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A Dissertation

entitled

Academic Dishonesty:

Behaviors and Attitudes of Students at Church-related Colleges and Universities

by

Mark J. Bourassa

Submitted to the Graduate Faculty as partial fulfillment of the requirements for

The Doctor of Philosophy in Higher Education

Dr. David Meabon, Committee Chair

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The University of Toledo

May 2011

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An Abstract of
Academic Dishonesty:
Behaviors and Attitudes of Students at Church-related Colleges and Universities

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The purpose of this study was to examine acts of academic dishonesty of students at church-related colleges and universities to inform policy decisions aimed at reducing these behaviors. The study examined self-reported cheating rates among students at four-year Mennonite-affiliated colleges. This study involved assessing attitudes towards cheating and the cheating practices of students at these institutions. The relationship of contextual factors, such as the peer culture, and of individual difference factors, such as gender, academic achievement, age, and extracurricular involvement to academic dishonesty, were also examined.

Results of this study indicated that students at these church-related institutions were engaging in cheating behaviors. The overall self-reported cheating rate was 77% based upon responses to 24 possible cheating behaviors. These behaviors included cheating practices related to plagiarism, cheating on tests and examinations, and inappropriate sharing of work in group assignments. Cheating rates for these behaviors ranged from less than one percent to nearly 45%.

There were several differences in perceptions and attitudes towards academic dishonesty between groups of students that engaged in cheating behaviors and groups of students that did not engaged in cheating behaviors. Students that engaged in academic dishonesty were more likely to have observed actual incidents of cheating. They were also more likely not to report cheating and to perceive that other students were involved in the inappropriate sharing of work in group assignments.

Data analysis suggested that most individual difference factors were not significantly related to academic dishonesty. The exceptions to this were in age and involvement in intramural athletics. Students who reported having engaged in cheating behavior tended to be younger and more involved in intramural athletics than those who reported not having engaged in academic dishonesty behaviors.

This study sought to provide additional resources to assist students, instructors, and administrator in better understanding the prevalence of cheating within the context of institutional religious affiliation. Based upon the results of this study, there does not seem to be evidence of a relationship between student cheating attitudes and behaviors and the religious status of their institutions.

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Chapter One

Introduction

The purpose of this chapter is to provide an introduction to the issue of academic dishonesty among college students. This introduction includes a brief overview of individual, contextual, and motivational factors that are related to academic dishonesty. It also examines the common measurement of academic dishonesty, the impact of religious variables, and the factors that support the continued study of this topic. Finally, the problem statement, which specifically addresses the topic of academic dishonesty at church-related colleges and universities, as well as the research questions, limitations, and definitions, are introduced.

The research on the cheating habits of college students has suggested that incidents of academic dishonesty continue to be a prevalent issue on our college and university campuses (Baird, 1980; Boresellino, 1983; Bowers, 1964; Davis, Grover, Becker, & McGregor, 1992; Fass, 1986; Fisher, Kims, Lee, & Sacks, 1998; Haines, Diekhoff, LaBeff, & Clark, 1986; Jensen, Arnett, Feldman, & Cauffman, 2002; McCabe & Trevino, 1993, 1997; McCabe, Trevino, & Butterfield, 2001a; Sunday, 2000; Vandehey, Diekhoff, & LaBeff, 2007). Reports of the findings of research on academic dishonesty continue to appear in the popular press, indicating that there is more than just an academic interest in the cheating practices of college students (Brown & Emmett,

2001). The issue of cheating is one about which nearly everyone has some level of understanding.

Cheating and plagiarism continue to be among the most prevalent acts of academic dishonesty with well over half of all students reporting that they have engaged in these behaviors (McCabe, Trevino, & Butterfield, 2001a). A number of high-profile cases of plagiarism have been reported over the last few years. One particular incident involved the discovery of a large number of students in a single class who had plagiarized portions and even entire bodies of other's scholarly works (Schemo, 2001). A graduate student at Ohio University discovered a number of graduate theses that had been plagiarized (Wasley, 2006). Even faculty and administrators have been found plagiarizing papers, their resumes, and even another university's strategic plan (Bartlett, 2005; Bartlett & Smallwood, 2004; Smallwood, 2006).

There have been numerous studies conducted on academic dishonesty in higher education during the last 70 years. These studies have examined incidents of cheating in a variety of institutional contexts and a wide range of possible factors related to cheating behavior. These studies have included the examination of individual, contextual, and motivational factors.

Individual factors include those such as age, gender, grade-point average (GPA) and participation in extracurricular activities. Research has indicated that there are differences in students' cheating behaviors and attitudes based upon these individual factors. Several studies have suggested that age is a factor and that older students tend to cheat less than younger students (Haines et al., 1986; Diekhoff, LaBeff, Clark, Francis, & Haines, 1996; McCabe & Trevino, 1997). Questions also have been raised about the

impact of class rank, as it and age are seemingly strongly correlated. The research is mixed on the impact of gender on academic dishonesty. McCabe and Trevino reported that men tend to cheat more than women while Haines et al. (1986) found no differences. There is support for the findings that students with higher GPAs tend to cheat less and that students involved in extracurricular activities tend to cheat more (Baird, 1980; McCabe & Trevino, 1997; Whitley, 1998).

Contextual factors are those factors that are dependent upon the situation or environment. These factors relate strongly to culture and may include the presence of an honor code or academic integrity policy and various aspects and influences of the peer culture. Researchers have confirmed the strong influence of the peer culture as it relates to academic dishonesty (Bowers, 1964; McCabe & Trevino, 1997; McCabe, Trevino, & Butterfield, 2001a; 2001b). The peer culture can operate both as a positive and a negative influence on cheating behavior. The behavior of peers provides either a control mechanism that discourages cheating or validation that cheating is an acceptable practice.

Students are motivated to cheat for a variety of reasons. That motivation can be influenced by a number of factors. These include improved grades, fear of failure (Finn & Frone, 2004), the perceived consequence of the act, the peer culture, the level of control over the act of cheating (Genereux & McLeod, 1995), and perceived moral obligations (Beck & Ajzen, 1991, as cited in Fisher et al., 1998). Jensen et al. (2002) examined specific motivation types that seemed to support a propensity towards increased academic dishonesty. The most acceptable motives include individually oriented motives, such as self-gain and redressing a perceived inequity, as well as more relationship-oriented motives, such as relationship creation and preservation.

Interestingly, Gehring, Nuss and Pavella (1986) also indicated that students engage in academic dishonesty when the perceived risk of the behavior is low. For example, if students do not believe they will experience negative consequences for their dishonest behaviors, they are more likely to engage in those behaviors. Another factor that has influenced student motivation to cheat is a lack of awareness of what constitutes academic dishonesty (Gehring, Nuss, & Pavela, 1986).

The most commonly reported statistic cited in studies on academic dishonesty is self-reported cheating rates. While there are some concerns regarding the reliability of self-reported measures, there seems to be widespread agreement that they are an appropriate and reasonably accurate measure of cheating rates (Cizek, 1999). Self-reported cheating rates have varied over time. Over time, it appears that the trend has indicated that academic dishonesty on college campuses has increased. In 1941, Drake reported that 23% of college students cheated (Spiller & Crown, 1995), while in 1993, McCabe reported cheating rates as high as 82% (McCabe, Trevino, & Butterfield, 2001a). It is important to note that it may be difficult to compare reported cheating rates due to differences among individual institutions, differences in research design and differences in sample selection. Although it may appear that cheating has been increasing, several meta-studies that examined a wide variety of academic dishonesty studies over the last 30 years do not support the notion that academic dishonesty has increased dramatically over time (Brown & Emmett, 2001; McCabe & Bowers, 1994; Spiller & Crown, 1995).

Concerns related to academic dishonesty are not new. While a substantial amount of research has been conducted on cheating during the last 20 years, the literature has

suggested that the level of concern over the perceived extent of dishonest academic behavior has been ongoing for at least the last 50 years (Cole, 2002). The persistent level of concern regarding this issue has supported sustained interest and continued research efforts in this area.

Several factors have supported continued interest in examining the issue of academic dishonesty. Certainly, one important factor is the impact that cheating has had on the value structure of higher education. There is a sense within the academic community that the values of honesty and integrity are fundamental concepts in a learning environment. Fass (1986) has illustrated this attitude by suggesting that academic dishonesty is “the most serious violation of trust that can occur in a community of scholars and educators” (p. 35). Clearly, academic dishonesty erodes the integrity of higher education and calls into question the legitimacy of academic achievement.

Another factor that supports the continued examination of academic dishonesty is the impact that cheating has on future behaviors. Studies have indicated that students who cheat are more likely to cheat again and with greater frequency (Borsellino, 1983; Jensen et al., 2002). The propensity to be dishonest increases with each dishonest behavior. Thus, it is crucial to have a solid understanding of the future implications of cheating behaviors.

In addition to the negative impact that academic dishonesty has had on the culture and values of higher education, it also has had an impact on the values of society as a whole. McCabe, Trevino and Butterfield (2001a) reported that their interest in academic dishonesty initially developed from a desire to “understand the ethical considerations of tomorrow’s business leaders” (p. 220). These researchers understand the impact dishonest

behaviors may have as students fulfill various societal roles. The underlying concepts of academic dishonesty are strongly related to values of trust, honesty and integrity. Academic dishonesty negatively impacts these values. This devaluation can be transferred to society as a whole. Fass (1986) noted that those students who participated in academically dishonest behaviors continued dishonest behaviors outside of the classroom.

The research on academic dishonesty has examined the issue in a variety of settings. These settings have included both public and private institutions. While some of the institutions examined in these studies have had church connections, less of the research has examined this issue specifically in the context of religious affiliation and, in particular, from a Christian perspective. Several studies and articles have examined cheating among Christian students (Fisher et al., 1998; Moring, 1999; Rickards, 1962; Richardson, 1967; Peterson, 1972; Sunday, 2000). Many of these studies have focused on the cheating behaviors of high school students.

While much of the commentary has focused on secondary schools, there is still a question as to the impact of Christian character and other religious variables on cheating within a higher education setting and at Christian colleges in particular. Several studies have examined cheating behaviors and attitudes of college students with a focus on religious variables and in the context of religious settings. Borsellino (1983) examined the correlation between religious variables, including religious affiliation, and cheating attitudes and behaviors. Sutton (1991) considered the relationship between a number of religious variables, including Christian character, commitment and religious involvement, and the cheating behaviors and attitudes of college students. Sunday (2000) examined

the issue of academic dishonesty with a focus on students at fundamentalist Christian colleges.

A group of colleges and universities sometimes defines itself by the religious affiliation and Christian commitment of its members. Within this group are subgroups of institutions that are affiliated by specific denominations. One of these subgroups includes the institutions that are affiliated with the Mennonite Church USA. This group includes four four-year institutions and one two-year college. The Mennonite church can be described as an historic peace church in the Anabaptist tradition. The schools that are affiliated with this denomination all share a stated core value of academic integrity. The issue of academic dishonesty is one that is not only important to the institutions' individually but also to Mennonite higher education as well. Research at these institutions examining the issue of academic dishonesty has been limited.

1.1 Problem Statement

Extensive research has been conducted on self-reported acts of academic dishonesty among college students (Baird, 1980; Bowers, 1964; Boresellino, 1983; Brown & Emmett, 2001; Davis et al., 1992; Haines et al., 1986; McCabe & Trevino, 1993, 1997; McCabe, Trevino, & Butterfield, 2001a; Fisher et al., 1998; Sunday, 2000). Many studies have been conducted on incidents of cheating, plagiarism and other similar activities. These studies have examined academic dishonesty in relation to a variety of individual difference factors, such as gender, age, class standing, extracurricular involvement and other activities, as well as institutional factors, such as institutional size, location and type.

There is a gap in the literature regarding the issue of academic dishonesty as it relates to students from institutions that define themselves as religiously affiliated. This group of institutions is generally categorized as those colleges that maintain a strong connection to a particular religious denomination or faith. Very little, if any, research has focused directly on the issue of academic dishonesty on the campuses of colleges and universities that are affiliated with the Mennonite Church USA. These institutions profess a strong commitment to academic integrity through their stated institutional core values and mission statements.

There has been a tacit understanding within the academic community that the culture of church-related colleges supports values of honesty and integrity (Benne, 2001; Carson, 1997). Additionally, it has been assumed that these types of institutions tend to maintain strong commitments to the application of core values throughout their academic programs. Their values-orientated education is thought to have a positive impact on the development of moral and ethical values and support a greater tendency to exhibit behaviors supportive of academic integrity (Bruggeman & Hart, 1996). However, academic dishonesty still occurs on the campuses of religiously affiliated institutions (Sunday, 2000) and on the campuses of Mennonite-affiliated college and universities.

An extensive review of the literature revealed that there seems to exist a contradiction between church-related institutional core values and student behavior regarding academic dishonesty. Given the supposed core values that support academic integrity, incidents of academic dishonesty have posed a potentially significant threat to academic integrity at these institutions. Additionally, the extent to which dishonest behaviors have occurred is not well known, nor is information about students' attitudes

towards cheating at church-related colleges. In order to better understand the culture of academic dishonesty at these institutions and to consider appropriate responses to elicit change in dishonest academic behaviors, additional understanding and information is needed. The purpose of this study was to examine the behaviors, attitudes, perceptions and differences related to academic dishonesty among students at four-year Mennonite-affiliated colleges and to determine how they compare with college students in general in order to inform policy decisions aimed at reducing these behaviors.

The study examined the extent of self-reported cheating among undergraduate students at four-year Mennonite-affiliated colleges. This study also assessed attitudes towards cheating behaviors and the cheating practices of students at these institutions. Contextual factors, such as the peer culture, and its relationship towards academic dishonesty of students attending Mennonite-affiliated institutions, and the relationship between cheating among students at these institutions and individual difference factors, such as gender, academic achievement, age, and extracurricular involvement, were also examined.

This study employed survey research methodology to gather data related to cheating behaviors and student attitudes towards academic dishonesty at these institutions. This method was useful in its ability to provide information about characteristics of a population on a wide variety of possible variables (Fraenkel & Wallen, 2003). These characteristics include demographic data, such as age, gender, ethnicity, class standing, religious preference, etc. These characteristics also included respondent attitudes, perceptions, specific behaviors, opinions and knowledge related to particular issues or subject matter. Survey research generally involves asking specific

questions designed to gather information on the variables under investigation. Using a survey allowed the researcher to ask a variety of questions on several topics, providing additional depth and breadth in gathering information about a particular variable.

This study made use of the McCabe Academic Integrity Survey. This instrument was designed to gather information from college and university students about their behaviors and attitudes towards cheating. The survey also included questions that elicited student perceptions of the institutional environment and commitment to academic dishonesty as well as students' perceptions of the attitudes and behaviors of their peers regarding academic dishonesty. The instrument was developed by Donald McCabe of Rutgers University and has been used extensively in his own research (McCabe & Bowers, 1994; McCabe & Trevino, 1993, 1995, 1996, 1997). The instrument also has been used in whole or in part in other studies on academic dishonesty (Clifford, 1996; Hendershott, Drinan, & Cross, 1999; Jewett, 2006; Kidwell, Wozniak, & Laurel, 2003; Sunday, 2000; Ward, 1998; Zimmerman, 1998).

1.2 Research Questions

This study was conducted in order to answer the following primary research question: What is the extent of academic dishonesty among students at four-year Mennonite-affiliated colleges, and how does it compare with college students in general?

1. What is the level of cheating among students at four-year Mennonite-affiliated colleges?
2. What are students' attitudes towards academic dishonesty, and are there differences between these attitudes and the level of cheating of students attending Mennonite-affiliated institutions?

3. What are the cheating practices and behaviors of students attending Mennonite-affiliated institutions?
4. Are there differences in the level of cheating among students attending Mennonite-affiliated institutions and perceived peer attitudes towards cheating?
5. Are there differences in the level of cheating among students at Mennonite-affiliated colleges based upon the individual difference factors of gender, academic achievement, age and involvement in extracurricular activities?

1.3 Limitations and Assumptions

This study was limited to undergraduate students at four-year Mennonite-affiliated institutions in the United States. Results were limited to self-reported data. The researcher assumed that respondents were honest and understood the instrument. As the instrument was administered electronically, the issue of technical ability of the respondents was seen as a possible limitation.

1.4 Definitions

For the purposes of this study, important terms and concepts were defined as follows:

Academic dishonesty – Forms of cheating or plagiarism which result in students giving or receiving unauthorized assistance in an academic exercise or receiving credit for work that is not their own (Nuss, 1988)

Academic integrity – A commitment to five fundamental values: honesty, trust, fairness, respect, and responsibility (Center for Academic Integrity, 1999)

Cheating – Intentional or unintentional application of unsanctioned information, materials or procedures in an academic activity (Sutton, 1991)

Mennonite Church USA – A religious denomination described as an historic peace church in the Anabaptist tradition

Plagiarism – Deliberate adoption or reproduction of ideas, or words, or statements of another person as one's own without acknowledgement (Pavela, 1978, as cited in Whitley & Keith-Spiegel, 2002)

This introductory chapter provided information on the topic of academic dishonesty among college students. The chapter examined individual, contextual, motivational and religious variables that are related to academic dishonesty. The issue of academic dishonesty at church-related colleges and universities and the intent of further research were also introduced. The following chapter contains a review of the literature on academic dishonesty.

Chapter Two

Literature Review

This chapter contains a review of the literature and research that has been conducted on the topic of academic dishonesty among college students. The chapter begins with a discussion about the ways in which academic dishonesty has been defined historically and continues with an examination of self-reported cheating rates, the most common form of reporting academic dishonesty. The literature on various cheating behaviors and motivation for these behaviors is also examined. Much of the past research on academic dishonesty has examined the impact of individual factors and contextual influences. These factors are discussed with particular emphasis on the literature related to the impact of an institutional culture of academic integrity and the influence of the peer culture. The chapter concludes with a review of studies that have examined academic dishonesty and religious variables as well as an introduction to the institutions that are a part of this study.

2.1 Introduction

There have been numerous studies that have investigated the cheating behaviors and attitudes of college students during the last 50 years (Cole, 2002). These studies have examined the cheating attitudes and behaviors of college students in a broad variety of settings and in relation to a wide number of variables. While these studies have

revealed a mixture of findings that have not always been universally conclusive, it is clear that there is substantial evidence that academic dishonesty is prevalent among college students.

Researchers have examined types of academically dishonest behaviors, the methods used, and the motives for students that have engaged in these types of activities. Additionally, much of the research has focused on individual and environmental factors that correlate with academic dishonesty (McCabe, Trevino, & Butterfield, 2001a; Whitley, 1998). These factors have provided an understanding of individual and cultural influences that promote or discourage academically dishonest behaviors. Individual factors include those that are reflected in differences between persons, such as age, gender, academic achievement, or participation in extracurricular activities.

Environmental factors include the cultural dimension of the college or university. These are factors that are embedded in the institutional culture that either support or inhibit academic dishonesty. The strength of the institutional culture of academic integrity and the influence of the peer culture are examples of such environmental factors. However, there are other institutional cultural factors, such as church affiliation or religious commitment, which may also have an impact on academic dishonesty (Borsellino, 1983; Sutton, 1991; Sunday 2000).

2.2 Academic Dishonesty

Academic dishonesty includes “forms of cheating or plagiarism which result in students giving or receiving unauthorized assistance in an academic exercise or receiving credit for work that is not their own” (Nuss, 1988, p. 1). While this definition provides a basic understanding of what is meant by “academic dishonesty,” there is still confusion

and an “absence of a generally accepted definition” (Kibler, 1993a, p. 253). Confusion arises in attempts to define and understand the broad scope of academic dishonesty, given the diversity of the understanding of the different forms of cheating. There are forms of cheating that are easily identified as such and do not require additional explanation (Fass, 1990). However, not all instances of questionable or dishonest behavior are considered obviously cheating by all students. Even faculty members are not always in agreement about the seriousness or inclusion of certain behaviors under the definition of academic dishonesty (Roig & Ballew, 1994). This confusion on the part of students and faculty has serious implications on the understanding and effectiveness of policies related to academic dishonesty as it can lead to inconsistent application and student ambivalence towards being academically honest in their work.

There have been attempts to clarify what constitutes academic dishonesty. Pavela (1978, as cited in Whitley & Keith-Spiegel, 2002) proposed four components that comprise academic dishonesty. These components include cheating, plagiarism, fabrication, and facilitating academic dishonesty. Cheating and plagiarism are the more obvious behaviors. Fabrication involves a deliberate inclusion of any false information or citation. Examples include the padding of references in a paper or fabricating the results of an experiment. Facilitating academic dishonesty involves intentionally providing assistance to others who are engaging in dishonest activities. Whitley and Keith-Spiegel (2002) also have suggested that misrepresentation could be added as an additional component of academic dishonesty. They have indicated that misrepresentation includes actions whereby students provide false information regarding

an academic exercise. Examples of this include intentionally lying about submitting an assignment or providing a false excuse for missing a test.

Fass (1990) indicated that while there are common understandings of academic dishonesty, differences may exist among colleges and universities. In order to provide consistency across different campus types, he has stated that definitions of academic dishonesty should cover a variety of topics. These include the ethics of examinations, the use of sources on papers and projects, limits of writing assistance and tutoring, guidelines regarding the collecting and reporting of data, the appropriate and ethical use of academic resources, respecting the work of others, computer ethics, limits in providing assistance to others and an adherence, and understanding of academic policies and expectations.

Self-reported cheating rates have been the common measure in assessing the level of academic dishonesty that has been occurring on college and university campuses. There is agreement that, while there are concerns about the reliability of self-reported measures, they are a reasonably accurate measure of cheating (Cizek, 1999). Even so, there can be difficulty in making comparisons of cheating rates across different studies. Researchers and practitioners need to be cognizant of a variety of factors when comparing rates.

Cheating rates in research studies usually have been reported as a percentage of respondents who have participated in a cheating behavior. Overall cheating rates have been reported as the percentage of respondents who have participated at least once in any of the cheating behaviors being studied. For example, in 1993, McCabe and Trevino studied 12 different cheating behaviors. They found that nearly 79% of the students in the sample reported having engaged in at least one of the dishonest behaviors. By

contrast, the rate for the individual behaviors of cheating on exams was 52% and for plagiarism, just over 48% (Whitley & Keith-Spiegel, 2002).

In 1998, Whitley, in his review of nearly 50 studies on academic dishonesty, reported that studies provided overall cheating rates that ranged from 9% to 95%. The vast majority of studies during the last 50 years of cheating at colleges and universities have been single-institution studies with sample sizes under 500 (Brown & Emmett, 2001). There are a few notable exceptions. Bowers' (1964) study included a sample of over 5,000 from nearly 100 colleges and universities. He reported an overall cheating rate of 50%. McCabe and Trevino (1995) conducted a study of academic dishonesty that involved more than 6,000 students from 31 colleges and universities and reported an overall cheating rate of 67%. Borsellino (1983) reported a cheating rate of nearly 64% by more than 1,000 students at four public and private institutions. Clifford (1996) focused on a sample of just over 1,000 students at 17 small colleges with enrollments under 5,000. She reported an overall cheating rate of 35%, although she noted that this rate included only cheating behaviors that had taken place during the previous 12 months. Clearly, self-reported cheating rates have varied among studies.

While it appears that there is a substantial degree of discrepancy in the overall cheating rates, it is important to note the difficulty in comparing reported cheating rates due to individual institutional, design and sample differences. Institutional differences, such as size, type, presence of an honor code and strength of the peer culture, are examples of environmental characteristics that impact cheating rates (Borsellino, 1983; Bowers, 1964; Clifford, 1996; McCabe & Trevino, 1993, 1997; May & Loyd, 1993; McCabe, Trevino, & Butterfield, 1999, 2002; Robinson, 2004; Sunday, 2000). Cheating

rates can be impacted by the quantity of cheating behaviors included in the study (Brown & Emmett, 2001). Studies that include more cheating behaviors are likely to have higher cheating rates since there are more opportunities for students to indicate their cheating behaviors.

2.3 Cheating Behaviors

Part of the difficulty in comparing and interpreting the self-reported cheating rates between studies involves the type and number of cheating behaviors and practices that have been included in such studies. Many studies have focused on a wide variety of cheating practices. The United States Department of Education reported almost 30 different examples of cheating behaviors that have been used in studies on academic dishonesty (Maramark & Maline, 1993). While there are a number of practices that have been universally accepted as cheating, there are also behaviors that have been viewed as varying degrees of cheating. In other words, some behaviors have been perceived as less serious forms of cheating, and these less serious behaviors have tended to be reported more frequently (Kidwell et al., 2003; Rakovski & Levy, 2007).

Some of the more blatant forms of academic dishonesty have included copying from other students on an exam, using crib notes or some similar aid during an exam, submitting a copy of a paper written by someone else and acts of plagiarism (Whitley & Keith-Spiegel, 2002). Davis et al. (1992) concluded that nearly 80% of all cheating was from the first two categories.

Bowers (1964) examined the cheating habits of students based on 13 different acts of dishonesty. The most common incidents of cheating included the following: not properly footnoting work, getting questions to an exam ahead of time, padding a

bibliography with sources not actually used, providing answers to others during an exam, copying from someone's test or exam paper. Baird (1980) indicated that obtaining test information ahead of time, copying from others, allowing others to copy and plagiarism were the most common academic dishonesty behaviors. Similarly, McCabe (1992) found that the most common practices included a failure to footnote, copying from others, padding a bibliography and assisting others in cheating. He also noted high occurrences of students collaborating on assignments when they had been instructed to work on their own. The academically dishonest behaviors that occurred most frequently in Genereux and McLeod's (1995) study involved providing other students with exam questions prior to their taking that exam and getting exam questions from students who had already taken the exam. Other behaviors with similarly higher participation percentages included listing false references, allowing a student to copy during an exam and plagiarism. Sunday (2000) also noted the behaviors with the highest rates of cheating involved plagiarism, getting answers to an exam in advance from some who had already taken the exam, and collaborating when individual work was specified.

More recently, advances in technology have created variations of academically dishonest behaviors. The Internet has provided an incredible resource for information, and students are using these sources in their academic work. As a result, more recent studies of cheating behaviors have included an examination of students' dishonest use of Internet sources. Rakowski and Levy (2007) reported that more than 44% of the members within their sample copied from the Internet without providing a source or properly citing the information. In addition, copying homework, allowing others to copy

homework, giving assistance on a project, and receiving assistance on a project were behaviors committed by a higher percentage of the sample.

2.4 Reasons for Cheating

Students have indicated that they are academically dishonest for a variety of reasons. While most agree that cheating is wrong (Baird, 1980), students tend to neutralize this factor in justifying cheating behaviors (McCabe, 1992). This justification is influenced by a variety of motives, and students have employed a number of strategies for justifying their behavior. Some of the more acceptable motives by students include individually oriented motives. These motives usually involve benefits for the individual student, such as higher grades. Other motives are more relationship oriented and are reflected by a student's propensity towards relationship creation and preservation (Jensen et al., 2002).

Many researchers have reported that achievement aspiration is a common reason for cheating (Baird, 1980; Bowers, 1964; Davis et al., 1992; Diekhoff et al., 1996; Fass, 1990; Genereux & McLeod, 1995; McCabe, 1992; Whitley & Keith-Spiegel, 2002). Students cheat to receive higher grades in order to pass courses or increase their grade-point averages. This achievement aspiration can also be influenced by external pressures.

Whitley and Keith-Spiegel (2002) have indicated that external pressures can involve both academic and non academic pressures. Academic pressures are those that are related to coursework and perceptions of faculty attributes and behaviors towards academic dishonesty. In most cases, grades provide a measure of success for students, and the pressure for academic success is high. Academic dishonesty occurs in these situations (Diekhoff et al., 1996; McCabe & Drinnan, 1999). While grades may be a

primary motivation, students also have indicated that they feel greater pressure to commit academic dishonesty when they sense that the academic workload is overly heavy, unreasonable, meaningless, or when they have difficulty keeping up with assignments (McCabe, 1992; Whitley & Keith-Spiegel, 2002).

Academic pressure also has been illustrated by student justifications for dishonest behavior due to perceived faculty unfairness, diligence, and commitment. Students are more likely to cheat when an exam or assignment is perceived as unfair or when they perceive that the faculty member is not and does not have a commitment to addressing academic dishonesty issues (Fass, 1990; Genereux & McLeod, 1995). In these situations, students may perceive that the risk of a cheating behavior is low and are more likely to engage in dishonest behaviors (Gehring, Nuss, & Pavela, 1986). Related to this is faculty inconsistency in applying proper standards of academic behaviors. When academic integrity policies and student understanding are inconsistent, students are more likely to exhibit academic dishonesty (Fass, 1990; Gehring, Nuss, & Pavela, 1986).

Non academic pressures include those coming from employment, family situations, and illnesses (Whitley & Keith-Spiegel, 2002). These situations impact the amount of time students feel they have to prepare academically. Students may also feel pressure by a dependency on financial resources that are connected to their academic achievement (Genereux & McLeod, 1995; Whitley & Keith-Spiegel, 2002).

Dishonest student behaviors are also influenced by social norms and loyalty to peers. Social norms are those values that society promotes as being indicative of the environment. When social norms seem to indicate a support for dishonest behaviors, they influence an acceptance of these behaviors as an expected part of society. Fass

(1986) and Diekhoff et al. (1996) have indicated that unethical behavior is prevalent throughout our society. Faculty and administrator plagiarism, as well as dishonesty in corporate, governmental and athletic settings, continually serves to normalize dishonest behaviors.

These social norms also apply to the students' loyalty to their peer group. Research has indicated that students justify cheating based upon their peer relationships and perceptions (Genereux & McLeod, 1995; McCabe, 1992; Whitley & Keith-Spiegel, 2002). Some social norms and expectations require students to support friends and peers. Student behaviors are influenced by students' desire to create and preserve relationships. Dishonest acts are more easily justified when they benefit a friend or peer. The 1992 cheating incident at the United States Naval Academy is an example of this kind of justification. This incident involved about 125 Naval Academy students having advance knowledge of a final engineering exam. The Naval Academy maintains a strong commitment to honor and integrity as well as high expectations of its cadets regarding academic integrity. Cadets are expected to adhere to the academy's honor code, which prohibits lying, stealing and cheating, and to report all violations of the code. However, the academy also supports the value of strong peer commitment, which is important in military activities (Pavela, 1993). In this incident, cadets found themselves at odds over two values and sought justification for their cheating behavior in the value of supporting their fellow cadets.

2.5 Individual Influences on Academic Dishonesty

A wide variety of factors have been studied in terms of their relationship to academic dishonesty. These factors include students' individual characteristics and

environmental variables. Individual difference factors include those that are reflected in differences among individuals, such as age, gender, academic achievement and participation in extracurricular activities. Individual difference factors have been considered “significant correlates of cheating among college students” (McCabe, Trevino, & Butterfield, 2001a, p. 227). Age, gender, and academic achievement are factors that have been studied extensively, while the impact of student participation in extracurricular activities has not been examined as broadly.

In studies of academic dishonesty and age, age refers to a student’s age at the time the student completed the survey. In general, studies have found that older college students tend to cheat less than younger college students (Diekhoff et al., 1996; Finn & Frone, 2004; Haines et al., 1986; McCabe & Trevino, 1997; Rakovski & Levy, 2007; Vandehey, Diekhoff, & LaBeff, 2007; Whitley, 1998; Zimmerman, 1998). This is consistent with the research that has indicated that college students cheat less than high school students (Bowers, 1964; Davis et al., 1992; Fisher et al., 1998; Jensen et al., 2002). In contrast to all these studies, Pino & Smith (2003) actually found that younger students cheated less than older students.

McCabe, Trevino, and Butterfield (2001a) have added that younger students tend to be enrolled in lower-level courses that are generally characterized by large class size and lower student interest levels in contrast to older, upper-level students who may be more enthusiastic about their major courses and involved with their faculty. This level of coursework and involvement makes it more difficult for students to decide to participate in academically dishonest behaviors. This might seem to indicate that class level, as it is seemingly related to age, would have an impact on academic dishonesty. Interestingly,

research has suggested that this is not the case. The vast majority of studies have suggested that there is no correlation between class rank and academic dishonesty, even in cases where age has been shown as a correlate (Baird, 1980; Bowers, 1964; Genereux & McLeod, 1995; Haines et al., (1986); Rakovski & Levy, 2007; Whitley, 1998).

Gender is one of the most researched individual characteristics as it correlates to academic dishonesty. The vast majority of studies have indicated that men tend to cheat more frequently than do women (Arnold, 2004; Baird, 1980; Bowers, 1964; Davis et al., 1992; Dawkins, 2004; Finn & Frone, 2004; Genereux & McLeod, 1995; Jensen et al., 2002; May & Loyd, 1993; McCabe & Trevino, 1997; Rakovski & Levy, 2007; Zimmerman, 1998). There may be cultural aspects related to gender that impact self-reported cheating rates. Whitley (1998) indicated that the difference between the cheating rates of males and females were significantly greater in studies that involved self-reported rates than those that involved classroom observation or laboratory experiments. Jensen et al. (2002) found that in addition to females cheating less frequently than males, female students were also more likely than males to consider cheating an unacceptable behavior. May and Loyd (1993) suggested that the propensity for female students to cheat less frequently and to consider cheating behaviors as unacceptable is in part due to women's greater commitment to possessing and adhering to a personal code of behavior. They found that females were more likely than males to have adopted a code of ethics that actively influenced their behaviors. Hendershott, Drinan, and Cross's (1999) findings supported this idea. These researchers concluded that female students are more likely to be influenced by academic integrity policies and

that the cheating behaviors of women are more likely to be impacted by strongly stated codes of academic integrity.

While much of the research has indicated that men are more likely to engage in acts of academic dishonesty than women, several studies have suggested that this may not be the case. These studies, in general, have not suggested that women cheat more than men; rather, they have suggested that the correlation between gender and academic dishonesty is not strong (Haines et al., 1986; Pino & Smith, 2003; Sunday, 2000). McCabe, Trevino, and Butterfield (2001a) have suggested that the correlation between gender and academic dishonesty is also weak when taking into account students' area of study. For example, they found that women majoring in engineering had higher cheating rates than did women in other majors and nearly the same as men in engineering.

Academic achievement is another individual variable that has been frequently examined in academic dishonesty research. Academic achievement is commonly measured by student grade-point average (GPA). The vast majority of this research has indicated that students with lower GPAs are more likely to engage in academically dishonest behaviors (Baird, 1980; Bowers, 1964; Dawkins, 2004; Diekhoff et al., 1996; Haines et al., 1986; McCabe & Trevino, 1997; Rakovski & Levy, 2007; Vandehey, Diekhoff, & LaBeff, 2007). Genereux & McLeod (1995) indicated that this was true for students in relation to their desired GPA. Students with higher desired GPA were more likely to cheat. Interestingly, Whitley's (1998) review of academic dishonesty studies related to academic achievement indicated that the relationship between GPA and cheating behavior was very weak. He suggested that these results indicated that cheating

is more likely motivated by students' concerns over doing poorly than their actual academic ability.

Another individual variable that has received some attention due to its correlation with academic dishonesty involves student participation in extracurricular activities. The challenge in evaluating studies focusing on this variable is that extracurricular involvement has been defined in multiple ways, and there is a lack of consistency in the types of activities that have been included. For example, extracurricular involvement has been evaluated in terms of participation in intercollegiate athletics, intramural athletics, campus organizations, musical groups, social activities, attending events and fraternities or sororities. In general, participation in extracurricular activities has been associated with academic dishonesty (Baird, 1980; Bowers, 1964; Dawkins 2004; Diekhoff et al., 1996; Haines et al., 1986; Jewett, 2006; McCabe & Trevino, 1997; Pino & Smith, 2003; Vandehey, Diekhoff, & LaBeff, 2007).

Regarding fraternity and sorority involvement, McCabe and Trevino (1997) and Vandehey, Diekhoff, and LaBeff, (2007) reported positive correlations between membership and academic dishonesty. Bowers (1964) and Dawkins (2004) also reported the same finding; however, both researchers indicated the strength of the relationship was small.

Participation in intercollegiate and intramural sports has been associated with higher levels of student academic dishonesty (Diekhoff et al., 1996; Haines et al., 1986; Jewett, 2006; McCabe & Trevino, 1997). Jewett (2006) reported a 95% cheating rate from his sample of intercollegiate athletes. Vandehey, Diekhoff, and LaBeff, (2007) also

reported higher cheating rates among students participating in intramural sports but did not report the same finding based upon intercollegiate sport involvement.

McCabe and Trevino (1997) used a general index of extracurricular involvement that included participation in campus organizations, musical groups, college publications, and intramural athletics. They concluded that participation in extracurricular activities was associated with higher levels of academic dishonesty. In terms of other extracurricular involvement, Pino & Smith (2003) examined participation in student organizations and clubs. They postulated that the influence that these activities had on cheating behavior was magnified by the peer environment. These researchers concluded that participation in extracurricular activities enabled students to become more involved and imbedded in the student social culture and thus more likely to interact with peers who engaged in academic dishonesty. Peer impact in relation to extracurricular involvement was also illustrated by Dawkins (2004), who found that even though attending extracurricular events was not correlated with cheating behaviors, attending these events with friends was, in fact, correlated. While these studies examined extracurricular involvement as an individual factor, it is clear that contextual influences, such as the peer culture, also had an impact on academic dishonesty.

2.6 Contextual Influences on Academic Dishonesty

While many studies have sought to examine differences in academic dishonesty behaviors and attitudes based upon individual characteristics, another area of research has focused on the impact of contextual variables. In fact, it has been suggested that contextual variables have a more significant impact on academic dishonesty than individual variables (Baird, 1980; Bowers, 1964; McCabe & Trevino, 1993, 1997). This

research project has focused on the impact of a variety of environmental factors from institutional, individual, and peer perspectives.

2.6.1 Impact of a Culture of Academic Integrity

Central to any discussion about contextual influences on academic dishonesty is the impact of culture. Clark (1986) has suggested that having a shared culture serves to create a sense of community because members on campus are bonded together by common beliefs. “Such an emotional bond turns membership into community” (Clark, 1986, p. 40). Additionally, Kuh and Whitt (1988) have suggested that “a culture of a college or university defines, identifies, and legitimizes authority in educational settings” (p. 9). A culture that supports academic integrity serves as an authority in the educational setting. Community members’ behaviors are influenced by this sense of authority. There exists a known community expectation that all members understand is an important value in the community. Regardless of the policies, programs and techniques that are employed by an institution or its faculty, what seems to make the most significant difference in the academic integrity of students is being part of a community whose members intentionally work to create a culture on their campus that supports honest behaviors in student academic work (Davis, et. al., 1993; Fass, 1986; McCabe, 2005; McCabe & Trevino, 1993, 1997, 2002; Pavela, 1997; Pavela & McCabe, 1993; Whitney & Keith-Spiegel, 2001). This involves the creation of a set of shared values and beliefs among members of the community.

A culture of shared values and beliefs that supports an understanding of academic integrity can have a significant impact on cheating behaviors. Kibler (1993b) has stated that this type of culture “conveys that academic integrity is something to revere, honor

and uphold” (p. 12). McCabe, Trevino, and Butterfield (2001a) have supported this contention by stating that “a strong culture of academic integrity . . . communicates the importance the community places on integrity” (p. 225). The culture encourages participation in ways that promote inclusion of members in a common community.

Whitley and Keith-Spiegel (2001) have agreed that campus culture influences students’ behaviors and attitudes towards cheating. They further have proposed four elements that are indicative of a culture of academic integrity. The first of these elements is institutional integrity. Institutions must act and behave with integrity in all facets of their programs and operation. There must be institution-wide commitment to the values of trust, honesty and integrity, and this commitment must be translated into the words and actions of its members. While this certainly includes written policies that support integrity, the actions of the institution send an even stronger message that the institution is serious about the values it espouses.

One aspect of this element involves the inclusion of written institutional policies related to academic integrity. Institutional policy development is important in conveying to students the context and expectations regarding academically dishonest behaviors. Policies provide definitions and the framework by which the community learns and begins to understand corporate expectations regarding academic behaviors. Policies reflect the importance and seriousness that institutions place on cheating and dishonest behaviors. Establishment of such policies is critical in controlling academic dishonesty (Fass, 1986; Kibler, 1993b). Just as critical is the strength with which these policies are promoted on campuses (Davis et al., 1992).

A second element is the presence of a learning-oriented environment. This type of environment is one in which the emphasis is on “student learning and intellectual development” (Whitley & Keith-Spiegel, 2001, p. 338). In this model, student learning and development are emphasized over the model of simply providing services and grades as the focus of the educational experience. The learning focus works to enhance an environment where students learn in a caring and supportive way, are actively engaged in the learning activities, and where they understand the relevance of course assignments in connection to their learning and development (Whitley & Keith-Spiegel, 2002).

A third element is the inclusion of a values-oriented curriculum. A values-oriented curriculum is one in which core values are integrated across and throughout the academic program. These common core values become easily recognized and associated with the expected institutional culture. Central to a values-oriented institution is a commitment to the moral and ethical development of its students and community members. This commitment to an understanding of certain standards of moral behavior is vital in the promotion of academic integrity (Pavela & McCabe, 1993).

The final element of a culture of academic integrity proposed by Whitley and Keith-Spiegel (2001) is an honor code. An honor code is an example of an academic integrity policy that seeks to promote honesty and integrity. Such codes combine the effectiveness of a written statement regarding academic dishonesty with application, practice and student involvement. There is an indication that “students respond positively to strategies that place responsibility on them for governing and adjudicating issues of academic dishonesty” (McCabe & Trevino, 1996, p. 29). This response is indicative of a culture in which students are involved and understand the shared values.

Students and members of the college community must understand the code and accept the values it promotes before the code is likely to influence behaviors (May & Loyd, 1993).

The presence of honor codes on a college campus not only helps establish and support the creation and maintenance of a culture of academic integrity, but it also communicates that culture to its members. This communication is also crucial in the continual transmission of the values of the culture to new members. Even so, an honor code on its own is unlikely to create and maintain a culture of academic integrity (Hall & Kuh, 1998; McCabe & Trevino, 1993). These codes seem to work best when the other elements of a culture of academic integrity also exist (McCabe & Trevino, 1993, 2002; Whitley & Keith-Spiegel, 2001).

While nearly all academic honor codes seek to promote academic integrity, the composition of codes can vary among institutions. In general, these variations involve the inclusion of one or more common attributes. Melendez (1985) identified institutions as having an honor code if they exhibited one or more of the following features: unproctored examinations; a pledge, usually indicating that the student has acted honorably by adhering to accepted principles of academic honesty in the preparation and completion of academic work; a peer judiciary process in which students experience shared authority in the operation of the system; and a policy of nontoleration. Nontoleration involves the obligation of a student who witnesses or has knowledge of an infraction of an honor code by another student to report such knowledge. Institutions with traditional honor codes usually have at least two of these features and often have all four.

In recent years, a number of colleges and universities have been adopting what have become known as modified honor codes (McCabe & Pavela, 2000). These codes have typically involved an institutional decree or statement that is designed to communicate the importance of academic integrity on the campus. They also have been designed to increase student involvement in developing programs, establishing policies and adjudicating any infractions. Regardless of the components of the design, all forms of honor codes seek to create environments that support the values of honesty and integrity. McCabe, Trevino and Butterfield (2002) investigated schools with traditional honor codes, schools with modified honor codes, and schools without honor codes. They found that the highest levels of academic dishonesty occurred at institutions with no honor codes and the lowest level at institutions with traditional honor codes. Schools with modified honor codes were found to have moderate levels of academic dishonesty.

The impact of honor codes on academic dishonesty has been well documented. Bowers' (1964) landmark study on academic dishonesty found lower levels of cheating at schools with honor codes. This finding was again supported in a follow-up study (McCabe & Bowers, 1994). In this study, these researchers examined male cheating behavior at schools both with and without honor codes. They found significantly lower levels of self-reported cheating among students at honor code schools as compared with students at schools without such codes. Similar support indicating a positive relationship between honor codes and reduced academic dishonesty has been shown in other studies as well (McCabe & Trevino, 1993, 1997; McCabe, Trevino, & Butterfield, 1999, 2002).

Creating a culture of academic integrity is not an easy task. It takes a combination of institutional policy, promotional programs, and faculty and student

support to reach such a goal. While honor codes are one way in which institutions can support a culture of academic integrity, they represent only one method (Arnold, 2004; McCabe & Trevino, 1997). McCabe and Trevino (1993) found that one of the honor-code schools in their sample had a high level of cheating, while a school without an honor code had one of the lowest cheating levels. They indicated that the non-honor-code school was “strongly committed to the concept of academic honor” (p. 534) and was active in promoting and communicating this value to members of the college community. Conversely, students at the honor-code institution had low levels of understanding and commitment to the code. This served to illustrate the impact of an institutional environment that is active in its approach to discouraging academic dishonesty.

Contextual influences on academic integrity can arise from both institutional and individual perspectives. While a culture of academic integrity is supported through institutional policy and program, it also is impacted by individuals’ understanding and acceptance of the policy. Students with lower levels of understanding and acceptance reported higher levels of academic dishonesty (McCabe & Trevino, 1993). This was true in college and university environments regardless of the strength of the culture of academic integrity. However, the distribution of students with lower levels of understanding and acceptance was influenced by the strength of the culture of academic integrity. Students need to be actively involved at their institutions. This active involvement supports the adoption of a greater understanding and commitment to institutional values and expectations. It is only through strong commitment to the educational process and the individual acceptance of a moral code of ethics that students’ academically dishonest behaviors can be reduced (Davis et al., 1992).

2.6.2 Impact of the Peer Culture

As impactful as an institutional culture that actively supports academic integrity can be on the cheating behaviors and attitudes of college students, the cultural factor that has the most influence on academic dishonesty is the students' peer culture (Bowers, 1964; McCabe & Trevino, 1993, 1997; McCabe, Trevino, & Butterfield, 2002). The influence of the peer culture impacts student behaviors and attitudes through the dishonest actions and behaviors that are witnessed by students and by the perception that students have about the cheating peer culture at their institutions. In fact, it is perceptions of the peer environment that seem to have the greatest impact. Perceptions of the peer culture have been studied extensively. If students perceive that there is a culture of cheating among their peers, they are much more likely to cheat (Genereux & McLeod, 1995; Hall & Kuh, 1998; Vandehey, Diekhoff, & LaBeff, 2007). Student perceptions function as a social norm, which has the effect of diminishing the value of academic integrity. Students perceive that their peers are actively involved in dishonest academic behaviors. Boresellino (1983) found that 97% of students in his sample believed that their peers did engage in some form of academic dishonesty.

Studies on the impact of the peer culture on student attitudes and behaviors towards academic dishonesty have tended to focus on peer cheating behaviors, peer disapproval of cheating, and peer reporting of cheating. Peer behavior includes both perceived behavior and witnessed behavior. Both work to normalize cheating behaviors and attitudes among students (Bowers, 1964; McCabe & Trevino, 1993). This process can create and maintain a culture that supports dishonest behaviors and attitudes towards cheating. In this case, the peer culture can diminish an institution's best efforts to create

a culture of academic integrity (McCabe & Trevino, 1993). Conversely, if the perceptions and actions of students' peers support an environment that fosters values of honesty and integrity, then students are much more likely to engage in similar behaviors and attitudes.

The perception of peer disapproval is the strongest factor in impacting student academic dishonesty (Bowers, 1964; McCabe & Trevino, 1993, 1997). Students who perceive that their friends and peers would disapprove of cheating are less likely to engage in dishonest behaviors. Bowers' (1964) comprehensive study noted that when students perceived very strong peer disapproval, the self-reported cheating rate was 26%. However, when students perceived very weak peer disapproval, the self-reported cheating rate was 71%. Bowers further examined how the climate of perceived peer disapproval differed among institutions. Colleges were characterized by the level of students' perceptions of the environment of academic integrity. He found that a high percentage (94%) of institutions with a very weak climate of peer disapproval had a high level of cheating, while no institutions with a very strong climate of peer disapproval had a high level of cheating.

Peer reportage refers to the student perceptions of the likelihood that their peers will report dishonest behaviors. The expectation that one's peers can and will report academic dishonesty can serve as a deterrent towards cheating behaviors (Arnold, 2004). An issue that impacts this factor is the existence of reluctance on the part of students to report peers. Students have indicated increased dissonance when considering decisions to report their friends and peers (McCabe, Trevino, & Butterfield, 1999). Bowers (1964)

discovered that students were much more likely to either express disapproval individually when witnessing cheating incidents or not at all rather than report them to an authority.

Institutions with traditional honor codes often include peer reportage as an element of their honor codes. In these settings, there is an expectation that students have an obligation to report any dishonest behaviors. Students at schools with honor codes are more likely to report incidents of academic dishonesty than students in schools without honor codes. However, more than half of these students have experienced difficulty in reporting incidents of academic dishonesty (McCabe, Trevino, & Butterfield, 2001b). While peer reportage can serve as a deterrent, studies have shown that this type of requirement has a negligible influence on student academic dishonesty (McCabe & Trevino, 1997; McCabe, Trevino, & Butterfield, 2001b). In fact, the results of these studies have strongly suggested that the existence of a culture of integrity is a more significant factor than a peer reportage requirement.

2.7 Academic Dishonesty and Religious Variables

A substantial portion of the research on academic dishonesty covers a variety of different individual and contextual variables. One individual variable that has not received as much attention is religious affiliation. Religious affiliation from an individual perspective involves an individual's commitment to a particular denomination or religious dogma. Bowers (1964) provided an early examination of the possible impact of religion on academic dishonesty. Bowers suggested that differences in religion impact students' beliefs and values. These beliefs and values, in turn, have implications on their behaviors toward academic dishonesty. Bowers examined religious background broadly in terms of Protestant, Catholic, and Jewish faith perspectives. He did not find

measurable differences in cheating behaviors among students with religious backgrounds, especially when taking into account the propensity towards cheating in the college or university environment. Cheating rates for these religious groups ranged from 47% to 55%, which were consistent with the overall cheating rate of 50%. Similarly, Brown and Choong (2003) compared rates of academic dishonesty at a Catholic and secular university and found nearly identical cheating rates.

Additional research focused on religious affiliation from a Christian perspective has examined the cheating habits and behaviors of Christian students at the middle-school, high-school, and college levels (Bruggeman & Hart, 1996; Fisher et al., 1998; Moring, 1999; Rickards, 1962; Richardson, 1967; Peterson, 1972; Sunday, 2000). This research study focuses on the impact of Christian character and other religious variables on academic dishonesty. Studies have indicated that membership in a religious body or intentional commitments to religious values translate into attitudes and behaviors that do not support academic dishonesty (Bruggeman & Hart, 1996; Fisher et al., 1998; Sunday, 2000). Other religious variables include length of Christian commitment (Sunday, 2000), level of religious participation (Borsellino, 1983; Fisher et al., 1998; Sutton, 1991), and satisfaction with religious involvement (Borsellino, 1983).

Fisher et al. (1998) examined the level of participation in a variety of religious activities and their connection to academic dishonesty. While their evaluation indicated that all of the religious variables studied were significant negative predictors of students engaging in academically dishonest behavior, the strength of the relationship is suspect. Additionally, the sample included middle-school and high-school students, parents, administrators, teachers and pastors.

Borsellino (1983) examined the correlation of religious variables, including religious affiliation, religious participation, and satisfaction with religious involvement, and cheating attitudes and behaviors of college students. He found no relationship between religious affiliation and academic dishonesty although the level of religious participation, satisfaction with religious involvement and the level of importance that students placed on their religious development all were negative indicators of academic dishonesty. These results reflect the commitment that individuals may have towards their faith and religious perspectives. Students with increased commitment and involvement in religious activities were less likely to engage in behaviors of academic dishonesty.

Sutton (1991) suggested that Christian character also influences college student cheating rates. He indicated that most students who exhibit Christian character traits do not engage in cheating behaviors and consider most forms of cheating behaviors to be serious instances academic dishonesty. He also found that the length of Christian commitment was not a factor in determining students' rate of cheating.

While the research on cheating as it relates to religious factors has focused on religion as an individual characteristic, there appeared to be a gap in the literature as it related to examining the cheating attitudes and behaviors of students enrolled specifically in Christian colleges and universities. The samples in the studies of both Borsellino (1983) and Sutton (1991) included respondents from secular institutions. Few studies of higher education institutions have examined religious affiliation as a contextual factor although there are a few exceptions. Brown and Choong (2003) and Graham, Monday, O'Brien, and Steffen (1994) in separate studies each compared students at a single Catholic university with those at a secular school. Neither found significant differences in

cheating behaviors between students at these two types of institutions. While Sunday (2000) examined religious factors as an individual characteristic, his sample included only students from fundamentalist Christian colleges. This environmental variable provides a possible contextual influence. At fundamentalist Christian colleges, religion and faith are important components of the institutional culture. Sunday (2000) found that very limited cheating occurred among the students in his sample (26%) and suggested that these results should only be “generalized within the context of fundamentalist Christian higher education” (p. 175). This figure is much lower than the self-reported cheating rates that have been reported in other studies that have included primarily secular institutions. Sunday also noted that the percentage of students who perceived faculty as supportive and who perceived that faculty members understood the college’s academic integrity policies was very high. More than 80% of students rated support and understanding as high or very high. More than 70% of these students also rated the effectiveness of academic integrity policies as high or very high.

2.8 Religiously Affiliated Colleges

In higher education, religious affiliation often refers to an institution’s historical or structural connection to a particular religious denomination. However, these institutions are defined by more than just an historical connection to a religious denomination. It is more than a simple claim of church-relatedness. A religiously affiliated college supports its denominational claim with observable action (Cuningum, 1978), and this action can take a variety of forms. However, regardless of the form, religiously affiliated colleges seek to promote their church connection both formally and informally. Institutions may not be connected with a specific denomination, but they still

place religion and/or religious beliefs as core elements in their mission, and their claim is supported by the actions of the institution. Diversity exists even among these self-defined religiously affiliated colleges. These institutions include those that are Christ-Centered, Roman Catholic, Bible colleges, seminaries, and a host of institutions that can be characterized as having varying degrees of integration of their faith traditions (Ringenberg, 2006). Sutton's (2000) sample of students from fundamentalist Christian colleges included institutions that fall into this category of faith integration.

Cuningum (1978) and Carson (1997) have indicated a number of essential components of church-related institutions, and it is these concepts that serve to define the religiously affiliated college. First, the college and church must want to be related and must desire that connection. The strength of the relationship between church and college is essential in maintaining an institution that is defined as distinctly Christian (Benne, 2001; Burtechell, 1998). In this definition, the college seeks to make provisions for religion in all its dimensions. The college puts its values and those of the church into recognizable action. It is assumed that there are at least shared values and that these values are reflected in the mission and operation of the institution. There is a sense of a shared culture, and this provides the environmental context in which students find themselves when attending these institutions.

Benne (2001) and Carson (1997) have indicated that the culture of religiously affiliated colleges, and Christian colleges in particular, supports moral action and virtues related to honesty and integrity. Having a culture that is supportive of moral values certainly makes it easier to transmit those values to new members of the community. A great strength of successful Christian colleges and universities is the creation of a culture

that provides new members with a sense of meaning and connection with the important values of the institution. These values have their roots in the biblical teachings of these religious schools (De Jong, 1990; O'Connell, 2002), and these moral values are consistent with the values that support academic honesty and integrity.

Church-related colleges and universities generally are thought to have a tendency towards strong commitments to a values-oriented curriculum. In this model, core values are integrated across and throughout the academic program. This educational focus is considered to reflect a significant commitment to the development of moral and ethical values and a greater tendency to exhibit behaviors supportive of academic integrity (Bruggeman & Hart, 1996).

There are approximately 900 colleges and universities in the United States that designate themselves as "religiously affiliated" (Council for Christian Colleges and Universities, 2007). One way in which some of these institutions have sought to display their commitment to core Christian values is through membership in related professional associations. Just over 100 of these institutions are members of the Council for Christian Colleges and Universities. This organization includes the membership of Christ-centered colleges and universities from across the country. While these institutions represent geographical, denominational and theological diversity, they all seek to be intentionally Christ-centered and share a commitment to the integration of faith and learning (Patterson, 2001). These institutions seek to differentiate themselves from other religiously affiliated and secular institutions through their emphasis on providing a scholarly faith-based education.

Within this group of colleges and universities are institutions that are affiliated

with Mennonite Church USA. This denomination has its roots in the Anabaptist movement of the protestant reformation in the sixteenth century. Mennonites as a group are characterized by a faith in the existence of God and the acceptance of Jesus Christ as God's own son, whose death and resurrection brought salvation from sin (Mennonite Church USA, 2008a). This salvation is received when individuals repent of their sins and accepts Jesus Christ as their personal savior.

Jesus Christ is central to Mennonites, both in worship and in their daily lives. Mennonites seek to follow the example of Christ through their actions and behaviors. They are known for their commitment to peace, justice, community, and social concerns (Mennonite Church USA, 2008b). In addition to these values, Mennonites also seek to present themselves with truth, honesty and integrity. One of the Confessions of Faith of Mennonite Church USA is a commitment "to tell the truth" (Mennonite Church USA, 2008a, n.p.). This truth extends from a scriptural truth to exhibiting and modeling truth in how they function as members of their communities inside and outside of the church.

Mennonite groups can be found in countries around the world, and Mennonite Church USA represents the largest of the formally organized groups of Mennonites in the United States. This organization has membership from Mennonite congregations across the country. In addition to providing denominational context and support, the church as a whole also has ministries involving missions, aid and resource stewardship, publishing and education. Educational ministries are the function of the Mennonite Education Agency (MEA).

MEA provides guidance and support to the elementary, secondary and higher education institutions of the Mennonite church. MEA seeks to provide for the

development and promotion of the mission and vision for Mennonite education. The agency further seeks to support the individual missions of the educational institutions while supporting and encouraging strong relationships between these schools and the church (Mennonite Education Agency, 2008). They play an important role in ensuring that core shared values of the institutions and the church are preserved.

Higher education within Mennonite Church USA includes four four-year institutions, a two-year college, and two seminaries. The focus of this study is the four four-year colleges and universities. This group includes Bethel College (KS), Bluffton University, Eastern Mennonite University and Goshen College. In a joint letter, the presidents of these institutions have indicated their common commitment to provide educational environments that are Christ-centered, supportive communities that value the integration of faith and learning in a way that develops critical thinking and encourages integrity (Bartel et al., 2008).

Bethel College is a four-year liberal arts college located in North Newton, Kansas. The college was founded in 1887 and has a current enrollment of approximately 450 undergraduate students. The college's mission statement professes its intentional commitment to its faith and academic identity and highlights four central values. These values include discipleship, scholarship, service, and integrity (Bethel College, 2008). The value of integrity is central in the integration of faith and learning. This value is also illustrated through the institution's goals and standards of conduct for its students. The college maintains that standards of conduct should be guided by those "contained in the teachings of Jesus Christ" (Bethel University, 2008b, n.p.). These standards include the responsibility of being trustworthy and honest with all members of the college

community. In terms of academic integrity, there is a community understanding that honesty in academic work is central to the Bethel College academic experience and that it is the responsibility of all members of the college community to support this value (Bethel University, 2008c).

Bluffton University is a four-year liberal arts college located in Bluffton, Ohio. The university was founded in 1899 and has a current enrollment of approximately 1,000 undergraduate students. Bluffton's mission statement emphasizes the influence of its faith tradition, including its values and Christian commitments. Bluffton's mission is also influenced by its four professed enduring values: discovery, community, respect and service. The value of respect reveals itself through commitment of the university community to support mutual respect in one's interactions in all facets of the university program. There are expectations that openness and honesty are integral to the academic and faith community (Bluffton University, 2007). The university's commitment to academic integrity is most revealed through its support of an honor code. The university's honor code has a long history that was first established in 1918 (Bush, 1999). Students are required to sign a pledge on their academic work indicating that they are "unaware of any aid having been given or received during this examination" (Bluffton University, 2007, p. 11). The honor code is also characterized by unproctored examinations and an expectation that it is the responsibility of members of the community to report incidents of academic dishonesty whether by themselves or others.

Eastern Mennonite University is a four-year liberal arts college located in Harrisonburg, Virginia. The university was founded in 1917 and has a current enrollment of 1,000 undergraduate students. Eastern Mennonite University's mission statement

indicates a commitment to providing an education that is informed by its Anabaptist Christian values and beliefs. There is an emphasis on an invitation to follow Christ's calling. Eastern Mennonite University's core values are reflective of the values of the church and include Christian discipleship, community, service, and peacemaking (Eastern Mennonite University, 2008). The institution's statement on academic integrity indicates that academic dishonesty is a serious violation of institutional expectations. There is an expectation of trust that ought to be an integral component imbedded within the educational community. There is also an expectation that academic integrity is the responsibility of all members of the institution (Eastern Mennonite University, 2007).

Goshen College is a four-year liberal arts college located in Goshen, Indiana. The college was founded in 1894 and has a current enrollment of approximately 950 undergraduate students. Goshen's mission statement, like the other Mennonite institutions, describes an educational program with an emphasis on integrating faith and learning. This mission is informed by core values that involve Christ-centeredness, passionate learning, servant leadership, compassionate peacemaking, and global citizenship (Goshen College, 2008a). Goshen College supports an environment that discourages academic dishonesty through its formalized statement indicating that it is an academic community of integrity. This statement highlights five expectations of students living and learning in this academic community. These expectations involve honesty, trust, fairness, respect and responsibility (Goshen College, 2008b). The expectations of this community are meant to create an environment of honesty, trust and integrity that supports honest academic behaviors. As at the other Mennonite institutions, at Goshen there is the expectation that members of the college community individually and

collectively bear responsibility for upholding academic integrity at the college.

These Mennonite-affiliated institutions profess a commitment to academic integrity through their stated institutional core values and mission statements, codes of conduct and academic policies. These institutions also profess a common faith commitment that distinguishes them from other religiously affiliated and secular colleges and universities. This distinguishing characteristic provides a particular context within which to examine student behaviors and attitudes towards academic dishonesty.

2.9 Summary

Studies on cheating behaviors, habits and attitudes of college students have examined a wide variety of topics related to academic dishonesty. These include cheating behaviors, motives, individual factors, and contextual influences. While many of these factors have been shown to have a relationship with academically dishonest student behaviors and attitudes, contextual factors have been shown to have the greatest impact (Bowers, 1964; McCabe & Trevino, 1993, 1997). Environmental factors, such as the influence of peers and a culture that promotes and supports values of honesty, trust, and integrity, can have a significant influence on cheating behaviors and attitudes. Certainly the influence of the peer culture and strong integrity-oriented academic environments, such as those with honor codes, has been well documented (Bowers, 1964, Genereux & McLeod, 1995; Hall & Kuh, 1998; May & Loyd, 1993; McCabe & Trevino, 1993, 1997; McCabe, Trevino, & Butterfield, 2001b, 2002; Vandehey, Diekhoff, & LaBeff, 2007; Whitley & Keith-Spiegel, 2001). However, there are other institutional cultural factors, such as church affiliation or religious commitment, which may also have an impact on academic dishonesty.

Religiously affiliated colleges, and Christian colleges in particular, promote their institutions and programs as being different from secular institutions. They promote the values of their institutions in terms of the influence of the faith perspective on their environments. Members of these institutions understand that this faith perspective embeds certain values and expectations in the culture of the institution. There is an expectation that these values influence student behaviors and attitudes regarding academic dishonesty (Borsellino, 1983; Bowers, 1964; Fisher et al., 1998; Sunday, 2000; Sutton, 1991).

This chapter has reviewed the literature and research that has been conducted on the topic of academic dishonesty among college students. This chapter also has included a review of the literature focusing on definitions of academic dishonesty, various cheating behaviors and motivations for cheating, self-reported cheating rates, and various individual factors and contextual influences. The chapter has concluded with a discussion of the literature on church-related institutions, a review of specific studies that have examined academic dishonesty and religious variables and a description of Mennonite Church USA and its four-year colleges and universities. The next chapter explains the methods that were employed in carrying out this study.

Chapter Three

Methodology

This chapter describes the methods used to conduct this study. The chapter begins with a reintroduction to the need for additional study of the topic of academic dishonesty within an institutional religious context and the research questions. This chapter continues with a discussion of the population that was studied. The chapter concludes with information about the instrument that was used in the study, a description of the data collection methods, and an explanation of the data analysis methods.

3.1 Problem Statement

Academic dishonesty continues to be a prevalent issue on the campuses of the nation's colleges and universities. Studies during the last 50 years have illustrated the level of the problem. While not all studies have suggested that the levels of cheating have increased over time, it is clear that academic dishonesty among college students is not a new phenomenon and that it continues to occur at significant levels. Self-reported cheating rates have varied, with some reporting rates as high as 82% (McCabe, Trevino, & Butterfield, 2001a). There is consensus that academic dishonesty is a value neither shared nor supported in higher education, and its continued occurrence is seen as a significant problem.

A variety of individual difference factors and contextual variables have been studied in relationship to their impact on students' cheating behaviors. These factors and variables have provided a variety of perspectives on the issue and illustrate the difficulty in understanding the factors that lead to academically dishonest behaviors. Studies have suggested that contextual factors may play a greater role in influencing student cheating behaviors (McCabe & Trevino, 1997). Research on contextual factors has generally focused on the impact of the peer culture and the focus on academic integrity of the institutional culture. Research on this latter emphasis has tended to examine the impact and influence of honor codes on cheating behavior (McCabe, Trevino, & Butterfield, 2001b; McCabe & Trevino, 2002; Arnold, 2004). What has been missing is information and understanding about the contextual factors of institutional religious affiliation and their potential impact on academic dishonesty among college students. Awareness has existed on these campuses that incidents of cheating were occurring; however, there has been an absence of knowledge as to the extent of academic dishonesty and whether or not it was substantially different than that of other institutional types.

Benne (2001) and Carson (1997) indicated that the culture of church-related colleges supports values and virtues related to honesty and integrity. Furthermore, it was understood that these types of institutions tend to have strong commitments towards core values that are integrated across and throughout the academic program. This type of education was thought to have a commitment to the development of moral and ethical values and a greater tendency to exhibit behaviors supportive of academic integrity (Bruggeman & Hart, 1996). Even so, academic dishonesty still existed on campuses with strong religious affiliation (Sunday, 2000).

This created a contradiction between church-related institutional core values and student behavior. Given that the environment supposedly supported academic integrity, a situation where academic dishonesty occurred was a substantive issue. However, researchers did not know the extent of this contradiction nor was how the attitudes and behaviors of students at church-related colleges may have differed from students at other institutions. In order to better understand and address this situation, additional information was needed. This information was important in ascertaining the actual situation at church-related colleges and universities and in considering appropriate responses to elicit change in academically dishonest behaviors.

The purpose of this study was to further examine acts of academic dishonesty of students on college and university campuses of church-related institutions to inform policy decisions aimed at reducing these behaviors. The study involved the examination of the extent of self-reported cheating rates among students at four-year Mennonite-affiliated colleges. Given the lack of previous study of academic dishonesty, both in terms of contextual and individual difference factors, at these types of institutions and a desire to inform an effective response, this study involved assessing the attitudes towards cheating behaviors and the cheating practices of students at these institutions. Contextual factors, such as the peer culture and its relationship towards academic dishonesty of students attending Mennonite-affiliated institutions and the relationship of cheating among students at these institutions to individual difference factors such as gender, academic achievement, age, and extracurricular involvement were also examined. These were determined to be the common individual difference factors by which to conduct comparative analysis.

3.2 Research Questions

In order to assess and provide greater understanding of the level of academic dishonesty, perceptions and influences on cheating behaviors on the campuses of church-related colleges, specifically of Mennonite-affiliated institutions, the following primary research question and subsequent supporting questions were asked.

What is the extent of academic dishonesty among students at four-year Mennonite-affiliated colleges, and how does it compare with college students in general?

1. What is the level of cheating among students at four-year Mennonite-affiliated colleges?
2. What are students' attitudes towards academic dishonesty, and are there differences between these attitudes and the level of cheating of students attending Mennonite-affiliated institutions?
3. What are the cheating practices and behaviors of students attending Mennonite-affiliated institutions?
4. Are there differences in the level of cheating among students attending Mennonite-affiliated institutions based upon perceived peer attitudes towards cheating?
5. Are there differences in the level of cheating among students at Mennonite-affiliated colleges based upon the individual difference factors of gender, academic achievement, age and involvement in extracurricular activities?

3.3 Population

The intended population for this study included undergraduate students at church-related colleges and universities. The selection of a particular denomination was made due to convenience and an interest on the part of these institutions in examining the issue of academic dishonesty among their students. Higher education institutions that are affiliated with the Mennonite Church USA were initially considered for the research. This group of institutions includes four four-year institutions, a two-year college, and two seminaries. As the four-year institutions share many similarities in terms of enrollment, programs and student demographics, the focus of the study was on undergraduate students currently enrolled at these institutions. The institutions are small schools with total undergraduate enrollments ranging from 500 to 1000. They are located geographically in Virginia, Ohio, Indiana, and Kansas.

3.4 Instrumentation

The instrument used in this study was the McCabe Academic Integrity Survey (Appendix A). This instrument was designed to gather data on student demographics and assess the attitudes and behaviors that college students may have related to cheating. The survey was developed by Donald McCabe of Rutgers University. The survey is divided into two sections. The first section is designed to collect demographic information and data on individual characteristics. A second section examines a number of contextual factors, such as the influence of the peer and institutional cultures, and their impact on

student attitudes and behaviors towards cheating. A table indicating the research questions with the corresponding survey questions can be found in Appendix C.

There were a number of advantages to using this instrument. Most significantly, the survey contained questions that were able to elicit appropriate data for responding to the research questions. The focus of the research was on gaining a greater understanding of student behaviors and attitudes towards cheating at church-related institutions. In particular, the questions that sought to assess student engagement in specific cheating behaviors were central in providing the overall cheating rate, which provided the basis for nearly all of the research questions.

3.5 Data Procedures

The intention of this study was to survey all undergraduate students at the four institutions participating in the study. The total population surveyed was 3,400 undergraduate students. Prior to administering the survey, administrative representatives from each of the participating institutions were contacted to secure permission to conduct the study. Subsequently, approval to conduct the research was obtained from The University of Toledo's Institutional Review Board as well as the Institutional Review Board at each participating institution.

Institutional representatives sent an e-mail to all of their undergraduate students. This e-mail contained the invitation to participate in the research as well as a link to the web based survey. A copy of the introductory e-mail is included in Appendix D. In order to improve response rates, a reminder e-mail was sent to students two weeks after the initial invitation to participate.

The survey used for this study was web based. The researcher used Vovici Feedback software (Vovici Corporation, 2010) in developing the electronic form of the survey and in data collection and storage. This software package had been purchased and was licensed to the University of Toledo. Data were collected and stored in an independent secure database. The use of this software allowed for a secure collection of data while ensuring the anonymity of respondents in relation to their responses.

The decision to use an electronic survey design was influenced by a variety of factors. Most notably, was the advantages in terms of costs and efficiency (Olsen, Wygant, & Brown, 2004; Perkins, 2004; Wright 2005). There were cost savings over traditional paper survey methods in terms of printing and postage costs. There was efficiency in data collection and entry as the software programs collect and stored data in an easily retrievable format. The primary advantage was that the students at these colleges and universities all had valid institutional e-mail addresses which provided the opportunity to easily survey the entire population.

3.6 Data Analysis

In responding to the primary research question, *What is the extent of academic dishonesty among students a four-year Mennonite-affiliated colleges and how does it compare with college students in general?*, data analysis was conducted on the following supporting research questions.

Research Question 1

What is the level of cheating among students at four-year Mennonite-affiliated colleges?

A descriptive analysis was performed to determine the percentage of students that indicate having committed some level of academic dishonesty. Survey questions 6 through 9 (Appendix A) asked students to respond and report their level of participation in 24 academically dishonest behaviors. Students that responded that they had engaged in any of the cheating behaviors were categorized as having cheated. Those indicating that they had never cheated on all 24 behaviors were considered as non-cheaters. The overall cheating rate as the percentage was calculated as the number of students that responded to having cheated as compared to the total number of students who responded to the questions on the survey.

Research Question 2

What are students' attitudes towards academic dishonesty, and are there differences between these attitudes and the level of cheating of students attending Mennonite-affiliated institutions?

The attitudes of students towards cheating were reflected by responses from three sections of the survey. The first section contained responses from question 1 on the survey and included student ratings of their perception of student and faculty understanding and support for campus policies regarding academic dishonesty. Students also rated the perceived effectiveness of such policies. Responses fell into categories from "very low" to "low" to "medium" to "high" and to "very high." A descriptive analysis of the frequencies of responses was completed for each of the sub questions in this section.

The attitudes of students towards cheating were demonstrated by student responses as to the degree of seriousness attributed to each of the 24 specific cheating

behaviors included in questions 6 through 9 on the instrument. The seriousness of cheating was reflected by responses that fell into one of three categories. These categories included “not cheating,” “trivial cheating” and “serious cheating.” A descriptive analysis of the frequencies of responses in each category was completed for each of the 24 cheating behaviors.

Student attitudes towards academic dishonesty were also reflected in their responses regarding the likelihood that they would report observed incidents of cheating. Students responded in question 10 of the survey on a 4 point Likert type scale from “very unlikely” to “unlikely” to “likely” to “very likely.” The responses to these items were then compared based upon whether or not the student had indicated their own engagement in at least one cheating behavior over the previous year reflected as a negative or affirmative self-reported cheating rate. A chi-square test of independence was conducted to determine if a relationship existed between the groups of students who had not cheated or who had cheated and their responses towards perceived the likelihood of their reporting incidents of cheating.

Research Question 3

What are the cheating practices and behaviors of students attending Mennonite-affiliated institutions?

The actual cheating practices of students were determined through student responses to 24 common cheating practices provided in questions 6 through 9. Students provided the level in which they engage in each of these behaviors. Responses included “never,” “once” and “more than once.” Students also had the option of indicating a cheating behavior as “not relevant” if that behavior had not applied to any course that

they took during the last year. The most common cheating practices were illustrated by the frequency of students that reported having engaged in that particular cheating behavior.

Research Question 4

Are there differences in the level of cheating among students attending Mennonite-affiliated institutions based upon perceived peer attitudes towards cheating?

The attitudes of students towards cheating among their peers were reflected through three contextual factors. These factors include peer behavior, peer disapproval, and peer reportage. Peer behavior was reflected in the instrument through question 3, by responses to the perceived frequency with which plagiarism, inappropriate sharing of work in group assignments, and test cheating was occurring. Responses included “never,” “very seldom,” “seldom/sometimes,” “often” and “very often.” Assessment of peer behavior was also demonstrated through responses to survey question 4, which asked for the frequency with which dishonest behaviors were actually observed. Responses for this question included “never,” “once,” “a few times,” “several times” and “many times.”

Peer disapproval is a construct that examines the student’s perception of the level of disapproval of a close friend or acquaintance friend if they discovered that the student had cheated. Student perceptions of parent disapproval were also examined. The level of disapproval was reflected by the responses to question 11 on the survey. Responses included “very strongly,” “fairly strongly,” “not very strongly,” and “not at all.”

Peer reportage examines the likelihood that a student perceives that another student would report incidents of observed academic dishonesty. Peer reportage was

demonstrated through responses to question 10 on the survey. This question asked for students to indicate the likelihood that a typical student would report an incident of cheating as well as the likelihood of a student reporting a close friend. Responses to this question included “very unlikely,” “unlikely,” “likely” and “very likely.”

The responses to the peer attitude items were compared to the students’ self-reported cheating rate. For the purposes of this analysis the cheating rate was reflected as a negative or affirmative response to having cheated during the past year. A chi-square test of independence was conducted for each peer attitude related question and the self-reported cheating rate to determine if a relationship existed between the two variables. Statistical significance was calculated at the .05 level of confidence.

Research Question 5

Are there differences in the level of cheating among students at Mennonite-affiliated colleges based upon the individual difference factors of gender, academic achievement, age and involvement in extracurricular activities?

In determining if a relationship existed between the gender of the respondents and their self-reported cheating rate, students were asked to provide their gender in question 14 on the survey. The gender responses were compared by the students’ self-reported cheating rate. For the purposes of this analysis the cheating rate was reflected as a negative or affirmative response to having cheated during the past year. This information was collected through student responses to their engagement in the 24 cheating behaviors listed in questions 6 through 9. A chi-square test of independence was conducted for gender and the self-reported cheating rate to determine if a relationship existed between the two variables. Statistical significance was calculated at the .05 level of confidence.

For the purposes of this study, academic achievement was reflected through grade-point averages. Students were asked to provide their current grade-point averages in question 15. Data was also collected on the students' self-reported engagement in the 24 cheating behaviors from questions 6 through 9 on the survey. Student respondents were categorized into two groups based upon whether or not they had cheated during the previous year. A one way analysis of variance was performed to determine if there were differences in grade-point average by cheating rate category. Statistical significance was calculated at the .05 level of confidence.

In determining if a difference existed between age and the self-reported cheating rate, data was collected on the student's age in question 13 and on their level of participation in the 24 cheating behaviors provided in questions 6 through 9 on the survey. Student respondents were categorized into two groups based upon whether or not they had cheated during the previous year. A one way analysis of variance was performed to determine if there were differences in age by cheating rate category. For the one way analysis of variance, the cheating rate category served as the independent variable and age as the dependent variable. Statistical significance was calculated at the .01 level of confidence.

Student involvement in extracurricular activities was demonstrated through student responses to question 16 in the survey of their level of involvement in certain activities. These included participation in intramural athletics, political and cultural organizations, student government, musical groups, religious organizations, and college publications. Involvement levels for each of these activities were collected through student responses on a 4 point Likert type scale from "not involved" to "slightly

involved” to “moderately involved” to “highly involved.” The responses to each of these activities were then compared based upon whether or not the student had indicated their engagement in any of the 24 cheating behaviors from questions 6 through 9 on the survey. A chi-square test of independence was conducted to determine if a relationship existed between the groups of students who had not cheated or who had cheated and their responses for each of the extracurricular activities. Statistical significance was calculated at the .05 level of confidence.

This chapter discussed the methods that were used in conducting this study. This included discussion on the target population of the study, the survey instrument that was used, the methods by which the survey was distributed, and on how data was collected and analyzed.

Chapter Four

Presentation and Analysis of Data

This chapter provides a presentation and analysis of the data that were collected through the study. The first section examines the respondent population and subsequent individual factors such as age, gender, academic class, grade-point averages and participation in extracurricular activities. The second section reports on the respondents' attitudes towards academic dishonesty and perceptions of its occurrence on their campuses. This second section also examines students' level of engagement in specific academically dishonest behaviors.

The intent of this study was to examine the attitudes and behaviors towards academic dishonesty of students attending church-related colleges and universities in order to inform policy decisions aimed at reducing these behaviors. Specifically, this study examined students at institutions affiliated with the Mennonite Church. Both contextual and individual difference factors and their relationship towards academic dishonesty of students at these institutions were examined.

4.1 Sample

The sample consisted of a total of 373 students from the four Mennonite higher education institutions. From a total potential undergraduate population of 3400, this represented a response rate of just over 10%. The vast majority of respondents were from just two of the institutions, with nearly 80% having indicated enrollment in one of these two schools. The response rate collectively from these two institutions was nearly 15%.

4.1.1 Individual Difference Factors

Data on demographic and individual factors were collected on the respondents' gender, age, academic class, academic achievement and involvement in co-curricular activities. In order to assess the representation of the sample to the overall population comparisons were made, when possible, for these demographic factors.

The majority of students who responded to the survey were female. Demographic data related to the gender can be found in Table 4.1. While both the sample and the population had more females, women represented a higher overall percentage of the sample than the surveyed population.

Table 4.1
Demographic Data: Respondents by Gender (N=370)

Gender	Number of Respondents	Percentage of Sample	Percentage of Population
Female	251	67.8	57.1
Male	119	32.2	42.9

Table 4.2 contains the demographic data for the respondents by their academic class. There was a relatively even distribution of respondents across the four class levels,

although there were more respondents from the upper class levels than from first and second year undergraduate students.

Table 4.2
Demographic Data: Respondents by Academic Class (N=373)

Academic Class	Number of Respondents	Percentage
First year undergraduate	84	22.5
Second year undergraduate	76	20.4
Third year undergraduate	99	26.5
Fourth or more year undergraduate	114	30.6

The age distribution of respondents ranged from 18 to 58 years of age. The majority of the population (87.6%) fell within the traditional student age range of 18 to 22. This is relatively consistent with the age range of the population at the four colleges and universities surveyed. All four institutions have significant traditional-aged undergraduate student populations. The distribution of respondents by age can be found in Table 4.3.

Student academic achievement was demonstrated through grade-point averages. The grade-point average distribution of respondents ranged from 1.72 to 4.0. The mean grade-point average of the respondents was 3.56. This average was not reflective of the population and was higher than the overall undergraduate grade point averages reported by the institutions, which were around 3.0. The majority of students, nearly 70%, had grade-point averages of 3.5 or above. The distribution of respondents by grade-point average can be found in Table 4.4.

Table 4.3
Demographic Data: Respondents by Age (N=369)

Age	Number of Respondents	Percentage
18	24	6.5
19	75	20.3
20	71	19.2
21	96	26.0
22	58	15.6
23	15	4.1
24	4	1.1
25	2	0.6
26	5	1.3
27	0	0.0
28	2	0.6
29	1	0.3
30	1	0.3
Over 30	15	4.1

Table 4.4
Demographic Data: Respondents by Grade-point average (N=370)

Grade-point average	Number of Respondents	Percentage
3.5 – 4.0	258	69.7
3.0 – 3.49	74	20.0
2.5 – 2.99	32	8.6
2.0 – 2.49	5	1.4
Less than 2.0	1	0.3

The survey collected students self-reported involvement levels for a variety of co-curricular activities. Students indicated higher levels of involvement in religious organizations and intramural athletics than the other activities. Involvement in religious organizations was not surprising, given the stated church-related nature of these institutions. The lowest levels of involvement were reported for student government and college publications. It is important to note that involvement levels are also influenced

by opportunities that are available at these institutions. The distribution of respondents' self-reported involvement in co-curricular activities can be found in Table 4.5.

Table 4.5
Responses to: Level of involvement in select co-curricular activities

Activity	N	Not Involved	Slightly Involved	Moderately Involved	Highly Involved
Intramural					
Athletics	372	150 (40.2%)	87 (23.3%)	81 (21.7%)	54 (14.5%)
Political & Cultural					
Organizations	372	196 (52.5%)	98 (26.3%)	45 (12.1%)	33 (8.8%)
Student					
Government	373	303 (81.2%)	32 (8.6%)	12 (3.2%)	26 (7.0%)
Musical Groups	369	222 (59.5%)	50 (13.4%)	37 (9.9%)	60 (16.1%)
Religious					
Organizations	371	124 (33.2%)	90 (24.1%)	89 (23.9%)	68 (18.2%)
College Publications	370	284 (76.1%)	53 (14.2%)	18 (4.8%)	15 (4.0%)

4.1.2 Research Questions

This study, guided by the primary research question and subsequent supporting questions sought to examine the extent of academic dishonesty among students at four-year Mennonite-affiliated colleges and its comparison with college students in general by focusing on certain contextual and individual difference factors. Data from the survey was initially collected through the Vovici Feedback software (Vovici Corporation, 2010) and then exported to PASW Statistics (SPSS) 17.0 for further analysis.

4.1.3.1 Research Question 1 – What is the level of cheating among students at four-year Mennonite-affiliated colleges and universities?

The level of cheating was defined as the self-reported cheating rate. This rate was calculated based upon student responses of their level of engagement in 24 cheating behaviors and is expressed as a percentage of the population. For each behavior, students indicated if they never engaged, engaged only once or engaged more than once in that behavior during the past year. Students were also given the option to respond as not relevant if there was no opportunity for them to engage in the behavior during the previous year. The overall cheating rate was calculated by students' response to having participated in any one of the 24 cheating behaviors at least once over the past year. Students indicating participation in any of the 24 behaviors were coded with a "1" and those responding to never having engaged in these behaviors were coded "0." The cheating rate was determined as the percentage of overall students that were coded as "1." This calculation is the most commonly reported statistic from studies on academic dishonesty and was used to provide clarity and consistency in making comparisons with other reports of cheating. Results of the calculation are included in Table 4.6. Based on

Table 4.6
Overall self-reported cheating for previous year (N=373)

	Number of Respondents	Percentage
Have not engaged in cheating behavior	87	23.3
Have engaged in at least one cheating behavior	286	76.7

this calculation, 286 students indicated cheating at least once in the past year, representing a cheating rate of 76.7%. This figure, while close to some of the rates reported, was still higher than many cheating rates reported in previous studies.

Responses indicated that the most prevalent cheating behaviors involved working on assignments with others when individual work was required and plagiarism. In fact, the most prevalent behavior was working on assignments with others (in person) when the instructor had asked for individual work with nearly 45% of students indicating having engaged in this behavior. The similar behavior of working on assignments with others when instructed to complete individual work, but through the use of electronic resources was also a more prevalent behavior with a cheating rate of 24.6%. Plagiarism was also among the more prevalent cheating behaviors. The self-reported cheating rate for paraphrasing or copying a few sentences without footnoting them in a submitted paper from an electronic source was nearly 40% and from a non electronic source the cheating rate was 33.2%. Other of the most common cheating behaviors indicated by the

Table 4.7
Self-reported cheating rates for most prevalent cheating behaviors

Cheating Behavior	Cheating Rate
Working on an assignment with others (in person) when the instructor asked for individual work	44.9%
Paraphrasing or copying a few sentences from an electronic source e.g., the Internet - without footnoting them in a paper you submitted	39.6%
Receiving unpermitted help on an assignment	33.7%
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted	33.2%
Copying (by hand or in person) another student's homework	30.4%
Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work	24.6%

survey results included receiving unpermitted help on an assignment (33.7%) and copying another person's homework by hand (30.4%). Cheating rates for the most prevalent cheating behaviors can be found in Table 4.7. A comprehensive list of all 24 cheating behaviors and corresponding cheating rates can be found in Appendix E.

4.1.2.2 Research Question 2 – What are students' attitudes towards academic dishonesty, and are there differences between these attitudes and the level of cheating of students attending Mennonite-affiliated institutions?

Student attitudes towards cheating were demonstrated by responses in three areas. The first area involved student ratings of the level of both student and faculty understanding and support of campus policies relating to academic dishonesty as well as respondent perceptions of the effectiveness of these policies. The second area included student responses as to the perceived level of seriousness of cheating for each of the cheating behaviors. Thirdly, attitudes were demonstrated by the likelihood that students would report observed incidents of cheating.

4.1.2.2.1 Attitudes Towards Understanding, Support and Effectiveness of Policies

In assessing the attitudes and perceptions of students regarding institutional academic dishonesty policies, students rated their perception of student and faculty understanding of these policies. Perceived student understanding ratings were mixed with just under half of the students indicating that they perceive other students having a "high" to "very high" understanding of campus policies. Table 4.8 lists the data on the respondents' rating of the average students' understanding of the institution's policies concerning cheating.

Table 4.8

Responses to: Rating the average student’s understanding of campus policies concerning student cheating (N=371)

Rating	Number of Respondents	Percentage
Very Low	13	3.5
Low	66	17.8
Medium	112	30.2
High	134	36.1
Very High	46	12.4

Students clearly perceive faculty’s understanding of institutional policies regarding academic dishonesty much higher than student understanding of such policies. The vast majority, over 80%, rated faculty understanding of institutional cheating policies as “high” or “very high” Ratings of faculty understanding of institutional academic integrity policies are listed in Table 4.9.

Table 4.9

Responses to: Rating the faculty’s understanding of campus policies concerning student cheating (N=371)

Rating	Number of Respondents	Percentage
Very Low	2	0.5
Low	6	1.6
Medium	65	17.5
High	173	46.6
Very High	125	33.7

Students were also asked to rate both the student and faculty support of institutional policies relating to cheating. Respondents tended to rate student support of policies at lower levels than they rated student understanding of the policies with less than 40% perceiving “high” or “very high” student support. Perceptions of faculty support of policies were nearly identical to ratings of faculty understanding with 80%

perceiving faculty as having “high” or “very high” understanding of academic integrity policies. Responses regarding student support are listed in Table 4.10 and respondent perceptions of faculty support in Table 4.11.

Table 4.10

Responses to: Rating student support of campus policies concerning student cheating (N=370)

Rating	Number of Respondents	Percentage
Very Low	8	2.2
Low	54	14.6
Medium	165	44.6
High	127	34.3
Very High	16	4.3

Table 4.11

Responses to: Rating faculty support of campus policies concerning student cheating (N=369)

Rating	Number of Respondents	Percentage
Very Low	2	0.5
Low	8	2.2
Medium	64	17.3
High	189	51.2
Very High	106	28.7

Table 4.12

Responses to: Rating the effectiveness of campus policies concerning student cheating (N=370)

Rating	Number of Respondents	Percentage
Very Low	20	5.4
Low	44	11.9
Medium	162	43.8
High	124	33.5
Very High	20	5.4

Students were also asked to rate their perception of the effectiveness of campus policies concerning cheating. Students seemed to rate effectiveness much the same as they rated student support of academic integrity policies. Less than 40% rated policy effectiveness as “high” or “very high.” Table 4.12 includes respondent data on the perceived effectiveness of campus academic integrity policies.

4.1.2.2.2 Perceived Seriousness of Cheating Behaviors

The perceived seriousness of cheating behaviors was assessed through student responses for each of the 24 cheating behaviors included on the survey. Students were given the option of indicating if they considered the behavior as “not cheating,” “trivial cheating,” “moderate cheating” or “serious cheating.” Responses as to the perceived seriousness for all of the 24 cheating behaviors can be found in Appendix F and are ranked in order based upon the percentage of students indicating the behavior as serious cheating.

The behaviors that most students indicated as being examples of serious cheating are listed in Table 4.13. The two behaviors most listed as serious cheating both involved the submission of papers written by someone else. Submitting a paper purchased from a Web site and submitting a paper from a “paper mill” were considered serious cheating by well over 90% of respondents. The related behavior of turning in work by someone else was also similarly listed as serious cheating by a large percentage of students. These behaviors were also the three with the lowest self-reported cheating rates with only one student having indicated engaging in submitting papers from a Web site or “paper mill” and four students turning in work by someone else.

Other behaviors considered as serious cheating by most students included copying from other students during an exam and forms of plagiarism. More students indicated that copying from someone on an exam without their knowledge was serious cheating than copying with their knowledge. Still, both behaviors were among those with the highest percentage of students indicating these as serious cheating. Eighty percent or more considered these behaviors as serious cheating.

Students rated different forms of plagiarism differently. While over 80% of students considered copying material, almost word for word, from any written source and turning it in as their own work as serious cheating, only around 34% considered paraphrasing or copying a few sentences from a source without footnoting them in a paper as serious cheating.

Table 4.13
Responses to: Perceived seriousness of cheating behaviors (most serious)

Cheating Behavior	Not Cheating	Trivial Cheating	Moderate Cheating	Serious Cheating
Submitted a paper you purchased or obtained from a Web site and claimed it as your own work	5 (1.4%)	3 (0.8%)	17 (4.7%)	336 (93.1%)
Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work	6 (1.7%)	2 (0.5%)	20 (5.6%)	331 (92.2%)
Copying from another student during a test without his or her knowledge	4 (1.1%)	8 (2.2%)	38 (10.4%)	314 (86.3%)
Copying material, almost word for word, from any written source and turning it in as your own work	5 (1.4%)	11 (3.0%)	43 (11.8%)	304 (83.8%)
Turning in work done by someone else	6 (1.7%)	8 (2.2%)	56 (15.5%)	292 (80.6%)
Copying from another student during a test with his or her knowledge	4 (1.1%)	15 (4.1%)	54 (14.8%)	292 (80.0%)

The behaviors that the least number of students indicated as being examples of serious cheating are listed in Table 4.14. Not surprisingly, these behaviors also have the highest percentages of students who consider them to be examples of trivial cheating.

Table 4.14
Responses to: Perceived seriousness of cheating behaviors (least serious)

Cheating Behavior	Not Cheating	Trivial Cheating	Moderate Cheating	Serious Cheating
Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work	28 (7.7%)	159 (43.8%)	143 (39.4%)	33 (9.1%)
Working on an assignment with others (in person) when the instructor asked for individual work	26 (7.1%)	158 (43.2%)	149 (40.7%)	33 (9.0%)
Receiving unpermitted help on an assignment	25 (6.9%)	133 (36.9%)	146 (40.6%)	56 (15.6%)
Fabricating or falsifying a bibliography	18 (5.0%)	125 (34.4%)	143 (39.4%)	77 (21.2%)
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam	25 (6.8%)	88 (24.2%)	147 (40.4%)	104 (28.6%)

The two behaviors considered by the lowest percentage of students as being serious cheating both involve working on assignments with others when individual work was required. Both working on assignments electronically and in person were only considered serious cheating by close to 9% of respondents, with around 43% considering these behaviors as trivial cheating. Receiving unpermitted help on an assignment also was thought of as serious cheating by a lower number of students, with only 15.6% considering this behavior as serious cheating and nearly 40% as just trivial cheating. Interestingly, these three behaviors also had some of the highest cheating rates (Table 4.24). Considering that a number of behaviors with the highest percentages of students

perceiving them as serious cheating also had the lowest self-reported cheating rates, there is a question as to the impact of perceived seriousness of cheating behaviors on students' involvement in those behaviors.

4.1.2.2.3 Likelihood of Reporting Cheating

In addition to the perceived seriousness of cheating behaviors, student attitudes towards cheating were also reflected in their responses regarding the likelihood that they would report observed incidents of cheating. The responses to these items were then compared based upon whether or not the student indicated engagement in at least one cheating behavior over the previous year. This was reflected as a negative or affirmative self-reported cheating rate. A chi-square test of independence was conducted to determine if a relationship existed between the groups of students who had not cheated or who had cheated and their responses towards perceived likelihood of their reporting incidents of cheating. The results indicated that students that had self-reported cheating were more unlikely to report other cheating behavior than students that indicated having not cheated. Student responses to the perceived likelihood of their reporting an observed incident of cheating by the self-reported cheating rate is provided in Table 4.15.

Table 4.15
Responses to: Likelihood of respondent reporting an observed incident of cheating by self-reported cheating rate (N=373)

Cheating Rate	Very Unlikely	Unlikely	Likely	Very Likely
No	8 (9.2%)	23 (26.5%)	41 (47.1%)	15 (17.2%)
Yes	56 (19.6%)	137 (47.9%)	74 (25.9%)	19 (6.6%)

$$\chi^2_{(3)} = 29.35, p < .01$$

4.1.2.3 Research Question 3 - What are the cheating practices and behaviors of students attending Mennonite-affiliated institutions?

The cheating practices of students were demonstrated by the frequency of engagement for each of the cheating behaviors. For each of the 24 cheating behaviors included on the survey, students were given the option of indicating if they had engaged in a specific behavior “never,” “once” or “more than once” in the past year. Students were asked to respond in one of these categories only if the behavior applied to any courses they had taken during the previous year. This is reflected in the total number of respondents for each behavior. Responses as to the engagement in cheating behaviors during the past year for all of the 24 behaviors can be found in Appendix G and are ranked in order based upon the percentage of students indicating the highest frequency of involvement.

4.1.2.3.1 Most Prevalent Engagement in Cheating Behaviors

The cheating behaviors that the most students indicated as having engaged in “more than once” are listed in Table 4.16. The most common cheating practices are related to working with others on assignments, receiving unpermitted help, plagiarism, and copying other’s homework. Over a quarter of all respondents indicated having worked on an assignment with others, in person, when the instructor had asked for individual work more than once. Multiple engagement in this behavior was indicated by students more than double than the related behavior of working on assignment with others electronically. Although, working on assignments with others electronically was still one of the most common cheating practices.

Plagiarism related cheating behaviors were also among those with higher percentages of students indicating engagement. Paraphrasing or copying a few sentences without footnoting them in a paper, both electronically or non-electronically, were among the most common cheating practices. Interestingly, these two behaviors had the highest percentages of students indicating that they had engaged in these practices only once in the past year. Still, collectively students engaged in these forms of plagiarism.

Table 4.16
Responses to: Engagement in certain cheating behaviors during the past year

Cheating Behavior	Never	Once	More than Once
Working on an assignment with others (in person) when the instructor asked for individual work	199 (55.1%)	71 (19.7%)	91 (25.2%)
Receiving unpermitted help on an assignment	238 (66.3%)	59 (16.4%)	62 (17.3%)
Paraphrasing or copying a few sentences from an electronic source - e.g., the Internet – without footnoting them in a paper you submitted	221 (60.4)	84 (23.0%)	61 (16.6%)
Copying (by hand or in person) another student's homework	258 (69.6%)	55 (14.8%)	58 (15.6%)
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted	246 (66.8%)	75 (20.4%)	47 (12.8%)
Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work	270 (75.4%)	44 (12.3%)	44 (12.3%)

4.1.2.4 *Research Question 4* - Are there differences in the level of cheating among students attending Mennonite-affiliated institutions based upon perceived peer attitudes towards cheating?

Perceived attitudes of students' peers towards cheating were reflected by three contextual factors. These factors included peer behavior, peer reportage, and peer disapproval.

4.1.2.4.1 Peer Behavior

Peer behavior was reflected through the frequency of peer cheating behaviors perceived by the respondent. Students were asked to assess their perception of the frequency that their peers engage in certain cheating behaviors, including plagiarism, inappropriate sharing of work in group assignments, and cheating on a test. Students were also asked to indicate the actual frequency of cheating that they witnessed of their peers.

The survey contained a number of questions regarding students' perceptions of the academically dishonest behavior of their peers. Students were asked about their perceived frequency of several cheating behaviors by their peers.

Table 4.17
Responses to: Perception of the frequency of plagiarism that occurs on written assignments (N=372)

Rating	Number of Respondents	Percentage
Never	6	1.6
Very Seldom	79	21.2
Seldom/Sometimes	202	54.3
Often	74	19.9
Very Often	11	3.0

The first of these questions asked about the perceived frequency of plagiarism that occurs on written assignments. The majority of students indicated that they perceive plagiarism on written assignments occurring at their institutions “seldom or sometimes.”

The results of this question can be found in Table 4.17.

The second question asked about the perceived frequency of inappropriately sharing work in group assignments. Students perceive that this occurs with a greater frequency than plagiarism or test cheating. Results are included in Table 4.18. Only two students thought that this “never” took place at their institution. The majority of students perceive the inappropriate sharing of work occurring with some frequency.

Table 4.18
Responses to: Perception of the frequency of inappropriately sharing work in group assignments (N=372)

Rating	Number of Respondents	Percentage
Never	2	0.6
Very Seldom	43	11.6
Seldom/Sometimes	121	32.5
Often	156	41.9
Very Often	50	13.4

The third question relating to perceived frequencies asked about cheating during tests or examinations. Students seem to perceive lower frequencies on test cheating than they did for plagiarism and inappropriate sharing of work. The majority of students indicated cheating on tests as occurring seldom or very seldom. Results of this question can be found in Table 4.19.

Students were also asked to indicate the frequency with which they have witnessed another student cheating during a test or examination at their institution. The responses for this question are found in Table 4.20. The majority of students indicated that they had “never” seen another student cheat on a test.

Table 4.19
 Responses to: Perception of the frequency of cheating during tests or examinations
 (N=372)

Rating	Number of Respondents	Percentage
Never	11	3.0
Very Seldom	147	39.5
Seldom/Sometimes	137	36.7
Often	58	15.7
Very Often	19	5.1

Table 4.20
 Responses to: Frequency of witnessing another student cheat during a test or
 examination (N=373)

Rating	Number of Respondents	Percentage
Never	205	55.0
Once	57	15.3
A Few Times	80	21.4
Several Times	17	4.6
Many Times	14	3.8

Perceptions of the frequency of peer engagement in certain cheating behaviors were then compared based upon whether or not the student had indicated their own engagement in at least one cheating behavior over the previous year reflected as a negative or affirmative cheating rate. A chi-square test of independence was conducted to determine if a relationship existed between the groups of students who had not cheated or who had cheated and their responses towards perceived peer behavior. A statistically significant relationship was found on the perception of frequency of inappropriately sharing of work in group assignments and of seeing another student cheat during a test or examination. Students that indicated having cheated were more likely to perceive higher

frequencies of inappropriate sharing of work in group assignments and of witnessing cheating during tests than students who indicated that they had not cheated. A statistically significant relationship was not found on the perception of the frequency of plagiarism or cheating during tests or examinations.

Student responses of their perception of the frequency of plagiarism that occurs on written assignments on their campuses by self-reported cheating rate can be found in Table 4.21. Responses to student perception of the frequency of inappropriately sharing work in group assignments by self reported cheating rate are listed in Table 4.22 and results from the perception of the frequency of cheating during tests or examinations in Table 4.23.

Table 4.21

Responses to: Perception of the frequency of plagiarism that occurs on written assignments by self-reported cheating rate (N=371)

Cheating Rate	Never	Very Seldom	Seldom/ Sometimes	Often	Very Often
No	2 (2.3%)	24 (27.9%)	47 (54.6%)	12 (14.0%)	1 (1.2%)
Yes	4 (1.4%)	55 (19.3%)	154 (54.0%)	62 (21.8%)	10 (3.5%)

$$\chi^2_{(4)} = 5.89, p > .05$$

Table 4.22

Responses to: Perception of the frequency of inappropriately sharing of work in group assignments by self reported cheating rate (N=371)

Cheating Rate	Never	Very Seldom	Seldom/ Sometimes	Often	Very Often
No	1 (1.2%)	16 (18.6%)	38 (44.2%)	26 (30.2%)	5 (5.8%)
Yes	1 (0.3%)	27 (9.5%)	83 (29.1%)	129 (45.3%)	45 (15.8%)

$$\chi^2_{(4)} = 18.61, p < .01$$

Table 4.23

Responses to: Perception of the frequency of cheating during tests or examinations by self-reported cheating rate (N=371)

Cheating Rate	Never	Very Seldom	Seldom/ Sometimes	Often	Very Often
No	4 (4.7%)	40 (47.0%)	31 (36.5%)	8 (9.4%)	2 (2.4%)
Yes	7 (2.5%)	107 (37.4%)	105 (36.7%)	50 (17.5%)	17 (5.9%)

$$\chi^2_{(4)} = 7.05, p > .05$$

Peer behavior was also reflected through student response of the frequency of seeing another student cheat during a test of examination. The responses to these items were compared based upon whether or not the student had indicated their own cheating over the previous year. Results were reflected as a negative of affirmative cheating rate. A chi-square test of independence was conducted to determine if a relationship existed between the groups of students who had not cheated or who had cheated and their responses towards the frequency of seeing another student cheat during a test.

Student responses of the frequency of witnessing cheating during tests or examinations occurring by self-reported cheating rate are provided in Table 4.24. For the group of students who had not cheated, the vast majority indicated that they had never seen another student cheat on a test while less than half of the group of students who indicated having engaged in cheating responded similarly. The two groups differed statistically on their responses to having witnessed other students cheating on tests. Students who self-reported cheating witnessed more cheating than students who had not engaged in academically dishonest behaviors.

Table 4.24

Responses to: The frequency of seeing another student cheat during a test or examination by self-reported cheating rate (N=373)

Cheating Rate	Never	Once	A Few Times	Several Times	Many Times
No	63 (72.4%)	11 (12.6%)	10 (11.5%)	1 (1.2%)	2 (2.3%)
Yes	142 (49.6%)	46 (16.1%)	70 (24.5%)	16 (5.6%)	12 (4.2%)

$$\chi^2_{(4)} = 15.58, p < .01$$

4.1.2.4.2 Peer Reportage

Peer reportage is the second contextual factor that reflects perceived attitudes of students' peers towards cheating. Peer reportage was demonstrated through the students' perceived likelihood of peers reporting incidents of cheating. Students were asked to assess their perception of the likelihood that their peers engage cheating behaviors. Specifically, students' responded as to the likelihood that a typical student at their institution would report another student for cheating and the likelihood that they would report a close friend. In regards to reporting an observed incident of cheating, most of the respondents perceived that it would be unlikely for the typical student to report cheating with over 70% indicating this perception. A greater percentage of students indicated the unlikeliness of a typical student reporting a close friend for cheating with nearly 96% of students responding in this manner. Results for these questions can be found in Table 4.25 and Table 4.26.

Student responses to their perceptions of likelihood of peers to report cheating were then compared based upon whether or not the student had indicated involvement in academic dishonesty during the previous year. This was reflected as a negative or affirmative cheating rate. A chi-square test of independence was conducted to determine

if a relationship existed between the groups of students who had not cheated or who had cheated and their responses towards the likelihood of peer reportage. A statistically significant relationship was found on both the perceived likelihood of a typical student at that institution reporting an observed incident of cheating and reporting the cheating of a close friend. Students that indicated having cheated perceived that it was less likely for a typical student to report an incident of cheating of another student or a close friend than students who indicated that they had not cheated. Still, on each of these questions both groups demonstrated greater percentages of perceived unlikeliness of peer reporting. Student responses to the perceived likelihood of a typical student at their institution reporting an observed incident of cheating by another student and of a close friend by the self-reported cheating rate is provided in Table 4.27 and Table 4.28.

Table 4.25
Responses to: Perceived likelihood of a typical student at that institution reporting an observed incident of cheating (N=373)

Rating	Number of Respondents	Percentage
Very Unlikely	70	18.8
Unlikely	198	53.1
Likely	100	26.8
Very Likely	5	1.3

Table 4.26
Responses to: Perceived likelihood of a typical student at that institution reporting a close friend of cheating (N=372)

Rating	Number of Respondents	Percentage
Very Unlikely	259	69.4
Unlikely	99	26.5
Likely	13	3.5
Very Likely	1	0.3

Table 4.27

Responses to: Perceived likelihood of a typical student at that institution reporting an observed incident of cheating by self-reported cheating rate (N=373)

Cheating Rate	Very Unlikely	Unlikely	Likely	Very Likely
No	11 (12.7%)	39 (44.8%)	35 (40.2%)	2 (2.3%)
Yes	59 (20.6%)	159 (55.6%)	65 (22.7%)	3 (1.1%)

$$\chi^2_{(3)} = 12.12, p < .01$$

Table 4.28

Responses to: Perceived likelihood of a typical student at that institution reporting a close friend of cheating by self-reported cheating rate (N=372)

Cheating Rate	Very Unlikely	Unlikely	Likely	Very Likely
No	50 (57.5%)	28 (32.2%)	9 (10.3%)	0 (0.0%)
Yes	209 (73.3%)	71 (24.9%)	4 (1.4%)	1 (0.4%)

$$\chi^2_{(3)} = 19.29, p < .01$$

4.1.2.4.3 Peer Disapproval

The third contextual factor that reflects perceived attitudes of students' peers towards cheating is peer disapproval. Peer disapproval was demonstrated through the students' perceived strength of peers' disapproval if they were aware that the respondent had cheated in a course. Students were asked to assess their perception of the likelihood that their peers engage in cheating behaviors. Specifically, students were asked to respond how strongly a close friend and an acquaintance friend would disapprove if they were aware of the respondents cheating.

Table 4.29 shows the responses for the perceived strength of disapproval of a close friend and Table 4.30 the strength of disapproval of a student that the respondent goes around with if they knew the respondent had cheated in a course. The majority of

students indicated that both close friends and acquaintance friends would strongly disapprove of their cheating, although the perceived strength of disapproval seems stronger for close friends.

Table 4.29

Responses to: Perceived disapproval of a close friend if they knew respondent had cheated in a course (N=373)

Rating	Number of Respondents	Percentage
Very Strongly	150	40.2
Fairly Strongly	133	35.7
Not Very Strongly	70	18.8
Not at All	20	5.4

Table 4.30

Responses to: Perceived disapproval of a student the respondent goes around with if they knew respondent had cheated in a course (N=371)

Rating	Number of Respondents	Percentage
Very Strongly	65	17.5
Fairly Strongly	184	49.6
Not Very Strongly	107	28.8
Not at All	15	4.1

The responses to questions related to peer disapproval were then compared based upon whether or not the student self-reported engagement in cheating behavior during the previous year. Responses were reflected as a negative or affirmative cheating rate. A chi-square test of independence was conducted to determine if a relationship existed between the groups of students who had not cheated or who had cheated and their responses towards perceived peer disapproval of cheating. A statistically significant relationship was found on the perceived likelihood that both a close friend and an acquaintance friend would disapprove of the respondents cheating. The strength of

disapproval was greater for the group of students that indicated having not cheated than the group of students that had cheated. The responses of the perceived disapproval of a close friend if they knew respondent had cheated in a course by self-reported cheating rate are listed in Table 4.31 and those for a student the respondent goes around with in Table 4.32.

Table 4.31

Responses to: Perceived disapproval of a close friend if they knew respondent had cheated in a course by self-reported cheating rate (N=373)

Cheating Rate	Very Strongly	Fairly Strongly	Not Very Strongly	Not At All
No	51 (58.6%)	27 (31.0%)	8 (9.2%)	1 (1.2%)
Yes	99 (34.6%)	106 (37.1%)	62 (21.7%)	19 (6.6%)

$$\chi^2_{(3)} = 19.53, p < .01$$

Table 4.32

Responses to: Perceived disapproval of a student the respondent goes around with if they knew respondent had cheated in a course by self-reported cheating rate (N=371)

Cheating Rate	Very Strongly	Fairly Strongly	Not Very Strongly	Not At All
No	26 (29.9%)	45 (51.7%)	15 (17.2%)	1 (1.2%)
Yes	39 (13.7%)	139 (49.0%)	92 (32.4%)	14 (4.9%)

$$\chi^2_{(3)} = 17.68, p < .01$$

4.1.2.5 Research Question 5 - Are there differences in the level of cheating among students at Mennonite-affiliated colleges based upon the individual difference factors of gender, academic achievement, age and involvement in extracurricular activities?

4.1.2.5.1 Gender

In examining the relationship between self-reported cheating and gender students were asked on the survey to indicate their gender. The responses to gender were then

compared based upon whether or not the student had indicated engagement in at least one cheating behavior over the previous year and was reflected as a negative or affirmative cheating rate. A chi-square test of independence was conducted to determine if a relationship existed between the groups of students who had not cheated or who had cheated and their gender. The responses to the self-reported cheating rate by gender are included in Table 4.33. Results were consistent with the overall sample as females comprised the majority of each group.

Table 4.33
Responses to: Gender by self-reported cheating rate (N=370)

Cheating Rate	Female	Male
No	61 (24.3%)	26 (21.8%)
Yes	<u>190 (75.7%)</u>	<u>93 (78.2%)</u>
Total	251 (100%)	119 (100%)

$$\chi^2_{(1)} = .27, p > .05$$

4.1.2.5.2 Academic Achievement

For the purposes of this study, academic achievement was demonstrated by students' grade-point averages. Data for responding to this research question were collected through students reporting their current grade-point averages and from the students' self-reported past engagement in cheating behaviors. Student respondents were categorized into two groups based upon whether or not they had cheated during the previous year. The mean grade-point average of students that indicated they had not cheated during the past year was 3.6. The mean grade-point average of students that responded to having engaged in cheating was 3.55. Based upon a One-way Analysis of

Variance no differences were found in grade-point average by cheating rate category.

The results are included in Table 4.34 and Table 4.35.

Table 4.34
Mean grade-point average by cheating rate

Cheating Rate	N	Mean	Std. Deviation	Std. Error
No	84	3.60	.4260	.0465
Yes	286	3.55	.4101	.0243
Total	370	3.56	.4138	.0215

Table 4.35
One-way ANOVA of grade-point average by cheating rate

Source	SS	df	MS	F	Sig.
Between	.176	1	.176	1.026	.312
Within	62.995	368	.171		
Total	63.171	369			

$p < .05$

4.1.2.5.3 Age

For the purposes of evaluating the difference between self-reported cheating rate and age, students were asked to provide their age. The self-reported cheating rate was calculated by student responses of their past participation in cheating behaviors.

Respondents were categorized into two groups based upon whether or not they had cheated during the previous year. The mean age of students that indicated they had not cheated during the past year was 23.21 and the mean age of students that responded to having engaged in cheating was 20.98. Based on a One-way Analysis of Variance, the age differed significantly by cheating rate with students in the non-cheating group being

older than students who had indicated some level of cheating. Results are shown in Table 4.36 and Table 4.37.

Table 4.36
Mean age by cheating rate

Cheating Rate	N	Mean	Std. Deviation	Std. Error
No	84	23.21	7.311	.798
Yes	285	20.98	3.497	.207
Total	369	21.49	4.730	.246

Table 4.37
One-way ANOVA of age by cheating rate

Source	SS	df	MS	F
Between	325.197	1	325.197	15.09*
Within	7908.971	367	21.550	
Total	8234.168	368		

*p < .01

4.1.2.5.4 *Involvement in Extracurricular Activities*

Student involvement in extracurricular activities was assessed through student responses of their self-reported level of involvement in certain activities. These included participation in intramural athletics, political and cultural organizations, student government, musical groups, religious organizations, and college publications. The responses to each of these activities were then compared based upon whether or not the student had indicated their engagement in at least one cheating behavior over the previous year. A chi-square test of independence was conducted to determine if a relationship existed between the groups of students who had not cheated or who had cheated and their responses for each of the extracurricular activities. Only involvement in intramural athletics demonstrated any statistically significant relationship between

students who indicated having cheated and those that had not. Results for involvement in intramural athletics can be found in Table 4.38.

Table 4.38
Number and percentages of self-reported cheating rate by involvement in intramural athletics (N=372)

Cheating Rate	Not Involved	Slightly Involved	Moderately Involved	Highly Involved
No	47 (54.7%)	16 (18.6%)	15 (17.4%)	8 (9.3%)
Yes	103 (36.0%)	71 (24.8%)	66 (23.1%)	46 (16.1%)

$$\chi^2_{(3)} = 9.85, p < .05$$

There was little difference in responses to student involvement in political and cultural organizations by self-reported cheating rate. For the group of students who had not cheated, 45 (52.3%) indicated that they were “not involved” in political and cultural organizations. Twenty students (23.3%) responded that they were “slightly involved” and 11 (12.8%) that they were “moderately involved.” Ten (11.6%) of this group of students were “highly involved” in political and cultural organizations. Similarly, of the group of students who had reported cheating, 151 (52.8%) indicated being “not involved” in political and cultural organizations. Seventy-eight students (27.3%) responded that they were “slightly involved” and 34 (11.9%) that they were “moderately involved.” Twenty-three (8.0%) of this group of students responded that they were “highly involved” in political and cultural organizations. There was not a statistically significant relationship between self-reported cheating rate and level of involvement in political and cultural organizations.

Responses to student involvement in student government were also similar in their self-reported cheating rates. For the group of students who indicated having not cheated, the majority (73 or 83.9%) responded that they were “not involved” in student

government. Five students (5.7%) indicated that they were “slightly involved” and 4 (4.6%) that they were “moderately involved.” Five (5.7%) of this group of students were “highly involved” in student government. For the group of students who had reported engaging in cheating, most (230 or 80.4%) indicated being “not involved” in student government. Twenty-seven students (9.4%) responded that they were “slightly involved” and 8 (2.8%) that they were “moderately involved.” 21 (7.3%) of this group of students responded that they were “highly involved” in student government. There was not a statistically significant relationship between self-reported cheating rate and level of involvement in student government.

As with the previous two student groups responses to student involvement in musical groups were similar by self-reported cheating rate. For the group of students who had not cheated, 50 (58.8%) indicated that they were “not involved” in musical groups. Eight students (9.4%) responded that they were “slightly involved” and 12 (14.1%) that they were “moderately involved.” Fifteen (17.6%) of this group of students were “highly involved” in musical groups. Of the group of students who had self-reported cheating during the previous year, 172 (60.6%) indicated being “not involved” in musical groups. Forty-two students (14.8%) responded that they were “slightly involved” and 25 (8.8%) that they were “moderately involved.” Forty-five (15.8%) of this group of students responded that they were “highly involved” in musical groups. There was not a statistically significant relationship between self-reported cheating rate and level of involvement in musical groups.

There was also little difference between the groups of students that cheated and those that had not in their responses to involvement in religious organizations. For the

group of students who had not cheated, 27 (31.4%) indicated that they were “not involved” in religious organizations. Sixteen students (18.6%) responded that they were “slightly involved” and 24 (27.9%) that they were “moderately involved.” Nineteen (22.1%) of this group of students were “highly involved” in religious organizations. For the group of students who had reported cheating, 97 (34.0%) indicated being “not involved” in religious organizations. Seventy-four students (26.0%) responded that they were “slightly involved” and 65 (22.8%) that they were “moderately involved.” Forty-nine (17.2%) of this group of students responded that they were “highly involved” in religious organizations. There was not a statistically significant relationship between self-reported cheating rate and level of involvement in religious organizations.

The final comparison between groups was on their responses to their involvement in college publications. As with the previous activities, there was little difference found between groups. For the group of students who indicated having not cheated, the majority (60 or 70.6%) responded that they were “not involved” in college publications. Nineteen students (22.4%) indicated that they were “slightly involved” and 4 (4.7%) that they were “moderately involved.” Only 2 students (5.7%) were “highly involved” in college publications. For the group of students who reported engaging in cheating, most (244 or 78.6%) indicated being “not involved” in college publications. Thirty-four students (11.9%) responded that they were “slightly involved” and 14 (4.9%) that they were “moderately involved.” Thirteen (4.6%) of this group of students responded that they were “highly involved” in college publications. There was not a statistically significant relationship between self-reported cheating rate and level of involvement in college publications.

4.2 Summary

Results indicated that students at Mennonite-affiliated institutions have engaged in academic dishonesty and collectively are doing so at a level consistent with studies of other college student populations. While the overall cheating rate was within the range of rates presented in other studies, the cheating rate of 76.7% was in the higher portion of that range.

Data were also reported on the respondents' attitudes towards academic dishonesty, perceptions of its occurrence on their campuses, level of engagement in specific cheating behaviors, and potential influence of the peer culture. Results of the survey indicated that most students perceive their institutions supporting an environment of academic integrity, but many also perceive plagiarism, inappropriate sharing of work in group assignments and cheating during tests taking place. Additionally in terms of cheating behaviors, students generally perceived working on assignments with others when instructed to do their own work as a more trivial form of cheating. They also seemed more likely to engage in cheating behaviors that they considered more trivial. The analysis also indicated differences between students who participated in cheating behaviors and those that did not as it related to the influences of the peer culture in terms of perceived peer behavior, peer reportage and peer disapproval.

Finally, survey results on the individual difference factors of the respondent population were presented. Of these factors, only age and involvement in intramural athletics seemed to demonstrate any difference between groups of students who engaged in cheating behavior and those that did not. A more detailed discussion and comparison

of findings relating to student attitudes, behaviors, contextual influences and individual difference factors is presented in Chapter Five.

Chapter Five

Summary of Findings, Conclusions, and Recommendations

This chapter includes a presentation and discussion of the findings of the study. Specifically, discussion focuses on understanding students' attitudes and behaviors towards academic dishonesty as well as on examining the differences between students that self-reported engaging in cheating behaviors and those that did not in relation to certain individual difference factors, perceptions and practices of academic dishonesty on their campuses. The chapter concludes with possible implications of the study, limitations, and recommendations for future action.

5.1 Summary

It has been established that incidents of academic dishonesty have occurred in the past and continue to be present on our college and university campuses (Bowers, 1964; Brown & Emmett, 2001; Maramark & Maline, 1993; McCabe, 2005; McCabe & Trevino, 1996; McCabe, Trevino & Butterfield, 2001b). Academic integrity continues to be a serious issue impacting higher education. There is a sense that values associated with academic integrity are fundamental concepts in communities of learning. Dishonest behaviors work to erode the integrity of higher education and call into question the legitimacy of academic achievement. This legitimacy is a foundational concept on which

higher education institutions are able to operate. Furthermore, the issue of academic integrity is important in that studies have shown that those who engage in dishonest practices are more likely to participate in the behaviors again and with greater frequency (Borsellino, 1983; Jensen et al., 2002). This has future implications both in terms of its impact on the academic integrity of the institution and on society as a whole. Academic dishonesty can lead to possible devaluation of societal values of trust, honesty and integrity. It is important to have an understanding of the issues, facts and complexities surrounding academic dishonesty.

Previous studies have shown a relationship between academic dishonesty and certain individual difference factors such as age, gender, academic achievement and involvement in extracurricular activities (Baird, 1980; Diekhoff, LaBeff, Clark, Francis, & Haines, 1996; Haines et al., 1986; McCabe & Trevino, 1997; Whitley, 1998). In general, these studies have suggested that younger students cheat more than older students, men cheat more than women, students with lower grade-point-averages cheat more and those with higher GPAs, and students with higher involvement in extracurricular activities cheat more than those with less involvement. Still, there is not universal agreement as studies have shown variable strengths of the relationship of each of these factors with academically dishonest behavior.

Academic dishonesty is influenced by certain contextual factors. Contextual factors, those that relate strongly to a situation or environment, have a stronger relationship on academic dishonesty than individual difference factors. For example, research has confirmed that the peer culture has a strong influence on academic dishonesty. It has the potential for both negative and positive influences on cheating

behavior (Bowers, 1964; McCabe & Trevino, 1997; McCabe, Trevino, & Butterfield, 2001a; 2001b).

Another potential contextual factor impacting academic integrity is institutional religious affiliation. There has been a tacit understanding that institutions with significant religious affiliations tend to have strong commitments toward a values-oriented curriculum, one in which core values are integrated across and throughout the academic program. These institutions are thought to have a commitment to the development of moral and ethical values, and a greater tendency to exhibit behaviors supportive of academic integrity (Bruggeman & Hart, 1996), which is an important component in creating a culture of integrity (Whitley and Keith-Spiegel, 2001). One would expect that the level of academic dishonesty to be very low in these institutional settings. However, cheating still occurs on these campuses.

A contradiction exists between the expected behaviors towards academic integrity and stated institutional core values at religiously affiliated colleges and universities. The extent of this contradiction was not well known. While a number of previous studies have focused on religion as an individual characteristic, only a very few higher education institution studies have examined academic dishonesty intentionally with religious affiliation as a contextual factor. In two of those studies, which involved comparison of students at a single Catholic university with those at a secular school, neither reported finding significant differences in cheating behaviors between students at these institutions (Brown & Choong, 2003; Graham, et. al., 1994). However, Sunday (2000) in his study of students from fundamentalist Christian colleges found very limited cheating occurring among the students in his sample (26%) when compared with published cheating rates

from primarily secular institutions. There has remained a question as to possible differences in attitudes and behaviors towards academic dishonesty at other strongly church-related colleges and universities. In order to gain a greater understanding of the extent and influences on cheating behaviors at church-related colleges more information was needed. This increased understanding and knowledge was necessary in appropriately informing these institutions in their response to acts of academic dishonesty.

5.2 Purpose

The purpose of this study was to examine the attitudes and behaviors towards academic dishonesty of students attending church-related colleges and universities to inform policy decisions aimed at reducing these behaviors. Specifically, this study examined students attending institutions affiliated with the Mennonite Church. These institutions have professed a strong commitment to academic integrity through their stated institutional core values and mission statements. In this study, contextual factors, such as the peer culture and its relationship toward academic dishonesty of students as well as the relationship of cheating among these students to individual difference factors such as gender, academic achievement, age, and extracurricular involvement were examined.

While extensive research has been conducted on self-reported acts of academic dishonesty among college students and the impact of individual difference factors and certain contextual factors, there was a gap in the understanding of the issue of academic dishonesty as it relates to students from higher education institutions that define themselves as religiously affiliated. Specifically, while several studies have attempted to examine religious affiliation and participation as an individual difference factor, even

fewer have attempted to examine potential differences in academically dishonest behavior with college and university religious affiliation as a contextual factor. Further research in this area was warranted given the importance of contextual factors on influencing academic dishonesty and the desire to provide additional understanding and inform possible responses for addressing dishonest behaviors. The research questions that guided this study involved examining the attitudes and behaviors towards academic dishonesty at church-related institutions, specifically involving undergraduate students at colleges and universities affiliated with the Mennonite Church. The following primary research question and subsequent supporting questions were asked.

What is the extent of academic dishonesty among students at four-year Mennonite-affiliated colleges, and how does it compare with college students in general?

1. What is the level of cheating among students at four-year Mennonite-affiliated colleges?
2. What are students' attitudes towards academic dishonesty, and are there differences between these attitudes and the level of cheating of students attending Mennonite-affiliated institutions?
3. What are the cheating practices and behaviors of students attending Mennonite-affiliated institutions?
4. Are there differences in the level of cheating among students attending Mennonite-affiliated institutions based upon perceived peer attitudes towards cheating?

5. Are there differences in the level of cheating among students at Mennonite-affiliated colleges based upon the individual difference factors of gender, academic achievement, age and involvement in extracurricular activities?

5.3 Findings

Results of this study indicated that students at these church-related institutions are engaging in cheating behaviors. The overall self-reported cheating rate for student respondents was 76.7% based upon responses to 24 possible cheating behaviors that included a number of cheating practices related to plagiarism, cheating on tests and examinations and inappropriate sharing of work in group assignments. Self-reported cheating rates for each of these behaviors ranged from less than one percent to nearly 45% for the most frequently engaged in cheating behavior of working on an assignment with others (in person) when the instructor asked for individual work. This practice was also the behavior that the most students reported engaging in multiple times. Over 25% of students admitted to inappropriately working with others on assignments more than once during the previous year.

Students at Mennonite-affiliated colleges and universities perceived that their institutions support an environment of academic integrity. Respondents generally rated high faculty understanding and faculty support for institutional policies on academic dishonesty. Students were slightly less enthusiastic in their ratings of student understanding, support and effectiveness of policies, although most still ranked support and effectiveness as medium and high. The majority of students also ranked the

perceived severity of penalties for cheating at their institutions as high. Despite this, many also perceived academic dishonesty as occurring at their institutions.

The attitudes towards academic dishonesty of students at the Mennonite-affiliated colleges were reflected in their expression of the perceived level of seriousness for each of the cheating behaviors and by the likelihood that students would report observed incidents of cheating. Their responses reflected that they considered many of the behaviors presented in the study as moderate or serious cheating. Respondents indicated that they considered the submission of papers written by someone else and copying from another student during a test without his or her knowledge as serious cheating more than any of the other cheating behaviors. Not surprisingly, behaviors that were considered serious cheating by the least number of students were also those that were rated as trivial cheating by the greatest number of respondents. More students considered working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work as trivial cheating more than any other behavior. Student attitudes regarding the reporting of observed incidents of cheating indicated that students who admitted having cheated were less likely to report such incidents than students who did not engage in academically dishonest behaviors.

Examining the relationship between self-reported cheating rates of students attending Mennonite-affiliated institutions and perceived peer attitudes towards academic dishonesty revealed that there are differences between students who participated in cheating behaviors and those that did not as it relates to the peer culture. Students that engaged in academically dishonest behaviors were generally more likely to perceive other students being involved in inappropriate sharing of work in group assignments.

They were also more likely to have observed an actual incident of cheating during a test or examination. When considering attitudes towards peer reportage, the group of students that admitted cheating perceived it less likely for a typical student to report an observed incident of cheating by another student and even close friend than students who indicated that they had not cheated. In terms of peer disapproval, again, the group that admitted engagement in academic dishonesty perceived it to be less likely that a close friend or an acquaintance friend would disapprove of the respondent's cheating than students who had not cheated.

The data analysis suggested that individual difference factors of gender, academic achievement and involvement in extracurricular activities were not significantly related to academic dishonesty. The exceptions to this were in age and involvement in intramural athletics. Students that reported having engaged in cheating behavior tended to be younger and more involved in intramural athletics than those who reported having not engaged in academic dishonesty behaviors. While significant, the strength of the relationship between involvement in intramural athletics to academic dishonesty was weak.

5.4 Discussion

The following discussion is intended to further contextualize the results of this study in relation to the broader framework of academic dishonesty. Specifically, the discussion focuses on the cheating rates, attitudes, and practices of undergraduate students from four Mennonite-affiliated colleges and universities that participated in this study and how they compare with students from other institutions. Additional discussion

examines individual difference factors, the impact of the peer culture and possible influences of the religious affiliation factor.

5.4.1 Cheating Rate

Given the data, it can be concluded that students at these church affiliated institutions have engaged in academically dishonest behaviors. The overall cheating rate was 76.7%. This figure, while not the highest of rates reported, is still higher than many cheating rates reported in previous studies. By comparison, higher cheating rates of 82% were found by Genereux and McLeod (1995) and 95% by Brown and Choong (2003). In contrast, McCabe and Trevino (1995) found a cheating rate of 67%, Bowers (1964) 50%, Clifford (1996) 35%, and Sunday (2000) 26%. Interestingly, Brown and Choong (2003) with one of the highest reported cheating rates, compared students at a Catholic and a secular institution, while Sunday (2000), with one of the lowest cheating rates examined students from fundamentalist Christian colleges. The wide discrepancy of cheating rates in studies specifically involving religiously affiliated institutions seems to suggest that the existence of a strong relationship between institutional religious affiliation and academic dishonesty is suspect.

It is also important to note the difficulty in comparing self-reported cheating rates between studies. There are a number of comparison issues that make it difficult to draw strong conclusions. Issues related to the quantity and type of dishonest behaviors being studied as well as variances in sample sizes, other institutional type variables and changes in the acceptability of some cheating behaviors over time all can have an influence on cheating rates that are reported.

5.4.2 Attitudes

Attitudes towards academic dishonesty were demonstrated by student responses of the perceived seriousness of cheating behaviors and by the likelihood that students would report observed incidents of cheating. It is apparent that many of the student respondents considered the majority of cheating behaviors as moderate to serious cheating, although there were a number of behaviors that were seen as trivial cheating by a substantial percentage of students. Clearly, not all the behaviors were considered to be serious cheating. Previous research has suggested that academically dishonest behaviors that are seen as being more serious forms of cheating, tend to have lower frequencies of cheating (Kidwell et al., 2003; Rakovski & Levy, 2007). This same conclusion is also apparent in this study.

Students considered many of the behaviors to be moderate to serious cheating. Fourteen of the cheating behaviors were considered moderate to serious cheating by over 80% of the respondents (Appendix F). The two behaviors that most students listed as serious cheating both involved the submission of papers written by someone else, obtained either from a paper mill or web site. These practices were considered serious or moderate cheating by well over 97% of students, with only one student self-reporting engagement in each behavior. The related behavior of *turning in work by someone else* was also one most listed as serious cheating with 96% of students responding in this way. These behaviors also had the lowest self-reported cheating rates with *submitting papers from a web site or "paper mill"* both having a cheating rate of 0.3% and *turning in work by someone else* with a rate of 1.1%.

Similarly, *copying from other students during an exam either with or without their knowledge* was seen as moderate to serious cheating by over 94% of students. More students indicated that copying from someone on an exam without their knowledge was serious cheating than copying with their knowledge. Still, both behaviors were among those with the highest percentage of students indicating these as serious cheating. In fact, all of the academically dishonest behaviors related to taking tests or exams had over 80 percent of students indicating them as moderate or serious forms of cheating. Cheating rates for nearly all the exam related behaviors ranged from 4 to 13%. The exception to this was for the practice of *getting questions or answers from someone who had already taken a test*. While 87% of students indicated that this was moderate or serious cheating, the self-reported cheating rate was just over 20%. It appears that for this behavior, more students are engaging in a practice that they consider moderate or serious cheating than the other exam related behaviors.

Additionally, students in this study seem to have responded differently to the perceived seriousness of *getting questions or answers from someone who had already taken a test* than students at other institutions. McCabe (2005) in his study of over 71,000 undergraduate students from 83 different campuses found that 64% of undergraduate students indicated this behavior to be moderate to serious cheating with the cheating rate of 33%. A higher percentage of students in this study indicated that this behavior was moderate to serious cheating and had a much lower cheating rate than in the McCabe (2005) study. While students in this study responded differently on this behavior, it still seems to demonstrate that there tends to be lower cheating rates when the behavior is considered serious cheating.

Students seem to differentiate their perceived seriousness between different plagiarism behaviors. While over 95% of students considered *copying material, almost word for word, from any written source and turning it in as their own work* as moderate or serious cheating, only around 76% considered *paraphrasing or copying a few sentences from a source without footnoting them in a paper* as moderate or serious cheating. The behaviors are very similar, with the primary difference being an implication that one refers specifically to copying “a few sentences.” While both are forms of plagiarism, this suggestion of quantity exhibited differences in student responses. Students may be diminishing the seriousness of the behavior based upon the perceived quantity of dishonesty.

The cheating behaviors that the least number of students indicated as being examples of serious cheating included those related to copying homework, paraphrasing or copying a few sentences without footnoting, fabricating or falsifying lab data or bibliography, using a false excuse, receiving unpermitted help, and working on an assignment with others when instructor asked for individual work. Not surprisingly, these behaviors also have the highest percentages of students who consider them to be examples of trivial cheating. The behavior considered by the lowest percentage of students as being serious cheating was *working on assignments with others when individual work was required, either electronically or in person*. Both ways were only considered moderate or serious cheating by less than half of respondents, with nearly 44% considering these behaviors as trivial cheating. Not surprisingly, these behaviors also had the highest cheating rates. It seems clear from these results that helping students

better understand and accept the seriousness of particular cheating practices could be a strategy to impact actual cheating behavior.

Student attitudes towards cheating were also reflected in their responses regarding their likelihood of reporting observed acts of cheating. Over 60% of students indicated that they would be unlikely or very unlikely to report academic dishonesty. Decisions towards not reporting acts of academic dishonesty may reflect students' perspective that they do not have responsibility in the enforcement of academic integrity policies. While they clearly see faculty understanding and support of academic integrity policies, most students have not internalized possible responsibility in upholding the academic integrity of others.

The likelihood of students not reporting was even more pronounced when taking into account the students' self reported cheating rate. Students that admitted to having engaged in cheating behaviors were more unlikely to report incidents than students who had not cheated. This is not necessarily surprising. Students tend to normalize their engagement in behaviors. Students that have cheated may seek to legitimize their cheating based upon other factors or view particular behaviors as less serious forms of cheating. From this perspective, there may be an increased toleration for cheating by students that have engaged in these behaviors.

5.4.3 Cheating Practices

The cheating practices of students were demonstrated by the frequency of engagement for each of the cheating behaviors. Previous studies have concluded that the most common cheating behaviors can vary across studies and are dependent upon the type and number of practices included. The most prevalent cheating behaviors of

students in this study were those related to *working with others on assignments, receiving unpermitted help, plagiarism, and copying other's homework*. These practices are nearly identical to the most prevalent cheating behaviors in the McCabe (2005) study with a few exceptions. A comparison of the common cheating behaviors in both studies and subsequent cheating rates are found in Appendix H.

Notable differences exist for some of the cheating behaviors. In terms of *receiving unpermitted help on an assignment*, a greater percentage of the students in this study (34%) reported having engaged in this behavior than in the McCabe study (24%). *Getting questions or answers from someone who had already taken the test* was admitted by 20% of the students in the current study and 33% of the students in the McCabe study.

As has been discussed previously, this latter behavior had a distinct difference in perceived seriousness between the two studies. A higher percentage of students in the current study considered this behavior as moderate or serious cheating. Similarly, for the behavior of *receiving unpermitted help on assignments* the difference in the perceived seriousness of the behavior in the two studies suggests the students responded differently in terms of their participation in these behaviors based upon their perception of the behavior as serious cheating.

For the most part, students at Mennonite-affiliated colleges and universities were not very different in their cheating practices than students at other schools. In comparison with students at fundamentalist Christian colleges similar results were found with a couple of exceptions. Sunday's (2000) study of cheating attitudes and behaviors of fundamentalist Christian college students shared 16 cheating behaviors with the current study. While self-reported cheating was nearly the same for 12 of the behaviors,

it differed considerably on four of the cheating practices. A comparison of these four cheating behaviors can be found in Table 5.1.

Table 5.1
Comparison of self-reported cheating rates for certain cheating behaviors between Sunday (2000) and current study

Cheating Behavior	Cheating Rate	
	Sunday (2000)	Current Study
Working on an assignment with others (in person) when the instructor asked for individual work	16%	44.9%
Paraphrasing or copying a few sentences from an electronic source without footnoting them in a paper you submitted	5%	39.6%
Receiving unpermitted help on an assignment	10%	33.7%
Fabricating or falsifying lab data	2%	21.8%

There was not much evidence to suggest why most of these particular behaviors varied so greatly. This might be an area for future research. However, for the practice of *paraphrasing or copying a few sentences from an electronic source without footnoting them in a paper* a possible explanation is the change in the availability of electronic resources over the last 10 years. There is a question as to the opportunity that students in the Sunday study may have had to obtain information from electronic sources.

5.4.4 Peer Culture

Research has suggested that contextual factors, those that are dependent upon the situation or environment, have a more significant impact on academic dishonesty than individual variables. Specifically, researchers have confirmed the strong influence of the peer culture as a contextual factor as it relates to academic dishonesty (Bowers, 1964; McCabe & Trevino, 1997; McCabe, Trevino, & Butterfield, 2001a; 2001b). The peer

culture can provide a positive or negative influence on cheating behavior. The behavior of peers provides either a control factor that discourages cheating or provides validation that cheating is an acceptable practice. This relates not only to actual behavior witnessed by students, but also to their perceptions of the cheating peer culture at their institutions. Students are much more likely to engage in academic dishonesty when they perceive that a culture of cheating exists among their peers (Genereux & McLeod, 1995; Hall & Kuh, 1998; Vandehey, Diekhoff, LaBeff, 2007). Student perceptions function as a social norm, which has the effect of diminishing or supporting the value of academic integrity.

This study examined the peer culture at the religiously affiliated institutions through the respondents' perceived and witnessed behavior of peers, perceived likelihood of peers reporting other students for cheating, and the expected disapproval of peers if they were aware of the respondents' dishonest behaviors. Responses to these items were compared between the groups of students who indicated having cheated and those that did not.

In terms of peer behavior, this study examined student perceptions of the frequency of plagiarism, cheating during tests or examinations, inappropriate sharing of work in group assignments and actual cheating witnessed during a test. Differences were not found between groups on perceived frequency of plagiarism or cheating on tests and examinations. However, differences were found between students that cheated and those that had not in their perceptions of inappropriate sharing in work assignments and in the frequency of witnessing cheating during a test. The group of students that had admitted cheating perceived more inappropriate sharing and witnessed more cheating. We have already established cheating behaviors related to inappropriate sharing in group

assignments had the highest cheating rates and were considered only trivial cheating by the greatest number of students. Additionally, the perceived behavior of peers also appears to be functioning at normalizing this practice among students that cheat. In terms of understanding the differences between groups on actually witnessing dishonest behavior it is helpful to consider the possibility that students who have engaged in dishonest behaviors have a greater awareness of cheating practices and behaviors and more easily recognize academic dishonesty when it is witnessed.

Peer reportage was examined by student perceptions of the likelihood that their peers would report dishonest behaviors. Specifically, the study examined the likelihood that a student would report another student or a close friend they observed cheating. The majority, nearly 60%, of students indicated that it was unlikely or very unlikely for typical students to report incidents of cheating by other students or close friends. A strong culture of academic dishonesty reporting does not seem to exist at these institutions. However, there were differences in the responses between the group of students that admitted cheating and those that had not. Students that had engaged in dishonest behaviors tended to perceive it more unlikely for the typical student to report observed incidents of cheating by another student and a close friend. Even noting these differences, the majority of students that had not cheated still thought it unlikely or very unlikely that typical students would report incidents of academic dishonesty. This perceived lack of commitment to report academic dishonesty may be even more troubling for one of the institutions in the study that has an obligation for students to report such behaviors.

Peer disapproval was demonstrated through the students' perceived strength of other students' disapproval if they were aware that the respondent had cheated in a course. Students responded as to the perceived disapproval of a close friend and of an acquaintance friend. Respondents perceived strong disapproval of their cheating by close friends with over 75% indicating some level of strong disapproval. The strength of strong disapproval from acquaintance friends was only slightly less at 67%. There were also differences between the students that cheated and those that had not in their responses to both of these items. Those that had not engaged in dishonest behaviors were more likely to indicate stronger disapproval from both close and acquaintance friends. These responses are consistent with previous understandings of the significant impact of peer disapproval. Given that the perception of peer disapproval is the strongest factor in impacting student academic dishonesty (Bowers, 1964, McCabe & Trevino, 1993, 1997), there is some potential for this component of the peer culture to influence cheating behaviors of students at these institutions.

5.4.5 Individual Difference Factors

Individual difference factors are those characteristics that differentiate individuals from one another. The relationship of a wide variety of these factors to academic dishonesty has been studied and significant correlations exist (McCabe, Trevino, & Butterfield, 2001a). These factors have included students' individual characteristics such as gender, academic achievement, age and participation in extracurricular activities.

The sample for this study contained a greater percentage of women than men. Female students represented nearly 68% of the sample, but only made up 57% of the

population at the four institutions surveyed. The analysis of the cheating practices of undergraduate students indicated a cheating rate of 75.7% for females and 78.2% for males. These rates are consistent with overall cheating rate of 76.7%. However, even though it appeared that men engaged in academically dishonest behaviors more frequently than women, subsequent analysis did not find the relationship between gender and academic dishonesty to be significant. This does not support the generally accepted finding that men tend to cheat more than women (Arnold, 2004; Baird, 1980; Bowers, 1964; Davis et al., 1992; Dawkins, 2004; Finn & Frone, 2004; Genereux & McLeod, 1995; Jensen et al., 2002; May and Loyd, 1993; McCabe & Trevino, 1997; Rakovski & Levy, 2007; Zimmerman, 1998). Others have questioned this finding and have suggested that the correlation of gender and academic dishonesty is not strong (Haines et al., 1986; Pino & Smith, 2003; Sunday, 2000). This study supports this latter notion.

For the purposes of this study, academic achievement was demonstrated by students' grade-point averages. The grade-point average distribution of respondents ranged from 1.72 to 4.0. The majority of students (69.7%) had grade-point averages of 3.5 or above. The overall mean grade-point average was 3.56. This average was higher than the overall undergraduate grade point averages that were reported by the participating institutions. The mean grade-point averages of students that indicated they had not cheated and those that responded to having engaged in cheating were 3.6 and 3.55 respectively. Although the vast majority of research indicated that students with lower grade-point averages were more likely to engage in academically dishonest behaviors (Baird, 1980; Bowers, 1964; Dawkins, 2004; Diekhoff et al., 1996; Haines et al., 1986; McCabe & Trevino, 1997; Rakovski & Levy, 2007; Vandehey, Diekhoff, &

LaBeff, 2007), in this study, there did not appear to be a difference between groups based upon their grade-point averages. This finding was confirmed through subsequent analysis which indicated no statistically significant difference between groups on the grade-point averages.

Whitley's (1998) review of academic dishonesty studies related to academic achievement indicated that the relationship between grade-point average and cheating behavior was very weak. In contrast, this study found virtually no relationship at all. Part of the difficulty in this analysis was the seemingly skewed distribution of grade-point averages of students that responded to the survey. It appears that the majority of respondents were higher achieving students than was expected given the population.

The age distribution of respondents in this study was from 18 to 58 years. Nearly 88% of the students had traditional college student ages of 18 to 22. This figure was consistent with the age ranges of students at the institutions that were included in the study, which had primarily traditionally aged undergraduate populations. There were a total of 84 students that indicated they had not cheated during the past year. The mean age of these students was 23.2. The mean age of the 285 students that responded to having engaged in cheating was 21.0. In general, studies have found that older college students tend to cheat less than younger college students (Diekhoff et al., 1996; Finn & Frone, 2004; Haines et al., 1986; McCabe & Trevino, 1997; Rakovski & Levy, 2007; Vandehey, Diekhoff, & LaBeff, 2007; Whitley, 1998; Zimmerman, 1998). Data analysis confirmed that this was true of students in this study as well. This is interesting particularly, given that while the age range of respondents was great, the concentration of most of the students was limited to just a few years. This raises a question as to whether

this is the result of simple maturation or other factors that may have occurred during the college years that potentially influenced cheating behaviors.

The final individual difference factor that was examined in the study was student participation in extracurricular activities. In general, participation in extracurricular activities has been shown to have a positive effect on academic dishonesty (Baird, 1980; Bowers, 1964; Dawkins 2004; Diekhoff et al., 1996; Haines et al., 1986; Jewett, 2006; McCabe & Trevino, 1997; Pino & Smith, 2003; Vandehey, Diekhoff, & LaBeff, 2007). Although, the challenge in evaluating studies on this variable is that extracurricular involvement is defined in multiple ways and there is a lack of consistency in the types of activities that are included. For the purposes of this study, extracurricular involvement was assessed based upon the level of participation in several types of activities which included intramural athletics, political and cultural organizations, student government, musical groups, religious organizations and college publications.

Actual student participation varied across these activities. The majority of students expressed some level of involvement in intramural athletics and religious organizations. Nearly 60% of students were involved in intramural athletics and 66% in religious organizations. The levels of involvement were also examined based upon students' indication of engagement in academically dishonest behaviors. The only activity that demonstrated any significance between groups that self-reported cheating and those that did not was intramural athletics. Students that had engaged in academic dishonesty had greater levels of involvement in intramural athletics, although the strength of this relationship was not strong. This finding was consistent with research that has suggested that participation in intercollegiate and intramural sports is associated with

greater levels of academic dishonesty (Diekhoff et al., 1996; Haines et al., 1986; Jewett, 2006; McCabe & Trevino, 1997; Vandehey, Diekhoff, & LaBeff, 2007). Even given this finding, it appears that collectively in this study there are few or weak connections between involvement in certain extracurricular activities and academic dishonesty.

5.4.6 Religious Affiliation Factor

An intended outcome of this study was gaining a greater understanding of the cheating attitudes and behaviors of students at church-related colleges and universities. It was established that while a great amount of information was available on the academic dishonesty of college students in a variety of institutional settings, minimal information was found specifically as it related to church-related institutions. This study attempted to address this gap and provide additional resources for increasing understanding of cheating within the context of institutional religious affiliation.

Within the limited context of research on academic dishonesty at church-related institutions and the results of this study there does not seem to be much evidence of a relationship between student cheating attitudes and behaviors and the religious status of their institutions. Self-reported cheating rates in previous studies involving church-related institutions have varied from 26% to over 95%. Neither of the studies that specifically compared students at a single Catholic university with those at a secular school found great differences in cheating behaviors between students on these campuses (Brown & Choong, 2003; Graham, et. al., 1994). Furthermore, in comparison with student attitudes and behaviors found in McCabe's (2005) research of students from 83 different institutions in North America, self reported cheating rates for specific dishonest

behaviors and perceptions of those behaviors as serious cheating, with a few exceptions, were not very different from those found in the current study.

Previously, it was suggested that one might expect differences in cheating attitudes and behaviors at strongly church-related institutions as they are thought to have strong commitments towards a values-oriented curriculum. This emphasis on values is thought to have a connection with the development of clear moral values and thus lead to a greater propensity to exhibit behaviors supportive of academic integrity (Bruggeman & Hart, 1996). There does not seem to be evidence to support this for the institutions in this study. It is possible that the impact of the values-oriented education at the participating institutions in this study was not great enough to effectively influence cheating behavior nor add significantly in the development of a culture of academic integrity. However, it is also possible that a mixture of other factors may have had greater influence on cheating attitudes and behaviors.

5.5 Limitations

There were several limitations and issues that were important when considering the results of this study. One limitation is that the results of the study were limited to self-reported data. While self-reported cheating rates have been the common measure in assessing the level of academic dishonesty, there were some concerns about the reliability of self-reported measures. Even so, there was wide agreement that self-reported rates were a reasonably accurate measure of cheating (Cizek, 1999). Related to student response was the issue of students choosing to respond to a sensitive topic. Efforts were

made to assure the student anonymity of their responses. There was also an assumption that respondents were honest and understood the instrument.

There were some limitation issues with comparing cheating rates between the current results and previous studies. The calculation of cheating rate is influenced by both the type and quantity of cheating behaviors, in addition to differences in size and institutional type. In an attempt to control for these differences as much as possible, specific cheating rate comparisons were limited to common cheating behaviors across only those studies that used the McCabe Academic Integrity Survey.

There were also limitation issues related to response rates, particularly between institutions. McCabe (2005) suggested that response rates for his academic integrity survey averaged between 10 and 15%. Response rates for this study were just over 10%. While this figure fell just within the expected range for this survey, it was well below a rate that would allow for a greater generalization of findings (Dolsen & Machlis, 1991). Furthermore, while the sample demographics on age and class rank were reflective of the population, the gender and grade point averages of the sample were not. Results reflect responses of the sample that may not be indicative of the population.

Additionally, the response rates between institutions varied. In order to improve response rates, a reminder e-mail was sent to students two weeks after the initial invitation to participate in the research. However, only two of the four institutions sent this second e-mail. The response rate collectively from these two institutions was nearly 15%. Additionally, respondents from these schools made up nearly 78% of the sample, but only 59% of the survey population. The uneven distribution of response from participating institutions indicates that results reflect the responses of students that

participated in the study and may not reflect attitudes and behaviors of the overall population at these institutions.

Nonresponse bias is another issue that needs to be considered. This is bias that may exist as a result of difference between students that responded to the survey and those that did not. This has an impact on being able to generalize the findings for the population (Sax, Gilmartin, & Bryant, 2003). Given the lower response rate, there is a greater possibility for non response bias to be present. Due to the use of electronic survey and dependence upon the individual institutions involvement in distributing the survey, it is difficult to know the possible impact of the nonresponse bias on the results of this study.

5.6 Recommendations

Church-related colleges and universities cannot assume that their faith-based values education has a positive impact on academic integrity. Given the responses from students at the church-related institutions included in this study, there did not seem to be great differences in cheating behaviors compared with students at the wide variety of institutions found in McCabe (2005). In comparison with Sunday's (2000) study on academic dishonesty of students at intentionally fundamentalist Christian colleges, there were large differences in the overall cheating rate and level of engagement in several cheating behaviors. Administrators and faculty at church-related institutions need to recognize that they cannot always assume that students on their campuses will behave with integrity in their academic work, and they need to consider ways to sustain and promote behaviors and attitudes that discourage academic dishonesty.

Central to the effort of impacting student attitudes and behaviors towards cheating is the presence of a strong culture of integrity. Church-related colleges and universities ought to develop and support this type of culture on their campuses. Their institutional cultures need to value academic integrity. This involves the creation of and commitment to a set of shared values and beliefs towards academic integrity among members of the college community. A culture of shared values and beliefs that supports academic integrity can have a significant impact on cheating behaviors. These values must be congruent with the mission, culture and student backgrounds of the institution (Holcomb, 1993). Many have suggested that regardless of other factors, being a part of a community that intentionally works to create a campus culture that supports honest behaviors in student academic work seems to have the most impact on academic dishonesty (Davis, et. al., 1993; Fass, 1986; McCabe, 2005; McCabe & Trevino, 1993, 1997, 2002; Pavela, 1997; Pavela & McCabe 1993; Whitney & Keith-Spiegel, 2001). The promotion of such a culture is also important at church-related institutions.

While a culture of academic integrity is one of the most influential factors on academic dishonesty, one of the most significant influences on creating and maintaining this culture is student perceptions of peer attitudes and behaviors. It is important to understand and recognize the impact of the student peer culture, as an effective culture of integrity has significant support from the peer culture. When the peer culture supports the values of academic integrity, new students are more likely to hold these same values.

In examining the three components of the peer culture, church-related institutions in this study can take note that on perceived peer behavior towards dishonesty on tests and with regard to plagiarism the vast majority of students in this sample did not perceive

students engaging in these behaviors often. The same was true for peer disapproval of academic dishonesty in that most students perceived strong disapproval from their friends. Conversely, the majority of students perceived the inappropriate sharing of work as occurring often or very often. On the issue of peer reporting, the results of this sample indicated that over 70% perceived that their peers were unlikely or very unlikely to report incidents of cheating. In creating a culture of integrity, institutions need to carefully consider the issues related to expectations of peer reporting and how students perceive inappropriate sharing of work in group assignments. Simple policy changes in this area will have difficulty having impact on creating a culture of integrity without providing students with the understanding and meaning behind these expectations.

A key component in an effective culture of academic integrity is providing clear expectations of policies and support of a common purpose. These aspects work to create a sense of community through the expression of common purpose by providing a clear vision for members of the campus community to understand and follow. The results of this study indicated that over half of respondents rated student understanding of academic integrity policies as medium to very low and subsequently over 60% rated student support of policies similarly. When student understanding of such policies is low or inconsistent, students are more likely to exhibit academically dishonest behaviors (Fass, 1990; Gehring, Nuss, & Pavela, 1986). Church-related institutions need to work to increase student understanding and support of academic integrity policies and purpose. While there are concerns about the lower level of student understanding and support for policies, many students in this study responded with medium understanding and support,

suggesting that many students may not have far to go in achieving higher levels of understanding and support for academic integrity policies at their institutions.

Church-related colleges and universities should also consider being active in providing their students with a greater understanding of what constitutes academic dishonesty at their institutions. It cannot be assumed that all students have the equivalent understanding of what constitutes cheating behavior. Creating a culture of integrity requires a common understanding of academic dishonesty given the variety of possible cheating behaviors. Students in this study had varying degrees of understanding of the perceived seriousness of cheating behaviors. Institutions should work to support student perceptions of behaviors seen as more serious cheating. This study confirmed previous findings that behaviors that were considered serious cheating had lower cheating rates and those that were considered trivial cheating had higher cheating rates. For example, in the current study, the cheating behavior of *Working on an assignment with others when the instructor asked for individual work* had the highest self reported cheating rate and was considered trivial cheating by the highest percentage of students. Additionally, for this particular behavior the cheating rate in this study was much higher than in Sunday's (2000) study of fundamentalist Christian students and also higher than what was reported in McCabe (2005). Given the results of this study, this behavior is certainly one that institutions need to carefully consider in helping students understand what constitutes academic dishonesty.

The need to provide further clarification of academic dishonesty was also illustrated by student responses which indicated that students seem to differentiate between the perceived seriousness of certain plagiarism behaviors. The plagiarism

behaviors seemed to be differentiated by implications of quantity with those that only seem to involve “a few sentences” of plagiarism being rated as less serious forms of cheating. Again, given the impact of perceived seriousness of cheating rates and in supporting a culture of integrity, institutions need to consider providing greater understanding of what constitutes inappropriate plagiarism behavior.

Whitley and Keith-Spiegel (2001), suggested four elements that are indicative of a culture of academic integrity. They include institutional integrity, often demonstrated through written policies and actions; the presence of a learning oriented environment that works to help students understand the relevance of course assignments in relation to their own learning and development; a values-oriented curriculum; and the presence of an honor code, as a specific policy that supports academic integrity. In examining the institutions included in this study collectively, all of these elements were present at some level. The opportunity exists for continued emphasis and strengthening of these elements at church-related colleges and universities in building and maintaining a strong culture of academic integrity.

5.7 Suggestions for Further Research

The purpose of this study was to examine the attitudes and behaviors towards academic dishonesty of students attending church-related colleges and universities in order to inform policy decisions on reducing cheating behavior. While the study has provided additional information on academic dishonesty in this particular higher education setting, there still exists the opportunity for further research in this and other related areas. Bruggeman and Hart (1996) suggested that church-related institutions

possess a faith based values education, one that “is connected in some way with the development of higher moral values and thus promotes a greater tendency to behave morally” (p. 340). A complete review of this concept was beyond the original scope of this study. Future research could investigate more fully the idea of values-oriented curricula and their influence on moral behavior. This could involve examining academic integrity as a moral behavior and subsequently investigate ways in which ethical behavior can be taught in order to improve its effectiveness.

While this study did not appear to show a relationship between institutional church-relatedness and academic dishonesty there are certainly opportunities to go beyond the scope of the four institutions represented. These schools represent a small part of faith based higher education. Additional research at these institutional types would be helpful in providing a more comprehensive understanding of any possible impact on academic dishonesty. A possible additional perspective would be to examine the level of religious or faith based commitment with the curriculum and in the everyday life of the institution. A component missing in this study, but present in Borsellino (1983) and Sunday (2000) was an examination of the faith commitment of the students and its impact. This direction of study sees the faith component as an individual characteristic as opposed to an environmental or contextual variable.

5.8 Summary

There have been numerous studies that have examined the cheating behaviors and attitudes of college students. These studies collectively have provided an increased understanding of students’ academically dishonest behaviors and explored the possible

influence of a variety of individual difference characteristics and contextual factors. These individual characteristics have included age, gender, grade-point average and participation in extracurricular activities. Contextual factors have included environmental variables such as peer culture, institutional size, institution type and the presence of an honor code. An environmental characteristic that had not received much attention in relation to academic dishonesty was institutional church affiliation.

The primary aim of this study was to provide greater understanding of the behaviors and attitudes related to academic dishonesty of students attending church-related colleges and universities. This study sought to examine the specific cheating rates of these students across a variety of academically dishonest practices and found that cheating was occurring and at rates that were comparable with those found in other institutional settings. Inappropriate sharing of work in group assignments when the instructor asked for individual work was the behavior with the highest self-reported cheating rate among students in this study. This behavior was also considered as trivial cheating by the greatest percentage of students. Generally, behaviors rated by the most students as trivial cheating also had the highest self-reported cheating rates.

There were several differences in attitudes and perceptions towards academic dishonesty between students that admitted having engaged in cheating behaviors and those that indicated they had not cheated. Students that self-reported academic dishonesty were less likely to have reported cheating and to have perceived a lower likelihood of other students reporting such incidents. This group of students was also more likely to having observed actual incidents of cheating and to have perceived other students being involved in the inappropriate sharing of work in group assignments. On

individual difference factors, the students in this group were found to be older and more likely to have had a higher involvement in intramural athletics.

Clearly, there are opportunities for church-related institutions, like the ones included in this study, to address issues of academic dishonesty. Cheating is occurring on these campuses. Members of these campus communities need an increased understanding of the feelings and actions towards cheating of their students and classmates in working to sustain and promote behaviors and attitudes that discourage academic dishonesty and support academic integrity.

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Appendix A

McCabe Academic Integrity Survey

Academic Dishonesty Survey

1) How would you rate:

	Very Low	Low	Medium	High	Very High
The severity of penalties for cheating at your institution?	<input type="radio"/>				
The average student's understanding of campus policies concerning student cheating?	<input type="radio"/>				
The faculty's understanding of these policies?	<input type="radio"/>				
Student support of these policies?	<input type="radio"/>				
Faculty support of these policies?	<input type="radio"/>				
The effectiveness of these policies?	<input type="radio"/>				

2) Have you been informed about the academic integrity or cheating policies at your institution?

- Yes
- No

3) How frequently do you think the following occur at your institution?

	Never	Very Seldom	Seldom/Sometimes	Often	Very Often
Plagiarism on written assignments	<input type="radio"/>				
Inappropriately sharing work in group assignments	<input type="radio"/>				
Cheating during tests or examinations	<input type="radio"/>				

4) How often, if ever, have you seen another student cheat during a test or examination at your institution?

- Never
- Once
- A few times
- Several times
- Many times

5) Have you ever reported another student for cheating?

- Yes
- No

6) This section asks you some questions about specific behaviors that some people might consider cheating. Please remember that this survey is completely anonymous and there is no way that anyone can connect you with any of your answers.

In the RED column please mark how often, if ever, in the past year you have engaged in any of the following behaviors. If a question does not apply to any of the courses you took in the last year, please check the 'Not Relevant' column. For example, if you had no tests/exams in the last year, you would check 'Not Relevant' for questions related to tests/exams. In the BLUE column please mark how serious you think each type of behavior is.

	RED				BLUE			
	Never	Once	More Than Once	Not Relevant	Not Cheating	Trivial Cheating	Moderate Cheating	Serious Cheating
Fabricating or falsifying a bibliography.	<input type="radio"/>							
Working on an assignment with others (in person) when the instructor asked for individual work.	<input type="radio"/>							
Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work.	<input type="radio"/>							
Getting questions or answers from someone who has already taken a test.	<input type="radio"/>							
Fabricating or falsifying lab data.	<input type="radio"/>							
Fabricating or falsifying research data.	<input type="radio"/>							

7) Specific Behaviors 2 (cont.)

	RED				BLUE			
	Never	Once	More Than Once	Not Relevant	Not Cheating	Trivial Cheating	Moderate Cheating	Serious Cheating
Helping someone else cheat on a test.	<input type="radio"/>							
Copying from another student during a test with his or her knowledge.	<input type="radio"/>							
Copying from another student during a test without his or her knowledge.	<input type="radio"/>							
Using digital technology (such as text messaging) to get unpermitted help on an assignment.	<input type="radio"/>							

Copying (by hand or in person) another student's homework.	<input type="radio"/>							
Copying (using digital means such as Instant Messaging or e-mail) another student's homework.	<input type="radio"/>							

8) Specific Behaviors 3 (cont.)

	RED				BLUE			
	Never	Once	More Than Once	Not Relevant	Not Cheating	Trivial Cheating	Moderate Cheating	Serious Cheating
Receiving unpermitted help on an assignment	<input type="radio"/>							
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted	<input type="radio"/>							
Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work	<input type="radio"/>							
Paraphrasing or copying a few sentences from an electronic source - e.g., the Internet - without footnoting them in a paper you submitted	<input type="radio"/>							
Submitted a paper you purchased or obtained from a Web site (such as www.schoolsucks.com) and claimed it as your own work	<input type="radio"/>							
Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam	<input type="radio"/>							

9) Specific Behaviors 4 (cont.)

	RED				BLUE			
	Never	Once	More Than Once	Not Relevant	Not Cheating	Trivial Cheating	Moderate Cheating	Serious Cheating
Using electronic crib notes (stored in a PDA, phone, or calculator) to cheat on a test or exam	<input type="radio"/>							
Using an electronic/digital device as an unauthorized aid during an exam	<input type="radio"/>							
Copying material, almost word for word, from any written source and turning it in as your own work	<input type="radio"/>							
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam	<input type="radio"/>							
Turning in work done by someone else	<input type="radio"/>							
Cheating on a test in any other way	<input type="radio"/>							

10) How likely is it that:

	Very Unlikely	Unlikely	Likely	Very Likely
You would report an incident of cheating that you observed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The typical student at your institution would report such violations?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A student would report a close friend?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11) If you had cheated in a course and the following individuals knew about it, how strongly would they disapprove?

	Very Strongly	Fairly Strongly	Not Very Strongly	Not At All
A close friend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One of the students you go around with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12) What is your academic class standing?

- 1st year undergraduate (Freshman)
- 2nd year undergraduate (Sophomore)
- 3rd year undergraduate (Junior)
- 4th year undergraduate (Senior)
- 5th year undergraduate
- Graduate student

13) What is your age?

14) Sex

- Female
- Male

15) What is your current college grade-point average? If you are a 1st year undergraduate without a college grade-point-average, please indicate your high school grade-point-average.

16) Please indicate your level of involvement in the following activities.

	Not involved	Slightly involved	Moderately involved	Highly involved
Intramural athletics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Political and cultural organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Musical Groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Religious organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
College publications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17) Please use this space for any comments you care to make, or if there is anything else you would like to tell us about the topic of cheating.

Appendix B

Permission to Use the McCabe Academic Integrity Survey

-----Original Message-----

From: "Bourassa, Mark"
Date: Thursday, January 24, 2008
To: Don McCabe
Subject: A Request

Dr. McCabe,

My name is Mark Bourassa and I am a doctoral student at the University of Toledo. It is my hope to conduct a multi-campus study on student self reported behaviors and attitudes towards academic dishonesty at church related institutions.

Over the years, I have come across several studies that have made use of a modified form of your academic integrity survey. I am interested in the possibility of viewing a copy of your version of the survey, and of making use of your instrument in my research on the cheating attitudes and behaviors of college students at church related institutions. Admittedly, I'm not sure of the proper procedures for making this request, but I would appreciate your consideration and any informational assistance you could provide would be greatly appreciated.

Thank you for your consideration. I look forward to hearing from you.

Mark Bourassa

-----Original Message-----

From: "McCabe, Don"
Sent: Friday, January 25, 2008
To: Bourassa, Mark
Subject: Re: A Request

Mark,

I am out of town today and will respond over the weekend in detail. I don't see any real problem with your request.

Don McCabe

-----Original Message-----

From: McCabe, Don
Sent: Tuesday, February 19, 2008
To: Bourassa, Mark
Subject: RE: A Request

Since you do plan to use so much of the survey, I would like to impose two conditions on you as a prerequisite for its use: (1) You limit its use to the small sample of schools you have noted, and (2) if you publish anything out of this work, that you'll give me the opportunity to read what you plan to publish in advance and have the opportunity to comment on it.

Appendix C

Research Questions and Corresponding Survey Questions

Research Question 1	Survey Question
What is the level of cheating among students at four-year Mennonite-affiliated colleges?	<p>Q6 - Level of Engagement in the following behaviors: Fabricating or falsifying a bibliography Working on an assignment with others (in person) when the instructor asked for individual work Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work Getting questions or answers from someone who has already taken a test Fabricating or falsifying lab data Fabricating or falsifying research data</p> <p>Q7 - Level of Engagement in the following behaviors: Helping someone else cheat on a test Copying from another student during a test with his or her knowledge Copying from another student during a test without his or her knowledge Using digital technology (such as text messaging) to get unpermitted help on an assignment Copying (by hand or in person) another student's homework Copying (using digital means such as Instant Messaging or e-mail) another student's homework</p> <p>Q8 - Level of Engagement in the following behaviors: Receiving unpermitted help on an assignment Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work Paraphrasing or copying a few sentences from an electronic source - e.g., the Internet – without footnoting them in a paper you submitted Submitted a paper you purchased or obtained from a Web site and claimed it as your own work Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam</p> <p>Q9 - Level of Engagement in the following behaviors: Using electronic crib notes (stored in a PDA, phone, or calculator) to cheat on a test or exam work Using an electronic/digital device as an unauthorized aid during an exam Copying material, almost word for word, from any written source and turning it in as your own Using a false or forged excuse to obtain an extension on a due date or delay taking an exam Turning in work done by someone else Cheating on a test in any other way</p>

Research Question 2

Survey Question

What are students' attitudes towards academic dishonesty, and are there differences between these attitudes and the level of cheating of students attending Mennonite-affiliated institutions?

Q1- How would you rate:
The average student's understanding of campus policies concerning student cheating?
The faculty's understanding of these policies?
Student support of these policies?
Faculty support of these policies?
The effectiveness of these policies?

Q6 - Level of Cheating Seriousness of the following behaviors:
Fabricating or falsifying a bibliography
Working on an assignment with others (in person) when the instructor asked for individual work
Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work
Getting questions or answers from someone who has already taken a test
Fabricating or falsifying lab data
Fabricating or falsifying research data

Q7 - Level of Cheating Seriousness of the following behaviors:
Helping someone else cheat on a test
Copying from another student during a test with his or her knowledge
Copying from another student during a test without his or her knowledge
Using digital technology (such as text messaging) to get unpermitted help on an assignment
Copying (by hand or in person) another student's homework
Copying (using digital means such as Instant Messaging or e-mail) another student's homework

Q8 - Level of Cheating Seriousness of the following behaviors:
Receiving unpermitted help on an assignment
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted
Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work
Paraphrasing or copying a few sentences from an electronic source - e.g., the Internet – without footnoting them in a paper you submitted
Submitted a paper you purchased or obtained from a Web site and claimed it as your own work
Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam

Q9 - Level of Cheating Seriousness of the following behaviors:
 Using electronic crib notes (stored in a PDA, phone, or calculator) to cheat on a test or exam work
 Using an electronic/digital device as an unauthorized aid during an exam
 Copying material, almost word for word, from any written source and turning it in as your own
 Using a false or forged excuse to obtain an extension on a due date or delay taking an exam
 Turning in work done by someone else
 Cheating on a test in any other way

Q10 – How likely is it that you would report an incident of cheating that you observed?

Research Question 3

Survey Question

What are the cheating practices and behaviors of students attending Mennonite-affiliated institutions?

Q6 - Level of Engagement in the following behaviors:
 Fabricating or falsifying a bibliography
 Working on an assignment with others (in person) when the instructor asked for individual work
 Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work
 Getting questions or answers from someone who has already taken a test
 Fabricating or falsifying lab data
 Fabricating or falsifying research data

Q7 - Level of Engagement in the following behaviors:
 Helping someone else cheat on a test
 Copying from another student during a test with his or her knowledge
 Copying from another student during a test without his or her knowledge
 Using digital technology (such as text messaging) to get unpermitted help on an assignment
 Copying (by hand or in person) another student's homework
 Copying (using digital means such as Instant Messaging or e-mail) another student's homework

Q8 - Level of Engagement in the following behaviors:
 Receiving unpermitted help on an assignment
 Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted
 Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work
 Paraphrasing or copying a few sentences from an electronic source - e.g., the Internet – without footnoting them in a paper you submitted
 Submitted a paper you purchased or obtained from a Web site and claimed it as your own work
 Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam

Q9 - Level of Engagement in the following behaviors:
 Using electronic crib notes (stored in a PDA, phone, or calculator) to cheat on a test or exam work
 Using an electronic/digital device as an unauthorized aid during an exam
 Copying material, almost word for word, from any written source and turning it in as your own
 Using a false or forged excuse to obtain an extension on a due date or delay taking an exam
 Turning in work done by someone else
 Cheating on a test in any other way

Research Question 4

Survey Question

Are there differences in the level of cheating among students attending Mennonite-affiliated institutions and perceived peer attitudes towards cheating?

Peer Behavior
 Q3 – How frequently do you think the following occur at your institution?
 Plagiarism on written assignments
 Inappropriately sharing work in group assignments
 Cheating during tests or examinations

Q4 – How often, if ever, have you seen another student cheat during a test or examination at your institution?

Peer Disapproval
 Q11 – If you had cheating in a course and the following individuals knew about it, how strongly would they disapprove?
 A close friend
 One of the students you go around with

Peer Reporting
 Q10 – How likely is it that:
 The typical student at your institution would report incidents of cheating?
 A student would report a close friend?

Research Question 5

Survey Question

Are there differences in the level of cheating among students at Mennonite-affiliated colleges based upon the individual difference factors of gender, academic achievement, age and involvement in extracurricular activities?

Q14 – Sex
 Q15 – What is your current college grade-point average?
 Q13 – What is your age?
 Q16 – Please indicate your level of involvement in the following activities:
 Intramural Athletics
 Political and cultural organizations
 Student government
 Musical groups
 Religious organizations
 College Publications

Appendix D

Letter to subjects

Dear Student,

You are being invited to participate in a research project on the issue of academic integrity. We really would like your input and your participation is greatly appreciated!

This research is being conducted at the University of Toledo under the direction of Dr. David Meabon and Mark Bourassa. The purpose of this study is to examine the attitudes and behaviors of undergraduate college and university students towards academic dishonesty. Participation in this research will involve taking a short survey. The survey will take about 10 minutes to complete and you will be asked a series of questions regarding your behaviors, attitudes and understandings of academic dishonesty.

In order to participate, you will need to click on this link: (LINK) This link will take you to a web-based survey administered by the University of Toledo. (Vovici is the survey software development company)

While approval for administering this survey has been given by Bluffton University, your responses are anonymous and confidential and no individual responses will be shared with anyone. In order to ensure confidentiality, the survey software being used is programmed to record responses and disassociate those responses from specific participants. Additionally, no individual identifying information is being collected. Records will be stored in the password protected database at the University of Toledo and data will be purged at the conclusion of the study. Your participation in this research project is completely voluntary and you may discontinue participation at any time while taking the survey. *Your decision to participate in this survey will not impact your grades, class standing or relationship with your college or university.*

There are minimal risks to participating in this study. If you feel uneasy or anxious while taking this survey, you may stop at any time. The only direct benefit to you if you participate in this research may be that you learn about academic dishonesty. Others may benefit by learning about the overall collective results of this research.

This study is restricted to individuals who are 18 years old or older. If you are under 18 years, please do not complete this survey.

If you have questions at any time before, during or after your participation, please feel free to contact a member of the research team.

If you have questions beyond those answered by the research team, please contact the chairperson of the University of Toledo's SBE Review Board, Dr. Barbara Chesney, in the Office of Research at (419) 530-2844.

Thank you in advance for your consideration. Your participation is greatly appreciated.
Thank you.

Appendix E:

Self-reported cheating rates for certain cheating behaviors

Cheating Behavior	Cheating Rate
Working on an assignment with others (in person) when the instructor asked for individual work	44.9%
Paraphrasing or copying a few sentences from an electronic source - e.g., the Internet - without footnoting them in a paper you submitted	39.6%
Receiving unpermitted help on an assignment	33.7%
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted	33.2%
Copying (by hand or in person) another student's homework	30.4%
Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work	24.6%
Fabricating or falsifying lab data	21.8%
Getting questions or answers from someone who has already taken a test	20.3%
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam	16.8%
Fabricating or falsifying a bibliography	16.0%
Copying from another student during a test without his or her knowledge	13.1%
Cheating on a test in any other way	12.0%
Helping someone else cheat on a test	11.4%
Copying (using digital means such as Instant Messaging or e-mail) another student's homework	11.1%
Fabricating or falsifying research data	9.8%
Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam	9.0%
Using digital technology (such as text messaging) to get unpermitted help on an assignment	8.4%
Copying from another student during a test with his or her knowledge	7.9%
Copying material, almost word for word, from any written source and turning it in as your own	7.6%
Using electronic crib notes (stored in a PDA, phone, or calculator) to cheat on a test or exam work	6.6%
Using an electronic/digital device as an unauthorized aid during an exam	3.8%
Turning in work done by someone else	3.0%

Appendix E (continued)

Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work	0.3%
Submitted a paper you purchased or obtained from a Web site and claimed it as your own work	0.3%

Appendix F

Responses to perceived seriousness of cheating behaviors

Cheating Behavior	Number of Respondents	Not Cheating	Trivial Cheating	Moderate Cheating	Serious Cheating
Submitted a paper you purchased or obtained from a Web site (such as www.schoolsucks.com) and claimed it as your own work	361	5 (1.4%)	3 (0.8%)	17 (4.7%)	336 (93.1%)
Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work	359	6 (1.7%)	2 (0.5%)	20 (5.6%)	331 (92.2%)
Copying from another student during a test without his or her knowledge	364	4 (1.1%)	8 (2.2%)	38 (10.4%)	314 (86.3%)
Copying material, almost word for word, from any written source and turning it in as your own work	363	5 (1.4%)	11 (3.0%)	43 (11.8%)	304 (83.8%)
Turning in work done by someone else	362	6 (1.7%)	8 (2.2%)	56 (15.5%)	292 (80.6%)
Copying from another student during a test with his or her knowledge	365	4 (1.1%)	15 (4.1%)	54 (14.8%)	292 (80.0%)
Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam	363	7 (1.9%)	13 (3.6%)	70 (19.3%)	273 (75.2%)
Helping someone else cheat on a test	364	6 (1.6%)	18 (5.0%)	72 (19.8%)	268 (73.6%)
Using electronic crib notes (stored in a PDA, phone, or calculator) to cheat on a test or exam	364	5 (1.4%)	13 (3.6%)	81 (22.2%)	265 (72.8%)
Using an electronic/digital device as an unauthorized aid during an exam	363	6 (1.7%)	15 (4.1%)	94 (25.9%)	248 (68.3%)
Cheating on a test in any other way	361	6 (1.7%)	24 (6.6%)	101 (27.0%)	230 (63.7%)
Getting questions or answers from someone who has already taken a test	363	13 (3.6%)	34 (9.3%)	95 (26.2%)	221 (60.9%)

Appendix F (continued)

Using digital technology (such as text messaging) to get unpermitted help on an assignment	364	8 (2.2%)	35 (9.6%)	123 (33.8%)	198 (54.4%)
Fabricating or falsifying research data	363	8 (2.2%)	39 (10.8%)	150 (41.3%)	166 (45.7%)
Copying (using digital means such as Instant Messaging or e-mail) another student's homework	364	11 (3.0%)	69 (19.0%)	137 (37.6%)	147 (40.4%)
Copying (by hand or in person) another student's Homework	365	10 (2.7%)	69 (18.9%)	146 (40.0%)	140 (38.4%)
Paraphrasing or copying a few sentences from an electronic source - e.g., the Internet - without footnoting them in a paper you submitted	363	12 (3.3%)	73 (20.1%)	154 (42.4%)	124 (34.2%)
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted	363	15 (4.2%)	72 (19.8%)	154 (42.4%)	122 (33.6%)
Fabricating or falsifying lab data	360	10 (2.8%)	72 (20.0%)	158 (43.9%)	120 (33.3%)
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam	364	25 (6.8%)	88 (24.2%)	147 (40.4%)	104 (28.6%)
Fabricating or falsifying a bibliography	363	18 (5.0%)	125 (34.4%)	143 (39.4%)	77 (21.2%)
Receiving unpermitted help on an assignment	360	25 (6.9%)	133 (36.9%)	146 (40.6%)	56 (15.6%)
Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work	363	28 (7.7%)	159 (43.8%)	143 (39.4%)	33 (9.1%)
Working on an assignment with others (in person) when the instructor asked for individual work	366	26 (7.1%)	158 (43.2%)	149 (40.7%)	33 (9.0%)

Appendix G

Responses to engagement in cheating behaviors during the past year

Cheating Behavior	Number of Respondents	Never	Once	More than Once
Working on an assignment with others (in person) when the instructor asked for individual work	361	199 (55.1%)	71 (19.7%)	91 (25.2%)
Receiving unpermitted help on an assignment	359	238 (66.3%)	59 (16.4%)	62 (17.3%)
Paraphrasing or copying a few sentences from an electronic source - e.g., the Internet - without footnoting them in a paper you submitted	366	221 (60.4)	84 (23.0%)	61 (16.6%)
Copying (by hand or in person) another student's Homework	371	258 (69.6%)	55 (14.8%)	58 (15.6%)
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted	368	246 (66.8%)	75 (20.4%)	47 (12.8%)
Working on an assignment with others (via e-mail or Instant Messaging) when the instructor asked for individual work	358	270 (75.4%)	44 (12.3%)	44 (12.3%)
Getting questions or answers from someone who has already taken a test	365	291 (79.7%)	45 (12.3%)	29 (8.0%)
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam	368	306 (83.2%)	36 (9.8%)	26 (7.0%)
Fabricating or falsifying lab data	262	205 (78.2%)	40 (15.3%)	17 (6.5%)
Copying (using digital means such as Instant Messaging or e-mail) another student's homework	369	328 (88.9%)	20 (5.4%)	21 (5.7%)
Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam	366	333 (91.0%)	15 (4.1%)	18 (4.9%)
Helping someone else cheat on a test	368	326 (88.6%)	24 (6.5%)	18 (4.9%)

Appendix G (continued)

Fabricating or falsifying a bibliography	362	304 (84.0%)	41 (11.3%)	17 (4.7%)
Copying from another student during a test without his or her knowledge	367	319 (86.9%)	31 (8.5%)	17 (4.6%)
Cheating on a test in any other way	360	317 (88.0%)	28 (7.8%)	15 (4.2%)
Copying from another student during a test with his or her knowledge	369	340 (92.1%)	17 (4.6%)	12 (3.3%)
Copying material, almost word for word, from any written source and turning it in as your own work	368	340 (92.4%)	16 (4.3%)	12 (3.3%)
Fabricating or falsifying research data	317	286 (90.2%)	21 (6.6%)	10 (3.2%)
Using digital technology (such as text messaging) to get unpermitted help on an assignment	369	338 (91.6%)	20 (5.4%)	11(3.0%)
Using electronic crib notes (stored in a PDA, phone, or calculator) to cheat on a test or exam	366	342 (93.4%)	16 (4.4%)	8 (2.2%)
Using an electronic/digital device as an unauthorized aid during an exam	364	350 (96.2%)	10 (2.7%)	4 (1.1%)
Turning in work done by someone else	369	358 (97.0%)	7 (1.9%)	4 (1.1%)
Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work	366	365 (99.7%)	0 (0.0%)	1 (0.3%)
Submitted a paper you purchased or obtained from a Web site (such as www.schoolsucks.com) and claimed it as your own work	366	365 (99.7%)	0 (0.0%)	1 (0.3%)

Appendix H

Comparison of self-reported cheating rates for certain cheating behaviors between McCabe (2005) and current study

Cheating Behavior	Cheating Rate	
	Current Study	McCabe (2005)
Working on an assignment with others when the instructor asked for individual work	48.3%*	42%
Paraphrasing or copying a few sentences from an electronic source - e.g., the Internet - without footnoting them in a paper you submitted	39.6%	36%
Receiving unpermitted help on an assignment	33.7%	24%
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted	33.2%	38%
Fabricating or falsifying lab data	21.8%	19%
Getting questions or answers from someone who has already taken a test	20.3%	33%
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam	16.8%	16%
Fabricating or falsifying a bibliography	16.0%	14%
Copying from another student during a test without his or her knowledge	13.1%	11%
Helping someone else cheat on a test	11.4%	10%
Fabricating or falsifying research data	9.8%	8%
Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam	9.0%	8%
Copying from another student during a test with his or her knowledge	7.9%	9%
Copying material, almost word for word, from any written source and turning it in as your own	7.6%	7%
Using an electronic/digital device as an unauthorized aid during an exam	3.8%	5%
Turning in work done by someone else	3.0%	7%
Turning in a paper from a "paper mill" and claiming it as your own work	0.3%	3%

*For comparison purposes the Current Study cheating rate for this behavior was calculated by combining the responses to Working on an assignment with others when the instructor asked for individual work (in person) and (via e-mail or Instant Messaging)