Taylor, Pogrebin, & Dodge, 2002), and situational characteristics (Evans & Craig, 1990). Some of the more recent and promising research suggests that external pressures (Taylor et al., 2002; Whitley, 1998), and competitive classroom environments (Evans & Craig, 1990) greatly increase the likelihood that a student will cheat. The research also suggests that when extrinsic motivators like grades are emphasized more

than intrinsic motivators like mastery and achievement cheating rates go up (Anderman, Griesinger, & Westerfield, 1998; Jordan, 2001).

Purpose of the Study

The purpose of this study was to better understand the relationship between classroom environment and cheating. Classroom environment is one of the few correlates to cheating that is actually within the control of educators. Understanding the teacher's role in fostering academic dishonesty is critically important. If educators are indeed creating environments that produce and reward dishonest student behaviors, then it is imperative that researchers seek to better understand just how they are doing that. Educators cannot ask students to address their contributions to the prevalence of dishonest behaviors until educators do the same. The justice and ethical implications should be clear; if honesty, fairness, validity, and learning are important principles in education, then cheating is an issue demanding attention from educators and researchers alike.

Research Questions

The following study included a mixed methodology. The population included students at a small, suburban, Catholic high school. Quantitative measures of classroom environment and student cheating rates were taken and balanced with student interviews and classroom observations. Key questions that were addressed by this study include:

1. What is the relationship between the classroom environment and student cheating?
2. In what kinds of environments does cheating flourish, and in what kinds of environments does academic integrity flourish?

3. What can classroom teachers and school administrators do to alter classroom environments in order to focus on learning and integrity, effectively reducing cheating rates?

Data-Gathering Methods

A mixed methods approach was adopted in this study in order to answer the research questions. The quantitative portion of the study included two student surveys. The first was the Classroom Environment Scale (CES, see Appendix A) developed by Moos and Trickett (1987). The CES was used to measure the classroom environment for 17 individual classes. Students were asked to reply to 90 true/false statements about a designated class. The CES uses the answers to 90 true/false statements to comprise 9 subscales. The 9 subscales represent nine areas of the classroom environment the CES measures, including: (a) involvement, (b) affiliation, (c) teacher support, (d) task orientation, (e) competition, (f) order and organization, (g) rule clarity, (h) teacher control, and (i) innovation.

The first three subscales, involvement, affiliation, and teacher support have to do with relationships in the classroom. *Involvement* measures student attentiveness, interest and participation in class activities; *affiliation* measures concern and friendship students feel for each other; and *teacher support* measures trust and friendship students feel from the teacher (Moos & Trickett, 1987). The fourth and fifth subscales—task orientation and competition—have to do with personal growth and orientation. *Task orientation* measures the class's emphasis on completing class assignments and staying on subject matter; and *competition* measures level of competition for grades and recognition, and the

difficulty involved in receiving good grades (Moos & Trickett, 1987). The last four subscales, order and organization, rule clarity, teacher control, and innovation, have to do with system maintenance and change. *Order and organization* measures how organized the teacher is and how orderly the students are while in that class; *rule clarity* measures how clearly the rules, and consequences for breaking the rules, are communicated by the teacher to the students; *teacher control* measures how well the teacher enforces the rules; and *innovation* measures the creativity and variety of class assignments, and how much students are allowed to participate in class decision making processes (Moos & Trickett, 1987).

The second quantitative instrument used in this study was the Academic Integrity Survey (AIS, see Appendix B). Scores on the 9 subscales of the CES were compared with averaged self-reported cheating rates as reported on the AIS. The AIS is a modification of the instruments used by Jordan (2001) and the Josephson Institute of Ethics (2006). The AIS is designed to establish cheating behaviors of high school students. The CES asks students to report their perceptions of a specific class. The AIS asks students certain demographic information, and then asks them to self report how many times they have plagiarized, copied homework, or cheated on tests in the designated period. Specifically, the AIS asks students to indicate how many times, in their class, they have: copied a book, article, or internet document for a class assignment; turned in homework that they copied from someone else; copied from someone else's test; used a cheat sheet on a test; used electronic devices to cheat; given answers to someone or allowed someone to copy their test; and how many times they have been caught cheating by their teacher.

The primary data sources for the qualitative portion of this study were semi-structured (Merriam, 1998), open-ended interviews and classroom observations. Using maximum variation sampling (Merriam, 1998), the quantitative findings dictated the areas of interest for the interviews and observations.

Definitions of Technical Terminology

A serious issue in academic dishonesty research is little agreement over the definitions of academic dishonesty and cheating. Some researchers (Gehring & Pavela, 1994) understand academic dishonesty as any and all behaviors and attitudes that are dishonest when it comes to education, including behaviors ranging from using crib sheets to faking an illness. Others (Josephson Institute of Ethics, 2002; 2004; 2006) limit understanding of academic dishonesty to the usual suspects of cheating on exams, copying homework or class work from another student, and plagiarizing. This issue is confounded by the fact that teachers and students mean very different things when they talk about academic dishonesty (Pincus & Schmelkin, 2003).

The term *cheating* can also be problematic. Throughout much of the academic dishonesty research, the terms academic dishonesty and cheating are used interchangeably. It is less clear, however, if educators and students use these terms in the same way. Students and teachers alike agree that cheating is a major problem in their institutions (Evans & Craig, 1990), but do not agree on what is and is not cheating (Pincus & Schmelkin, 2003). Cizek (2003a) proposed the following definition of *cheating*:

Cheating: Any action that violates the established rules governing the administration of a test or the completion of an assignment; any behavior that gives one student an unfair advantage over other students on a test or assignment; or any action that decreases the accuracy of the intended inferences arising from a student's performance on a test or assignment. (pp. 3-4)

For the purposes of this study, the term *cheating* referred to the act of a student receiving unauthorized aid on a test, paper, or homework assignment.

Classroom environment is another key concept that will be discussed throughout this study. Classroom environment has been a popular area of research over the past 40 years. Classroom environment is also discussed in the literature as the learning environment, classroom culture, classroom climate, classroom social environment, psychosocial environment, and milieu. Specifically, for the purposes of this study, the term *classroom environment* referred to the classroom's atmosphere, ambience, tone, climate, or culture that pervades the particular setting (Dorman, 2002). This environment is a human one, and is characterized by three dimensions, (a) the nature of the relationships in the environment including involvement, affiliation, and teacher support; (b) the amount and quality of personal development that is occurring there including task orientation and competition; and (c) how well the environment maintains itself and how it responds to change including order and organization, rule clarity, teacher control, and innovation (Moos, 1974).

Assumptions, Delimitations, and Limitations of the Study

The following three assumptions underlie the current study. The first assumption involves the nature of education. It is assumed that the primary purpose of education is student learning, and educators and researchers alike need to seek out theories and practices that facilitate learning and discontinue ones that do not. Secondly, it is assumed that cheating is problematic and a serious issue facing academic institutions.

Academically dishonest behaviors and attitudes directly interfere with the learning process, question validity, are unfair, are unethical, and need to be addressed and reduced. The third and final assumption is about classroom environments. It is assumed that the classroom environment has a significant impact on student learning and achievement, is greatly influenced by the classroom teacher, and can be reasonably assessed using existing qualitative and quantitative measurements.

The following delimitations were true for the study. While the study used a mixed methodology to try and balance the strengths and weaknesses of each approach, the sample population was limited to a case study of one, Catholic, archdiocesan, suburban, high school in southern California. Caution needs to be taken when trying to generalize any findings generated from the proposed research.

In addition to assumptions and delimitations, there are also limitations imposed on this study by the research design. The current study attempted to assess the cheating behaviors of the participants using a self-report survey. The problem with this kind of methodology is that self-report is susceptible to social desirability response bias (McCabe & Trevino, 1993), where respondents either unknowingly or knowingly misrepresent

themselves, giving the socially desirable response rather than accurately reflecting their honest beliefs, attitudes, and past behaviors. The caution is that behaviors and attitudes surrounding undesirable issues are under-reported while socially desirable behavior is over-reported; in other words participants probably cheat more than they are willing to admit on surveys.

The Significance of the Study

If actual cheating rates of students at any level are anywhere near what the research has reported, this is an extremely important area of concern. Creating and fostering environments where dishonesty is justified and viable is dangerous. The benefits of an educated society cannot be realized if the only things the individuals of that society learn are how to work the system, get away with it, and not understand why that is wrong. It is not just bad for society, but for the individuals living in it. Education provides access and opportunity; it allows individuals to reach their full potential. Unless educators examine and remedy their own role in creating cheating behaviors and attitudes that are detrimental to student learning, the educational process will continue to be undermined.

Cheating subverts much of what education is supposed to accomplish. According to Whitley and Keith-Spiegel (2002), there are eight reasons why educators should be concerned about cheating. First, cheating threatens equity. A student's rank in a classroom or grade level (for better or for worse) is often used for admittance into honors programs, higher levels of education, and the rewarding of scholarships and other awards. If any student who has cheated is ever ranked higher than a student who has not, then

cheating becomes a serious fairness issue. Second, moral and ethical development are important pieces of an educator's job, and when educators fail to address cheating in their classrooms and on their campuses, students may decide that academic dishonesty is tolerable. Third, cheating circumvents one of the most important things students are supposed to be doing at school—learning. Cutting corners on assignments, receiving answers, and passing subject matter they know little about teaches students nothing (aside from creative problem solving strategies, which are important, but should be learned in a different context). The fourth and fifth reasons why cheating should be a top concern for educators, according to Whitley and Keith-Spiegel, are that cheating significantly lowers both student and faculty morale. The sixth reason is that students who have cheated before are very likely to cheat again. High school students who cheat will cheat as undergraduates; undergraduates who cheat will cheat in graduate school and in their professional careers. In light of recent incidents like the Enron scandal, people who cheat in their professional careers can potentially and significantly harm thousands of others. Seventh, cheating damages the reputation of the educational institution, and eight, incidents of cheating add to the public's growing lack of confidence in educational systems.

Cizek's (1999) list for reasons why cheating is problematic is similar to Whitley and Keith-Spiegel's (2002), but added an important piece about validity. The intent of testing and other assessment methods is to assess the progress of individual students, groups of students, schools, and districts. When cheating occurs, these scores are bolstered and test results are invalidated. Without valid test results, educators do not

know which schools need intervention and which ones do not, they no longer know which students need extra attention and which ones are achieving at acceptable levels. If educators do not know who needs help with what, they cannot help anyone. Invalid test results not only harm individual students, but misinform policy makers and educational administrators who rely on the scores to accurately represent the condition of their schools. These test results are used to make important decisions about staff, curricula, professional development, teacher-credentialing requirements, and to measure the effectiveness of school reform (Cizek, 2003b). Cheating not only threatens equity, moral development, learning, and morale, but invalidates test results, significantly harming students and schools, and misguides the policies of entire districts potentially costing millions. It is in everyone's best interest (students, educators, parents, and policy makers) to better understand cheating behaviors, especially how educational environments might contribute to these behaviors, in order to implement successful prevention strategies.

CHAPTER 2

LITERATURE REVIEW

The following literature review summarizes the recent scholarly literature available on cheating in order to highlight the major findings and implications of the factors impacting high school student cheating. Special attention is devoted to research on classroom environment and the specific environmental factors that may affect cheating behaviors. This chapter discusses academic dishonesty and cheating research and addresses answers to practical questions like, “who cheats?” “why do they cheat?” and “what can be done about it?”

Who Cheats?

Rates of Student Cheating

The rates of cheating behaviors and attitudes in academic institutions are alarming. Some caution needs to be taken when reading the reported rates of cheating. As mentioned in chapter 1, there are no set definitions of what is and is not cheating. Thus, researchers use varying definitions for different populations with different variables yielding a wide variety of results. Some rates will be mentioned below, but this is just to provide a sample of what the prevalence is like, not to suggest definitive rates of cheating. In one study, both teachers and students readily admit that cheating is a major problem facing their particular school (Evans & Craig, 1990), and when asked, 90% of students admit that it is wrong to cheat (Davis, Grover, Becker, & McGregor, 1992).

Whitley's (1998) meta-analysis looked at 107 research studies conducted primarily on college undergraduates between 1970 and the late 1990s, and found a mean of 70.4% of students admitted to cheating in college, and these rates seem to be on the rise (Jenson, Arnett, Feldman & Cauffman, 2002). While lower than college, middle school rates are also high. Anderman et al. (1998) reported middle school cheating rates at 39%.

As alarming as this might sound, the situation is worse in high school. Davis et al. (1992) and Cizek (1999) both found cheating rates to be lower in college than they are in high school. Davis et al. surveyed 6,000 undergraduates, and when asked if they cheated in high school, a low of 51% (women in a small liberal arts college) and a high of 83% (men at a large state university) indicated they did. Davis et al. found a mean of 76% of college students admitted to cheating in high school. The Josephson Institute of Ethics regularly conducts large national surveys, asking high school students about a variety of ethical issues. In 2002, the Josephson Institute of Ethics reported that 74% of students involved in the study admitted to cheating on a test at least once in high school; in 2004, the Josephson Institute of Ethics reported that 62% of students responded positively to the same question; and in 2006, 60% of the surveyed students admitted to cheating on a test. Perhaps the scope of high school cheating can best be summed up with a quote from Cizek (1999): "Several large-scale studies have been conducted, and apparently...almost everybody is doing it. A high percentage of admitted cheating is a consistent finding of research on cheating at the high school level" (p. 16). These high levels of reported cheating have educators concerned and have been the topic of many research studies.

These studies have helped shed light on what kinds of student characteristics are related to cheating.

Student Characteristics Associated with Cheating

Studying the relationship of student characteristics to cheating behaviors and attitudes has been the focus of many academic dishonesty research studies. Most of the characteristics considered in these studies can be broken down into two general categories, demographic characteristics and academic characteristics.

Demographic Characteristics: Gender, Ethnicity, and Age

Three demographic characteristics discussed below include: gender, ethnicity, and age. One of the most commonly studied demographic variables is gender. A gender difference has been a constant finding in several college and high school studies with men reporting to cheat more than women (Antion & Michael, 1983; Davis et al., 1992; Genereux & McLeod, 1995; Roig & De Tommaso, 1995). Whitley (1998) pointed out, however, that the differences have only been consistently significant in self-reported survey studies (as opposed to classroom observations of cheating and cheating on laboratory tasks). This could either mean that men do indeed cheat more and get caught less, or that there is no gender difference in cheating behavior, but men are more likely than women to report such events.

Another characteristic that has received some attention from researchers is ethnicity. In their study of college undergraduates, Sutton and Hubba (1995) found little differences between the self-reported cheating attitudes of African American students ($n=161$) and Caucasian students ($n=161$). Similar results have been found more recently

at the middle school level. Anderman et al. (1998) found no difference in self-reported cheating behaviors and attitudes between the Caucasian ($n=123$), African American ($n=116$), and other ethnicities ($n=46$) groups.

Age is the third and final demographic characteristic considered. There are only a handful of studies that deal with cheating in middle school and even less for younger students. It is unclear when cheating begins or what the rates might be in elementary school, but as mentioned above, Anderman et al. (1998) found about 39% of the middle school students they surveyed admitted to cheating. These rates increase dramatically to about 76% in the high school years (Davis et al., 1992), and drop to about 70% in college (Whitley, 1998).

It seems clear from the research that gender (Whitley, 1998), and ethnicity (Sutton & Hubba, 1995) are poor indicators for who cheats. It has been found, however, that high school age students cheat more than college age students, who cheat more than middle school age students (Cizek, 1999). The next student characteristics considered are academic characteristics.

Academic Characteristics: Ability and Behavior

The academic characteristics discussed can be grouped into two general categories, academic ability and academic behavior. Academic ability is often measured using a student's grade point average (GPA). A number of studies have attempted to uncover the relationship between GPA and cheating with moderate success. Both Diekhoff et al. (1996) and Genereux and McLeod (1995) found a slight to moderate inverse relationship between GPA and cheating; the lower the participant's GPA, the

more likely the participant is to cheat. It is not safe to assume, however, that high achieving students do not cheat. Taylor et al. (2002) reported high rates of admitted cheating based on their interviews with high school advanced placement students, and the Who's Who Among American High School Students (1999) survey of high achieving teens reports that 78% admitted to various degrees of cheating.

There have also been a number of studies that explored the relationship between academic behavior and cheating. Roig and De Tommaso (1995) found that students who reported cheating were also more likely to procrastinate on their school work. The Evans and Craig (1990) survey also found that the students' mismanagement of time was positively correlated with student cheating. Finally, both Evans and Craig, and Schab (1991) found self-reported laziness to be positively related to cheating.

Students' behavior outside of the classroom has also received some attention in cheating research. In their study on college undergraduates, Nowell and Laufer (1997) found that students who were employed full time or part time were more likely to cheat than students who were not employed. Haines, Diekhoff, LaBeff, and Clark (1986) and Diekhoff et al. (1996) also found that students who worked were more likely to cheat than students who did not work. The Haines et al. and Diekhoff et al. studies also found a connection between participation in school sports and student cheating. The findings of both of these studies indicated that students who participated in both intramural and intercollegiate sports were more likely to cheat than students who did not participate in sports.

The information presented above suggests that students who cheat are generally older (Cizek, 1999), have a lower GPA (Diekhoff et al., 1996), procrastinate (Roig & De Tommaso, 1995), are lazy and self-handicap (Schab, 1991), are employed (Nowell & Laufer, 1997), and play sports (Diekhoff et al., 1996). This information, however, does not shed light on the reasons behind the behavior; that kind of information is sought after by those who seek to understand why students cheat.

Why Do Students Cheat?

Reasons why students cheat have been traditionally explored using two general categories: perceptions and personality variables. The first category considered is perceptions.

Perceptions: Self-Perceptions and Perceived Peer Norms

Two studies found a relationship between poor self-perceptions and cheating behaviors and attitudes. Evans and Craig (1990) found a positive relationship between cheating and students' low academic self-concept. A more recent study by Finn and Frone (2004) confirmed these findings. Finn and Frone found that low levels of academic self-efficacy were common among students who reported cheating, as opposed to students who did not.

Student's perceptions of peer norms have also been positively related to cheating. It has been found that students who believe that cheating is widespread and believe that their peers do not condemn the behavior are more likely to cheat themselves (Eisenberg, 2004; Jordan, 2001; Whitley, 1998). Other possible answers to the question, "why do they cheat?" lie within students' personality variables.

Personality Variables: Morality, Deviance, and Anxiety

Three personality variables common in academic dishonesty and cheating research include: morality, deviance, and anxiety. Cheating is certainly an ethical issue, and researchers have devoted some attention to studying it through this lens. Studies have found only a small relationship between Kohlberg's (1983) levels of moral reasoning and self-reported rates of cheating (Lanza-Kaduce & Klug, 1986; Leming 1978). Cheaters justify their cheating behaviors more than non-cheaters (Jordan, 2001), provide more extrinsic justifications for their cheating (McCabe, 1999), and feel little or no guilt about having cheated (Taylor et al., 2002). Jenson et al. (2002) found that high school and college students take motives into account when judging the acceptability of an academically dishonest behavior. Students saw academically dishonest behaviors as acceptable when they were motivated by prosocial intentions (e.g., helping one's family), and unacceptable when the motive was to see if they could get away with it.

Deviance and anxiety are also related to cheating. Blankenship, Muncie, and Whitley (2000) found that students who cheat were also more likely to engage in deviant behaviors like risky driving and scored higher on unreliability measures. Whitley (1998) also reported that cheating has been found to be positively related to behaviors like petty theft, lying to friends, and alcohol abuse.

Anderman et al. (1998), Evans and Craig (1990), and Schab (1991) all found anxiety to be related to cheating. Anderman et al. found that students who cheat are also more likely to worry. Evans and Craig, and Schab both reported fear of failure to be among the top reasons students cite for cheating. Since anxiety is related to cheating, it

would be helpful to consider some potential causes of the anxiety. Research suggests that students feel intense pressure to achieve from at least three areas: their parents, teachers, and future aspirations. Evans and Craig (1990), Schab (1991), and Taylor et al. (2002) all found parental pressures to be among the most common reasons students cite for cheating. Taylor et al. also found teacher and collegiate pressure to be positively related to cheating.

Possible answers to the question, “why do students cheat?” as found in the literature include perceptions and personality variables. It is possible that students cheat because of their low academic self concept (Evans & Craig, 1990; Finn & Frone, 2004), because they provide extrinsic justification for their behaviors and feel little guilt about it afterward (Jenson et al., 2002; McCabe, 1999; Taylor et al., 2002), because students are deviant in other areas of their life (Blankenship et al., 2000; Whitley, 1998), because students fear failure (Evans & Craig, 1990; Schab, 1991), and because of parental, teacher, and collegiate pressures (Evans & Craig, 1990; Schab, 1991; Taylor et al., 2002). While teachers can profoundly impact academic characteristics like low academic self-concept and low levels of self-efficacy, other characteristics like demographic and personality variables are difficult for educators to alter. The relationship of these demographic and academic variables to student cheating, while interesting, offer little help to the educator seeking to curb academic dishonesty (Whitley, 1999). The next section focuses on the cheating prevention strategies from the research literature.

What Can Be Done About It?

The most commonly discussed prevention strategies in the cheating literature occur at the college level and generally focus on either the use of honor codes or testing procedures. McCabe and Trevino (2002) discussed the use of honor codes on college campuses across the country, documenting the rise in cheating in high school and college over the past three decades. The authors argued that one of the only successful prevention strategies has been the use of honor codes that place the primary responsibility for cheating on students. Elements of these codes often include unproctored exams, student control of judicial processes, and a written pledge affirming the honesty of student work (some schools use a modified code omitting the unproctored exams and pledges). McCabe and Trevino asserted that in order for honor codes to be successful, the institution must communicate to its students that academic integrity is a campus priority, and that students need to be involved in the creation, dissemination, and enforcement of the code (see also Cole & McCabe, 1996).

Another area of interest related to prevention strategies in college studies is testing procedures. Effective strategies have included multiple versions of tests where the questions and potential answers are scrambled (Houston, 1983), and giving the test in a checkerboard manner so that students in front of, behind, and on either side of the test taker have different versions of the exam (Houston, 1976). Cooper and Peterson (1980) found that undergraduate students will cheat when given the opportunity, and Covey, Saladin, and Killen (1989) found that college students were less likely to cheat in classrooms with close surveillance.

Since the effectiveness of the honor code is still debated (Whitley, 1998), and the school and classroom environments are much different in college than they are in high school, it is unclear how successful these kinds of preventions would be for younger students. Furthermore, even though improving testing procedures could be effective on younger students as well, they simply treat the symptoms of dishonest behaviors and fail to address the causes.

Environmental Factors

Most attempts to understand academic dishonesty focus on individual students' demographic and personality characteristics. The assumption being that the primary blame for cheating falls on the students. This research suggests that factors such as anxiety (Anderman et al., 1998), academic ability (Diekhoff et al., 1996), and morality (Eisenberg, 2004) are related to student cheating. Other research explains the occurrence of cheating using factors such as perceived social norms (Jordan, 2001), and social pressures (Taylor et al., 2002). While the impact of these individual and social factors on cheating are important to understand and study, an educator's ability to control or change these factors is severely limited.

Recently, research on cheating has suggested that factors like teacher behavior and school and classroom culture can also be used to explain cheating. These environmental theories offer factors that educators can readily address. Factors like environment, structure, leadership, and school and classroom culture can all be directly influenced and altered by educators. This research refocused the attention onto educators,

suggesting that educators (unknowingly and unintentionally) create school and classroom cultures that encourage rather than discourage dishonesty.

Classroom Environment

The research on classroom environment is a different body of research literature than cheating. The study of classroom environments dates back to the work of Herbert Walberg (Walberg & Anderson, 1968) and Rudolf Moos (Moos, 1979) and has been a major area of focus over the past 35 years. The classroom environment is made up of many factors, including class atmosphere, ambience, tone, or climate (Dorman, 2002). Sometimes called culture, milieu, or climate, research reveals that the classroom environment has a significant and positive effect on student learning (Fraser 1994, 1998). Students learn better when they perceive the classroom environment positively. Rudolf Moos is credited with much of the early theory behind the importance of the classroom environment. According to Moos, there are three dimensions of human environments; these dimensions include relationship, personal development, and system maintenance and change. As it relates to educational environments, the relationship dimension includes topics of student attentiveness, interest and participation, concern and friendship students feel for one another, and the amount of trust and help the teacher shows for students (Moos, 1979). The personal development dimension includes completion of planned activities, staying on subject matter, competition, and difficulty (Moos, 1979). The system maintenance and change dimension includes classroom order and organization, rule clarity, teacher control, students' ability to contribute to the planning of activities and assignments, and teacher innovation (Moos, 1979).

Research has consistently shown that students learn better in positive classroom environments (Dorman, 2002). Positive, healthy classroom environments are ones that are characterized by supportive relationships between and among students and teachers; ones where students have some ability to make decisions, and co-create norms and goals; ones that are well ordered and organized; ones where the assignment expectations and rules are clear, and students are given enough time to complete tasks; and ones where the activities are interesting, meaningful, and personally relevant (Dorman, Fraser, & McRobbie, 1997; Fraser, 1989; Huffman, Lawrenz, & Minger, 1997; Wang, Haertel, & Walberg, 1993; Waxman & Huang, 1997). A positive classroom environment has been linked with lower levels of student anxiety (Taylor & Fraser, 2003), higher levels of student academic self-concept (Byer, 1999), higher cognitive and affective student outcomes (Goh & Fraser, 1998), and lower levels of student self-handicapping (Dorman, McRobbie, & Foster, 2002). The research has also linked classroom environment to academic dishonesty (Anderman et al., 1998; Pulvers & Deikhoff, 1999).

Classroom Environment and Cheating

Anderman et al. (1998), interested in the effects of the classroom environment on cheating, found that students in a classroom stressing extrinsic goals (i.e., where students are rewarded for academic performance by being able to get out of other academic tasks) report higher rates of cheating and beliefs that cheating is acceptable. Results also showed that students who perceive that success in school is defined by high grades report higher levels of cheating behavior. Jordan (2001) found that students who are motivated to learn or master subject matter are less likely to cheat than students who are motivated

by academic standing or grades. Blackburn and Miller (1996), Steininger (1968), and Steininger, Johnson, and Kirts (1964) found that poor instructional quality related positively to student cheating. Steininger et al. also found that students were more likely to cheat when they perceived course content to be meaningless and uninteresting.

Some of the Evans and Craig (1990) results relate to the classroom environment. Their study suggested that students are more likely than teachers to believe that teacher characteristics (e.g., personality and behavior) cause student cheating. Students also felt that classroom characteristics such as the amount and difficulty of material covered, whether or not a course was mandatory, and the use of a grading curve had an effect on cheating behaviors and attitudes. In addition to finding a relationship between self-efficacy and cheating behaviors, Finn and Frone (2004) found that poor performing students are more likely to cheat when they have weak (as opposed to strong) school identification, such as a sense of belonging in school, and valuing school and school-related outcomes.

Pulvers and Diekhoff (1999) studied the relationship between academic dishonesty and the college classroom environment, using a self-report cheating survey and the College and University Classroom Environment Scale (Fraser & Treagust, 1986). Findings from the Pulvers and Diekhoff (1999) study indicated that students who cheat describe their classes as less satisfying, personalized, and task oriented than non cheaters. Pulvers and Diekhoff concluded that classroom environment is an important variable to consider when researching academic dishonesty.

Limitations

The above review of the relevant literature surrounding academic dishonesty needs to be viewed with the following limitations in mind. Even though cheating has been a concentrated area of study in academia for decades, there still exist at least three major limitations to the literature as it stands today. The first limitation is related to the fact that most studies addressing academic dishonesty are quantitative in nature. Theoretical implications are inherent in the ways academic dishonesty is studied, explained, and prevented. Most research investigating academic dishonesty does so from a positivist epistemology. Positivist approaches to academic dishonesty tend to generalize findings for all students, teachers, and schools, putting the majority of the responsibility for cheating on students, failing to examine and alter faults in educational systems causing or contributing to the problem. It is likely that conditions surrounding student cheating vary dramatically from classroom to classroom, grade level to grade level, school to school, and district to district. It is also likely that educators share responsibility for student cheating by creating environments where academic dishonesty is fostered and encouraged, cultures where mastery and learning are not emphasized.

The second limitation of the literature is related to the population typically studied in cheating research. This study looked at high school cheating, but the majority of the research that currently exists has been done on college students. More research is needed on high school populations, and even on younger populations; very little is known about when, why, or how these dishonest behaviors and attitudes begin to develop in students. Additionally the reliability of many of these studies is suspect. More often than not,

variables mentioned above have only been included in a few studies (sometimes only one). While they might be important findings it remains to be seen if the findings will replicate. This also poses a problem for recency as some of these studies (with potentially important but unreplicated findings) were conducted in the early 1990s (some even earlier) and it is unclear if the findings would replicate today.

The third and final limitation is related to the nature of questions usually asked in studies on academic dishonesty. The absence of student voice is a common problem with typical academic dishonesty research questions. Students' demographics and behaviors are surveyed, but their insights and opinions are rarely sought. Much attention has been given to identifying the kind of students who cheat and exploring personality traits and attitudes, but deeper systemic questions are often ignored. While correlations between demographics, attitudes, and behaviors are interesting and informative, they are not extremely helpful for educators and schools. Personality traits and attitudes are not easy to alter or adjust (Whitley, 1999). The most helpful studies (again, of which there are few) are the ones focusing on what kinds of environmental and systemic changes educators and schools need to make in order to create classroom environments that not only reduce cheating behaviors, but also facilitate the development of honest attitudes.

Summary

In spite of the limitations mentioned above, the research literature seems to overwhelmingly suggest that student cheating is alarmingly high in all academic levels and peaks in high school (Cizek, 2003a); students who cheat typically have poor academic behaviors and performance (Diekhoff et al., 1996; Roig & De Tommaso, 1995;

Schab, 1991); students who cheat have low academic self-concepts, justify their behavior, feel little guilt about it later, fear failure, and feel intense collegiate, parental, and teacher pressure to succeed (Evans & Craig, 1990; Finn & Frone, 2004; Jenson et al., 2002; McCabe, 1999; Schab, 1991; Taylor et al., 2002). Prevention strategies like honor codes have found some limited success at the college level but are untested in high school (McCabe & Trevino, 2002).

Classroom environment research suggests that positive classroom environments have profound impacts on student anxiety, academic self-concept, cognitive and affective outcomes, and student self-handicapping (Byer, 1999; Dorman, McRobbie, & Foster, 2002; Goh & Fraser, 1998; Taylor & Fraser, 2003). Positive classroom environments have also been linked to lower levels of student cheating (Anderman et al., 1998; Pulvers & Diekhoff, 1999). If this research suggesting that classroom culture or environment has something to do with student cheating is valid, then it is imperative to further understand just how they interact so that educators can begin to build and foster environments that encourage integrity and learning. The current study added to these recent attempts to understand the relationship between academic dishonesty and the environment of the classroom.

CHAPTER 3

METHODS

The following chapter describes the methodology used to address the research questions. First I provide a rationale for the mixed methods approach followed by the specific research questions. Next I describe the methodology for the quantitative portion of the study including the dependent and independent variables, population and samples, instrument design, and statistical tests. Subsequently, I describe the methodology for the qualitative portion of the design, including participants, gaining entry, trust and exposure, data collection, and recording and organizing data. The chapter concludes with ethical considerations.

As referenced in the previous chapter, the large majority of cheating research that has been conducted over the past 35 years has been done using quantitative research methodologies. These studies (for a comprehensive list see Whitley, 1998; or Cizek, 2003a) typically use self-reported cheating rates (established by a survey) and compare cheating rates with any number of other variables (e.g., age, gender, academic ability, behavior, and achievement). The strength of the quantitative approach as it relates to academic dishonesty research is that it allows the researcher to measure a large sample of participants and produces statistically reliable and generalizable results.

Qualitative research methodologies on the other hand attempt to understand phenomena in their natural settings, and uncover the meaning or make sense of these

phenomena through interpretation. Context and the unique opportunities surrounding the study of social realities as opposed to natural realities are critical in qualitative research. Qualitative research typically includes fewer participants than quantitative research, but provides more complete and in-depth portrayals of those participants. What qualitative research lacks in scope, it makes up for in depth. While some scholars still debate the primacy of these two research approaches, arguing the superiority of one methodology over the other, many scholars are now understanding these approaches as complementary rather than antagonistic (Thomas, 2003).

In an attempt to capitalize on strengths and minimize weaknesses of both qualitative and quantitative approaches to studying social behavior, this study utilized a mixed methods approach. In order to answer the research questions, quantitative measures were taken for the classroom environment (the Classroom Environment Scale or CES) and cheating behaviors (the Academic Integrity Survey or AIS). Qualitative data were gathered from classroom observations and student interviews. Observations and interviews allowed for triangulation of the findings from the CES and the AIS and ensured proper interpretation of those findings.

The emphasis of this study is different than typical academic dishonesty research. As mentioned above, typical academic dishonesty research attempts to further understand the students' role in cheating. By combining traditional self-reporting data with classroom environment measures, this study was more interested in better understanding the educators' role in fostering environments where cheating flourishes. Additionally, this study used qualitative methodology to amplify the student's voice in order to better

understand the impact of the classroom environment on cheating, and to suggest changes educators can make to learning environments in order to reduce the rates of academic cheating.

Research Questions

The following research questions were addressed by the study:

1. What is the relationship between the classroom environment and student cheating?
2. In what kinds of environments does cheating flourish, and in what kinds of environments does academic integrity flourish?
3. What can classroom teachers, and school administrators do to alter classroom environments in order to focus on learning and integrity, effectively reducing cheating rates?

Methodology

Quantitative: The Classroom Environment Scale and the Academic Integrity Survey

Dependent and Independent Variables

The dependent variables for the quantitative portion of the study were the cheating behaviors of the students, as reported in the AIS (see Appendix B). The AIS asked student participants to self-report any incidents of cheating they have been involved with during that semester in the specified class. The AIS generated seven measures for cheating, asking student participants to indicate how many times they participated in the following acts: (a) copying a book, article or internet document for a class assignment; (b) turned in work that was copied from someone else; (c) copied from

someone during a test; (d) used a cheat sheet on a test; (e) used a phone, calculator, or other electronic device to cheat on a test; (f) gave test answers to another student, or allowed another student to copy answers during a test; and (f) been caught cheating by the teacher.

The student responses to these seven measures were used to generate four other measures of cheating. For example, all seven measures were combined to establish the percentage of students who had cheated on anything in that class, measure (8) *cheated on anything*. All of the measures dealing with tests, measures 3 through 6, were combined to establish the percentage of students who admitted to cheating on a test, measure (9) *cheated on test*. Measure (10) *active cheating*, established how many students were involved in all forms of test cheating except giving someone test answers or allowing someone to see one's test, measures 3 through 5.

Finally, a single factor score, (11) *aggregated cheating score*, representing the 10 cheating items was created in an effort to develop a parsimonious index of the cheating construct. These included the seven survey items plus the three dichotomous measures: cheated on anything, cheated on test, and active cheating. The seven survey items were measured on a 5-point ordinal metric (1 = *never* to 5 = *four or more times*). To aggregate these scores with the three dichotomous measures, a principal components factor analysis was performed. The three-factor solution contained a much larger first general factor (eigenvalue = 3.78) followed by smaller second (eigenvalue = 1.15) and third (eigenvalue = 1.07) factors. This first factor score alone accounted for 37.83% of the variance in the 10 measures of cheating and was used as the cheating measure for this study. Cronbach

alpha for the 10 measures was $r = .79$, which suggested adequate internal reliability for the index.

The nine subscales of the CES are related to Moos' (1979) three dimensions of classroom environment, and served as the independent variables for the quantitative portion of this study. The nine subscales are as follows: (a) involvement, (b) affiliation, (c) teacher support, (d) task orientation, (e) competition, (f) order and organization, (g) rule clarity, (h) teacher control, and (i) innovation. Scores ranging from 0 to 10 were averaged at both the student and across-the-classroom level of the 17 classrooms participating in this study.

Population, Sample Frame, and Sample Size

The population included in this study was Catholic high school students. The entire student body of a small, suburban, Catholic high school located in the Archdiocese of Los Angeles ($N=360$) was invited to participate in the study. Of those students, 315 returned the necessary informed consent forms and agreed to participate. Participants were 56.2% male and 43.8% female. The sample consisted of 17.8% freshmen, 32.7% sophomores, 25.1% juniors, and 24.4% seniors.

Questionnaire/Instrument Design

There were two instruments used in the quantitative portion of this study. The instrument used to assess the classroom environment (independent variables) was the Classroom Environment Scale (CES). The CES (see Appendix A) was originally developed by Trickett and Moos (1973), and is currently in its 3rd edition (Trickett &

Moos, 2002). The CES measures the three dimensions of the classroom environment, including relationship, personal growth/orientation, and system maintenance and change.

Each dimension is further divided into subscales. The relationship dimension is broken down into three subscales: (a) involvement, (b) affiliation, and (c) teacher support. Together, these subscales measure student attentiveness, interest and participation in class activities, concern and friendship students feel for each other, and the trust and friendship students feel from the teacher (Trickett & Moos, 2002).

The personal growth/goal orientation dimension is broken down into two subscales: (d) task orientation, and (e) competition. Together these subscales measure the classroom emphasis on completing class assignments, staying on subject matter, level of competition for grades and recognition, and the difficulty involved in receiving good grades (Trickett & Moos, 2002). The third dimension, system maintenance and change, is broken into four subscales: (f) order and organization, (g) rule clarity, (h) teacher control, and (i) innovation.

The CES contains 90 true or false questions that participants are asked to answer. Ten of the questions comprise each subscale. The CES has been found to be a reliable instrument when working with high school students (Trickett & Moos, 2002). For example in their initial report on the reliability of the CES the developers reported alpha coefficients for each of the nine subscales including: involvement ($\alpha=.85$), affiliation ($\alpha=.74$), teacher support ($\alpha=.84$), task orientation ($\alpha=.84$), competition ($\alpha=.67$), order and organization ($\alpha=.85$), rule clarity ($\alpha=.74$), teacher control ($\alpha=.86$), and innovation ($\alpha=.80$).

Cheating behaviors were measured using the Academic Integrity Survey (see Appendix B). The AIS asked students to self-report their own cheating behaviors during the course of the current semester. This survey was a modification of the instruments used by Jordan (2001) and the Josephson Institute of Ethics (2006). The modifications included directions to the participants to only self-report cheating that had occurred in the specific classroom and period for which they were answering the survey.

Statistical Tests

The quantitative data were analyzed using a number of different statistical tests. A one-way analyses of variance was used to determine if there were significant classroom and grade level effects. Pearson product-moment correlations were used to compare each CES subscale score on the classroom level with the aggregated cheating score. A Pearson product-moment correlation was also used to measure the relationship between all study variables at the student level. Finally, a hierarchical multiple regression analyses at the student level predicted the student's aggregated cheating score using the nine CES subscale scores, demographic variables, achievement variable, and co-curricular variables as predictors. Any significance found in the quantitative data analyses was used to inform and guide the qualitative data gathering procedures.

Qualitative: Classroom Observations and Student Interviews

Participants

A deeper, qualitative investigation into the classroom environment and cheating behaviors followed the analysis of the quantitative data. The qualitative part of the study included interviewing eight students and observing four classrooms. The quantitative

findings dictated the areas of interest for the interviews and observations. The classes included in the observation were sampled using maximum variation sampling as described by Merriam (1998). A maximum variation sample uses “widely varying instances of the phenomenon” in order to yield important information (Merriam, 1998, pp. 62-63). Using this sampling procedure, three classrooms low in CES scores and high in cheating rates and one classroom high in CES scores and low in cheating rates were selected to be observed.

Purposeful sampling (Patton, 1990) was used to select the student interviewees. The selection criteria for identifying interviewees were as follows: (a) the student had all of the appropriate informed consent forms signed, (b) the student was enrolled in a class that was selected for observation, and (c) the student was identified by classmates as both information rich and trusting enough to share honest opinions and insights with me. Using the selection criteria and following Merriam (1998), I used on-site observations and informal discussion with students to help me identify potential interviewees. A total of eight students was selected to be interviewed; two students from each of the four classrooms. All eight students and their parents had previously signed the informed consent forms, and all eight students agreed to be interviewed. The interviewees included two male sophomores, two female sophomores, one male junior, one female junior, and two male seniors.

Gaining Entry

The role I assumed for the study was participant observer. In February 2006 I met with the principal and received permission to conduct the research at the site. Following

the meeting with the principal, I met individually with the 17 teachers whose classes were to be included in the study. I explained to each teacher the nature of the research, why the students in their classes were going to be participating in the research, and shared with them the quantitative and qualitative instruments. Each teacher expressed their willingness to help and assured me that it was alright with them that I survey and interview their students about their classroom environment and the extent of cheating that occurs in their classes.

On the days of March 1 and March 2, 2006, I spoke to all of the theology classes in each grade level. Theology classes were chosen as the venue for this presentation for convenience. This was the easiest and most efficient way to talk to all of the students in the school because all students are enrolled in a theology class. I explained the goals and procedures of the research study to each group of students (see Appendix C). I presented to the students the letter for their parents and guardians (see Appendix D) and the informed consent forms. Every student was given two forms, one student form (see Appendix E) and one parent form (see Appendix F). During the presentation I made sure to explain that their participation was completely voluntary, that their responses would be kept confidential, and I answered any questions they had about the study. Students who wished to participate were instructed to read and sign their consent forms and have their parents do the same. They were asked to bring the forms in as soon as possible, but no later than March 15, 2006. They were instructed on how they or their parents could ask further questions about the study. From March 3rd to March 15th the forms were collected

from the students by their theology teachers. I collected parent and student informed consent forms from 315 out of 360 students.

Trust and Exposure

Trust was a critical factor for both the quantitative and qualitative part of this research. The students needed to trust me enough to share their cheating behaviors, beliefs about cheating, and their impressions of their classroom environment with me. In order to build the trust needed to conduct this study, I spent 30 minutes in each participant's theology class clearly explaining the study and their potential part in it. Informed consent, voluntary participation, and confidentiality were all explained in great detail. At the end of my presentations, I fielded any and all student questions and explained how I could be reached for further questions if they or their parents had any.

When the students received the quantitative portion of the study, I again explained the study, went over confidentiality and the importance of their honesty in answering the surveys, and gave them detailed directions on how to fill out the two surveys (see Appendix C). When selecting participants for the interview portion of the study, great care was taken to make sure that students would be rich in information and would trust me enough to share with me the kind of information that I would ask them.

Data Collection

For the qualitative portion of the study, I observed four classrooms and interviewed eight students. Each of the four classes was observed for a total of three 70- minute class periods; totaling 12 classes and 840 minutes of observation. For each of the four classrooms, periods observed included two periods of instruction and one period

of testing. The first class observation took place on May 2, 2006, the last occurred on May 25, 2006.

The eight student interviews were and semi-structured and open-ended (Merriam, 1998). Four students were interviewed after regular school hours and four students, whose schedules permitted, were interviewed during the school day. The interviews all took place between May 17, and June 7, 2006. The interviews averaged 40 minutes, with a range of 31 to 55 minutes. These qualitative data gathering techniques allowed me to compare and triangulate the quantitative data. Interviews also served the purpose of giving participants an opportunity to further discuss and clarify the quantitative findings.

Recording and Organizing Data

An observation protocol (see Appendix G) was used to guide the classroom observations. The items of interest in the protocol were drawn from the CES subscales and dimensions (Trickett & Moos, 1973). The observation protocol also served as field notes. According to a style proposed by Merriam (1998), I used the field notes to record descriptions, events, quotations, and my own comments while observing the classes. Student interviews were guided by an interview schedule (see Appendix H), were recorded, and later transcribed.

The generic data analysis strategy used for the qualitative data analysis was the “template strategy” described by Crabtree and Miller (1992). Template strategies use sets of codes to apply to the data, but these codes are open to additions or alterations based on data analysis (Crabtree & Miller, 1992). Using this template strategy, data generated from observations and interviews were analyzed using the CES subscales as potential

categories, while also being open to generation of new categories not included in the CES subscales. The data were organized thematically, and patterns were analyzed using the constant comparative method first developed by Glaser and Strauss (1967).

Analysis began with open coding, where data were broken down, examined, compared, and conceptualized (Strauss & Corbin, 1990). In addition to categories put forth by the nine CES subscales, open coding generated 11 other initial categories. Upon further analysis, synthesis, and conceptualization, the CES subscales and 11 other categories were combined to form five categories. The final manifestation of the concepts related to cheating and the classroom environment included three categories aligned with the CES subscales and two new categories not included in the CES subscales. As shown in Table 1, the five categories are: (a) order and organization, (b) involvement, (c) teacher control, (d) students' perception of teachers, and (e) larger systemic issues.

Table 1

Categories for Qualitative Data Analysis

Category	Properties
Order and Organization	Level of orderliness in the classroom
	Teacher's organization of assignments and activities
	Teacher's ability to manage non-instructional tasks
	Effectiveness of testing procedures
Involvement	Range of student involvement
	Teacher behavior that encourages student involvement
	Teacher behavior that discourages student involvement
Teacher Control	How strict the teacher is with students
	Consistency in rule enforcement
	Student's reluctance to get into trouble
Students' Perception of Teachers	Level of teacher consciousness
	Teacher as friend
	Level of respect students have for teacher
Larger Systemic Issues	Difference between opportunity and desire to cheat
	Student perception of the purpose of schooling
	School as a game
	Supreme importance of grades

Ethical Considerations

Ethical issues were minimized during this study through strict adherence to the guidelines and recommendations made by the Institutional Review Board at Loyola Marymount University. Additionally common research practices of confidentiality, anonymity, and informed consent were observed, and express written parental permission and student assent were received for all student/minor participants.

CHAPTER 4

RESULTS

Introduction

The following chapter presents results and major findings of this study. This chapter begins with a description of the quantitative study results, followed by a description of the qualitative study results. The quantitative analyses that were run were descriptive statistics for all study variables, correlations for all study variables, correlations at the classroom level, analyses of variance, and a multiple regression analyses. Quantitative analyses demonstrated a significant relationship between student self-reported cheating rates and classroom order and organization, student involvement, student grade level, after-school employment status, and school sports participation.

The qualitative analyses analyzed and organized data thematically. The results yielded five major findings. The first three qualitative findings agreed with the quantitative analyses, suggesting that order and organization, involvement, and teacher control are important environmental factors impacting student cheating. The fourth and fifth qualitative findings supplement the quantitative results of the CES in that the fourth finding suggests that students' perception of their teachers has a critical impact on the learning environment and consequently student cheating. The fifth finding, related to systemic issues, includes a discussion on differences between students' opportunities to cheat and their desire to cheat, students' perception of what schooling is for, students'

comparison of school to a game, and the supreme importance of grades for students. The chapter concludes with a brief summary of the results.

Quantitative Results

Data at the Classroom Level

The purpose of this study was to better understand the relationship between the classroom environment and student cheating among high school students. Seventeen classrooms, containing a total of 315 high school students, participated in this study. Data analyses occurred at both the student and classroom levels. Scores on the CES and AIS for the 315 students were averaged across the 17 classrooms. Table 2 displays the Pearson product-moment correlations comparing the aggregated cheating score and the CES subscales at the classroom level. Significant correlations occurred at the classroom level between the aggregated cheating score and the variables of involvement, $r(17)=-.69$, $p<.01$; task orientation, $r(17)=-.52$, $p<.05$; competition, $r(17)=-.59$, $p<.05$; order and organization, $r(17)=-.79$, $p<.01$; rule clarity, $r(17)=-.60$, $p<.05$; and teacher control, $r(17)=-.69$, $p<.01$.

Table 2

Pearson Product-Moment Correlations Between the Aggregated Cheating Score and the CES Subscales. Scores Aggregated for Each Classroom (N = 17)

	1	2	3	4	5	6	7	8	9
1. Aggregated Cheating Score									
CES Subscale									
2. Involvement	-.69**								
3. Affiliation	-.27	.75**							
4. Teacher Support	-.22	.53*	.72**						
5. Task Orientation	-.52*	.31	-.01	-.10					
6. Competition	-.59*	.77**	.54*	.34	.43				
7. Order and Organization	-.79**	.60*	.33	.27	.75**	.60*			
8. Rule Clarity	-.60*	.18	-.10	.11	.53*	.28	.76**		
9. Teacher Control	-.69**	.42	-.04	-.20	.68**	.45	.76**	.71**	
10. Innovation	-.17	.30	.38	.28	-.26	.41	.01	-.07	.00

$p < .05^*$, $p < .01^{**}$

The effect of the classroom variable on student cheating was tested by analyses of variance; Table 3 displays results of the one-way analyses of variance by classroom. There was a significant effect of classroom on student cheating, $F(16,298)=8.45$, $p < .001$, meaning that cheating varied significantly between the 17 classrooms. Post-hoc comparisons using the Student Newman-Keul's procedure revealed that students in classroom 14 reported higher cheating rates than students in classroom 5 (M_s , .94 > -1.07), students in classroom 2 reported higher cheating rates than students in classroom 16 (M_s , .91 > -.76), students in classroom 8 reported higher cheating rates than students in classroom 1 (M_s , .67 > -.49), students in classroom 9 reported higher cheating rates than students in classroom 6 (M_s , .57 > -.41), students in classroom 10 reported higher cheating rates than students in classroom 12 (M_s , .27 > -.35), and students in classroom 7 reported higher cheating rates than students in classroom 3 (M_s , .21 > -.35).

Table 3

One-Way Analyses of Variance by Classroom

Aggregated Cheating Score (range= -1.93 to 2.27)		
Classroom	<i>M</i>	<i>SD</i>
1 (n=16)	-.49 ^{a b c}	.75
2 (n= 23)	.90 ^f	.79
3 (n=21)	-.35 ^{a b c}	.89
4 (n=22)	-.12 ^{b c d e}	.91
5 (n=20)	-1.07 ^a	.63
6 (n=17)	-.41 ^{a b c}	1.12
7 (n=17)	.21 ^{c d e f}	.87
8 (n=17)	.67 ^{e f}	.74
9 (n=11)	.57 ^{d e f}	.77
10 (n=22)	.27 ^{c d e f}	.52
11 (n=17)	-.10 ^{b c d e}	.83
12 (n=17)	-.35 ^{a b c}	.74
13 (n=18)	.02 ^{b c d e}	1.03
14 (n=23)	.94 ^f	.66
15 (n=17)	.05 ^{b c d e}	.99
16 (n=14)	-.77 ^{a b}	.93
17 (n=23)	-.29 ^{a b c d}	1.09

$F(16,298)=8.45, p<001.$

a, b, c, d, e, and f refer to significant mean differences between classrooms.

Data Analysis Among All Students

The data was also analyzed at the individual student level ($N=315$). Table 4 displays assumptions, ranges, means, and standard deviations for the aggregated cheating score and the CES subscale scores for all students. The effect of the grade level on student cheating was tested by analyses of variance; Table 5 displays results of the one-way analyses of variance by grade level. There was a significant effect of classroom on student cheating, $F(3,311)=3.70, p<.01$, meaning that cheating varied significantly

between grade levels. A Student Newman-Keuls post hoc test indicated that sophomores reported higher cheating rates than freshmen ($M_s, .21 > .31$). Table 6 displays the Pearson product-moment correlations between all study variables. Significant correlations between the aggregated cheating score and the CES subscales were: involvement, $r(315) = -.42, p < .01$; teacher support, $r(315) = -.13, p < .05$; task orientation, $r(315) = -.30, p < .01$; competition, $r(315) = -.30, p < .01$; order and organization, $r(315) = -.49, p < .01$; rule clarity, $r(315) = -.13, p < .05$; and teacher control, $r(315) = -.32, p < .01$.

Table 4

Assumption Tests, Range, Means, and Standard Deviations for the Aggregated Cheating Score and CES Subscale Scores (N=315)

	Skewness	Kurtosis	Observed Range	Possible Range	<i>M</i>	<i>SD</i>	Number of Items
Dependent Variable							
Aggregated Cheating Score	-.10	-.55	-1.93 to 2.27	N/A	0.00	1.00	10
Independent Variable							
Involvement	-.05	-1.23	0 to 10	0 to 10	5.00	2.76	10
Affiliation	-.74	-.20	0 to 10	0 to 10	7.22	2.43	10
Teacher Support	-1.19	1.00	0 to 10	0 to 10	6.86	2.17	10
Task Orientation	-.46	-.54	0 to 10	0 to 10	6.38	2.42	10
Competition	-.24	-.42	0 to 10	0 to 10	5.66	2.24	10
Order and Organization	-.23	-1.13	0 to 10	0 to 10	5.55	3.09	10
Rule Clarity	-.80	-.37	0 to 10	0 to 10	6.96	2.67	10
Teacher Control	-.31	-.85	0 to 10	0 to 10	5.60	2.58	10
Innovation	.27	-.37	0 to 10	0 to 10	3.88	1.97	10

Table 5

One-Way Analyses of Variance by Grade Level

Dependent Variable	Freshmen (n= 56)		Sophomores (n= 103)		Juniors (n= 79)		Seniors (n= 77)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Aggregated Cheating	-.31 ^a	.87	.21 ^b	.91	.05	1.08	-.10	1.06

$F(3,311)=3.70, p<.01$.

^a and ^b refer to significant mean differences between grade levels.

Table 6

Pearson Product-Moment Correlations Between All Study Variables (N=315)

	1	2	3	4	5	6	7	8	9
1. Aggregated Cheating									
CES Subscales									
2. Involvement	-.42**								
3. Affiliation	-.11	.49**							
4. Teacher Support	-.13*	.38**	.44**						
5. Task Orientation	-.30**	.33**	.16**	.03					
6. Competition	-.30**	.51**	.25**	.18**	.43**				
7. Order and Organization	-.49**	.57**	.29**	.24**	.65**	.44**			
8. Rule Clarity	-.13*	.22**	.03	.10	.22**	.22**	.27**		
9. Teacher Control	-.32**	.32**	.07	-.07	.50**	.43**	.54**	.32**	
10. Innovation	-.08	.23**	.23**	.24**	-.06	.20**	.05	.00	.02
Demographic Variables									
11. Student Gender ^b	-.05	-.11	-.05	-.04	-.07	-.04	-.03	-.05	.08
12. Age	-.02	.06	.02	-.10	.22**	.08	.30**	.07	.22**
13. Grade Level	.02	.01	.03	-.12*	.18**	.04	.26**	.06	.17**
Achievement Variable									
14. GPA	-.07	.04	.07	.08	-.06	.03	.02	.02	.01
Co-Curricular Variables									
15. Sports Participation ^a	.14**	.02	.29**	.13*	.06	-.03	.04	-.04	-.01
16. Student Leadership ^a	-.07	.01	.01	.03	.06	.13*	.07	-.03	.07
17. Honors/AP Classes ^a	.02	-.08	.04	.05	-.15**	.04	-.05	-.07	-.02
18. After School Job ^a	.17**	-.11	-.16**	-.20**	-.01	-.01	-.03	-.07	.02

Table 6 (continued)

Pearson Product-Moment Correlations Between All Study Variables (N=315)

	10	11	12	13	14	15	16	17
1. Aggregated Cheating								
CES Subscales								
2. Involvement								
3. Affiliation								
4. Teacher Support								
5. Task Orientation								
6. Competition								
7. Order and Organization								
8. Rule Clarity								
9. Teacher Control								
10. Innovation								
Demographic Variables								
11. Student Gender ^b	.08							
12. Age	-.16**	-.07						
13. Grade Level	-.15**	-.07	.89**					
Achievement Variable								
14. GPA	.16**	.20**	-.04	.05				
Co-Curricular Variables								
15. Sports Participation ^a	.04	.02	-.01	.04	.02			
16. Student Leadership ^a	.11	-.13*	.00	-.02	-.22**	.19**		
17. Honors/AP Classes ^a	.13*	-.06	-.09	-.08	.51**	.05	.13*	
18. After School Job ^a	.01	.13*	.26**	-.25**	.16**	-.06	-.02	-.03

$p < .05^*$, $p < .01^{**}$

^a Coding: 0 = No, 1 = Yes

^b Coding: 1 = Male, 2 = Female

Regression Analysis

A hierarchical multiple regression analysis was used to determine whether the predictor variables of all CES subscales, student extracurricular activities, grade point average, and honors/AP courses were predictor variables of student cheating. The regression analysis tested to see if the predictor variables explained the outcome measure of student cheating. Student cheating was regressed on the set of 14 predictors. The demographic variables of teacher gender, student gender, grade level, as well as the co-

curricular variables of school sports participation, student leadership, after school job, and honors/AP courses were measured categorically. The achievement variable of grade point average and the predictor variable of the CES subscale scores and the one outcome variable of aggregated cheating score were measured continuously.

Collectively, the 14 predictors had a significant effect on student cheating, $F(17,297)=9.17, p<.001, R^2=.34$. Individually, significant effects emerged for order and organization, $F(1,297)=25.38, p<.01, b=-.40$, for involvement, $F(1,297)=11.15, p<.01, b=-.23$, for school sports participation, $F(1,297)=9.27, p<.01, b=.15$, for after school job, $F(1,297)=5.53, p<.05, b=.12$, and for grade level, $F(1,297)=3.96, p<.05, b=.11$. Table 7 displays the results of the hierarchical multiple regression analyses predicting the student's aggregated cheating score using the nine CES subscale scores, the three demographic variables, the achievement variable, and the four co-curricular variables as candidate predictors. Figure 1 shows the results of the regression analyses. Solid black arrows indicate significant paths between variables while dashed line arrows represent non-significant model paths. The number next to each arrow represents the individual regression coefficient (beta weight).

Table 7

Hierarchical Multiple Regression Model Predicting Aggregated Cheating Score Based on the CES Subscale Scores, Demographic Variables, Achievement Variable, and Co-curricular Variables. (N=315)

	Cheating Factor Score	
	<i>F</i> (17,297)	β
Demographic Variables		
Teacher Gender	.58	-.04
Student Gender	.55	-.04
Grade Level	3.96*	.11
Achievement Variable		
Grade Point Average	.54	-.05
Co-Curricular Variables		
School Sports Participation	9.27*	.15
Student Leadership	.76	-.04
Honors/AP Courses	.00	.00
After School Job	5.53*	.12
CES Subscale		
Involvement	11.15*	-.23
Affiliation	2.71	.10
Teacher Support	.09	.02
Task Orientation	.01	.01
Competition	.01	-.01
Order and Organization	25.38*	-.40
Rule Clarity	.10	.02
Teacher Control	.90	-.07
Innovation	.00	.00

Full Model: $F(17, 297) = 9.17, p < .001. R^2 = .34.$

Figure 1.

Results of Regression Analysis

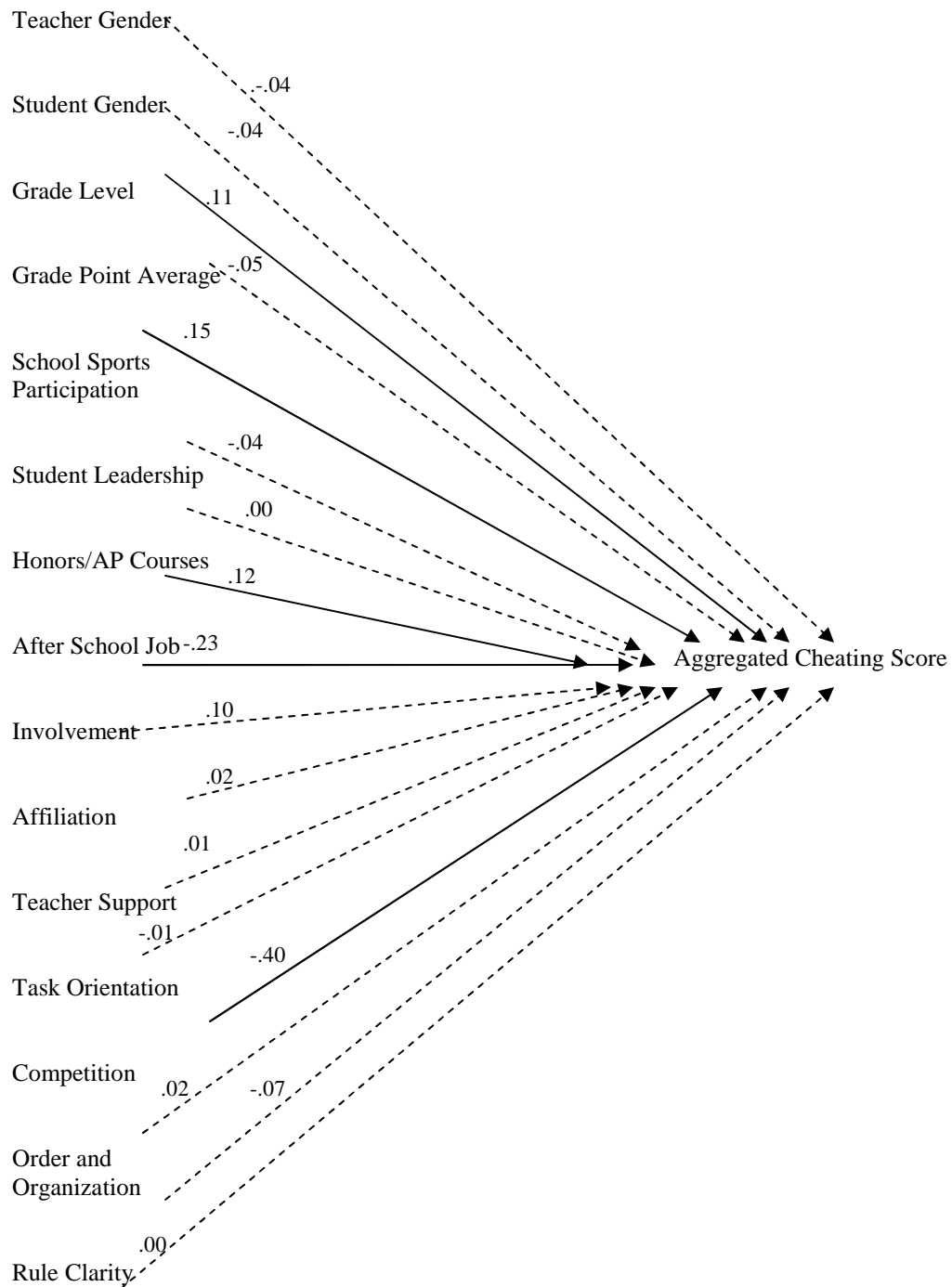


Figure 1. Overall regression results path values represent standardized regression coefficients. Solid lines represent significant model paths, while dotted lines represent non-significant model paths.

Qualitative Results

The following results are based on the qualitative analyses of the classroom observations and student interviews. The qualitative sample included three classes with high cheating rates and low CES scores, and one class with low cheating rates and high CES scores. Two students were selected from each of these classrooms to be interviewed. As previously mentioned in chapter 3, the patterns in the qualitative data were analyzed and organized thematically using the constant comparative method (Glaser & Strauss, 1967). Using the template strategy (Crabtree & Miller, 1992), the nine subscales of the CES were considered as categories, as were the 11 other categories initially developed during the open coding session. These 20 potential categories were synthesized into five categories that were eventually used to organize and analyze the qualitative data. The final list of five categories included three that are aligned with the CES subscales: (a) order and organization, (b) involvement, and (c) teacher control; and two categories that were not considered by the CES: (d) students' perception of teachers, and (e) larger systemic issues. The first qualitative finding presented is order and organization.

Order and Organization

The strongest quantitative result in many of the statistical analyses was corroborated by the qualitative findings, i.e. teacher's order and organization predicted low student cheating. Trickett and Moos (2002) defined order and organization as, "the emphasis on students behaving in an orderly and polite manner and on the organization of assignments and activities" (p. 1). The teachers in the observed classrooms containing high levels of cheating had varying levels of poor order and organization, as indicated by

both the observations and student interviews. These low levels of order and organization are contrasted with the highly ordered and organized environment in the classroom with low levels of reported cheating. The following findings related to order and organization focus on the level of orderliness in the classroom, teachers' organization of assignments and activities, teachers' ability to manage non-instructional tasks, and the effectiveness of teachers' testing procedures. The section will end with a description of the relationship between order, organization, and cheating.

Level of Orderliness in the Classroom

There was a wide range of order present in the classroom environments that I observed. Examples of orderliness in the observed classroom environments included: class started promptly when the bell rang with students in their desks and class materials out and ready to go; class activities were clearly planned, articulated, and implemented; students moved from one activity to the next quickly, purposefully, and orderly; the students and the teacher had an established means of taking turns in discussions; students were responsive to the teacher; and the teacher was responsive to the students.

Examples of disorderly environments included: little or no attention paid to the bell; students and teacher competing with each other to be heard; student turn taking in discussions was random and haphazard; classroom visitors were treated with whistles and howls; teachers usually speaking at loud volumes and in agitated tones; teacher requests were routinely ignored; few purposeful activities; teacher needing to repeat instructions multiple times; teacher is easily distracted from the lesson, often going off topic; objects being thrown, notes passed, and multiple side conversations being conducted; and

students being able to effectively derail most of the teacher's attempt to carry out a lesson plan. When asked about the general environment in his class, one student responded,

Chaos with a little bit of structure. We know when stuff is due, we know when its assigned, but it's just there's so much chaos going on there; there's so much noise, so much side conversations, that usually one or two people will pick up what she's saying and they'll start talking and then another two people will pick up what she's saying and so a lot of it is like she's repeating herself, repeating herself, repeating herself, repeating herself, until we have no time left.

Another student described the orderliness in her class in the following way:

It's both fun and chaotic. It's a lot of chaos because there's a lot of people yelling and talking and it's annoying at times. I guess it's fun if you just have a conversation with your friends or whatever when there's a lecture going on. But it's also annoying sometimes because if you know you have a test and then she starts on a lecture and she goes completely off topic and everybody goes off topic.

It's a little bit of both.

As is discussed below, a classroom's level of order was related to involvement, teacher control, and the students' perception of teachers, but was also highly related to how organized the teacher's assignments and activities were.

Teacher's Organization of Assignments and Activities

Like order, teachers' organization of assignments and activities also varied considerably. Generally speaking, the observed teachers with high levels of classroom cheating, as indicated by their students' responses on the AIS, had little to no discernable

organization to their assignments and activities. The teacher with low levels of student cheating on the other hand maintained a highly organized environment.

Examples of highly organized assignments and activities included: well defined and explained activities; enough scaffolding to help students realize their teacher's performance expectations; clear, concise, and articulate instructions with real expectations that students will follow these instructions; time cues; the teacher not only clearly explaining what the assignment or activity is, but why that assignment or activity is worth students' time and effort; instructions on how to move from activity to activity; and even simple things like providing a sufficient number of copies for each student.

Examples of poorly organized or disorganized assignments and activities included: little to no directions; poorly articulated instructions; separate sets of directions that are inconsistent; repetition of assignments and activities already completed by that class; insufficient amount of supplies or copies for all to participate; little to no explanation for why the teacher is asking students to complete a particular assignment; and teachers asking students to do something outside of their skill set without providing necessary support to help students accomplish the task.

I witnessed two events in two separate classes that proved to be excellent examples of disorganized assignments and activities. The first event had to do with a game that a teacher played with students in order to help them prepare for an upcoming semester final. The teacher first passed out a study guide for the final and then went over the grading scale for the final. The study guide confused the students. The study guide consisted of 30 short response questions, but had no directions about what to do with

them. The grading scale indicated that the test had three parts, and that the final grade would be based on their Scantron, short response, and essay scores. Since the study guide only included some information about the short response questions, students had many questions. The teacher fielded two questions, dismissing each with a sarcastic comment and then tried to move the class to the review game. It was clear that the students had never played this or any other game in class before, but the teacher made no attempt to establish the rules or parameters of the game. Instead, he divided the room into two teams by waving his arm in the air, promised the winners extra credit on their exam, and then proceeded to randomly ask individual students questions from the text. Students were asked to find the answer in the text and to read it back to the teacher. If the students could not find the answer, the teacher told them the correct page. The rules changed as the game progressed, and it soon became evident to both students and me that the teacher was making up the rules as he went along. When a student asked who was winning the game, the teacher paused, shrugged, and asked the next student a question. The students were confused and disengaged. By the end of class the teacher was the only one participating. When the bell rang, he declared one side the winner and the other the loser, but neither side seemed to understand why.

The second example of disorganized assignments and activities took place in a different classroom, and seemed to be a routine in that particular class. The bell rang to begin class and few students took notice. The teacher took a couple of minutes trying to figure out who was absent and who was not, and even longer trying to figure out how to enter this information into the computer. When the teacher was done doing this, the

teacher tried three times to get the class's attention. When the class finally quieted down, the teacher told them that he was almost done grading their tests and needed a couple of minutes to enter the grades into his grade book. The teacher wanted to finish grading so he could go over the scores and answers together as a class that day. Students were instructed to read the next chapter, and to individually answer questions that were printed at the end of the chapter. He told the students that he would be with them in 5 minutes. One minute into grading, a student approached the teacher and explained that she had not taken the test yet. The teacher looked surprised, checked his book, and fumbled through his desk to find a blank test. He instructed the student to go out and take the test. He did not tell her where to go or how long to be gone, just to go. The student took the test and left.

A couple of minutes later another student approached the teacher with the same dilemma. The teacher again looked surprised and found another blank test. This time the student told the teacher that he was not ready to take the test and requested to take it later. The teacher was annoyed, but agreed. The teacher then announced to the whole class that he wanted everyone who had not taken the test yet to come to his desk. No one responded or came over to his desk. Ten more minutes passed before the teacher spoke to the class again. This time he named two individual students to approach his desk. When they got there he informed them that they haven't taken the test, grilled them on why they did not come forward earlier as requested, and then instructed them to go out and take the test. The first student said he was not ready and the teacher gruffly told him to return to his desk. The second student insisted that she had already taken the test. The teacher's

response indicated that he did not have her Scantron and that she would have to take the test again. The student returned to her desk in disbelief as other students looked on and laughed.

It had now been 20 minutes since the teacher told his students that he would be with them in 5 minutes. It was at this point that the teacher decided that too many students had failed to take the test to be able to go over it in class that day. These two separate activities are representative of other disorganized classes, and demonstrate the lack of organization commonly found in classes with high levels of reported student cheating.

Teacher's Ability to Manage Non-instructional Tasks

Related to a teacher's ability to organize class assignments and activities is the ability to organize non-instructional tasks. In addition to homework, class work, quizzes, and tests, high school teachers need to manage numerous other tasks. These other tasks at this particular school site include: taking daily attendance through a computer program; reading school announcements; monitoring which students should be in and out of class for counselors, doctor's appointments, deans, campus ministry, and athletic events; supervising emergency drills; and escorting classes to and from assemblies, rallies, and liturgies.

Not surprisingly, teachers with high cheating rates and poorly organized assignments and activities also had difficulty organizing many of the non-instructional tasks mentioned above. In one class, the bell rang without the class paying much attention. The teacher attempted to do a roll call without getting everyone's attention

first. Roll was called fast, with one name coming right after the other. The teacher did not wait for any response or indication from the students. The students for the most part ignored the teacher's attempt to start class and take attendance. The teacher finished roll without writing any names down, even though two were absent, and then tried to begin class. Later in that same class period, a student was called out to see the counselor and returned 40 minutes later without a countersigned summons. The teacher never followed up to see that the student was where she was supposed to be.

In another class, I watched one teacher try to take attendance using the computer program for 6 minutes, a task that should take less than 1 minute. I happened to be in another class on a day when the school was having a liturgy. Notices were put into every teacher's box in the morning, indicating which students needed to be released from class early in order to help prepare for the liturgy or practice for the choir. When the time came for the students' release, the teacher seemed surprised to learn that there was a liturgy scheduled that day and did not have the notice. The teacher released some students and denied others, actually ignoring those who were insisting that they needed to be let out. Inevitably, some students who were supposed to be released early were not, and others who were not supposed to be released were. In the next section, the final property of order and organization, effectiveness of a teacher's testing procedure, is discussed.

Effectiveness of Testing Procedures

It was easy to distinguish ordered and organized teachers from disordered and disorganized teachers on test day. Teachers in classrooms with high cheating rates also had ineffective testing procedures. Conversely, the teacher with low cheating rates had

very effective testing procedures. Effective testing procedures, as described by the students, and witnessed during classroom observations included: maintaining a quiet space; walking around the room during the testing period; being alert and aware; producing multiple versions of a test; spacing out desks; separating friends; ensuring that the desk and surrounding areas contained no unauthorized books or notes; having clear, concise, and organized instructions; producing tests without typos or other errors; ensuring minimal distractions; and writing test questions requiring students to use words and sentences to answer correctly, such as essays and short answers as opposed to forced response or multiple guess questions.

When I asked one student about effective testing procedures, he described one of his teachers who, he says, takes away everything.

Well, like in [teacher's name] class, she'll take away the backpack, we'll put everything away, you know, pocket notes, whatever. We'll still try, but she'll spread you out. You really can't cheat. It's like, "oh I'm screwed," so then you have to study. So you take every option away, it's possible you can still cheat, but it's too risky.

Another student's response about his teachers' different testing procedures reflected the importance of spacing out students, making sure they do not have access to cheat sheets, and the importance of staying away from forced response exams.

Well, of course, you know, nothing in the backpack and stuff. You know, no opportunity. Really separating them. Like the way some teachers have their desks, they're like right there. It's so hard, you really just have to move your eyes, you

can't twist your head. I mean, you turn around as soon as they turn around and you look to the side or just kinda look at the notes. In the past I've cheated and you just kinda take the paper and you tuck it under your shirt. Or one thing, too, you always got to change up the test, no matter what. 'Cause I remember saying "hey, did you have the quiz already?" I remember sophomore, freshman year the teacher would leave the same thing and it was like, "oh yeah it's A, B, D, C, D." Some teachers don't really have those quizzes where like you know it's simple things to cheat on. To tell you the truth, multiple choice is really, ah, I mean, I like it of course, but it's really easy but you cheat out of it more. When it's short answers, you can't really like go and read every word. So, the short answers are not better for me, but it's harder for me to cheat. Way harder to cheat. I think it forces you to study, you know. 'Cause with the multiple choice at least you can maybe hit one, but that's always a little advantage to us you know? But I would really take away their backpacks or whatever, and really separate them because as soon as you turn around they're gonna look you know?

A third student commented on his teacher's effective test procedure, which includes passing out multiple versions of the same exam.

[Teacher's name] does a really good job. He gives out different tests, A and B. The test portions are mixed and all the answers are changed. So let's say that test A had multiple choice first and test B would have the diagram first. And even though they have the same thing, on Test A the answer may be A and on Test B

the answer may be C. They're the same answers but they're mixed, but it's actually very effective.

Another teacher's effective testing procedures included behavior as simple as walking around the room during the test, and being alert and aware.

We would sit down, he would give us the basic, you know, "you guys know what you are doing. This is how many, blah, blah, blah." We have the tests. He's walking up and down the aisle making sure no one is cheating.

Another student described the same teacher's testing procedures in the following way:

Well, he'll just sit at his desk and his eyes are open wide and he'll look up. He'll look at us the whole class. Maybe it's the way his class is set up, I don't know, but he can see everything. And sometimes maybe he can't see everything everything, you know the little things you don't need to see, but if it's really happening he'll see it. I don't know how, he's awake. He's aware of everything. Like he'll be sitting at his desk and he'll hear a pen drop and other teachers don't.

These effective testing procedures are starkly contrasted with the behaviors of teachers in classes with higher levels of reported cheating. The ineffective testing procedures present in these classes as described by the students and witnessed during classroom observations included: the teacher sitting at a desk working on a computer or grading; the teacher lowering his or her head, presumably distracted, during a test; the teacher allowing students to talk during a test, even if the conversations were about test instructions or requests to borrow a pencil; the teacher passing out tests and quizzes before students have put other class materials away; the teacher failing to respond to

students who are talking to each other during a test, even when it was fairly obvious that cheating was occurring; the teacher allowing students and their desks to be in close proximity to each other; the teacher allowing friends to sit next to each other; the teacher distributing tests with a disorganized format; the teacher writing tests with multiple errors; and the teacher writing confusing or incomplete test directions.

Every student was asked how their teachers could reduce cheating in their classes. The first response from all eight students concerned teachers grading and working on computers during a test, behaviors that were also witnessed during observations. I watched one teacher for 5 minutes during a test, and counted how many times he looked up and for how long. During that 5 minute period, this teacher only looked up five times, totaling 26 seconds, predictably in between graded papers. The students all agreed that their teachers should look up, walk around, and refrain from working on other things during a test. As one student put it:

First of all, when students are taking tests I don't think that the teachers should be sitting at their desks doing other work. Because their head is down like this and students are doing everything. You know? I think that they should be looking up. Going through rows and stuff. Just kinda like walking around. I mean they don't need to be standing the whole time, but if they look down they need to look up once in a while.

Another student echoed this sentiment.

I don't want to say that it's easy to cheat in that class but it is. He sits in the back and grades papers....He has a big stack of papers and he starts grading, he grades

two papers and then he walks in the back. And then he just sits down and looks at the computer, grading his stuff, and doesn't even look, you know. But like it's free game in my class. And I'm pretty sure every class. When he goes back there it's free game because he does not look up. Or if he does he doesn't care. People talk. I hear people like jibber jabbering or whispering. He's gonna have to do something, you know, in the next couple years.... If [the teacher] sits in the front, I'd say if every teacher was right in the front and looked at their students, nobody would cheat, for sure. Nobody would cheat. I'm not picking on any teachers but every teacher sits at their desk during a test. Sometimes they'll walk around and look, "alright." And then they'll go back and sit at their desk, and they won't pay attention.

Other students commented on the importance of a teacher's consistency while monitoring tests. Some teachers would watch for a while and then go to their desk and get distracted by other work. One of the most fruitful cheating opportunities seemed to be the last 10 minutes the test. During this time most teachers put their guard down and students readily understood that if you needed to cheat then this would be a good time to do it.

The way that, like when we take quizzes...she pays attention to see if anybody is cheating but then after a certain point, like, when people start getting up to turn in their test or something, or somebody's up there talking to her or something. Then there's like that one point in class when like everybody can get the answer.

As another student put it,

People can play it off very good, but it's very obvious when you just sit there and nothing's on the paper for the whole hour, and then the last 10 minutes. That's when people take advantage of teachers the most, too, the end. 'Cause when you're just sitting there, you're looking, you're looking, and then once people start turning in their papers, it gets a little loud again and then right away you know you can go cheat right away.

Some of the more perilous comments from students about their teachers' failure to closely monitor tests reveal what students assume about their teachers' attitudes. When teachers sit at their desks, preoccupied with grading or the computer, students assume that their teachers do not care about classroom cheating, in effect giving the students a green light to go ahead and cheat. One student described it this way:

If the teacher sees cheating and that's the way people are passing the class and the teacher doesn't really do anything about it, then it in part lies with the teacher because to not stop them is to encourage. If you know that a student is cheating and you're not hindering them at all. You're not even watching during the test, then you're promoting cheating.

A second student agreed with this description.

I don't know if he knows what's going on, but sometimes when a teacher sees that kids are cheating...I think they do know, it's obvious. You know you're not looking and you know students are going to cheat. And if you don't enforce it, then you are being oblivious to it. "Oh nothing's happening here," you know and they just do their own thing. I guess they just don't want to see you, you know?

When I asked one student if her classmates think that her teacher cares about cheating, she responded:

Not really. If [the teacher] like passes out a test, and then she goes to her desk and she starts working, or she goes to her computer and she doing something on her computer. Then they think, “okay, what the hell, why not just cheat on this quiz?” And then they’ll turn it in or whatever because it’s a grade that I just got away with.

Another frequent comment from the students regarding ineffective testing procedures was related to noise. During my observations of tests I often noted that noise, any noise, provided opportunities to cheat. Helicopters and airplanes overhead, emergency vehicle sirens outside, announcements over the PA system, and even coughs and sneezes all provided students with enough noise cover to attempt to talk to other students seated nearby. It was my experience that every noise created moments of opportunity that were capitalized upon by some students. To some degree these kinds of noises are unavoidable.

There are other classroom noises that teachers can control or limit, however, and do not. For example, students talking during a test, whether in normal tones or whispering; students making noise when putting items into their backpacks; students rustling paper; students requesting supplies like pencils and papers; and students inquiring about the date can all be avoided through order and organization. When teachers do not reduce or eliminate these kinds of noises, some students will use the

noises as a cover for their cheating. Most students agreed that teachers who do not insist on silence during the test have much higher levels of cheating.

She should make sure that the atmosphere is that everybody is completely quiet and they know that they can't cheat during the test. Like they know that they can cheat because there's a certain level of noise going on. And like somebody goes to ask her a question so she's distracted and then she hears people talking, but she's still like involved in a conversation with that person in the front of the class or whatever.... Like I remember for a few of the tests, she used to go and she would like sit in the back of the class, and she'd watch from behind the class while everybody was taking their tests. And I remember that no one really wanted to cheat then because like she was looking at you, you know? But during other tests, when she would like give a quiz, she'd be up there and she'd write the question on the podium or whatever. Her head's down and people were like looking over like whispering or whatever. And she doesn't stop the talking if she hears whispering.

Another student described it this way:

During the test, if the kids are all taking the test at the same time in their class, I think they should do everything possible to make sure that it is completely silent. Kind of create a fear of cheating among the students. Make sure it's completely silent, and not be doing like other work at their desk while the kids are working. Because if they think that you're not paying attention during a test, then they think that they can get away with that.

Some students, when allowed, even purposefully created these opportunistic noises during tests, to either help themselves or others cheat. Drumming their desks, humming songs, tapping their pencils, shuffling their feet, and asking the teacher questions are all behaviors that successfully created enough noise to provide cover for cheating. Some students would even purposefully and loudly converse during a test about topics that were obviously not related to test materials. As a result of allowing this to happen, the teacher seemed to assume that the students were not cheating; however, these students were providing cover for other students who wanted to cheat. One student described it this way:

Yeah, like even during a test you can almost just watch the class and you'll see like every once and a while someone just turn and like say something to their neighbor. And we'll talk not even about the test during a test; we'll just talk. We'll talk about the Clipper game. Something like that. During a test so she can't really tell.

Another student described the order and organization of his teacher's testing procedures in the following way:

I walk back [to the teacher's desk] and give high fives to everybody. I'll give high fives to my buddies when I walk back there. It's not like you can go ahead and tell when it is happening. It's like you say something to [the teacher] when you're sitting down, a joke or something, and then when the two of you start talking another person can talk, you know like, you can totally have a conversation in that class. And then he'll say like, "quiet down." In like a minute or something like

that. And during that whole time people are cheating. I've seen like early in the year people talk; it's really easy, you know, if you have a buddy next to you or somebody across the room like, "hey hey, give me the answers," you know? And he's just jibber jabbering away with somebody else.

Another major finding related to testing procedures and order and organization concerns the test itself. The lack of organization in the classroom environment was not only evident in assignments and activities, but also surfaced on the test. Problematic tests included: instructions that were poorly articulated; instructions that changed; tests with typos, mis-numbered questions, and other errors; information that was never covered in class but appeared on the test; tests with too many questions for the allotted time; and tests with a confusing format. Poorly organized tests provide yet another example of how disorganization can negatively affect the classroom environment. The next section describes the explicit connections between order and organization in general, and cheating as observed and described during the course of this study.

Order, Organization, and Cheating

The strongest quantitative result was also found to be significant in the qualitative analysis. The level of order and organization in the classroom environment can have a profound impact on the level of cheating in that classroom. One of the teachers at this school had an excellent understanding of the class content, but needed some significant classroom management improvement. A test that I observed during one of her classes provides a strong example of the connection between order, organization, and cheating.

The bell rang to begin class and the teacher instructed her students to pass their homework forward. The teacher then reminded the students that there was a test that day, and announced that the test contained 74 Scantron questions and an essay, emphasizing the need to start promptly. Many of the students audibly sighed upon learning about the number of test questions, and three engaged her in a debate about the length of the test. The teacher then looked down at the test and learned that there were not 74 questions but 85, and when she shared this information with the class they were unable to contain their disbelief and dissatisfaction.

At that point, the television clicked on for the daily viewing of Channel 1. Channel 1 is a news program specially designed and broadcasted for students. It is up to each individual teacher to either allow the program to play that day or to turn it off. When the teacher made a move to turn off the news program the students revolted. They insisted that they be allowed to watch the program. The teacher acquiesced. The program lasted 15 minutes and only four students actually watched the program; the others either socialized or frantically studied.

When Channel 1 ended, the teacher instructed students to put their books away and prepare for the test. While students were putting their supplies away, the teacher gave instructions concerning the completion of the test. Students were instructed to answer part I, questions 1 through 65, on the first Scantron that would be passed out; and part II, questions 65 through 85, on the second Scantron. "When you're done with the first [Scantron] come up and get the second," she instructed them. "Why don't you just give us both now?" asked a student. To which the teacher responded, "oh, okay that's better."

The teacher also announced that there was no number 33 so they were to skip that question. The students balked at the instructions to use two different Scantrons for 85 questions, understandable, since each Scantron holds answers for up to 100 questions. When students asked the teacher about her use of two Scantrons, she repeated the earlier asserted directions and told the students that, “this is easy.” To which one student responded, “then why did you find a way to make it hard?”

The teacher finally passed out the test, but as students began the test the teacher soon discovered that she had left parts of the test downstairs on the copier. So, she asked a neighboring teacher to watch the students as she ran down to the copier room to retrieve the copies. When she returned, she asked two students whose desks were touching each other to separate themselves. They argued with her for a while before eventually agreeing to separate. While they were doing this, I was able to notice two sets of students exchange information with each other. As the test progressed, so did students’ confusion about what they were supposed to be doing on the exam. Students had many questions about the format, instructions, and structure of the test. They asked the teacher, but when the students did not receive satisfactory answers, they simply asked each other. Many students were working together during the test to better understand instructions, but other students were using noise and distraction to cover up their cheating. One student just sat at her desk with her head down, making no attempt to answer the questions on the test. At one point during the test, the teacher and this student exchanged glances but no words were spoken.

The Scantron portion of the exam contained a matching section. The matching called for a response to be marked with the letter *f* on the Scantron, but these Scantrons did not have a slot for *f*. When a student brought this to the teacher's attention she responded, "okay forget it, I forgot there wasn't an *f*, just write on the test. You can write on this one." Again students conversed with each other, some trying to figure how to successfully complete the test, others cheating.

The teacher spent most of the test period organizing her desk and grading papers. She rarely looked up and when she did, either failed to notice students whispering or did not care they were whispering. I even saw one student pass her entire Scantron to another student. As some students started to finish, they were instructed to hand in their test, and then to begin an assignment written on the board. Upon completing the test, several students commented to the teacher that they did not have the necessary book to do the assignment. These students were allowed to leave the room to get the book they needed. At one point, four students who had left individually, and who were gone for more than 5 minutes each, all returned together. Their lockers were just outside the door, and retrieving their books should not have taken more than a minute.

At this point, more than half of the class was done with their test, and none of them were working on the assignment, not even the ones who left the room to get their books. As more students finished the test, the noise level in the room gradually rose. Towards the end of the test period, the classroom was very loud; students were talking freely, including those who still had tests. The student who was seen earlier with her head down on her blank test was now busy frantically consulting her neighbors and filling out

the Scantron. The teacher asked students to raise their hands if they were still taking the test. Two of the five students still with tests raised their hands, the others ignored her altogether. When the last test was finally turned in, the teacher instructed students to begin an extra credit assignment, but as she started to pass out the assignment she realized she had not made enough for everybody. She then cancelled the assignment as the bell rang to end class.

The test I observed during this class period clearly demonstrates the impact of disorganization on student cheating. Every poorly organized part of this testing period, whether it was the ambiguous directions, numbering mistakes, matching errors, or test parts forgotten on the copier, provided easy cheating opportunities for students. Other factors that allowed students to cheat included: lack of order during the test itself, the teacher being distracted with grading and desk organization, and the high noise levels the teacher tolerated during much of the test. I asked both students I interviewed from this class about this test. The first one characterized the events described above as follows:

She makes the test herself and she thinks they make sense, but then when she gives them out they don't always make sense. So that's where the like initial chaos happens because everybody just thinks that they need to freak out just all at the same time. Instead of having one person ask the question and letting her clarify about something. Everybody at the same time is just like, "hey, wait, there's like three papers here. What are we supposed to do with this? Why do we have two Scantrons? Why don't you just do this now?" and everybody just like attacks it at the same time. And then she's just like, "wait, everybody, please." I

think she gets like really overwhelmed when everybody just like starts bombarding her with questions at the same time and she doesn't know how to handle it like right away. And she needs to calm the class down. And like while she's trying to calm the class down, there's like talking and other stuff going on and people are like starting to get other answers for their test while she's trying to sort it out.

The other student I asked about the disorganized and disorderly test had a similar point to make.

That kind of helps cheating, too, though. As she's talking, you can talk more. It provides you with a cover first of all. Second of all, a lot of kids in the class feel flabbergasted. They're like, "okay you gotta stop doing this to us, you're killing me, I'm just gonna get a couple of answers to make up for your ineptitude of being able to give us the test straight out, having us sit here and do it, you've changed things on me." A lot of kids feel it's unfair. So a lot of kids think they deserve an extra point or something...so they feel that they can ask someone. That kind of situation happens a lot with the assignments and with a lot of the tests. Like, I think if that didn't happen, cheating would go down a lot in that class. 'Cause you see it and it empowers the student.

This test was not an isolated event. Other classes low in CES and high in cheating rates had problems with order and organization. Two other students both talked about an incident involving a test that was stolen right off of a teacher's desk, during class while the teacher was in the room. I watched another teacher try to fix the occurrence of two

number 37s on his test. As before, when this teacher tried to instruct the students on how to deal with the numbering error; the students helped each other to both understand the directions better and to cheat. Time and again during observations and interviews, it became clear that well ordered and organized teachers have less cheating in their classes than their colleagues who lack order and who are disorganized. The second major qualitative finding has to do with student involvement.

Involvement

Another strong quantitative finding also found in the qualitative analysis is the impact the level of student involvement had on cheating. Trickett and Moos (2002) defined involvement as, “the extent to which students are attentive and interested in class activities, participate in discussions, and do additional work on their own” (p. 1). Again, the differences in the level of student involvement between classrooms high in cheating rates and the classroom low in cheating rates constituted a major finding. The following findings related to involvement focus on the range of student involvement, teacher behavior that encouraged student involvement, and teacher behavior that discouraged student involvement. The section ends with a description of the relationship between involvement and cheating.

Range of Student Involvement

The level of student involvement, as described by students and observed in the classroom, varied dramatically. Some classes were characterized by minimal levels of student involvement. Typical events in these classes included: students failing to make eye contact with the teacher; students sleeping or listening to iPods; students applying

make-up and hand lotion; students passing notes and socializing with each other; students talking or texting on cellular phones; students putting their heads down on their desk or pulling their hooded sweatshirts over their heads; students having books and work for other classes out on their desks; and students watching the clock. When I asked one student what kinds of things students do in her class she responded,

Okay. Other teachers' homework they usually do in that class. He's kinda strict about that, but you can get away with it, you know? Talking, text messaging, I don't even know. Sleeping. Like everything that you can imagine are the things you can do in that class. It's like, we do everything.

Other classes were characterized by partial student involvement. Partial student involvement was characterized by the following events: a small group of students engaged in a conversation with the teacher and the remainder engaged in side conversations with other students; one student who continually asked the teacher questions while the rest were disengaged; and the same group of students who volunteered to answer questions, who approached the board, and who participated in activities. One student described the class in the following way: "Usually it's half the kids doing something and the other half are just there to relax. Free period, kinda."

Another student described his class similarly.

She'll assign something and then people will have side conversations, but she's having the side conversation with people in the front of the room. With some of the more quieter students...all the good students are in the front and she'll just

start talking with them. And then she's not paying attention so we can start talking with ourselves, and so that kinda leads to chaos.

A third student described the partial involvement in her class.

Yeah, she was having a conversation about [a reading assignment], and everybody else was doing something completely different. She was kinda talking to about seven or eight different people, and then around that group was chaos....There's maybe eight people in the class that are trying to listen over the noise of the other people. Like, it's not that the other people in the class are trying to go against her. It's just that they're trying to do their own thing. So they're having their own conversation or doing their own work or something, but they're loud about it and they're not necessarily trying to go against her, but they're just doing their own thing so the people who are trying to work with her are trying to listen over them to try and listen to her lecture.

The class with lower levels of reported student cheating and higher CES scores also had higher levels of student involvement. Typical events in this class included: students moved quickly from one activity to the next, students nodded their heads in response to points the teacher was making or questions the teacher was asking, students raised their hands in the air when a question was asked, students made eye contact with the teacher, students took notes and participated in discussion, students focused on the class material and did not have other work out on their desks, and students appeared awake and alert. Teacher behavior has a large impact on student involvement. The next section will discuss the teacher behavior that promoted student involvement.

Teacher Behavior that Encourages Student Involvement

Much of the range of student of student involvement mentioned above can be attributed to teacher behavior. As evidenced by the subsequent exemplars, it was found during this study that teacher behavior encouraging student involvement in class included: the teacher being energetic and excited about learning the subject matter; the teacher demonstrating content knowledge; the teacher's being sincere with the students; the teacher encouraging dialogue in the classroom; the teacher facilitating group work and walking around the room during the group work to check for understanding, ensuring participation, and pressing the students to take the material to deeper levels of thought; the teacher leading the class in text-based discussion; the teacher demanding critical thinking from the students; the teacher relating class material to the students' lived experience; the teacher planning for multiple activities during the block session; and the teacher personally knowing and being involved with students.

One student described how her teacher effectively kept students involved, contrasting the description with another teacher who did not.

The way [teacher A] interacts with us, he really gets us into it. Like, we really want to know. Like, we really want to know what that crazy guy said or whatever. And with [teacher B] it's like, oh my God, it drives me crazy. I literally will raise my hand to read 'cause I like participating and I'll read this whole thing. Like this whole chapter and nothing will come out of it. Nobody will be paying attention but I'm reading. "Oh wait she's reading again." And then like no one will know what is happening.... I don't know; it's just not working. Oh I know, it goes in

one ear and out the other. Someone reads it, say I'm reading it, and it will go in one ear and out the other. So questions are being asked and the person next to me just answers it. Like some of the girls will answer him. None of the guys are paying attention. Ever. They're all listening to iPods or something. It's interesting, but if you don't know how to teach it they're not going to be interested. And then [teacher A] makes it interesting. Even though it could be this boring horrible section. Which we'll tell him honestly it's boring and he'll just say to bear with him, you know? And then what happens, [teacher A's] class, we'll start thinking about the weirdest things, like how the world can end because of, like, how did it start in the beginning because of different subjects, so it's confusing but the teachers are way different. And, again, [teacher B] is taken advantage of because everyone cheats in his class.

Another student described her teacher's ability to keep students involved in the following way:

There's just so many things that are being thrown at you. Which is a good thing I think. More things than in other classes. More hard things, you've got to think a lot.... We read a lot. We've read like eight to nine books in that class and we did the [text] book, and then after that we would do tests, they're like short answer tests. And then we do a lot of essays. And then to better understand what we're learning we watch movies. We do a lot of things. But then there's also, we do, like the side work where like questions come in with the book and then there's the

text book. It has questions as well, and then essays. And we have to have arguments. He really keeps us on our toes.

When I asked this same student what teachers need to do in order to keep their students involved, she responded:

Be aware of what's going on, obviously. Know how to teach, especially if you're teaching teenagers who get like, I know it seems hard, but we have this attention deficit disorder that we get really bored really fast. So you need to keep us interacting and interested because we'll get really bored.

Bored and disengaged students are usually the result of low levels of student involvement, which is discussed in the next section.

Teacher Behavior that Discourages Student Involvement

The teacher behavior that encouraged student involvement is starkly contrasted with teacher behavior that discouraged involvement. Teacher behavior that discouraged student involvement in class included: the teacher asking students rote questions, even when no students were responding; the teacher asking students to take turns reading out loud from the text book; the teacher failing to help students understand major concepts of a given lesson; the teacher presenting material divorced from the students' world; the teacher only talking to a handful of students; the teacher utilizing the banking model of education and encouraging meaningless memorization; the teacher allowing constant sarcastic comments; and the teacher lacking sincerity or seemingly going through the motions of teaching. When I asked one student to describe his class, he said that it was a joke.

[His] class is a joke. We work all the time and we do like nothing fun. He teaches us like everything we need to know but it's not fun. You know you go to his class for like an hour and 10 minutes or however long it is and you just stare at the clock, just hoping it will end. It's just like review stuff, like memory, we're just like reviewing and the point doesn't get across. You know?...He's on task. He does go by the chapter. He does go by what he is supposed to do. But he doesn't teach it well, you know what I am saying? He doesn't get it out. He just writes it on the board and expects you to take notes. He explains it a little bit and then that's it, you know? It's really weird. I don't like it; I don't like the learning environment in that class because nobody wants to learn. It's like a joke.

In one class I watched a teacher pass out photocopies to his students. The text book that was being used in the class had a series of review questions following major sections of the book. Typically, in class students are asked to read the section then answer questions at the end of the section. The sheets that the teacher passed out to students in this class, however, contained not only the questions, but the answers from the teacher's manual as well. Class consisted of the teacher reading a question, reading the answer, and occasionally expanding on the answers from the teacher's manual. Students were completely disengaged. They were never asked to read the book or answer one question for themselves. While the teacher went over the questions and answers from the sheets he passed out, only two students were engaged in class. At one point I counted six students sleeping, 10 socializing, four working on another class' work, two listening to iPods, and two listening to the teacher. Needless to say, this was an example of a class with low

levels of involvement. When I asked a student about the lesson that I witnessed that day, she informed me that it was typical of that class.

First he would just assign us chapters and we would do the questions, you know, the questions that are in the chapter. We'd answer them and stuff. And then he would go over it in class and it would be so boring; everyone was like dying. But then after a while he just started writing the questions and the answers on the board so we didn't have to find them anymore and then it led to, you know, the little handbook that comes with the book, or whatever, and it has the answers for the teacher copy. He would just print that and give us the questions and the answers.

The level of student involvement in class is included in the CES and in this study because it is one of the factors in the classroom environment that is within the control of the teacher. The next section will discuss the qualitative relationship between student involvement and cheating.

Involvement and Cheating

As indicated above, teacher behavior can have a profound effect on the level of student involvement. Quantitative results detailed previously indicate that the level of student involvement is negatively related to the level of student cheating; i.e., as involvement goes up, cheating goes down. The following section uses qualitative data to further describe the relationship between the level of student involvement and cheating. Most students interviewed felt the classes where students were involved and interested contained less cheating than classes where students were bored and disengaged. When I

asked one student about who was to blame for cheating, he responded that it was usually the students' fault, except when the teacher fails to teach.

I think that that's the exception where it does go towards the teacher's fault. I think one reason that it would be the teachers' fault is if they're not teaching and the students have to cheat; then it's the blame, or a lot of it, lies on the teacher.

Another student put it the following way:

When you're bored, you are unaware of what's happening and you're not going to know what's on the test. Which means you're going to end up cheating because you don't want to fail it. And some people don't even know what to study so they have to cheat.

A third student described how his lack of involvement in some classes leads him to rely on cheating to pass.

Me, for instance, if I don't get something, cheating is the easiest way out. You know the other choice is that I'm failing. But I do try, but when I don't get it too much then I'm forced to look to the side even though I know he's not looking. It's tempting, you know? But that's how I see it. In other classes I listen and I understand, so whatever grade I get in those classes it's my own fault. You know, I don't blame it on their teaching. I'm not like, "oh well, he didn't teach it right." I don't have that with them. But with [teacher A], yes. You know, I'll complain, I'll be like "aaahhh, but you don't make sense, you know you're saying like four definitions, you're trying to describe all of them at the same time and it doesn't make sense." So it depends, I think, on the teacher and how they explain their

things, that's what makes the student cheat or not cheat. Like if we understand you then there's no point to cheat you know? And when you don't understand nothing you're gonna cheat... So sometimes I'll blame it on the teacher a little bit, not all the time you know, its not always the teacher's fault, and I'm thinking "damn, you know, I wish he could have shown me this better, or give me a better definition." So I'll struggle and I'm kinda sometimes forced to, you know, "what are the answers? Do you remember the answers for number 4, 5, and 6?"

Another student echoed this sentiment. "It's not helping me learn at all. And obviously if people can't learn they're going to have to cheat. You know what I mean."

According to one student, when class content is divorced from the students' world, no matter how interesting the presentation, students will not be involved and rely on cheating, rather than learning, to pass.

You could have the most entertaining teacher, and the one who knows the most, but if they're teaching something that is totally useless or ridiculous to the students then they are not going to want to learn it, it would be easier to cheat.

Students readily admitted that when teachers created environments to involve students in class and interest them in learning the material, students are less prone to cheat.

If students were really genuinely interested in the material I don't think that they would cheat. I think if they genuinely wanted to learn the subject material, they wouldn't want to cheat cause they wouldn't need to in order to get a good grade,

they'd want to learn it. But I think a lot of classes are not really interesting. So they are going to cheat because, "I don't want to study for this."

Student involvement, a finding that was quantitatively significant, also proved to be an important qualitative factor. The student responses and classroom observations both indicated that when teachers create classes where students are engaged and involved the students will cheat less often. Similar comments can be made about the third major qualitative finding, teacher control.

Teacher Control

The final CES subscale also serving as a category in the qualitative analyses included teacher control. Trickett and Moos (2002) defined teacher control as, "how strict the teacher is in enforcing the rules, the severity of punishment for rule infractions, and how much students get into trouble in the class" (p. 1). Again there was a considerable difference in teacher control between classes with high levels of reported cheating and the class low in reported cheating. The following findings related to teacher control focus on the level of teacher strictness, the teacher's consistency in rule enforcement, and the student's fear of getting into trouble. The section ends with a description of the relationship between teacher control and cheating.

Level of Teacher Strictness

As was true with both order and organization and student involvement, the level of teacher strictness varied considerably from class to class. Strict teachers typically expected and ensured their students followed pre-established school and classroom rules. The following behaviors were consistent in classrooms with strict teachers: students

responded to the bell by quieting down and sitting in their seats; students followed the school's dress code; students who were late to class received tardies; the students and the teacher followed some kind of procedure for taking turns to talk; students were not allowed to have distracting materials like iPods, books for other classes, cellular phones, and make-up out during class; students refrained from socializing and being disorderly while the teacher was talking; and students responded to their teacher's requests.

Classroom environments with high levels of teacher strictness were highly contrasted in classes where the teacher's behavior can best be described as permissive. In classrooms with permissive teachers, student activities were noisy and chaotic. Students regularly ignored teachers' instructions and requests. Students rarely followed the dress code, and students seemed to dictate when class was to begin and end. In these permissive classrooms, multiple side conversations occurred during teacher presentations and class discussions. Students regularly attempted to talk the teacher into or out of certain decisions, often in impolite and offensive ways. Students were out of their seats and roamed around the room during the lesson. Permissive teachers allowed students to use iPods, books for other classes, and cellular phones. Students in permissive classrooms readily and frequently disrupted class, undermining the teacher's lesson, and left and returned to class without the teacher knowing.

A common pattern in classes with poor learning environments and high cheating rates was a permissive classroom environment lacking teacher control. The lack of teacher control was also evident to students. Students linked classrooms with poor

learning environments and high cheating rates to low levels of teacher control. One student described the most recent class she had with her teacher.

The last class we had, we had six people throwing paper airplanes across the room. And two of them hit her. And then we had people in the back with someone just lying on the floor in the back of the class and then there was three people sitting up by her desk, writing on the board. And she was having a conversation about something.

Another student described the lack of control in his class in the following way:

It was like you could go to that class and people would talk, and then they would just talk louder. He'd say, "be quiet," and then by the end of the day he'd get really mad and say, "you can't go to lunch early," and we'd be like, "alright," and he would tell us to be quiet for like 5 minutes, and then we'd get out and we'd be really loud. And then the next day it would be the same thing.

This student described how his classmates are able to talk back to the teacher.

And I feel like that he's like, "I'm just here for my job and I'm a teacher and you better respect me." That's it, you know? More like he's whining and complaining, you know? But he's a teacher, like c'mon, you know, be more straight. He gets into students. A couple of times students have cussed at him. Like they really stressed the *F* word. And he just laughed at them. Like he relaxes. That's what I mean and then like other students are all like, "I can do that too," you know? And a couple of students have done that, like three in my class.

Another student discussed how her teacher did not notice when students left the room, “I can’t believe it but people can like walk out and he doesn’t know.” As this student explained, some teachers allow students to listen to iPods and other music players during class.

I’ve had my iPod in class. Like you just put it in your ear. It makes it go by quicker, you know what I am saying? If he ever sees it then I just pull it out and then I’ll just put it back in and I’ll be like, “alright.” I’ll look at him and I won’t pay attention. I’ll have like no notes. I’ll just look at him.

The next section will discuss the impact of consistent rule enforcement on the classroom environment.

Consistency in Rule Enforcement

The teacher’s level of strictness had a significant effect on the classroom environment. Equally important, however, was the teacher’s consistency in rule enforcement. Inconsistent rule enforcement included teachers only enforcing some of the rules or teachers only enforcing the rules some of the time. In one class I observed the teacher ignoring multiple violations of the rules. The noise level of the class continued to increase as more students participated in the disruption of class. No longer able to ignore the chaos, the teacher picked one student out of the crowd and wrote her up for talking, much to the student’s surprise. The reaction from the rest of the students was near amusement. They quieted down for several minutes before repeating the same pattern all over again. As one student described, this kind of inconsistent rule enforcement frustrated the students.

Sometimes he just gets people mad because he always takes out the little infraction thing. "I'm gonna give you an infraction." And sometimes he gives people infractions for the dumbest things. I don't know. I heard he gave one kid an infraction for just raising his hand. I don't know if that's true, but he does just give out infractions and that gets people mad. But then they just say, "I'm gonna go talk to [the dean]," and they go outside, rip it up, and then they come back in.

Another student described her teacher's inconsistent rule enforcement.

Sometimes she's alright with it and other times she tries to enforce the discipline. Like other times she says, "okay, I'm giving out infractions right now." And she ends up giving out two or three and then everybody settles down. It's kinda 50/50, like you don't know what kinda mood she's gonna be in. Like you know that there's some days that if you see that she's letting some people get away with it then it will just go like completely extreme, and other days she just won't be in the mood for it, it kinda calms down a little bit.

A third student shared his frustrations with his teacher's inconsistency.

That's probably my problem. There are rules but the consequences change and how liable you are for breaking those rules changes like from day to day. She'll write me an infraction and I'll be pissed off because she didn't write the other kids an infraction, so I'll shut up and I'll sit there for like a week and maybe that's the week that she's like lenient, and I'm just like, "oh, God." Because you can do something one day and get in a certain amount of trouble but you do something the next day and its drastically worse or...it's very up in the air.

Permissive and inconsistent teachers created environments where students were more likely to successfully challenge teachers' control in the classroom. It was in these environments that students felt emboldened to break established rules of the classroom. The next section deals with students' fear of getting into trouble.

Students' Reluctance to Get into Trouble

In the classes referenced above, especially those with poor learning environments, students rarely hesitated before breaking class and school rules. In classes where teachers were permissive and inconsistently enforced rules, students operated with little fear of getting into trouble. The word *fear* might be troublesome, and needs some clarification. Neither the research literature on classroom environment (Trickett & Moos, 2002) nor this study advocates teachers conducting their classes with threats and fear. Fear in this context simply means that students understand there are real consequences for violating school and classroom rules and are reluctant to act in ways to bring about these undesirable consequences. One student described his typical attitude in class and contrasted that description with his attitude in a class where he does not fear getting into trouble.

My philosophy when I go into a class, you know I mean, I'm not gonna mess around with the teacher cause I know there's a respect, you know? He's a teacher, he'll kick you out, you know, he has all the right. But with him, I feel like, oh, I can mess around and I'll get away with it.

Another student described the effect that fear of getting caught cheating has on student behavior and consequently, teacher control.

I think in some classes where the teacher will just say, “okay there’s a test no talking.” And they’ll just stand up in front of the class or behind the students or something, and they’ll just watch everybody in complete silence just taking the test. I think they’re less prone to cheat. Because they’re scared that like, “okay if I go over and whisper like a number or something, is he gonna hear me?” It’s completely silent. Or like he’s scanning the room thinking, “okay, well, if I look over there, like what’s the possibility that he’s gonna look over here right as I do that?”

The preceding quote implies that the level of teacher control in the classroom environment has an impact on student cheating. The next section discusses the qualitative relationship between teacher control and cheating.

Teacher Control and Cheating

The level of control a teacher has over a particular class is an important part of the classroom environment, and as shown in the quantitative results, is significantly related to student cheating (see Tables 2 & 6). The following section uses the qualitative data to further describe the relationship between the level of teacher control and student cheating. All eight student interviews insisted that if teachers wanted to reduce cheating in their classes, they needed to be more strict and consistent.

I think they should monitor it a lot harder than they do sometimes at our school. I know they can’t watch everything; they can’t make sure that everyone’s not cheating. I can’t explain it, but like [teacher A], he’s good. He’ll look at you and be like “don’t cheat,” you know? I think that’s really good cause in his class

you're forced to study or you're not gonna go anywhere. You know? That's good.

I think that teachers should be more strict on us academically.

In this school, the perceivable effect of a classroom environment is amplified and easy to discern. The school is small; most students are grouped together and go from one class to the next together. The data indicated that when the students' behavior is vastly different from one class to the next, it was because of different classroom environments created by different teachers. According to one student, students who cheat in one class will not cheat in the next because of different levels of teacher control existing between the two classroom environments.

It's not necessarily the people in the class, because most of my classes I share mostly with the same people. And in certain classes we cheat a lot, they cheat a lot, and in other classes they won't at all. I think it's the teacher. The more relaxed the teacher is. The more lenient, I guess you could say, the more the people will take advantage of the teacher.

Another student described his teacher's lack of control and his corresponding attitude about cheating in the following way:

I would cheat in his class because it's very easy you know? 'Cause he doesn't really enforce anything. You know what I'm trying to say? So even though I know the stuff maybe I still want to have a backup. You know, the little notes or whatever. It's so easy; you can't make it easy like that. You know, when you just don't care, sit around, people are going to cheat.

The level of teacher control, similar to order, organization, and student involvement, was demonstrated during both observations and interviews to have an impact on the level of student cheating. Students were much more likely to cheat in classes where the teacher was permissive and rule enforcement was inconsistent. The following major finding has to do with how students perceive their teachers.

Students' Perception of Teachers

This fourth category was not included in the CES subscales and was generated during the open and focused coding sessions of the qualitative data. Both observations and interviews strongly indicated that the way a teacher was perceived by students greatly impacted the level of student cheating. While students' perceptions of their teachers were certainly based in some sort of reality about their teachers' attitudes, dispositions, and behaviors, this category was intentionally named *students' perception of teachers* to reflect the fact that the methodology employed by this study did not access teachers' attitudes or dispositions and only had limited access to teachers' behavior. For these reasons, the findings related to how teacher attitudes, dispositions, and behaviors affect cheating are best understood as students' perception of teachers and not necessarily the reality of teachers' attitudes, dispositions, and behaviors. The following findings related to students' perception of teachers focus on the level of teacher consciousness in the classroom, the teacher perceived as a friend by the students, and the level of respect that students had for the teacher. The section concludes with a description of the relationship between students' perceptions of teachers and cheating.

Level of Teacher Consciousness

A common theme that surfaced frequently during classroom observations and student interviews was students' perception of their teachers' level of consciousness. All of the teachers in classrooms with high cheating rates and poor learning environments were observed or described as disconnected in some way. The term consciousness is used here to try and capture students' beliefs that their teachers were oblivious, disconnected, unaware, clueless, apathetic, unwilling to listen, distracted, and absent minded. The teacher's low level of awareness was also a common observation in the classrooms I visited. In one class, a student asked the teacher if she could get a drink of water. The water fountain is right outside the classroom door, and the door was propped open. The student was gone for 5 minutes and could be seen by the entire class, including myself, talking to her boyfriend in the hall the entire time. The teacher did not appear to notice.

In another class, I watched as students repeatedly asked the teacher questions and laughed. It was obvious to all, except the teacher, that the teacher was the butt of the jokes. While many of the classroom environment problems mentioned in this study can be attributed to lack of order and organization, student involvement, and teacher control, many of them can be attributed to the teacher's complete lack of awareness. In many of the classes, I observed as students walked in and out of the classroom without the teacher noticing; talked during tests; used cellular phones and iPods; and slept, sometimes right in front of the teacher. Much of the time these teachers were oblivious to what was actually going on in their classrooms.

For instance, say when we're watching a movie and we don't finish it in one period. On the next period...say there was like 10 minutes left in the movie, and we all know we only have 10 minutes left in the movie but we want to take the whole class we say, "no no no we haven't seen that." So we keep on going back until there's like 45 minutes left in the movie and then we just watch over what we already saw but we don't care because we don't want him to talk or whatever.

The most common student descriptions of teachers in these classrooms with high cheating rates and poor learning environments were related to students' perceived level of teacher consciousness. One student said this about her teacher and classmates:

If the teachers are not really paying attention to what's happening in their class and some are really oblivious to it, they'll take advantage.... I feel bad but...I really hate it but a lot of people take advantage of [Teacher A]. And it's the same thing, everyone is like, "oh we don't have to study for that class 'cause we can just cheat." And that's the way it is. 'Cause they're bad. I just want to stop them, you know, but what can you say? 'Cause he's oblivious you know? He doesn't know what's going on in his classroom. Even though he really wants you to understand the [subject], you know?

Another student described how the students feel about her teacher.

Like not serious, I guess. He's really funny, he tries to be strict but it doesn't really work. And not a lot of people take his class seriously. They just go through whatever and a lot of people take advantage of him, make fun of him and he doesn't notice...I feel bad.

One of the students explained that he even tried, unsuccessfully, to make his teacher aware of what was going on in the classroom.

I don't want to make a statement, but I've told him many times "You're not teaching, it's hard for people to learn," like nobody learns. He just doesn't care, you know? I try to tell him what the feedback is from students. Nobody, nobody pays attention, and everyone thinks that he is a joke.

The teachers' apparent lack of awareness was not the only student perception continuing to surface during interviews. The following section discusses how students described their teachers as friends.

Teacher as Friend

A second, very common characteristic attributed to teachers in classrooms with high cheating rates and poor learning environments by their students was that of a friend. Teacher as a friend is different than teachers who are friendly. When students reported that their teacher was like a friend, they did not mean to convey that their teacher demonstrated care and concern for them. They meant to suggest that the student-teacher line was thin and often crossed. The biggest problem with teachers acting like friends, according to students, was the effect that this friendship had on classroom discipline.

The number one thing is the friendship thing. When you're more of a friend with your students in the classroom instead of outside the classroom. When you're friends with a student, it's harder to discipline them so discipline comes in as a factor.

Another student described his class' relationship with his teacher this way:

It's one of friendship. My freshman year we had that with [Teacher A] when it was his first year here, and it was really chaotic. And it kinda resembles [Teacher B] because she's really more like a friend. And not very much does she say, "shut up," or "quiet," or yell at us; not often is she like a big authority figure, just kinda like another kid teaching us.

A third student explained how his teacher's demeanor with students affected the way students think about the teacher.

I do like him, like I don't hate him at all as a teacher. He jokes around a lot. So kids see him as, "oh, cool, he's like a guy." You know? "How cool." They try to be a cool guy, too, you know? And then they don't see him as a teacher. Like a friend thing, you know? You lose respect for a teacher, that's what I mean...Now because he jokes around with the students a lot. He's like a friend. Oh, maybe after high school we can kick it you know? Like a friend, 'cause that's how he is to me. Like he'll joke around with a funny joke. It could be a dirty joke or whatever but we can do it back. You don't see him as a teacher no more, more at your level, you know?

When teachers cross the student-teacher line, it affects their classrooms, and according to students, teachers are less able to discipline their classes. This last student quote serves not only as an example of a student thinking about his teacher as a friend, but as an introduction to the next property of students' perception of teachers, respect.

Level of Respect Students have for the Teacher

When asked about the classroom environment created by teachers, students often talked about the level of respect students have for teachers. The level of respect students have for teachers was evident in the following ways: whether the class was taken seriously by students or seen as a joke; whether the teacher was seen as hard working and passionate about teaching or just doing a job and going through the motions; whether the teacher was viewed by the students as genuine or insincere; and whether the students typically worked with or against the teacher.

Taken seriously. Teachers who were with high cheating rates and poor learning environments were not well respected by students who were interviewed, and were commonly referred to as “jokes.” This was also evident during classroom observations. A common occurrence in two of the classes I observed was for students to joke about teachers and make fun of them whenever their backs were turned. Even when teachers were looking at students, the students would exchange knowing glances and roll their eyes. As one student put it, “They’re mean to him because they think it’s funny.” The teachers in these classes did not seem to notice they were the subjects of jokes. When I asked one student whether she thought that the teacher knew how his students felt about him, she replied,

My sister, for example, she took [this teacher’s] class and it was a joke. And I was like “yeah?” And so I got in the class and he started to assign a lot of homework so I was like, “oh, maybe he’s not.” But then I realized that he actually was a

joke. And maybe he does know because people would be joking around with him.

No, I don't think he knows. I think he thinks he's a good teacher.

When I asked a student about her classmates' feelings towards her teacher, she had this to say:

It's like he's a joke, he's not taken seriously at all. It's like he doesn't know how to teach. He's like a teacher that gives a lot of homework out to replace him as lecturing or something, or me understanding it. Sometimes he knows what he's talking about, but it's like I could think that on my own. Can you tell me something different? You know what I mean? And then, when you take the test, he gives us like no tests, where it's like, "oh here's the paper and here's what I learned." It's a bunch of, it's literally like five papers with diagrams and everything which is understandable, but like how are we going to learn when he doesn't do anything at all? No, people don't respect him.

Another student explained to me that his teacher tried to enforce the rules but was not able to do so adequately. The students did not take the attempted enforcement seriously and felt the teacher was going through the motions of teaching, creating conflict in the classroom environment.

He gets a little too friendly with his infractions and that makes kids not respect him because they feel that...well, he just gives us those so we think that he's in control or something, but it doesn't. I guess that's what it is, because they don't respect him sometimes.

When I asked another student why she and her classmates think of this teacher as a joke she responded:

I don't know. I guess like when we were freshmen, we would hear from the sophomores last year—the juniors now—and they used to play all these jokes on him and stuff and he would just go along with it. So when we go into that classroom we already know it's going to be a joke, it's not going to be a serious class.

When I asked this student to describe a serious class, she happened to talk about the teacher I observed who had a positive learning environment and low cheating rates. She said that when going into that class, she knew it would be hard and that the teacher was challenging, and emphasized the importance of the teacher being taken seriously. “I think the more that you are taken seriously then more that your students will want to hear what you say.”

Work ethic and passion. How the students perceive their teacher's work ethic and passion for teaching also impacted the level of respect students had for their teacher. Teachers who were seen as hard working and passionate about their jobs were more respected. When I asked one student about how teachers can earn the respect of their students, she responded:

Just being interested in the subject because you can see that the teacher is so passionate about it. I think that's another thing. There's some teachers that you think are just teaching you as a job and not as like a passion sort of thing. And if you can see that the teacher likes what they're doing and is really interested in

trying to teach you then I think that adds to the respect for them. Like you can tell that [Teacher A] is totally into what he teaches. And so, like when you see him in the beginning of the year and he tells you like straight off, “okay you’re not gonna mess around in my class, and I’m not afraid to give you all infractions for anything that you do wrong.” And then after that you think, “okay maybe we should see how this guy really is before we start trying to get away with stuff.” Then you see that he actually has a real passion for teaching and you develop at least a minor interest. There were people in that class that like hated [that subject]. Even they developed like a small interest in the subject just because of how much passion the teacher has.

Another student described the effect her teacher’s work ethic had on students in that class.

I’m not trying to kiss butt or anything but he works really hard to help us. He’s really dedicated to them.... Everyone thinks that he works really hard for us. ’Cause he does, he honestly does. And if we don’t understand it, sometimes he can get frustrated and sometimes he can have bad days, but it’s nothing personal. He works really hard.

Genuineness. Respected teachers, in addition to being taken seriously and being seen as passionate and working hard, were also described by their students as genuine. One student felt that his teacher was respected because of his honesty and sincerity, and this respect led to less cheating in the teacher’s classroom.

But I think if you respect a teacher enough, you're not going to cheat in that class. Just because if they're not phony, if you don't feel that they're phony, if you don't feel that they are trying to take something away from you or purposefully do something to you, to hurt you. Or they are being mean or something, then you are going to cheat because of like payback or something. But if you respect a teacher enough and they are really working to help you, then you are not going to try and cheat.

The data indicated that conflict was another common finding in classes where teachers were not respected by their students. Typically, students were working against, rather than with, teachers they did not respect. During observations, I witnessed many arguments between the teacher and students; arguments over assignments, due dates, and rules consumed class time. The following were examples of students working against their teacher: students interrupting a teacher to ask an unrelated question about the restroom or window, students waiting for the teacher to make a mistake and then making fun of the teacher when it occurs, students manipulating the teacher, and students constantly trying to talk the teacher out of decisions. In one class, I watched as the bell rang 10 minutes earlier than class was scheduled to end. The students were surprised, stood up, quickly packed their bags, and ran for the door. The teacher, looking surprised, asked some students and me about the schedule. When he learned that it was a mistake he called them back to their seats. The student reaction was over-exaggerated disappointment, complete with a loud, "aaaahhh."

A student described the conflict and tension in her class in the following way: “there’s a lot of tension in the class because every time she wants us to do something, everybody’s really automatically rebellious towards it. They’re usually completely against the idea.” Another student explained how her classmates continually tried to manipulate the teacher.

They probably feel like they can manipulate her. Like if she gives an assignment and everybody is arguing against it or everybody says, “Okay, we just won’t do it.” They feel like she’d just cancel it or they’d be able to manipulate her. I don’t know why they keep doing it so late in the year because it hasn’t really worked.

Teachers who worked hard, were passionate about their jobs, and were genuine earned the respect and cooperation of students. These students in turn worked harder, took class seriously, and, as described in the next section, cheated less.

Students’ Perception of Teachers and Cheating

The qualitative analyses of this study suggested there is a strong connection between students’ perception of their teachers and willingness and ability to cheat. When students perceived teachers as competent, aware, engaged, passionate, hard working, a teacher and not a friend, and worthy of respect, they were less prone to cheat. Students who viewed their teachers as oblivious, apathetic, disconnected, a buddy, a joke, going through the motions, and undeserving of respect were more likely to cheat. One student explained how his teacher’s obliviousness allowed him to cheat.

I went up during a test to go ask him a question and he had the answers right in front of him. It was facing me. Right when I walked up to the front of his desk.

There was the test, like right there big and wide. And you can just look down and everything is written on it. And he was looking at it and just looked at my paper telling me what I was asking and the whole time I was looking at the answers on his paper.

All of the students interviewed agreed the lack of respect for a teacher causes students to want to cheat. When I asked one student why he and his classmates cheat with some teachers and not with others, his response indicated that it had to do with, “the amount of respect the students have for the teacher, and how much we think we can get away with.” A second student echoed this sentiment with, “a lack of respect for her when she’s not ready for the class leads to a lot of cheating.” A third student agreed that lack of respect for a teacher was a major reason students cheat.

I think that students cheat with some teachers and not with others for several reasons. One, availability. If students can cheat more in one class, they are going to. Another is a respect thing. If you respect a teacher more, they are not going to cheat in that class. You’re not gonna want to cheat.

When I asked a different student why some students cheated for one teacher and not others, she responded:

Well, I know that less cheating goes on in classrooms where I feel that students respect the teacher more. Like, well, that’s how I feel, like during a class, like if a teacher demands a certain amount of respect and the students feel that they have to give it to them, I think what kind of ends up happening sometimes is that the student ends up respecting the teachers. And if the students have that kind of

respect for the teacher of the class even if they're not necessarily interested in the subject, they try and work in the class and they don't try and cheat the teacher out of like their grades and stuff. They're legitimate grades. I think a lot of people in the [subject] class don't have a lot of respect for [Teacher A] as a teacher.

Like, they like her as a person but since they don't agree with her teaching methods for the class and they feel like she's unwilling to change her methods then they don't have respect for her as a teacher. So, then like during a test they don't feel bad when they cheat on all of her tests. Or when they don't go home and do the homework or in the class before when they're just copying whatever is in the book. And then as opposed to other classes, like [teacher B] he was able to gain their respect....I think it's for the same reason that while other teachers are lecturing that people pay attention like...I feel bad saying it but I think it's because they have more respect for some other teachers. Like, maybe [Teacher B]; like when they're down there and he's lecturing, they don't seem to talk. And when he like gives those quizzes, like they don't try to cheat because I feel like they have more respect for him than they do for [Teacher A].

Similar to the constructs of order and organization, involvement, and teacher control, a student's perception of a teacher is connected to student cheating. Students are more likely to cheat in classes when they feel their teacher is oblivious, viewed as a friend, or not respected. These categories do not occur in a vacuum, however. The classroom environment is complex, with different variables interacting with each other.

The next section briefly examines the relationship between order and organization, involvement, teacher control, and students' perception of teachers.

Relationship between First Four Qualitative Findings

Before the fifth major finding is presented, it is important to explain the interrelated nature of the first four findings. Order and organization, involvement, teacher control, and students' perceptions of teachers do not occur in isolation. In the quantitative results, these factors were significantly correlated with each other, representing their connectivity (see Tables 2 & 6). In the qualitative analyses, these four factors were often observed and described in ways that illustrated their interconnectivity, and in other cases it seemed clear that a teacher's proficiency in one area of the classroom environment alleviated difficulties in other areas. The results of this study indicate that the four categories discussed above are all important characteristics of the classroom environment and all were connected to student cheating. These categories do not, however, operate independently of each other. One of the difficulties in separating out and analyzing categories in this kind of qualitative analysis about the classroom environment is there is overlap among these categories, and the categories tend to have a dynamic relationship with each other.

Environments that appeared to be well ordered—those environments where students were expected to act orderly and polite—would also typically demonstrate high levels of teacher control. When students were involved in class, they were less likely to act in a disorderly fashion. When students respected a teacher, they were not willing to challenge the teacher's control. Students had a hard time respecting teachers who were

not organized and who did not establish order in their classrooms. When students viewed their teachers as oblivious, they did not respect them. Teachers who were oblivious did not know that students were out of control and disorderly. A student's description of a typical day in her class provides a good example of the interconnected nature of the classroom environment categories.

Okay, the bell rings, so we all go in, right? And we have a new seating arrangement like recently, the fourth quarter, and so we can sit by all our friends, but we tricked him into it kinda. And so the bell rings and we sit down. He tells us to be quiet for like 15 minutes. We finally be quiet and he starts lecturing. And we're all so bored out of our minds. Everyone is either doing something else or just sleeping or just pretending to listen. Then, after a while, we start getting restless and start talking to our friends and then the bell rings and we go to our next class. Everyday. Or we watch a movie, or sometimes we just straight out talk.

In this example, the teacher's lack of control allowed students to delay the beginning of class. The students' lack of respect and the teachers' obliviousness led to students being able to trick the teacher into a new seating chart. The lack of student involvement led to students talking in class, and the teacher losing control. Another student described the interaction of the classroom environment characteristics as follows: "When we're doing things, we get down to business, you know? There is no fooling around. If there's fooling around, it will be a couple of words but after that, back to business."

In the classroom that I observed with a positive classroom environment and low cheating rates, the teacher effectively used all four of the classroom environment categories. For example, the bell rang and class began promptly; the teacher quickly took attendance and conducted other class business. He organized students into groups of three, and then students moved to three different parts of the room. This all happened in the first 2 minutes of class. Once students moved to their respective parts of the room, the teacher realized the groups were too big and created a fourth group. Students were working on term papers, and were instructed to read each others' introductions. The teacher clearly and articulately explained how and why he wanted the students to do this task. While students read each others' papers and provided feedback, the teacher moved from group to group. The teacher checked each group to ensure they understood the directions and joined some of the conversations. This allowed the teacher an opportunity to redirect a group that was moving in an unintended direction. When one group's critique of a paper appeared to be mean spirited, the teacher immediately intervened. In a very stern voice, he informed them that, "there's a difference between critiquing and making fun." The group reacted right away, apologized to the student and productively moved on.

In another group, a student was acting very defensively upon receiving feedback about her introduction. The teacher gently and effectively encouraged her to listen to what her group had to say. As the activity progressed, the teacher continued to walk around the class, answered questions, clarified expectations, and occasionally stopped everyone to address common concerns. This activity lasted 20 minutes and when it was

over, the teacher was prepared to begin the next activity. The students moved quickly and quietly back to their seats, and were ready for the next set of directions.

In this example, the teacher's order and organization not only kept the students involved, but alleviated any control issues that might have cropped up in other classes. His awareness and prompt attention to students' failure to follow directions kept students on task and involved. The respect students had for the teacher allowed the teacher to deliver a quick, reasoned, and effective response to the students who were offensive rather than critical. The teacher's successful ability to create and maintain one positive characteristic of the classroom environment helped maintain the others. Order and organization, involvement, teacher control, and students' perception of the teacher were all critical aspects of the classroom environment; in this study, all of these categories proved to be important factors of the classroom environment that impacted student cheating. The next section discusses qualitative findings that were larger and more systemic than the classroom environment.

Larger Systemic Issues

Thus far, results discussed in this chapter include factors related to the classroom environment. Classrooms, however, are not isolated from the larger educational environment. Environments of the classroom are not only affected by teachers and students in those classrooms, but are influenced by larger institutions in which these classes exist: institutions such as the school; the district or diocese; local, state, or federal governments; colleges, universities, and other post secondary institutions; and society in general. External rules, expectations, and norms about education and schooling are

imposed upon the classroom and can have a significant influence on the classroom environment. In addition to the classroom effects mentioned above, the analyses of student interviews and classroom observations resulted in an important finding related to larger systemic issues. The following findings related to these larger systemic issues focus on the difference between students' opportunities to cheat and their desire to cheat, students' perception of the purpose of schooling, their belief that school is a game, and the supreme importance that students place on their grades. The first property discussed will be the difference between the opportunity and the desire to cheat.

Difference between Opportunity and Desire to Cheat

While both the quantitative and qualitative analyses indicated that the classroom environment does indeed impact student cheating, it seems to have its greatest impact on students' ability to cheat, not necessarily their desire. I asked every student about strategies teachers can use to reduce cheating in classes. Student suggestions included increasing teacher control and improving testing procedures. These kinds of changes, however, only impact student's ability to cheat. Some students even indicated that no matter how positive the classroom environment is, if students think they can get away with cheating they will.

They cheat in [Teacher A's] class because they can. They don't cheat in [Teacher B's] class because they can't. Does that make sense? It's not because they hate him or anything; it's just that if they do, it they'll get caught. But in [Teacher A's] class, you won't get caught at all.

Fear of getting caught seemed to be the biggest deterrence to cheating. When students believed they can cheat without getting caught, they did. As one student put it, “just the fact that it’s so easy, it’s there, you have to. Not forced to, but you will take advantage of it.” Another student agreed.

They don’t cheat in [Teacher B’s] because I think they’re scared to get caught. I think in [Teacher A’s], they can cheat because they know that they can get away with it. If she tells us to read a chapter and they don’t read it, they know it’s okay. They don’t think “okay, I have to go home and read that chapter because there’s a quiz tomorrow.” They just think “okay, well, it will be easy to pass a quiz without reading because I can just cheat.”

One way to look at the difference between opportunity and desire is to examine student attitudes about cheating on homework. In the quantitative analyses, cheating on homework proved to be the most frequent type of cheating. Even positive learning environments had high cheating on homework scores. What typically separated low cheating rate classes from high cheating rate classes were test cheating factors. The qualitative analysis concurred with these findings. Students almost universally cheat on homework because they believe they can, do not believe that this constitutes a serious form of cheating, and feel little to no guilt about cheating on homework. When I asked one student about student cheating in the class with a positive learning environment, she responded:

Well, I haven’t seen any [cheating]. Well, I don’t cheat because I think I can do [the work]. I think, “why should I depend on someone else when I’m capable?”

And I haven't heard or seen anything to do with that. Okay, there's a difference between, "oh, I forgot to do homework," and someone copied off of you. There's a lot of that because some people just forget.

When I asked a different student about why he thought students cheat, and whether or not he thought it was primarily the students' fault, he responded:

No, not all. 'Cause another reason students do it is because of how much work they get. Like they come to school and, "oh, I forgot to do that." They just pull out a piece of paper and, "I'll do it real quick." So, it's also the amount of work they get, and sometimes if the teacher is not paying attention to the cheating during tests and stuff. It's partly that, too. Like the students will have an opportunity.

Quantitative analyses for this study indicated that students rarely get caught for cheating. The last question on the AIS asked students to indicate how many times they had been caught cheating by their teacher. Even though 92.4% of the students surveyed admitted to cheating at least once in class, only 8.3% were caught. The qualitative analysis suggested that while the fear of getting caught keeps many students from cheating on tests, they are not afraid of getting caught cheating on homework so they do. Often, when students have the opportunity, they will cheat. When I asked students what teachers can do to eliminate students' desire and not just the opportunity to cheat, they were short on suggestions. One student even admitted that catching students only changes their tactics, not their desire. "Okay, for example, the more people get caught, the more it stops kinda, but it's not gonna stop. The more people get caught and the way they get

caught they're like 'okay I'm not gonna get caught that way again.'" The only factors mentioned above that seemed to affect students' desire to cheat were level of student involvement and the level of respect that students have for a particular teacher. Everything else discussed thus far only addresses a teacher's ability to limit cheating opportunities.

The ability to affect students' desire to cheat is a significant issue for educators. Addressing the issues surrounding classroom cheating, including students' desire to cheat, will necessitate substantial systemic changes, many of which are not within the control of classroom teachers. A student's desire to cheat is connected to other systemic issues mentioned below. The next section addresses students' perception of the purpose of schooling.

Student Perception of the Purpose of Schooling

The second finding related to large systemic issues has to do with the purpose of schooling. The purpose and goals of education have been debated by educators for decades. Some posit that the purpose of school is for the cultivation of the liberal arts and to give people knowledge and skills they need in order to participate in a democratic society (Bellah, 2004). Others would suggest that education is the search for new knowledge and the development of critical thinking skills needed to advance science (Bellah, 2004). Some would argue that schools are important because they are giving young men and women knowledge and skills necessary to perform in college and the workplace (Bellah, 2004). One of the primary purposes of education for religious schools

is to impart the faith onto the next generation while preparing youth to participate in the faith community.

One of the most contentious purposes for education is related to college and jobs, and the function that schools play in capitalist economic systems. In 1976, Bowles and Gintis published *Schooling in Capitalist America*, their widely read and controversial book that argued schools, rather than being the great equalizer, are actually reproducing social- and class-based inequities. Bowles and Gintis (1976) posited that schooling has become a powerful socializing force that teaches students how to fit into capitalist structures, norms, and values. Schooling provides knowledge on how to enter the workforce and interact at the workplace. They claimed that skills schooling teaches actually serve to recreate the larger unjust and inequitable systems in which schools exist.

Many students' responses to questions about the nature of school centered around their eventual placement in the job market. Students understood it was important to do well in high school so that they could be admitted to a good college. Good colleges were important because they led to a good job. Good jobs were viewed as important because they resulted in higher income. One student even explained this preparation for a good job as a right.

It's the students right, especially if you're paying to go to a private school. It's a student's right that if they want to learn, that they should be able to get the good grades that they want to get so they can go into college and get a good job and I think that that's almost a right.

Education and learning were only viewed as valuable insofar as they guaranteed a certain placement or rank in post-secondary schools and jobs. School was important, one student explained, “because you are always told that you have to get the best grades that you can get and that’s going to affect you forever. No matter what. For the rest of your life they are going to affect you.” Unless the class content demonstrated clear and direct connections to college success and job placement, students were not interested. Job placement and preparation were ultimate goals; nothing else was worth the time. When I asked one student how teachers could get students to want to learn the material, he seemed to echo Bowles and Gintis (1976), commenting that school was more about molding students to society’s expectations of what they ought to be.

I have no idea, because if a student is going to learn something, they are going to have to want to learn it by themselves. With any class. But I don’t know how you can get them to want to learn something they don’t find interesting. It is usually about building people to someone else’s standards, to keep our wheels turning, and that’s not interesting.

Another student explained the importance of doing well in school in the following way.

To get into college to get a better education so you can set yourself up in life, you know? ’Cause if you just come straight out of high school and you don’t go into something like radio or sports or jobs like that, you could end up at McDonald’s. ’Cause now a days you need a good education to get money. ’Cause sometimes four years in college isn’t even cutting it now.

A third student explained the importance of school similarly.

It can get you into college, which will impact what jobs you're going to get. So, what you are doing now has a lot to do with what you are going to be doing 20 years from now, 30 years from now. So you have to succeed now.

When education and learning are threatened by the approach to schooling outlined previously, students lose sight of why learning certain information and attaining certain skills are critically important. When students perceive the purpose of schooling as college preparation and job placement, they readily rely on cheating rather than learning to attain those goals. Another common student response related to systemic issues was students' view of school as a game.

School as a Game

During the interviews, students frequently likened school to a game. In this game there are rules, both explicit and implicit, and winners and losers. The rules of the game are clear to most students, but the rules do not always parallel teachers' or schools' rules. The stakes of the game are high. Students who are better at the game score higher grades, win better awards like scholarships and college acceptances, and are even ranked best to worst by academic institutions. Common student descriptions of school and class included references to games and playing; part of the game includes succeeding, and part of the game includes beating the teacher.

I can play with a teacher a lot and in the past in her class she wouldn't do anything. I can play with them by asking them questions that I know that they don't know and I like to toy with teachers, it's my thing but I can never speak out against a teacher.

Another student likened her class to a system.

It's all like a system. Some people that care about that topic will argue over it so that the rest of the class can start talking and then the next day it might be on vegetarianism and [someone] will start going off and she'll be arguing against someone else and then the rest of the class can start talking again.

The students learn successful game playing strategies early on in their educational careers. Some of these strategies, while having little to do with knowledge and skills, are usually considered acceptable, including being respectful to the teacher, participating in class, turning assignments in on time, and even attending expensive test preparation classes. Other strategies that students readily rely on to compete in the game are not considered acceptable, like cheating

Students talked about cheating as a strategy to do well in the game.

So it's fair game. I'd say that every student thinks its fair game that cheats, that likes to cheat, knows how to cheat, I'd say fair game. Because there are different levels of cheating, I'd say. There's people that know how to cheat, that can get away with it very easily, like I was talking to you about. People that know really how to cheat; you know, they don't look obvious, it's really like slow and its eye contact, and they give signals, you know? Teachers can't see that. But there's other people who'd be like, "hey, I need the answer." Then they'll get caught you know, or some people would. Yeah, I would say it's a different level you know. There's good cheaters and bad cheaters. There's a good way to cheat so that you won't get caught almost, and a lot of people know how to do that. So the teacher

sits in back. Once they sit in back and get on the computer or start grading or something-fair game. Fair game. I'd say in every class, every class.

One student explained to me how fast students will turn on a teacher in order to do well in this game.

They'll turn on you so quick. Especially junior/senior year they'll turn on you so quick. Like if they need to pass a test, they'll cheat for sure. I know kids in my class that cheated all last year and never got caught. All last year. Half the class does, you know? It's bad, but that's what they say they gotta to do in order to pass.

Other students actually enjoy cheating the system. Winning without putting in the appropriate effort is gratifying for some.

I think they like getting credit for not putting in any work into it. It's the feeling of like, "okay, I went home last night I didn't do anything, I was watching TV all night, I didn't put any of the work in but I got an A on the quiz." 'Cause they just cheated. And they like getting credit for something they didn't do.

Cheating, however, is common in many of the other games that students both participate in and witness. Many students play video games. Most current and popular games include ways of entering sequences of buttons in order to access cheat codes. These cheat codes do a variety of things in these games, including making the characters in the game more powerful and unlocking secret levels. The point is that these cheat codes have become an acceptable means of successfully completing these games.

Other obvious examples of commonly accepted cheating come from the worlds of athletics, politics, and finance. The students now live in a world where it is commonly understood that many of the world's top athletes bend the established rules of the sport to win. Whether it is enhancing performance with drugs, bribing players and officials, or teaching players how to break the rules of the game without the officials noticing, cheating is a common occurrence in sport. Students have witnessed elected officials bend election rules, receive bribes from lobbyists, and even redefine words to win the political game; and financial institutions have been caught playing with numbers to make their institutions look better, a strategy that typically benefited the executives of those companies to the great detriment of the typical employee. It should be no surprise for educators to learn that their students, when seeing school as a game, will readily rely on cheating as part of a winning strategy.

Education being viewed as a game detracts from learning, increases the importance of winning, promotes capitalist values, and threatens justice and fairness. Cheating is often misunderstood by educators as students not caring about school. Cheating is actually evidence that students do care, but care about the wrong things. "I always thought that if they really do care then they should study, but if they didn't care then they wouldn't cheat at all, they would just fail." Educators have recreated capitalist systems in their schools, systems where points and rank have become more important than skills and knowledge. Until the system changes and school is no longer viewed as a game, the classroom environment will be adversely affected and student cheating will

continue to be a problem. The next section will deal with the most common method teachers use to score the game-grades.

Supreme Importance of Grades

The most common student response related to systemic issues concerned grades. Most United States educational systems, including the one that is the subject of this study, use five letters (*A, B, C, D, & F*) to communicate to parents, counselors, colleges, and others about how well a student is doing in a particular class. The lesson has not been lost on students. These letter grades have become the single most important motivator for students. When I asked one student how important grades were to students, he responded, “Very important, very important. Top of the list. Most of the students, probably 99% of it.” When I asked this same student about learning, he responded, “Learning? I’d say everyone just wants the grade. Some of the stuff is interesting to them, but then they ultimately want the grade.” When I asked the students about grades, the importance of these letters trumped everything else including ethics, learning, fairness, and feelings for the teacher. Grades were the most common reason for cheating listed by students.

Cheating is a really stupid subject. But like everybody does it like, not bad, but, I can’t explain it because I do it. If I need it done, it’s gotta be done. You need the grade. You won’t graduate if you don’t have the grade.

Another student agreed.

Yes, in all classes I guess people cheat just for the grade. The reason I would cheat I guess is just for the grade, or maybe I guess to help someone. Other than

that, people don't really cheat for any other reason. It's mostly for the grade.

People don't usually mean to harm the teacher or do something bad.

Not all classes equally emphasized grades, and teachers do have a limited ability to counter the systemic emphasis on grades. The classrooms that put more emphasis on learning and skills and less emphasis on grades actually had less cheating. When I asked one student from the classroom with a positive learning environment and low cheating rates about the grade in her class, she responded:

For me, I don't really know what my grade is; I mean, I know it is a high grade but we don't really pay attention to our grades, but we pay attention to like, "oh, we did really good on this essay." You know what I mean? Like, "oh we did really good on this test." We don't really add it up, but after a while it does add up because it's our report card grade, but we don't really notice it. Well, I can say that I don't notice it; I didn't really know if I had an A or a B. I don't know, every time I turn in an essay, I've been really nervous to turn it in and then when I get it back and it's good it's like, "whew I did it." You know?

Passing is not the only pressure when it comes to grades. The difference between an *A* and a *B* can be enough to cause students to cheat.

Okay, I had a friend and he was a straight A student and he was just complaining. He was like, "oh, my God, this is hard and I can't." He's not blaming it on the teacher, he's not like, "the teacher didn't teach me," no, he's just like "it's hard," you know? I don't know. He can't get a B, he needs an A, he needs an A. 'Cause they're thinking about college or, the university they want to go to. So I guess that

everybody has their own little mentality of cheating. If you're the one that's always getting the Cs or Ds, you know, you're just kinda whatever. If I get a D, I'll pass it. If you get those As and Bs, you're always like, "oh no, I have to get an A." You know what I mean?

I listened to students explain elaborate cheating techniques, ranging from group efforts to steal tests to cheat sheets tucked under a skirt where a teacher would not look. Students care about how well they do in school; if they did not care, then they would not go through so much trouble to get good grades. Students insisted that they cheat to pass and to get good grades. When I asked one student why he thought his peers cheated, he explained that fear of failure was reason enough.

To get by, you know? And they don't want to get it wrong, you know, because of the bad grade. So it's like, "okay, I'm just gonna take this one," and then it comes to another one and then, "oh I'm gonna take that one." 'Cause they don't want to fail. Students are scared of failing I know there's some students, they don't care about school, but a lot of students, they care. And they're scared to fail. I personally am one person who is scared to fail.

Another student suggested that cheating can be reduced if the pressure for grades was less.

I think you can stop people from wanting to cheat by making it less pressure; by making the situation less important, grades wise. Instead of it seeming so important that you have to cheat in order to make that grade. Make it more about

how well you're doing and learning. And not about how well you're doing now is going to affect you later.

Many of the root causes of cheating lie within educational systems, and these systems are more difficult for teachers to alter than their own classroom environments. Somehow, educators have allowed grades to become divorced from learning. One of these root causes could be the system's overemphasis on scores and grades. Until school systems are changed to more accurately acknowledge knowledge and skills, students will continue to cheat. As long as the system places more importance on letters than learning, students will put their efforts into attaining those desirable letters in the easiest way possible, which for many of them means academic dishonesty.

Summary of Results

Classroom environment research has demonstrated that environments created by classroom teachers have a significant impact on education. Positive environments have been linked to higher levels of student performance, motivation, and attitudes (see chapter 2). Results of this study indicated that the classroom environment also has a significant effect on levels of student cheating; the more positive the environment is the less students will cheat. The analysis of the quantitative data suggested that seven of the subscales included in Trickett and Moos's (2002) CES are significantly related to levels of classroom cheating, including: involvement, teacher support, task orientation, competition, order and organization, rule clarity, and teacher control (see Table 6). The strongest and most consistent quantitative findings included involvement and order and organization. As the score on these factors went up for each student and/or each teacher's

classroom, the levels of reported cheating for each student and/or each teacher's classroom went down.

Student interviews and classroom observations also indicated that the classroom environment impacts student cheating. Analyses of the qualitative data yielded five major findings (see Table 1). The first three findings correlated with three of the CES subscales: order and organization, involvement, and teacher control. When teachers create classroom environments that lack order, environments that are poorly organized, environments that do not engage or involve students, and environments that the teacher cannot control, then these teachers also create environments where cheating is likely to occur.

The fourth qualitative finding, students' perceptions of teachers, indicated that the level of student cheating is affected by students' perception of their teacher's consciousness, whether or not they view their teacher as a friend, and how much they respect the teacher. The fifth and final qualitative finding dealt with large systemic issues. Changing students' ability to cheat in class was not the same as changing students' desire to cheat. Additionally, when students view the purpose of school as job placement, view school as a game, and value grades above all else, they will cheat if given the opportunity. Until these systemic issues are dealt with, any successful attempt to decrease student cheating will only address the symptoms of cheating. Systemic changes to the nature of schooling are necessary if educators are going to address deeper causes behind students' desire and willingness to cheat. The next chapter, discussion and conclusions, further discusses the implications of the findings detailed above.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

This chapter discusses the findings detailed in the previous chapter. This chapter begins by synthesizing the quantitative and qualitative findings, and uses that synthesis to answer the three research questions. Next, the chapter discusses the findings of this study and compares them with findings of other studies on cheating and classroom environment research present in the literature. This chapter then offers recommendations for future research, and recommendations to policy makers and educators. It will conclude with a discussion of the implications and significance of the findings.

The purpose of this study was to better understand how cheating is affected by the classroom environment. The three research questions that this study addressed were:

1. What is the relationship between the classroom environment and student cheating?
2. In what kinds of environments does cheating flourish, and in what kinds of environments does academic integrity flourish?
3. What can classroom teachers, and school administrators do to alter classroom environments in order to focus on learning and integrity, effectively reducing cheating rates?

The mixed methods approach included gathering data on classroom environments and student cheating. Results indicated that the classroom environment had a considerable impact on student cheating. The quantitative portion included two questionnaires, the Classroom Environment Scale (CES) and the Academic Integrity Survey (AIS). Quantitative analyses of the data found that teacher support, task orientation, competition, rule clarity, teacher control, and especially order and organization, and involvement were significantly related to rates of student cheating (see Table 6). The qualitative portion included data gathered from classroom observations and student interviews. The qualitative analyses of the data generated five major findings; order and organization, involvement, teacher control, students' perception of teachers, and larger systemic issues all influence student cheating.

Addressing the Research Questions

Research Question 1: What is the Relationship between the Classroom Environment and Student Cheating?

Data analyses strongly suggested a negative relationship between the classroom environment and student cheating (see Tables 2, 6, & 7); positive classroom environments have less occurrences of student cheating than negative classroom environments. The quantitative analyses indicated areas of the classroom environment that having a significant relationship with classroom cheating were: teacher support, task orientation, competition, order and organization, involvement, rule clarity, and teacher control. The order and organization subscale was consistently the most significant finding followed by involvement (see Tables 2, 6, & 7). Teachers who maintained order in their

classrooms, were organized, and kept students involved in class encountered less student cheating.

Analyses of the classroom observations and student interviews also indicated a negative relationship between the classroom environment and student cheating. The qualitative analyses specifically identified order and organization, student involvement, teacher control, and students' perception of teachers as classroom environment factors related to student cheating.

Research Question 2: In What Kinds of Environments does Cheating Flourish, and in

What Kinds of Environments does Academic Integrity Flourish?

Student cheating flourishes in classroom environments that are disorderly, disorganized, discourage student involvement, and lack teacher control. Cheating also flourishes in environments where students feel their teachers are oblivious, where students think of their teacher as a friend, and where students do not respect the teacher.

Conversely, academic integrity flourishes in classroom environments that are orderly and organized. Cheating is less likely to occur in classes that are planned well, in classes where students are expected to behave in an orderly fashion, in classes where students are engaged and involved in course content, and in classes where there are consistent consequences for breaking school and classroom rules. Academic integrity also flourishes in classrooms where teachers are alert and aware, act as teachers and not as friends, and receive the respect of their students. Finally, cheating is less likely to occur when teachers focus on students learning content knowledge and skills, rather than students receiving high grades or scores.

Research Question 3: What can Classroom Teachers and School Administrators do to Alter Classroom Environments in Order to Focus on Learning and Integrity, Effectively Reducing Cheating Rates?

This third research question asked about changes to classroom environments that focus on learning and integrity in order to reduce student cheating. According to the data, student cheating rates can be decreased by either limiting students' ability to cheat or by diminishing students' desire to cheat. Findings of this study support the basic assumption of this third research question; the data report there is a big difference between reducing students' cheating rates and reducing students' willingness to cheat. The answer to this question will contain three parts; the first part will suggest five changes to classroom environments to effectively reduce students' ability to cheat. The second part will suggest five changes to classroom environments that reduce students' desire to cheat by focusing on learning and integrity. The third part addresses the administrator's role in reducing classroom cheating.

Reducing Students' Ability to Cheat

There are many relatively simple changes that teachers can make in their classroom environments to effectively reduce students' ability to cheat. First of all, teachers need to create well ordered classroom environments. Teachers also need to insist that their students behave in orderly and polite ways. In orderly classroom environments, students are ready to begin class at the outset, are responsive to their teacher's instructions and requests, and talk in turn.

Second, teachers should improve their organizational skills. Organized teachers are able to plan, communicate, implement, and assess purposeful, meaningful activities and assignments. Organized teachers are also able to adequately manage non-instructional tasks like attendance and student summons without disruption or chaos.

Third, teachers need to vastly improve the order and organization of their tests and testing procedures; tests need to be error free with clear directions. Teachers should consider writing multiple versions of tests and writing tests that require students to write words, sentences, and essays, rather than fill in bubbles on a Scantron. During the test, teachers should insist on absolute quiet, spread student desks out as much as possible, and make sure that students do not have any unauthorized material out during the testing period. Teachers also need to reduce, as much as possible, any distractions arising during the testing period. These distractions create opportunities readily capitalized on by students. Finally, teachers need to be alert and aware during testing periods, they should not sit at their desks and grade, or work on their computers. Rather, teachers should walk around the room paying close attention to student behaviors; especially true during the most fertile cheating time, the last 10 minutes of the test.

Fourth, teachers need to be in control of their classes. Teachers need to consistently enforce rules that they establish in their classrooms, as well as rules established by the school. When teachers are strict, fair, consistent, and tend to the seemingly little things, like students calling out in class and dress code violations, classroom environments encounter less serious problems, like cheating. Conversely, when teachers are permissive and inconsistent in enforcing discipline and rules, students

are less likely to fear getting into trouble and far more likely to participate in dishonest behaviors like student cheating.

The fifth and final suggestion for part one of this answer has to do with changing how teachers are perceived by their students. Findings of this study suggest that when teachers are perceived by students as having low levels of consciousness and are thought of as more of a friend than a teacher, students cheat. Many teachers need to dramatically raise their level of consciousness to correct this problem. For example, teachers cannot be oblivious to the goings on in their classrooms; when teachers are oblivious, students know they can get away with cheating. When students think of their teachers as a friend, they are more likely to cheat and less likely to fear consequences of getting caught. Teachers can reduce their students' ability to cheat by raising teachers' level of awareness and by maintaining a proper student-teacher relationship with students.

Reducing Students' Desire to Cheat

The five changes suggested above include teachers creating more positive classroom environments through improving order, organization, testing procedures, level of control, and the image they present to their students. Changing classroom environments according to these suggestions can reduce students' ability to cheat. None of these suggestions, however, addresses integrity, learning, or students' desire to cheat. The second part of this answer to the third research question will focus on changes in the classroom environment that will reduce students' desire to cheat through focusing on learning and integrity.

Findings of this study indicated the nature of traditional educational systems are problematic and unintentionally create elements of school and classroom cultures that foster student cheating. Systemic elements of school and classroom cultures that foster student cheating include: schools being viewed as job training and placement, schools being seen as a game or a competition, and the highest importance on high scores or grades. When classrooms and schools are dominated by these ideologies, students are far more willing and likely to cheat. It is difficult for teachers and administrators to mitigate these systemic problems, but not impossible.

There are five suggested changes teachers can make to their classroom environments to minimize effects of systemic problems and effectively address students' desires to cheat. First of all, teachers should get students more involved in class. For example, when students are involved and interested in class, they learn more; the more students learn, the less they need to cheat. Teachers can increase student involvement through demonstrating energy and excitement about the subject matter, through creating opportunities for meaningful dialogue and collaboration in class, through insisting that students think deeply and critically about the material, through differentiating instruction, and through relating class material to students' lived experiences.

Second, teachers need to redefine student success in class as being able to demonstrate learned content and skills and ensure that assigned grades actually reflect student learning. This includes teachers creating and using authentic standards-based assessments instead of using multiple guess testing formats, and deemphasizing the importance of letter grades. Authentic assessments require students to learn the content,

rather than guess or cheat, in order to pass. The importance placed on letter grades is pervasive and can be overwhelming. Emphasis on student letter grades is supported by post-secondary institutions, parents, and the job market in U.S. culture. The findings of this study do suggest, however, that teachers can create classroom environments and assessments that redirect student motivation from grades to learning. When students care more about learning than grades, they will cheat less.

Third, teachers need to help students learn strategies for doing well in school that are not only effective, but honest. Students cheat because it is an easier means of attaining high grades than doing work necessary to learn the material. Students also cheat because they know how to do it. Teachers can reduce cheating by making learning easier than cheating, and by improving students' abilities to complete projects and assignments. Teachers may do this by improving and expanding their instructional methodology to include scaffolding the learning experience and clearly articulating directions and expectations by using tools like rubrics.

Fourth, teachers should cultivate their students' respect. Many students interviewed in this study indicated that students are less willing to cheat when they respect their teachers. Teachers can earn student respect by taking their jobs seriously, by working hard, by being passionate about the subject, by caring about students, and by being genuine and honest.

The fifth and final suggestion to teachers seeking to reduce students' desire to cheat involves teachers actually talking to students about academic dishonesty. Teachers can counter these systemic barriers to honest classroom environments by talking about it.

The validity of test and project scores and grades, fairness, and justice as they all relate to student cheating should be topics of classroom conversation. Teachers should dialogue with students about what is and what is not cheating, about educational goals and how cheating threatens those goals, and about individual and communal consequences of cheating.

Administrators' Role

Administrators also play valuable roles in reducing student cheating rates at schools. For example, administrators should support and encourage teachers to reduce students' ability and desire to cheat. Administrators should seek out and address unjust systems in their own schools. As long as students feel the system is cheating them, they will not hesitate to cheat the system. Administrators should look for ways to lessen the competitive nature of schooling for students. Administrators should improve their classroom and program assessment instruments; they also should invest in and develop instruments that more accurately assess learning, such as authentic standards-based assessments. Finally, these administrators need to clarify the school's mission and create a school culture that emphasizes learning and integrity while deemphasizing grades. The next section of this chapter compares the findings of this study to previous findings on classroom environment and on cheating.

Comparison of the Findings with the Literature

This section contains a comparison of this study's findings with findings from the current research on classroom environment and academic dishonesty. Findings from this study both agreeing and disagreeing with literature findings is discussed, including

cheating rates; demographic, achievement, and co-curricular variables; the classroom environment and cheating; and school systemic issues.

Rates

As was discussed in chapter 2, the literature reports a wide range of student cheating rates. Much of this wide range might be attributed to the different definitions of student cheating used in the research. Whitley's (1998) meta-analysis of college studies found a mean of 70.4% of college students admitted to cheating. High school rates have been found to be consistently higher (Cizek, 2001). Davis et al. (1992) indicated that college students reported that 76% had cheated in high school. The Josephson Institute of Ethics' studies (2002; 2004; 2006) also reported high levels of high school cheating. Their survey results indicated 74% of surveyed students admitted to cheating on a test in 2002, 62% in 2004, and 60% in 2006.

The current study asked students to self-report cheating behaviors for one class. Since most cheating studies ask students to self-report cheating behaviors for all of their classes, it was expected that the cheating rates for this study would be lower than published rates of other high school studies. Cheating rates in the current study, however, were actually higher than other high school cheating studies. In the current study, 92.4% of students admitted to cheating on some academic task during the current semester in the class they were asked about; 78.1% of the students admitted to cheating on a test; while 57.8% admitted to active cheating, i.e. test cheating, excluding letting someone else look on one's test.

The rate of student cheating from this study most comparable to the literature is the test-cheating rate, 78.1%, because other studies do not typically ask about cheating on homework. There are four possible explanations for the high cheating rates. First, it could be that students at this school actually cheat more than students at other schools. Second, students at this school might be more honest about cheating than students at other schools. This is conceivable since these students knew the researcher and might have been motivated and trusting enough to be honest on their surveys. Third, reported cheating rates may be higher in this study since the students were surveyed while they were still in high school, as opposed to other studies that asked college students to report their high school behavior (Davis et al., 1992). Fourth, asking students about a specific class as opposed to all of their classes might help trigger more specific and accurate memories.

Demographic, Achievement, and Co-Curricular Variables

As was reported in chapter 2, numerous variables have been considered in the research literature on student cheating. This study focused on the classroom environment, but other variables common in academic dishonesty literature were also considered in this study, including: gender, age, grade level, ethnicity, GPA, participation in after school sports, participation in student leadership, enrollment in honors or AP courses, employment status, and student's college plans.

One of the most common findings reported in the academic dishonesty literature relates to gender. Typically, men report cheating more than women (Antion & Michael, 1983; Davis et al., 1992; Genereux & McLeod, 1995; Roig & De Tommaso, 1995). As

mentioned in chapter 2, this gender difference only exists in studies that measure self-reported cheating, not observations of cheating behavior. Whitley (1998) suggested this could mean that men actually cheat more and get caught less, or women cheat just as much and report the behaviors less often. The current study found no gender difference in cheating. Gender difference in cheating would not have been surprising according to the literature, since the cheating measurement in this study was self-report. It is possible that the researcher's relationship with the students in this study enabled trust, leading to honest answers. If Whitley is correct, this student honesty, in addition to explaining high rates of student cheating, might also explain the lack of a gender cheating difference.

Two other demographic variables receiving attention in cheating studies are employment status and sports participation. Haines et al. (1986) and the follow up to that study conducted by Diekhoff et al. (1996) both found a positive relationship between college student employment and cheating. Nowell and Laufer (1997) also found working college students more likely to report classroom cheating behaviors. The current findings were consistent with the literature reporting a connection between student cheating and working. Students in the current study working after school were slightly more likely to cheat (see Table 7). Haines et al. (1986) and Diekhoff et al. (1996) also found a connection between student participation in college sports programs, intramural and intercollegiate, and student cheating rates. Results of the present study confirm those findings; that is, students participating in school sports programs were slightly more likely to report cheating behaviors (see Table 7).

Classroom Environment and Cheating

This study found that classroom environments teachers create have a significant impact on student cheating rates. While there are not many studies specifically looking at cheating with classroom environment measures, some studies found significant connections between environmental elements and cheating (Anderman et al., 1998; Jordan 2001). For example, Evans and Craig (1990) found increased levels of cheating in competitive classrooms, classrooms grading on a curve, and classrooms with a great deal of difficult work. The Evans and Craig survey reported that students strongly feel their teacher's behavior and personality have a significant impact on student cheating. The current study concurs. Qualitative data in this study revealed that students believe their teachers' personality and behavior affect student cheating rates.

Quantitative and qualitative findings of this study indicated that student involvement is an important environmental factor impacting student cheating. Factors affecting student involvement include poor instructional quality and uninteresting material and are connected in the literature to cheating (Blackburn & Miller, 1996; Steininger, 1968; Steininger et al., 1964). Steininger et al. (1964) found when students perceive the course content to be meaningless, they are more likely to cheat.

While both the classroom environment and student cheating are the subjects of many research studies, there are not many studies attempting to look at both, as in the current study. I was unable to find any high school studies that took a measurement for the classroom environment and compared it to cheating rates as the current study did. Only one study did this at the college level (Pulvers & Deikhoff, 1999).

Overall, the findings of Pulvers and Deikhoff (1999) agreed with the general finding of the current study: Classroom environments have a significant relationship to student cheating rates. Specifically, Pulvers and Diekhoff used the College and University Classroom Environment Inventory (CUCEI) and found that personalization (teacher support in the CES), satisfaction (not included in the CES), and task orientation (order and organization in the CES) all related significantly to student cheating. Like Pulvers and Diekhoff, the current study found a significant relationship between teacher support and student cheating at the student level (see Table 6). Both the current study and Pulvers and Deikhoff also found that organization and articulation of class assignments and activities (task orientation in the CUCEI, and order and organization in the CES) had a negative relationship to student cheating (see Tables 2, 6, & 7).

The final environmental finding in the current study with some precedent in the literature is related to testing procedures. The current study found that disorderly and disorganized classroom environments, including teachers' testing procedures, are related to classroom cheating. Many studies have been conducted on testing procedures and college students (Whitley, 1998). Students cheat less when they are closely monitored (Covey et al., 1989). Students are also less likely to cheat when teachers use multiple versions of tests and pay attention to the spacing and positions of students during the exam (Houston, 1976; 1983). The findings of the current study concur. For example, the current study found when teachers pay close attention to their students during testing periods, students cheat less. Students also report less cheating when teachers spread

student desks out and issue multiple versions of tests. The next section discusses systemic findings of this study and relates these issues with similar findings in the literature.

Systemic Issues

In addition to relationships between the classroom environment and student cheating, the findings of this study indicated that student cheating rates and the classroom environment are both affected by larger and harder to control systemic issues. Some of these issues have been noted in other cheating studies. For example, in their study on college undergraduates, Cooper and Peterson (1980) found that students cheat when given the opportunity. The current study found that there is a difference between students' opportunity to cheat and their desire to cheat. Most students, when given the opportunity to cheat, will.

The second systemic issue receiving a large amount of attention in the cheating literature is the relationship of student grades to cheating. Fear of failure is one of the most common reasons students list for cheating (Evans & Craig, 1990; Schab, 1991). Jordan (2001) found that when students cared more about extrinsic outcomes like grades, they were more likely to cheat than the students who cared more about intrinsic processes like learning. The findings of the current study also indicated that grades play an important role in student cheating. Students' primary school concern is receiving good grades; they are willing to do just about anything, including cheating, to assure high marks. The next section offers recommendations for research and educational practice on cheating and the classroom environment.

Recommendations

Recommendations for Future Research

While both cheating and the classroom environment have been concentrated areas of study in the academic literature for decades, there are still numerous questions that need to be asked and others that need further probing. This next section makes recommendations for future cheating and classroom environment research, including recommendations about populations, questions, causes, and the environment.

The first recommendation for future research concerns the population that is the subject of research. The vast majority of cheating studies are conducted on college students. More cheating research is needed at the high school, middle school, and even elementary school levels. More attention at these levels will help researchers determine when student cheating behaviors begin and provide a better understanding of the root causes behind the development of student cheating behaviors.

The second recommendation for future research is related to the kinds of questions usually asked and to whom these questions are addressed. Most research on cheating is quantitative in nature. Additionally, most of the research asks questions about students; (e.g., students' demographic information, academic ability, extracurricular participation, and personality characteristics); and rarely asks questions from students. Much can be learned about cheating and classroom environments using qualitative and mixed methodologies, especially those including student voice.

Third, the majority of research on cheating looks at cheating itself. It would be interesting to see what happens when researchers treat cheating as a symptom and look

instead to explore root causes of the problem. Future studies need to look at possible systemic issues related to cheating. These systemic issues certainly include the use of grades to motivate students and schools being seen as a game or job preparation. Perhaps cheating rates in schools or classes using alternative grading systems could be compared with the cheating rates in schools or classes that use traditional letter grades.

Additionally, the cheating rates in schools and classes using authentic standards-based assessments could be compared with cheating rates of schools or classes using traditional multiple-guess testing formats.

Other systemic issues, like those related to justice and equity, should also be explored in cheating studies. It could be, for instance, that students cheat in order to resist unjust social structures. It could also be that students cheat because they legitimately feel their teachers or schools have been unfair to students. In these cases, fixing the cheating problem would necessitate much more than fixing testing procedures; it would require a complete overhaul of the school system itself.

Further, the nature of society's understanding of cheating itself can be explored. There are, for example, many strategies students employ when trying to do well on tests or in school. One strategy involves learning content, but there are also many effective strategies not related to learning. Some strategies are unacceptable and are considered cheating. Other strategies, even though having nothing to do with learning, are considered acceptable by society. Test preparation classes, for example, significantly improve students' scores without ever teaching students any content. These classes can be quite expensive, and more often than not are only available to students with money.

When acceptable strategies for improving test scores are only open to certain classes of society, then cheating becomes a legitimate justice issue.

Fourth, the findings of this study indicate that the classroom environment is a fruitful area of focus when trying to understand student cheating. There are, however, only a handful of studies considering the environmental impact on student cheating. Even fewer studies compare environment measures to cheating. More studies are needed that do what this study and Pulvers and Diekhoff's (1999) study did: examine the relationship between the classroom environment and student cheating. Future research might look to replicate these findings. It would be interesting to see if these findings hold up in larger schools, non-Catholic private schools, and public schools. It would also be interesting to examine the relationship between cheating and the middle school or elementary school environment.

Additionally, future studies should look to use other classroom environment measures. This study used the Classroom Environment Scale. Pulvers and Diekhoff (1999) used the College and University Classroom Environment Inventory (Fraser & Treagust, 1986). There are, however, many other scales that could be used in this kind of research. Other scales include: Learning Environment Scale (Fraser, Anderson, & Walberg, 1982), Individualised Classroom Environment Questionnaire (Fraser, 1990), My Class Inventory (Fraser et al., 1982), Questionnaire on Teacher Interaction (Wubbels & Brekelmans, 1998), Science Laboratory Environment Survey (Fraser, Giddings, & McRobbie, 1995), What Is Happening In This Class (Fraser, Fisher, & McRobbie, 1996),

Constructivist Learning Environment Survey (Taylor & Fraser, 1991), and Catholic School Classroom Environment Questionnaire (Dorman, 1999).

In addition to studying the impact of the classroom environment on cheating, researchers might look to better understand the impact of the school environment on student cheating. Measures like the Kettering Scale of School Climate (Howard, Howell, & Brainard, 1987), and the CASE School Climate Survey (Howard & Keefe, 1991) can be used to measure the school environment in order to determine any relationship with student cheating.

Finally, smaller schools, like the one in the present study, provide researchers opportunities to do comparison studies. In these smaller schools, students are tracked together with the same students going together from one class to the next. These tracked classes provide researchers opportunities to compare behaviors of the same group of students in two or more different classes. Here, the effects of the classroom environment on a whole series of student behaviors, including cheating, can easily be studied.

Recommendations for Policymakers

Findings of this study indicate that at least part of the cause of student cheating is bigger than students and bigger than the classroom. It is very likely that the current educational system itself is part of the cause and part of the problem. Since these systemic issues lie mostly outside of the jurisdiction of typical educators, policy makers can play an important role in mitigating the systemic issues related to student cheating.

Policy makers need to encourage the experimentation of different kinds of grading and assessment systems. These alternative systems need to focus on authentically

assessing skills and knowledge in lieu of systems that use traditional letter grades to motivate students. Policy makers also need to help create educational systems that allow all students to win. The current system is competitive in nature and the stakes are high. In the current system, students compete with each other for a limited number of spots in honors courses, on the dean's list, and at colleges and universities. The winners receive prestigious, lucrative job opportunities and the losers do not.

When students view school as a high stakes game, they will use whatever means possible to win, even if it means resorting to cheating to get ahead; that is the American way. The nature of the American educational system fosters and perpetuates cheating. Until the system radically changes, students will continue to want to cheat. Teachers and other educators have a limited ability to affect the nature of the system. Only policy makers have the ability to make the deep systemic changes necessary to curb students' desire to cheat.

Recommendations for Educators

While systemic changes are needed to address the deeper causes of student cheating, there is much that can be done by educators to address students' ability and desire to cheat. An educator's ability to reduce cheating rates was discussed in the above answer to the third research question. There were ten suggestions for teachers looking to reduce cheating rates generated from findings of this study:

1. Teachers need to create a sense of order in their classrooms.
2. Teachers need to get their assignments and activities organized.
3. Teachers need to dramatically improve their testing procedures.

4. Teachers need to exert a healthy and reasonable control over their classrooms.
5. Teachers need to raise their level of awareness.
6. Teachers need to increase meaningful student involvement.
7. Teachers need to increase their focus on authentically assessing learning and mastery of subject matter while decreasing their focus on scores and grades.
8. Teachers need to teach honest, effective, and viable learning strategies that are easier than cheating.
9. Teachers need to engender their students' respect.
10. Teachers need to frequently engage their students in meaningful dialogue about issues of academic integrity, fairness, and justice.

Implications and Conclusions

There are serious implications to connecting the classroom environment and student cheating. The following section discusses implications of this study and draws final conclusions. Rare and unique elements of this study are discussed and the chapter concludes with a discussion of the two most significant implications of this study: The relationship of the classroom environment to cheating and the systemic issues that could help explain some of the deeper causes of student cheating.

Some of the elements of this study are either rare or unique to the bodies of academic dishonesty and classroom environment research. This study represents a rare attempt to link the classroom environment to student cheating using classroom environment measures. As was mentioned above, only one other study attempted to do the same (Pulvers & Diekhoff, 1999). The Pulvers and Diekhoff study, however, used a

different classroom environment measurement on a different population. This study is the first to link the classroom environment to student cheating using the CES on a high school population.

As was mentioned in chapter 2, most academic dishonesty research is quantitative in nature as is most classroom environment research. This study broke from these traditional approaches to studying cheating and classroom environments with its use of a mixed methodology. This approach also allowed for an intimate access of student voice and perspective in a way that is not possible using traditional quantitative research methods.

The two most significant implications of this study are that the classroom environment, well within the control of educators, has a strong relationship to student cheating, and that larger systemic issues related to the nature of traditional schooling own much of the blame for students' desire to cheat. As was discussed in chapter 2, most previous research on cheating has attempted to explain cheating by examining students. Student's demographic information, personalities, and extracurricular interests are difficult, if not impossible, for educators to address. By looking at the classroom environment, which educators can address, this study attempted to examine student cheating from the opposite perspective, and sought to understand the educators' role in cheating. Teacher recommendations generated from this study can actually reduce cheating rates. Teachers can have a significant impact on cheating occurring in their classrooms by improving their order and organization, increasing student involvement, improving teacher control, improving the way teachers are perceived by students, and by

developing and using authentic standards-based assessments. If findings of this study are valid, and teachers do in fact have a significant ability to reduce cheating rates in their classrooms, then the fact that teachers are not taking these steps and student cheating rates are so high is incendiary.

Critical theorists charge that the current educational system recreates injustices found in the larger society. This study found this systemic recreation of social injustice also fosters students' desire to cheat. The system might be able to improve student involvement, teacher control, and order and organization, but until it addresses these larger systemic issues, students will still want to cheat, and will do so whenever given the opportunity.

Appendix A

Sample Items from the Classroom Environment Scale¹

Students were instructed to read 90 statements about classrooms and indicate with an X on an answer sheet which statements they thought were *true*, or mostly true, and which statements they felt were *false*, or mostly false.

Sample items from the Classroom Environment Scale:

1. Students put a lot of energy into what they do here.
2. Students fool around a lot in this class.
3. Whether or not the students can get away with something depends on how the teacher is feeling that day.
4. Activities in this class are clearly and carefully planned.
5. Students do the same kind of homework almost every day.

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Appendix B

Academic Integrity Survey

Please complete all sections and mark only one answer for each question. Your answers will be kept anonymous. If you are uncomfortable answering any question just leave it blank and move on to the next question.

Demographic Information:

1. Gender

Male Female

2. Age

13 14 15 16 17 18 19

3. Grade Level

Freshman Sophomore Junior Senior

4. Ethnicity

Asian/Pacific Islander African American Hispanic

Caucasian Other

5. G.P.A.

Do you:

6. Play sports for the school? Yes No

7. Serve in student leadership? Yes No

8. Attend honors/AP classes? Yes No

9. Have an after school job? Yes No

10. Do you expect to attend college? Yes No Not Sure

Adapted with permission from Josephson Institute of Ethics (2006) and Jordan (2001)

11. How many times have you copied a book, article or internet document for a 2nd period assignment?

Never Only Once Twice Three Times Four or more Times

12. How many times have you turned in homework that you copied from someone else into your 2nd period class?

Never Only Once Twice Three Times Four or more Times

13. How many times have you copied from someone during a 2nd period test?

Never Only Once Twice Three Times Four or more Times

14. How many times have you used unauthorized notes (cheat sheet) during a 2nd period test?

Never Only Once Twice Three Times Four or more Times

15. How many times have you used a phone, calculator, or other electronic device to cheat on a 2nd period test?

Never Only Once Twice Three Times Four or more Times

16. How many times have you given answers to someone (or allowed someone to copy your answers) during a 2nd period test?

Never Only Once Twice Three Times Four or more Times

17. How many times have you been caught by your 2nd period teacher for cheating?

Never Only Once Twice Three Times Four or more Times

Adapted with permission from Josephson Institute of Ethics (2006) and Jordan (2001)

Appendix C

Protocol for the Presentation of the Study to the Students

On the days of March 1 and March 2, 2006, I spoke to every student in the school during their Theology class. The following topics were covered:

- As many of you may know, in addition to being a teacher, I am also a student at Loyola Marymount University.
- The degree I am working on is my Doctorate in Education. I am doing this because I want to make schools (especially Catholic schools) and learning better for everyone... and I need your help to do so.
- In order to improve education and in order to finish my studies I am going to conduct a study at [this high school] and I really want all of you to be involved. The only thing you need to do is to answer some questions on two surveys about what is going on in your classes.
 - Detailed explanation of the CES and AIS...
- I am asking all students to be involved, but **participation is completely optional**. If you don't want to, or don't feel comfortable participating for any reason that is absolutely okay.
 - Detailed explanation of confidentiality.
- If you are interested in sharing some of your thoughts and opinions about your classes and if you want to help me make schools better for everyone I would really appreciate it.
 - Detailed explanation of the goals of the research (understand cheating and the classroom environment better).
- In order to participate in this research all you have to do is take a letter and the consent forms home to your parents, talk to them about it then sign and return the forms to your theology teacher. If you don't want to participate for any reason at all (which is perfectly fine) then just write your name on the letter and write "NO" at the top.
 - Pass out the letter and two forms.
 - Go over every detail of the letter and informed consent forms.
- This is a rare opportunity for you, your thoughts, and opinions to be heard, and to be listened to by lots of people in academia.
- I will be observing some of your classes, and a small number of you will be asked to share further in an interview format (again expressing the voluntary nature of their participation).
- Please get the forms in to your teacher in the next day or two so we can begin (but please no later than March 15, 2006. I would like to start as soon as possible.
- Thanks for your consideration and your help.
- Field any questions and inform students how they or their parents can ask any other questions from me at a later date.

Between the days of April 3 and April 12, 2006, I again met with each Theology class. The students who were not participating were asked to read quietly while the students who were participating were filling out the surveys. The student participants, those with signed parent/guardian informed consent forms and signed student informed consent forms, were reminded about confidentiality, voluntary participation, and the need for honesty. The following topics were covered:

- My study is about the classroom environment and academic dishonesty (cheating).
- I am mostly interested in classroom effects (not so much individuals).
- HONEST & ANONYMOUS
 - This is about me and my studies at LMU **NOT** me being a teacher here.
- You'll be getting two different packets from me.
 - One is kind of the answer sheet the other is the CES
 - AIS
 - Fill out the first two sheets completely
 - and honestly (Anonymous)
 - CES
 - 90 true/false
 - Be patient, hang in there
 - How to fill out...
- If you're uncomfortable, want to stop, or don't want to answer something...just stop, turn your paper over and I will collect it later, no big deal.
- Questions?

Appendix D

Informational Letter to Parents and Guardians



Colby Boysen
Loyola Marymount University
School of Education
cboysen@lion.lmu.edu

March 22, 2006

Dear Parents/Guardians,

As many of you may know I am currently working on an Ed.D. in Educational Leadership for Social Justice at Loyola Marymount University. Part of the work that is required to receive this degree is to conduct research and write a dissertation. My research will be conducted at [the high school] and will include most of the students enrolled there. I am writing this letter to you hoping that your child will be interested in participating in this research and that you will consent to his/her participation. All students have been invited to participate in this research.

The purpose of my research project is to determine the effect of the classroom environment on academic integrity. The procedures for this research include questionnaires, interviews, and classroom observations. For most students they will simply be asked to fill out two questionnaires in one of their classes. The questionnaires should take no more than 30 minutes total. Additionally some students' classrooms will be observed, and a limited number of students may be interviewed. The interviews will take place after school hours and will be audiotaped. Students who are selected for the interviews will be informed well in advance.

Please note that participation in this research is completely voluntary and all responses will be kept confidential. You and your child may refuse to participate, or you and your child may withdraw your participation at any time. Refusal to participate or withdrawal from participation will not in any way negatively affect you or your child. Attached to this letter you will find informed consent forms. If you consent to your child's participation in this research please read and fill out the form entirely, providing your signature where indicated, and have your child fill out his/her consent form. You may keep this letter for your future reference, but please send the completed informed consent forms back to [school] with your child. They have been instructed to return the form to their Theology teacher.

I thank you for your time and consideration. Without the support of the [the school] community I would not be able to complete my research or my studies. If, at any time you have questions regarding the research, or your child's participation in it please do not hesitate to contact me, Colby Boysen ([###-###-####], cboysen@lion.lmu.edu). If you wish you may also contact Dr. Birute Anne Vileisis, Acting Chair, LMU IRB Committee, University Hall, Suite 3000 (310-338-4599).

Sincerely,

Colby Boysen, Ed.D. (Cand.)

Appendix E

Student Participant Informed Consent Form



Colby Boysen
Loyola Marymount University
School of Education
Cboysen@lion.lmu.edu

Student Participant Informed Consent Form

- I hereby authorize Colby Boysen Ed.D. (Cand.) to include me (my child/ward) in the following research study: Academic Dishonesty and the Classroom Environment.
- I understand that I (my child/ward) have been asked to participate on a research project which is designed to investigate the relationship between classroom environment and academic dishonesty. For most students the research project will be completed in one class period, however I (my child/ward) also understand that some classrooms will be observed and select number of students will be interviewed.
- I (my child/ward) understand that all [school] students have been invited to participate in this research.
- I (my child/ward) understand that if I (my/child/ward) will be asked to complete a survey, and may be observed and/or interviewed.
- I (my child/ward) understand that if I (my child/ward) am indeed interviewed that I (my child/ward) will be audiotaped. I (my child/ward) agree that these tapes will be used for research purposes only and that my (my child/ward's) identity will not be disclosed. I (my child/ward) agree that these tapes shall be retained for research for an indefinite time.
- I (my child/ward) understand that there are no foreseeable risks or benefits to my (my child/ward's) participation in this research.
- I (my child/ward) understand that Colby Boysen who can be reached at [address and phone number] will answer any questions I (my child/ward) may have at any time concerning details of the procedures performed as part of this study.
- If the study design or the use of the information is to be changed, I (my child/ward) will be so informed and my consent reobtained.
- I (my child/ward) understand that I (my child/ward) have the right to refuse to participate in, or to withdraw from this research at any time without prejudice.
- I understand that circumstances may arise which might cause the investigator to terminate my (my child/ward's) participation before the completion of the study.
- I (my child/ward) understand that I (my child/ward) have the right to refuse to answer any question that I (my child/ward) may not wish to answer.
- In signing this consent form, I acknowledge receipt of a copy of the form.

Student's Name (Please Print)

Student's Signature

Date

Appendix F

Parent/Guardian Informed Consent Form



Colby Boysen
Loyola Marymount University
School of Education
Cboysen@lion.lmu.edu

Parent/Guardian Informed Consent Form

- I hereby authorize Colby Boysen Ed.D. (Cand.) to include me (my child/ward) in the following research study: Academic Dishonesty and the Classroom Environment.
- I understand that I (my child/ward) have been asked to participate on a research project which is designed to investigate the relationship between classroom environment and academic dishonesty. For most students the research project will be completed in one class period, however I (my child/ward) also understand that some classrooms will be observed and select number of students will be interviewed.
- I (my child/ward) understand that all [school] students have been invited to participate in this research.
- I (my child/ward) understand that if I (my/child/ward) will be asked to complete a survey, and may be observed and/or interviewed.
- I (my child/ward) understand that if I (my child/ward) am indeed interviewed that I (my child/ward) will be audiotaped. I (my child/ward) agree that these tapes will be used for research purposes only and that my (my child/ward's) identity will not be disclosed. I (my child/ward) agree that these tapes shall be retained for research for an indefinite time.
- I (my child/ward) understand that there are no foreseeable risks or benefits to my (my child/ward's) participation in this research.
- I (my child/ward) understand that Colby Boysen who can be reached at [address and phone number] will answer any questions I (my child/ward) may have at any time concerning details of the procedures performed as part of this study.
- If the study design or the use of the information is to be changed, I (my child/ward) will be so informed and my consent reobtained.
- I waive my rights to view the collected data.
- I (my child/ward) understand that I (my child/ward) have the right to refuse to participate in, or to withdraw from this research at any time without prejudice.
- I understand that circumstances may arise which might cause the investigator to terminate my (my child/ward's) participation before the completion of the study.
- I (my child/ward) understand that I (my child/ward) have the right to refuse to answer any question that I (my child/ward) may not wish to answer.
- In signing this consent form, I acknowledge receipt of a copy of the form.

Mother/Father/Guardian's Name (Please Print)

Mother/Father/Guardian's Signature

Date

Appendix G

Observation Protocol and Field Notes

Observation Protocol and Field Notes

○ Course Title _____

○ Department _____

○ Date _____

○ Time Started _____

○ Teacher _____

○ Room Number _____

○ Demographics

○ Gender

▪ Males _____ Females _____

○ Ethnicity

▪ _____

- **Environment**
- Sketch of Room

- Decorations

- **Teacher Behavior**

Appendix H

Interview Schedule

Interview Schedule

Name _____

Date _____

Start Time _____

Location _____

Period 2 Class _____

Period 2 Teacher _____

Demographic Information:

1. Gender

Male Female

2. Age

11 12 13 14 15 16 17 18 19

3. Grade Level

Freshman Sophomore Junior Senior

4. Ethnicity

How do you define your ethnicity? _____

5. G.P.A.

Classroom Environment

6. Suppose I just transferred into this school and we shared this class together. What would you tell me about this class? (homework, tests, type of assignments, daily routine)
7. Please describe the relationships in the classroom (teacher and student).
8. Describe ways this teacher supports you as a student? (tutoring, approachable)
9. How focused is the class? (Off topic often? Workload?)
10. How do students compete in this class?
 - a. How much do students care about grades?
 - b. How much do students care about learning the course content?
11. What is the student behavior like in this class?
12. What are the rules of the class like? (Are they followed? Enforced?)

Academic Dishonesty

13. What would you say cheating is...
 - a. do you think it is wrong? Why?
14. Can you give reasons why students cheat in a class?
15. Some people would put the blame for cheating solely on students, what do you think about that?
16. Do students cheat more or less with certain kinds of teachers? (Describe why. What can teachers do?)
17. This concludes my interview is there anything else you would like to add?
18. Stop Time_____

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