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DISSERTATION

**MEASURING BUSINESS STUDENTS' ATTITUDES, PERCEPTIONS, AND
TENDENCIES ABOUT CHEATING IN CENTRAL EUROPE AND THE USA**

Submitted by

Robert A. Lupton

School of Education

In partial fulfillment of the requirements

for the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Spring 1999

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December 14, 1998

WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY ROBERT A. LUPTON ENTITLED MEASURING BUSINESS STUDENTS' ATTITUDES, PERCEPTIONS, AND TENDENCIES ABOUT CHEATING IN CENTRAL EUROPE AND THE USA BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

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ABSTRACT OF DISSERTATION

MEASURING BUSINESS STUDENTS' ATTITUDES, PERCEPTIONS, AND TENDENCIES ABOUT CHEATING IN CENTRAL EUROPE AND THE USA

A comparative study was conducted to determine the attitudes, perceptions, and tendencies of U.S. and Central European business college students toward academic cheating. The study also compared U.S. and Central European male and female business college students. Statistically significant differences exist between U.S. and Central European business college students on what constitutes a cheating situation and how often they engaged in such cheating behaviors.

The objectives were to determine if there is a difference in (a) the percentage of students who cheat on examinations, (b) the knowledge of others who have cheated on examinations, (c) the beliefs about what constitutes a cheating situation, (d) the perceptions that cheating on examinations is wrong, and (e) the attitudes about the instructor's responsibility on reducing cheating incidents.

The population consisted of 1337 undergraduate business college students from the U.S. and Central Europe. ANOVAs were used for analysis on two independent variables each with two levels: regions (U.S. and Central Europe) and gender (male and female). None of the ANOVAs revealed any significant interaction effects between region and gender among the dependent variables, and only one variable had significant main effects on gender: Estimation of percentage cheating on examinations. Five significant main effects, however, were found on region.

Central European business college students engaged in higher levels of examination cheating than their counterparts in the U.S. Central European business college students felt that when students used another student's examination from a previous course to prepare for an upcoming examination they were cheating. U.S. business college students felt that it was not a form of cheating. Central European and U.S. business college students were indecisive about the instructor's ability to reduce cheating. More male business college students than female students have cheated on papers and examinations.

This study adds to the limited cross-national research looking at cheating attitudes, perceptions, and tendencies. It will assist in generating further global research comparing cheating behavior among countries.

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Finally, I would like to dedicate this work to my new daughter, Alexandra Anastazja Lupion. I literally typed the last sentence on my dissertation proposal when she decided to enter our lives. She represents those in the near future who will make decisions in a rapidly changing world – probably a very different world. As I learned from those mentioned above, I can only hope that Alexandra will learn from us what quality education represents and can do for others. Dakujem Velmi Pekne! :-)

It is not enough to teach a man a specialty. Through it he may become a kind of useful machine, but not a harmoniously developed personality. It is essential that the student acquire an understanding of and a lively feeling for values. He must acquire a vivid sense of the beautiful and the morally good. Otherwise he - with his specialized knowledge - more closely resembles a trained dog than a harmoniously developed person. He must learn to understand the motives of human beings, their illusions, and their suffering in order to acquire a proper relationship to individual fellow men and to the community.

Albert Einstein

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CHAPTER I

INTRODUCTION

Background and Need for the Study

Controlling academic misconduct is becoming a challenge for United States (U.S.) educators as class size increases, as financial resources decrease, and as students become more intrepid. As the instructor-to-student ratio in a class decreases, so too, it would appear, do student attempts to compromise academic integrity. The literature stresses the need for faculty to become more aware of cheating in the classroom and more aggressive with reactive measures and techniques to address cheating in the classroom.

A review of the U.S. literature identified many studies and monographs over the past century which examine reasons why cheating occurs and the relationship between individual behavior and cheating. These studies have also measured reactions by educators on cheating as well as reported recommendations on how to reduce cheating. The U.S. research has examined K-12 and post-secondary education students and faculty (Bunyan, 1980).

To date little has been studied at the international level. While the journal literature on student cheating gives the impression that cheating is widespread and well accepted among students, only three major cross-national comparative studies on cheating were identified. Two of these cross-national studies have been conducted measuring high school student cheating (Evans, Craig, & Mietzel, 1993; Waugh, Godfrey, Evans, & Craig, 1995). The third cross-national study measured cheating

attitudes between Australian and U.S. college students (Davis, Noble, Zak, & Dreyer, 1994). International comparative research measuring cheating attitudes, perceptions, and tendencies between U.S. and Central European post-secondary business education appears to be non-existent.

U.S. universities continue to send faculty abroad to develop programs around the world. For example, Webster University of St. Louis, Missouri, aspired to be the first global university. The university facilitates free movement of students and faculty among any of six campuses around the world (Rubin, 1997). Organizations such as the International Institute of Education (IIE), the Council for International Educational Exchange (CIEE), the Agency for International Development (AID), and Fulbright encourage global education and resource exchanges abroad (Barron, 1993; Garavalia, 1997). U.S. business education has been introduced to the former Soviet Union republics and to East Asia bringing American faculty and resources to these regions (Fogel, 1994; Kyj, Kyj, & Marshall, 1995; Petkus, 1995).

Cakrt (1993), Coleman and Narduzzi (1994), Kerr (1996), Koucky (1996), Milligan (1996), Shama (1993), Swarns (1996), and Taser (1994) reported that the demand for U.S. education and business curricula has risen dramatically in post-socialist Russia and Central and Eastern Europe. However, Fike and Phillips (1993), Goodman (1994), and Marcic (1995) complained about the high levels of cheating in Central and Eastern Europe as they taught students business skills and the English language. U.S. educators teaching abroad and hosting foreign students locally need to better understand the nuances and attitudes of different student populations and the association with classroom management.

Significance of the Research

U.S. academicians and researchers have studied cheating since the beginning of the 20th century. These endeavors are well documented in the literature and cataloged in this dissertation research. However, limited research has investigated international comparisons of cheating attitudes, perceptions, and tendencies. To date, three major cross-national studies have been identified. Two of the studies scrutinized 11th graders (Evans, Craig, & Mietzel, 1993; Waugh, Godfrey, Evans, & Craig, 1995) and the third study measured cross-national cheating attitudes between Australian and U.S. college students (Davis, Noble, Zak, & Dreyer, 1994). This research is the first cross-national study to compare U.S. business college students with Central European business college students. The findings will be used to assist U.S. post-secondary educators as they prepare for teaching assignments abroad and for hosting foreign students domestically. The results will also be useful to primary and secondary educators teaching globally and locally.

Statement of the Problem

Effective classroom management and teaching are influenced by the predominant norms within a country or region. U.S. faculty teaching abroad are confronted with students of different cultural values and attitudes. Moreover, students from other countries continue to enroll in U.S. colleges and universities. The problem of this study was to determine if there are statistically significant differences between U.S. and Central European business college students on their attitudes, perceptions, and tendencies toward academic cheating and among U.S. and Central European male and female business college students on their attitudes, perceptions, and tendencies toward academic cheating.

Purpose and Objectives of the Study

The purpose of the study was to compare the attitudes, perceptions, and tendencies of U.S. and Central European business college students toward academic cheating. Additionally, the study compared the attitudes, perceptions, and tendencies of U.S. and Central European male and female business college students toward academic cheating. The two independent attribute variables of interest were nationality (two levels, U.S. versus Central Europe), and gender (two levels, male versus female). The objectives of the study were to:

1. Determine if there is a difference in the percentage of students who cheat on examinations.
2. Determine if there is a difference in the knowledge of others who have cheated on examinations.
3. Determine if there is a difference in the beliefs about what constitutes a cheating situation.
4. Determine if there is a difference in the perceptions that cheating on examinations is wrong.
5. Determine if there is a difference in the attitudes about the instructor's responsibility on reducing cheating incidents.

Hypotheses of the Research

Based on the review of literature and the purpose of the study, the following null hypotheses were formulated concerning the comparisons of attitudes, perceptions, and tendencies toward academic cheating between U.S. and Central European business

college students as well as among U.S. and Central European male and female business college students.

Hypothesis 1: There is no statistically significant difference in the mean percentages of student perceptions of overall cheating on examinations, between U.S. and Central European business college students.

Hypothesis 2: There is no statistically significant difference in students who have knowledge of others cheating on examinations, between U.S. and Central European business college students.

Hypothesis 3: There is no statistically significant difference in student beliefs about what constitutes a cheating situation, between U.S. and Central European business college students.

Hypothesis 4: There is no statistically significant difference in student perceptions that cheating on an examination is wrong, between U.S. and Central European business college students.

Hypothesis 5: There is no statistically significant difference in student attitudes about the instructor's impact in reducing cheating incidents, between U.S. and Central European business college students.

Hypothesis 6: There is no statistically significant difference in the mean percentages of student perceptions of overall cheating on examinations, among U.S. and Central European male and female business college students.

Hypothesis 7: There is no statistically significant difference in students who have knowledge of others cheating on examinations, among U.S. and Central European male and female business college students.

Hypothesis 8: There is no statistically significant difference in student beliefs about what constitutes a cheating situation, among U.S. and Central European male and female business college students.

Hypothesis 9: There is no statistically significant difference in student perceptions that cheating on an examination is wrong, among U.S. and Central European male and female business college students.

Hypothesis 10: There is no statistically significant difference in student attitudes about the instructor's impact in reducing cheating incidents, among U.S. and Central European male and female business college students.

Delimitations

The following delimitations applied to this study:

- 1. The study participants were delimited to persons enrolled in post-secondary university business and business English studies in the U.S. and Central Europe.**
- 2. The study participants were delimited to persons enrolled in business and/or business English courses.**
- 3. The study did not attempt to control for variables of age, gender, socio-economic factors and/or scholastic achievement of study participants.**
- 4. The scope of this study was limited to the research and evaluation of knowledge about cheating in post-secondary business education.**

Assumptions

The following assumptions were made:

1. Variables such as time of day, setting of the study, and location of the study which influence the respondents from within each country and campus were similar.
2. The students from the four campuses accurately represented the population of post-secondary, business college students in the U.S. and Central Europe.
3. The participants were equal in honestly reporting their perceptions, attitudes, and tendencies on cheating.

Definitions of Terms

The following terms are defined in order to clarify their meaning within the context of this study:

Central Europe - Comprised of areas known as the Visegrad countries: Slovak Republic, Czech Republic, Hungary, and Poland.

Cheating - Using materials during an examination that are unauthorized by the instructor, viewing another person's examination during the examination period, communicating with other students in a manner that is not authorized, taking an examination for another person or having someone else take an examination for oneself, or violating any procedures designed to protect the integrity of the examination (Waugh, Godfrey, Evans, & Craig, 1995).

Cross-national Studies – Research conducted which looks at two or more countries on the same variables of interest.

Incidence Rate - The frequency of cheating occurrences.

International Studies - Research conducted outside the United States in another country but not comparative in nature.

Post-secondary Business Education - An advanced degree program beyond high school which includes business and business English curricula.

United States (U.S.) - The 48 contiguous states, Hawaii and Alaska. The 50 states which comprise the United States of America.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Goals of the Review of the Literature

The goals of the review of the literature were to develop a thorough background knowledge of post-secondary education research on cheating, both domestic and foreign, and to produce a detailed comparison table of significant cheating studies and findings. Indexes, bibliographies and research summaries, dissertations, master theses, and electronic databases and catalogs have been used to uncover related information. The Colorado State University Morgan Library offers over 200 databases with access both on and off campus via CD-ROM and modem connection. The following list highlights the databases this researcher searched to identify cheating and education articles and monographs.

1. ABI/Inform
2. Academic Search FullTEXT
3. Academic Universe
4. Agence France-Presse English Wire
5. AP News
6. Applied Science & Technology Abstracts
7. Applied Social Sciences Index & Abstracts
8. Article First
9. Asia-Pacific Business Journals
10. Asia-Pacific News
11. British Education Index
12. Business/Industry
13. Canada Newswire
14. Canadian Newspapers
15. Denver Post
16. Proquest Digital Dissertations

17. Rocky Mountain News
18. Early Edition - U.S.
19. Early Edition - Canada
20. EBSCO
21. Education Abstracts
22. Electric Library (full text)
23. ERIC
24. Expanded Academic ASAP
25. FactSearch
26. Fast Doc
27. FirstSearch
28. Harvard Business Review
29. Humanities Abstracts
30. IAC (Databases InfoTrac SearchBank)
31. IAC National Newspaper Index
32. International Business Directory
33. ITAR/TASS News
34. Japan Economic Newswire Plus
35. Kompas Central/Eastern Europe
36. Kompas Western Europe
37. MARMOT
38. Middle East News
39. New Zealand Newspapers
40. New York Times
41. Newspaper Abstracts
42. Papers First
43. Periodical Abstracts
44. Proceedings First
45. Social Science Abstracts
46. SIRS
47. UnCover

The Colorado State University Morgan Library offers SAGE as its electronic card catalog. This catalog assisted the researcher in identifying journals, magazines, government documents, dissertation and master theses, and books on both cheating and Central European education. Resources not available at Morgan Library were ordered through Inter-Library Loan (ILL).

Historical Perspective of Central Europe and Business Education

One of the great epics of the 20th century is the transformation of socialist Central Europe to a market economy. Economists, politicians, business managers and academicians all have a vested interest in achieving this transformation. The Central European countries are in great need for restructuring and upgrading the business education levels of the population (Koucky, 1996; Madhavan & Fogel, 1992). A skilled labor force is needed to help manage the nations, especially to help attract foreign investment and stimulate change. However, there has been a serious shortage of locally based expertise required to manage these transformations (Van Zon, 1994; Madhavan & Fogel, 1992).

Training and retraining the post-socialist citizen requires educational resources directed at those skills demanded most by businesses to achieve economic success. Educators are assisting in this endeavor by developing curricula to help people acclimate to the capitalist market system, especially their understanding of evolving market forces (Madhavan & Fogel, 1992). Education is instrumental in helping countries carry out needed reform during times of rapid change (Bollage, 1994; Kerr, 1996; Laurent & Tesar, 1994). The traditional Central European state university, however, lacks the Western training and knowledge base necessary to promote quality business education as the new economy begins to unfold (Nicholson, 1997).

U.S. business schools are primed and ready to offer new market reform skills and training to Central Europeans. U.S. education has been expanding into the former Soviet Union and satellite republics since the early 1990s (Fogel, 1994; Kyj, Kyj, & Marshall, 1995; Petkus, 1995). Cakrt (1993), Coleman and Narduzzi (1994), Kerr (1996), Koucky

(1996), Milligan (1996), Shama (1993), Swarns (1996), and Taser (1994) reported that the demand for U.S. education and business curricula has risen dramatically in post-socialist Russia and Central and Eastern Europe. Though the successes of these ventures have been debated, the goals are the same: to introduce modern business concepts and English language skills to the post-socialist businessperson. These changes are imperative during the next decade if there is to be political stability and continuing economic prosperity (Van Zon, 1994).

Change will not be easy, especially educating and working with people who have had forty plus years of social manipulation (Bennett, 1996; Henderson, 1993; Jelenc, 1996; Taylor, 1994). A disposition to comprehend and accept a business orientation is necessary (Fogel, 1994; Moraveik, 1996; Swarns, 1996). Many educators speculate that at least one generation will have to mature for a market-driven business attitude to fully develop. Although some Central European educators embrace the new market, many are having trouble effectively adjusting their curricula. The academic community tends to concentrate on theory development and planning models, thereby ignoring the applied research opportunities and needs of industry. Educators remain stubborn and “out of touch” with reality (Madhavan & Fogel, 1992). U.S. education is one solution: it has its strength in critical thinking skills developed through traditional, innovative, and experiential learning activities such as case studies, interactive discussions, weekly quizzes/exams and oral presentations (Milligan, 1996; Taylor, 1994).

Central European state universities are, however, striving to meet the changing needs. One resolution has been to increase collaboration with foreign educational institutions. Innovative U.S. business schools have already sought out international

collaborative efforts and the most venturesome are investing directly into Central Europe (Madhavan & Fogel, 1992). The growing international education market, combined with U.S. domestic declining enrollment, provide unique opportunities for American business schools to expand their markets while maintaining financial strength domestically.

Opportunities abound through development of faculty exchange programs, student exchange programs, private undergraduate and graduate programs, teacher education programs, and private industry training – all of which are desperately needed in Central Europe. The international expansion of U.S. education requires reflection on the differences occurring not only in the business market, but also in the classroom. Drew (1994) had concerns for the ethical standards in post-socialist Central Europe "Especially difficult areas for a Western [U.S.] instructor to grapple with are business ethics and the role of business in society" (p. 7). Ethics and cheating are inextricably related.

Introduction to the Cheating Literature

Anyone with experience in teaching higher education has faced pedagogical challenges. Not the least of these challenges is the preservation of academic integrity among one's students (Carnegie Council Report, 1979). Student cheating presents two obvious problems to any educational process. First, it poses a threat to the equity and efficacy of instructional measurement rendering a student's relative abilities inaccurately evaluated. Second, students who engage in dishonest academic behavior are likely to reduce their level of self-enrichment and are therefore less prepared for more advanced study or application of the material presented in a course.

There are, however, some positive incentives for students attempting to engage in cheating behaviors. Higher grades, in whatever fashion they might be achieved, may lead

to prestigious academic awards and recognition, superior financial aid options, entrance to better graduate schools, and enhanced employment opportunities. These students are the major source, and ironically, benefactor of academic dishonesty.

As unwittingly or possibly knowing cohorts, faculty themselves may have some incentive to see that their students are earning higher grades since these grades may be viewed as a measure of how well a course was taught. In addition, higher grades may also lead to increased levels of student placement in employment or advanced study opportunities, thus granting recognition for the faculty in the process.

In the U.S., academic cheating on campuses appears endemic (Baird, 1980; Bushway & Nash, 1977; Collison, 1990a, 1990b; Deutsch, 1988; Hardy, 1981-82; Meade, 1992; Moffatt, 1990). Paldy (1996) captured the essence of the problem in higher education "Cheating is endemic on my campus despite regulations and recommendations for faculty designed to deter it" (p. 5). Most of the U.S. research in the domain of academic integrity has examined U.S. students and their relationship with cheating. More research needs to be performed to also measure the cross-national dimensions associated with academic integrity.

As noted, there are many domestic studies that look at academic misconduct. The early studies of Hartshorn and May (1928) provided historical documentation of the need to investigate U.S. classroom cheating. Parr (1936) presented an article in the Journal of Higher Education called "The Problem of Student Honesty." Parr concluded that "The questions of how much and why students cheat have been debated for many years without making a great deal of headway" (p. 318). Five years later, Drake (1941) provided additional insight in the Journal of Higher Education by writing "Why Students

Cheat." Drake stated "There is already a rather large amount of literature on the subject [cheating], much of it reporting experimental studies and surveys which reveal the nature, the extent, and some of the motives that give rise to the behavior in question" (p. 418).

Academics and researchers have addressed the issues of cheating for the past century publishing over 200 U.S. journal articles and reports (Payne & Nantz, 1994). The U.S. literature can be divided into five primary areas: (a) reporting the incidences and types of cheating, (b) reporting the causes of cheating (behavioral and situational), (c) reporting the reactions of academics toward cheating, (d) discussing the prevention and control of cheating, and (e) presenting research methodologies used to measure academic misconduct. Indeed, there is a plethora of U.S. research addressing the cheating phenomenon.

The majority of U.S. studies have corroborated the pervasive nature of cheating among post-secondary college students by age, gender, grade point average (GPA), major, student level, and cheating type (For example, see Baird, 1980; Blum, 1995; Bowers, 1964; Bushway & Nash, 1977; Drake, 1941; Evans & Craig, 1990a, 1990b; Haines, Diekhoff, LaBeff, & Clark, 1986; Houston, 1983; Jendrek, 1982; Karlins, Michaels, Freilinger, & Walker, 1989; Kelly & Worrell, 1978; McCabe & Bowers, 1994, 1996; Moffatt, 1990; Michaels & Miethe, 1989; Parr, 1936; Peterson, 1988; Reuters, 1997; Roen & McNenny, 1992; Roig & Ballew, 1994; Schab, 1991; Stern & Havlicek, 1986; Zastrow, 1970). These studies embody the major cheating research literature which measures perceptions, attitudes and tendencies.

Some U.S. studies have looked at attributes associated with why cheating occurs, such as criminal deviance, intelligence levels, personality, and gender differences (For

example, see Bunn, Caudill, & Gropper, 1992; Eisenberger & Schank, 1985; Flynn, Michel, & Slane, 1987; Gardner, Roper, Gonzalez, & Simpson, 1988; Hetherington & Feldman, 1964; Houston, 1978, 1983; Huss, Curnyn, Roberts, Davis, Yandell, & Giordano, 1993; Knowlton & Hamerlynck, 1967; McCabe, 1992; McCabe & Trevino, 1997; Smith, Ryan, & Diggins, 1972; Tittle & Rowe, 1973; Ward, 1987; Ward & Beck, 1990) and other studies have looked at situational factors such as seating proximity, self-esteem, anxiety, and peer pressure (For example, see Aronson & Mattee, 1968; DeVries & Ajzen, 1971; Hill & Kochendorfer, 1969; Houston, 1976, 1986; Johnson & Gormly, 1971; LaBeff, Clark, Haines, & Dickhoff, 1990; Leming, 1978, 1980; Lanza-Kaduce & Klug, 1986; Karabenick & Srull, 1978; McCabe & Bowers, 1996; McCabe & Trevino, 1997; Millham, 1974; Roig & DeTommaso 1995; Steininger, Johnson, & Kirts, 1964; Uhlig & Howes, 1967).

U.S. researchers have also evaluated teacher apathy and response to academic misconduct (For example, see Ackerman, 1971; Blinn, 1994; Hardy, 1981-82; Houser, 1982; Jendrek, 1989; Roberts, 1986). A few studies have tested statistical programs which attempt to identify cheating perpetrators (For example, see Frary, Tideman, & Nicholaus, 1997; Frary, Tideman, & Watts, 1977; Nelson & Schaefer, 1986; Roberts, 1987; Scheers & Dayton, 1987). Table 1 highlights 146 major U.S. studies and their significant findings.

Table 1

Major U.S. Cheating Studies and Significant Findings

Study/Methodology Used: Self-reports (SR) Experiments (E) Secondary Research (SER)	Year	Factors Found Significant
Ackerman (E)	1971	Moral suasion by instructor reduces cheating
Anderson & Obenshain (SR)	1994	Faculty and students
Antion & Michael (E)	1983	Anxiety, GPA, predictability of cheating
Aronson & Mettee (E)	1968	Efforts to induce self-esteem
Axelrod (SR)	1997	Moral orientation (justice, caring), reporting honor code violations
Aylin (SR)	1992	Faculty perceptions, reporting student cheating, witnessing student cheating, penalizing students caught cheating
Baird (SR)	1980	Reasons for cheating, reactions to cheating, techniques, gender, year in school, GPA, major, fraternity-sorority membership, extracurricular activities
Barnett & Dalton (SR)	1981	Reasons for cheating
Bellezza & Bellezza (SER)	1995	Multiple-choice exams, detecting, deterring, confronting
Blinn (SER)	1994	Coping with cheating
Bowers (SR)	1964	Gender, GPA, plans to go to graduate school, unauthorized student collaboration
Bronzaft, Stuart & Blum (E)	1973	No significant findings on anxiety
Bunn, Caudill & Gropper (SR)	1992	Observed cheating, copied from other students, helped other students, major, GPA
Burke (SR)	1997	Faculty attitudes
Bushway & Nash (SER)	1977	Prevalence of cheating, intelligence, gender, parent relationship, age, moral climate, chance of success, fear, teacher power
Calabrese & Cochran (E)	1990	Attitude, alienation, GPA
Campbell & Koch (E)	1930	Method of supervision, scholastic advancement, honor codes
Canning (E)	1956	Honor system, gender, pencil and pen
Christensen (E)	1948	Self-grading
Daniel (SR)	1995	Peer perception, neutralizing
Davis (SR)	1993	Gender, institutional size, grade improvement, crib notes, copying others during exam, faculty responsibility
Davis, Grover, Becker & McGregor (SR)	1992	Gender, cheating techniques, faculty involvement, deterring cheating and punishment.
Davis & Ludvigson (SR)	1995	Frequency of cheating, high school and college students, penalties, enhances score, better jobs

(table continues)

Table 1. (continued)

Study/Methodology Used: Self-reports (SR) Experiments (E) Secondary Research (SER)	Year	Factors Found Significant
Davis, Simon, Handler & Miller (SR)	1992	One-time offenders, habitual criminals
Derting (SR)	1997	Faculty/student biology students, class, gender
DeVries & Ajzen (SR)	1971	Normative beliefs of friends and family
Diekhoff (SR)	1996	Rise in cheating, less rationalization, embarrassment, fear of punishment, peer disapproval
Drake (SR)	1941	Grade level, grade
Eisenberger & Shank (E)	1985	Low work effort
Ellenburg (SR)	1973	High and low achievers
Enker (E)	1987	Attitude and normative variables
Erickson & Smith (E)	1974	Deviance and self-reporting, gender, poor performing students
Evans & Craig (SR)	1990a	Criteria attributes, causal attributes, prevention strategies
Evans & Craig (SR)	1990b	High school and college students, cheating definitions, teacher, classroom, and student characteristics, cheating prevention
Eve & Bromley (SR)	1981	Internal social control, culture conflict (i.e. Greek system), general perceptions
Fakouri (E)	1972	Achievement motivation
Fenton (E)	1927	Instructor presence
Ferrell & Ferguson (SR)	1993	Teachers cheating on tests, cheating on papers, illegal resources
Fischer (E)	1970	Threat of punishment
Flynn, Michel & Slane (E)	1987	Interaction of Machiavellianism and task motivation (approach vs. avoid)
Forsyth, Pope & McMillan (E)	1985	Professor/student perceptions, cheating tolerance, major
Frary (SR)	1978	Gender, class level, major
Frary, Tideman & Nicholaus (E)	1997	Answer copying
Frary, Tideman & Watts (E)	1977	Multiple-choice exams, statistical indices
Gail & Borin (SR)	1988	Cheating severity
Gardner & Melvin (SR)	1988	Professor/student perceptions, tolerance, major, cheating detection
Gardner, Roper, Gonzalez & Simpson (E)	1988	Lower grades, transient setting honor pledge, values counseling
Gilligan (SR)	1963	Achievement motivation
Graham (SR)	1994	Attitudinal variables, background variables
Haines, Diekhoff, LaBeff & Clark (SR)	1986	Age, marital status, GPA, parental support, extracurricular involvement, neutralization attitude, noticing others cheating, student maturity

(table continues)

Table 1. (continued)

Study/Methodology Used: Self-reports (SR) Experiments (E) Secondary Research (SER)	Year	Factors Found Significant
Harp & Taeitz (SR)	1966	Gender, major
Hetherington & Feldman (E)	1964	Low intelligence and grades
Hill & Kochendorfer (E)	1969	Low risk detection, knowledge of peer results
Hillbrand (SR)	1927	Decline of cheating
Hoff (E)	1940	Self-correcting of exams
Hollinger & Lanza-Kaduce (SR)	1996	Counter measures
Houser (SR)	1982	Power base, coercive power
Houston (E)	1976	Seating spacing, acquaintanceship
Houston (SR)	1978	Expectation of success in the classroom
Houston (SR)	1983	Sanction threat, grades
Houston (E)	1986	Alternative test forms, seating spacing, free seating
Houston & Ziff (E)	1976	Crib notes, expectation of success in the classroom
Huss, Curnyn, Roberts, Davis, Yandell & Giordano (SR)	1993	Learning and grade orientation, type A and B behaviors
Jacobson, Berger & Millham	1970	Gender
Jendrek (SR)	1989	Faculty apathy towards cheating policies
Jendrek (SR)	1992	Students' reactions to academic dishonesty
Johnson & Gormly (E)	1971	Social participation, leaders (career officers)
Kanfer & Duerfeldt (E)	1968	Low intelligence, grades
Karabenick & Srull (E)	1978	Interaction of personality, situational locus of control
Karlins, Michels, Freiling & Walker (SR)	1989	Gender
Kelly & Worrell (E)	1978	Gender
Kerkvliet (SR)	1994	Randomized response approach, general cheating
Kibler (SR)	1994	Honor codes by schools
Knowlton & Hamerlyneck (SR)	1967	Perceived attitudes about instructor/teaching methods
LaBeff, Clark, Haines & Diekhoff (SR)	1990	Neutralization (Denial of responsibility, condemnation of condemners, appeal to higher loyalties, denial of injury), situational ethics
Lanza-Kaduce & Klug (SR)	1986	Interaction of student moral development level, social learning variables (Peer reactions, internalized definitions of cheating)
Leming (E)	1978	Sanctions threats, high detection risks, gender

(table continues)

Table 1. (continued)

Study/Methodology Used: Self-reports (SR) Experiments (E) Secondary Research (SER)	Year	Factors Found Significant
Leming (E)	1980	Student moral development stage, situational factors
Lipson & McCavern (SR)	1993	Student workloads, reuse of exams, publicizing of punishment, ethical values
Livosky & Tauber (SR)	1992	Situation, behavior
Livosky & Tauber (SR)	1994	Situation, behavior
Lord & Chiodo (SR)	1995	Gender, class level, collusion, crib notes, plagiarized
Lowell & Laufer (SR)	1997	Business and economic students, poor performance
Ludeman (SR)	1988	Increased cheating, academic policies, structure to mediate cheating, student affairs involvement
McCabe (SR)	1992	Neutralization (Denial of responsibility, condemnation of condemners, appeal to higher loyalties, denial of injury)
McCabe (SR)	1993	Honor codes
McCabe & Bowers (SR)	1994	Gender, GPA, graduate school plans, copied from other students, helped another student, used crib notes, copied material without footnoting, plagiarized, falsified a bibliography, turned in work done by another, unauthorized student collaboration
McCabe & Bowers (SR)	1996	Greek membership and non-Greek membership
McCabe & Trevino (SR)	1993	Honor codes, gender, GPA, copied from other students, helped another student, used crib notes, copied material without footnoting, plagiarized, falsified a bibliography, turned in work done by another, unauthorized student collaboration
McCabe & Trevino (SR)	1997	Age, gender, GPA, contextual factors, cheating among peers, peer disapproval, fraternity/sorority membership, severity of penalty
Michaels & Miethe (SR)	1989	Felt pressures, motivations to cheat
Miller (E)	1927	Moral conduct, self-grading reported
Millham (E)	1974	Avoidance of negative evaluations and censure
Mixon (SR)	1996	Habitual cheating, GPA, observing peers cheating
Nakayama Siaw & Clark (SR)	1992	Cheating types
Nelson & Schaefer (E)	1986	Randomized response technique
Newhouse (E)	1982	Seating, importance and difficulty of exam, sex, alienation
Nuss (SR)	1984	Forms of cheating, reasons students cheat
O'Clock & Okleshen (SR)	1993	Business and engineering majors
Oaks (SR)	1975	Class level, copied from other students, helped another student, used crib notes, used advanced copy of exam
Olson (SR)	1970	Teacher's educational attitude, apathy
Parr (SR)	1936	Situation, frequency, gender

(table continues)

Table 1. (continued)

Study/Methodology Used: Self-reports (SR) Experiments (E) Secondary Research (SER)	Year	Factors Found Significant
Partello (SR)	1993	Class level, copied from others, helped others, used crib notes, copied material without footnoting, plagiarized, falsified a bibliography, turned in work done by another, unauthorized student collaboration
Perry, Kane, Bernesser & Spicker (E)	1990	Type A behavior, competitive achievement striving, gender
Peterson (SR)	1988	Class, gender
Reuters (SR)	1997	Cheating tendencies
Roberts, D. M. (E)	1987	Binomial distribution, random chance of score differences
Roberts, R. N. (SER)	1986	Response to academic cheating, legal cases
Roberts & Rabinowitz (SR)	1992	Perceptions of situations (need, provocation, opportunity, intentionally), gender, GPA
Roen & McNenny (SR)	1992	Collaboration
Roig & Ballew (SR)	1994	Professor/student perceptions, cheating tolerance, major
Roig & DeTommaso (SR)	1995	Procrastination, plagiarized, copied from other students, GPA
Roig & Neaman (SR)	1994	Attitude, alienation, GPA
Schab (SR)	1969	Gender, copied from another student, plagiarized, cheating tolerance
Schab (SR)	1991	Fear of failure, math and science
Scheers & Dayton (E)	1987	Randomized response technique, GPA, low grades
Sears, Rose & Alpert (E)	1965	Threat of sanctions
Shelton & Hill (E)	1969	Achievement anxiety, knowledge of peer performance
Sierles, Hendrickx & Circle (SR)	1980	Medical students
Sims (SR)	1991	Cheating and workplace ethics
Sims (SR)	1993	Cheating and workplace ethics, precursor to unethical tendencies in the workplace
Sims (SR)	1995	Student level, faculty/student perceptions
Singhal (SR)	1982	Professor/student perceptions, copied from another student, plagiarized, cheating tolerance, GPA
Singhal & Johnson (SER)	1983	Preventing cheating (Comprehensive table of prevention techniques)
Sistrunk (E)	1997	Instructor power, code of conduct
Smith, Ryan & Diggins (SR)	1972	Gender, achievement orientation, test anxiety, moral scruples, lack of exam preparation, perception of other students as competition, plans to go to graduate school
Stern & Havlicek (SR)	1986	Faculty/student perceptions, situational impact
Stevens & Stevens (SR)	1987	Class level, copied from other students, helped another student, used crib notes, copied material without footnoting, plagiarized, falsified a bibliography, turned in work done by another, unauthorized student collaboration, reasons for engaging in cheating

(table continues)

Table 1. (continued)

Study/Methodology Used: Self-reports (SR) Experiments (E) Secondary Research (SER)	Year	Factors Found Significant
Stieninger, Johnson & Kirts (SR)	1964	Situational anxiety/hostility
Sutton & Huba (SR)	1995	African-Americans and Caucasians, student levels, religion
Tibbetts (SR)	1997	Personality, disposition, rational choice
Tittle & Rowe (E)	1973	Situational sanctions
Trusler (SR)	1992	Student perceptions, fear of being caught
Uhlig & Howes (E)	1967	Advantageous climate for cheating
Vitro (E)	1971	Intelligence
Vitro & Schoer (E)	1972	Parental discipline, student failure
Walker, Wiemeler, Procyk & Knake (E)	1966	Affording the opportunity to cheat
Ward (E)	1987	Self-esteem of women
Ward & Beck (E)	1990	Gender, excuse-making, sex-role socialization
Warman (SR)	1994	Copying during exams, forging attendance list signatures, ethics
Weiss, Gilbert, Giordano & Davis (E)	1993	Type A behavior, classroom orientation
White, Zielonka & Gaier (E)	1967	Women cheaters & noncheaters, (social, outgoing, emotional maturity, attitudes, more ambivalent, worried, evasive, stability, neutral fatigue)
Whitley (E)	1996	No significant effects
Winston (E)	1978	Test difficulty
Wright & Kelly (SR)	1974	GPA, copied from other students, helped another student, used crib notes, copied material without footnoting, plagiarized, falsified a bibliography, turned in work done by another, unauthorized student collaboration
Zastrow (SR)	1970	Pressure to obtain good grades, cheating types/situations

The literature is prolific and diverse when addressing cheating differences among U.S. college students; however, the international literature on cheating is limited. Some of the earliest reports of cheating incidents have been documented in ancient China (Brickman, 1961). Over two thousand years ago, civil servant tests were given to prospective Chinese in individual cubicles to prevent examination cheating. Additionally, the students were searched as they entered the cubicles for crib notes. The penalty for being caught at cheating in ancient China was death which was applicable to both the examinees and examiners. Although seemingly an old problem, few global researchers have addressed cheating.

To date only three major cross-national studies have been identified (Davis, Noble, Zak, & Dreyer, 1994; Evans, Craig, & Mietzel, 1993; Waugh, Godfrey, Evans, & Craig, 1995), the former looking at college students and the latter two examining high school students. It appears most international non-comparative cheating research (within country) has originated mostly from Canada and England. Table 2 highlights 14 major international and cross-national studies and their significant findings.

To the researcher's knowledge, this dissertation research is the only cross-national study to date that compares U.S. business college students with Central European business college students. The research is also the first to examine gender differences among U.S. and Central European business college students. In reviewing the domestic and international literature two major areas have emerged applicable to this study: (a) *magnitude of cheating (tendencies)* and (b) *behavioral and situational contexts of cheating*.

Table 2

Major International and Cross-national Cheating Studies

Study/Methodology Used: Self-reports (SR) Experiments (E)	Year	Site	Factors Found Significant
Black (E)	1962	Canada	Detection, poor performing students
Davis, Noble, Zak, & Dreyer (SR)	1994	Australia, U.S.	Learning-oriented/grade-oriented attitudes, high school/college cheating
Evans, Craig & Mietzel (SR)	1993	Costa Rica, Germany, U.S.	Cultural differences, achievement status, gender
Franklyn-Stokes & Newstead (SR)	1995	England	Age, gender, institutional, discipline
Genereux & McLeod (SR)	1995	Canada	Low instructor vigilance, unfair exams, instructor apathy, dependence on financial support and long-term goals on good grades, giving/receiving exam answers
Hanisch (SR)	1990	Austria	Achievement motivation
Harpp & Hogan (E)	1993	Canada	Multiple multiple-choice exams
Harpp & Hogan (E)	1998	Canada	Multiple multiple-choice exams
Jenkinson (SR)	1996	Canada	Public school teachers involved with students cheating
Newstead, Franklyn-Stokes & Armstead (SR)	1996	England	Cultural differences, gender, age, academic achievement, major
Poltorak (SR)	1995	Moscow	Fault of the education system, cheating more widespread after Perestroka, unauthorized student collaboration, gender, plagiarism, commercial student papers, crib notes, copied from other students during exam
Rost & Wild (SR)	1990	Germany	Achievement motivation
Waugh & Godfrey (SR)	1994	Australia	Perceptions of what constitutes cheating, why cheating occurs, how cheating can be discouraged
Waugh, Godfrey, Evans & Craig (SR)	1995	Australia, Austria, Canada, Costa Rica, East Germany, West Germany	Cultural differences, perceptions of what constitutes cheating, why cheating occurs, how cheating can be discouraged

U.S. Perspective on Cheating

The Magnitude of Cheating (Tendencies)

U.S. researchers disagree as to the magnitude and nature that academic dishonesty poses to the collegiate integrity of the academy. Perhaps the most pervasive finding identified in the literature is that a majority of college students do participate in some sort of academic dishonesty. Davis and Ludvigson (1995) and Singhal and Johnson (1983) reported college student cheating incidences between 25 and 50 percent. However, a preponderance of U.S. studies that looked at U.S. college students reported cheating incidences in excess of 70 percent (Baird, 1980; Gail & Borin, 1988; Collison, 1990a; Davis, Grover, Becker, & McGregor, 1992; Jendrek, 1989; Lord & Chiodo, 1995; McCabe & Trevino, 1996; Oaks, 1975; Stern & Havlicek, 1986; Stevens & Stevens, 1987). Overall, the U.S. studies conducted during the past century identify a continuum of percentages, but showing a marked increase from earlier U.S. studies (Ludeman, 1988).

All levels of students are suspect. Reuters (1997) reported one study where 75 percent of 3,210 U.S. high school students admitted to some form of cheating. Interestingly, in that study both parents and students expressed that cheating was not a big deal. Zastrow (1970) reported that 40 percent of graduate students were found to have participated in dishonest academic activities.

With cheating frequencies this high, one question comes to mind: What types of activities or behaviors are considered to be violations of academic integrity? Some activities are considered dishonest to some groups while not by others. It appears students and faculty perceive different levels or magnitudes of cheating behavior. That

is, some forms of dishonesty might be considered more "criminal" by faculty and institutions than others (Alschuler & Blimling, 1995; Davis, Simon, Handler, & Miller, 1992; Mixon, 1996). The one major area of academic misconduct that is agreed upon by most faculty and students as a violation of the same infraction is examination cheating.

Examination Cheating. In a study conducted by Nuss (1984), both students and faculty agreed on three out of five of the most serious forms of cheating of which related to examinations: (a) arranging to sit next to another student for copying answers, (b) taking an examination for another student, and (c) using crib notes or signals during an examination. According to Moffatt (1990) and Greene and Saxe (1992), as reported by Waugh, Godfrey, Evans, and Craig (1995), "The most common forms of cheating in examinations include copying from other students, having someone else take the test, using cheat-sheets, and using advance copies of the test" (p. 73).

A national study conducted by McCabe and Trevino (1996) surveyed 6,069 college students from 31 schools on cheating tendencies and perceptions. They reported that cheating tactics have remained relatively unchanged over the years with students practicing three common procedures: (a) using crib notes during an examination, (b) copying from another student's examination, and (c) padding bibliographies. However, faculty differed in the seriousness of academic dishonesty when the cheating is related to homework and writing assignments. Students felt cheating on examinations was a more serious crime than those of homework and writing assignments (Nuss, 1984).

Innerst (1998) reported a 1993 study by McCabe where 70 percent of college students admitted to cheating at least once during an examination (See also McCabe & Trevino, 1996). Sheers and Dayton (1987) reported estimates of over 80 percent of

college students cheating at least once during an examination. Other studies addressing cheating incidences on examinations found 25 to 60 percent of college students admitting to cheating at least once during an examination (Eve & Bromley, 1981; Gail & Borin, 1988; Whitley, 1996).

McCabe and Trevino (1996) reported results from a longitudinal study where examination cheating has increased threefold since 1963, defined as copying from another student during an examination, using crib notes during an examination, or helping another student during an examination. Lord and Chiodo (1995) detected a persistent increase in collegiate academic dishonesty. They conducted a longitudinal study that compared cheating differences among college students over time. The authors modified the Baird (1980) survey instrument to sample 300 western Pennsylvania undergraduates whereby the results were compared to survey data compiled by Baird (1980) and other researchers. The results indicate a strong increase in cheating tendencies. When identifying cheating as copying from another student during an examination, using crib notes, or writing answers on one's arm sleeve in preparation for an examination, over 70 percent of the college students indicated engaging in these three methods at least once during their college career. "The number of students admitting to cheating in school is nearly threefold higher than it was in the middle of this century and 20 percent higher than just a decade ago" (Lord & Chiodo, 1995, p. 317).

The student respondents also reported that lower class levels were more likely to cheat on examinations than upper class levels and that males were more likely to cheat than women. Additionally, classmates would not report another classmate who was observed cheating. The students reported seeing many other students cheating on

examinations by writing answers on their wrists, articles of clothing, book covers and crib notes, as well as students cheating by copying from another students' tests.

The McCabe and Trevino (1996) study found one third, or 2,000 of the students admitted to copying from another student during an examination, using crib notes, or assisting someone in cheating. Two thirds, or 4000 of the students admitted to cheating at least once in their lifetime, and more than two-thirds admitted to seeing a classmate cheat, but remained reticent themselves. Most student respondents felt that students are unlikely to report any type of cheating. Interestingly, 75 percent of the student respondents felt cheating under any circumstance is not warranted.

The McCabe and Trevino (1996) study confirmed the notion that examination cheating incidents are on the increase: higher levels of cheating are directly correlated with the increased growth rate in public colleges, universities, and recently coeducation. An increased social pressure to obtain a college diploma has also had a profound impact on academic dishonesty. The study also found that honor codes, however, have served to decrease some dishonesty. In short, examination cheating is prevalent and on the rise.

There is often a great divergence of opinions between faculty and students as to what constitutes examination cheating. Stern and Havlicek (1986) compared U.S. faculty and U.S. student attitudes on this topic recognizing that each group has difficulties understanding the other's position in regard to cheating behaviors. Copying from another student during an examination was viewed as academic misconduct by 96 percent of students and 99 percent of faculty surveyed. An incidence rate of 71 percent, however strongly suggests that even though students know they are doing wrong, they are still willing to engage in such behavior.

Subtle ways of cheating are also problematic for faculty, according to Stern and Havlicek (1986). Previewing an examination from some sort of "test file" when the teacher does not permit the students to keep copies of exams and does not know such a file exists was seen as dishonest by only 57 percent of students but by 94 percent of faculty. The reported incidence rate of 41 percent reveals that this is also a problem that warrants significant concern. Asking another student for the questions to an examination previously taken was seen as a violation of academic integrity by only 45 percent of students, yet by 87 percent of faculty (Stern & Havlicek, 1986). Again a high incidence rate of 76 percent shows that a majority of students have engaged in this sort of behavior during their college careers. It would appear that most students do not perceive the negative consequences of academic misconduct to be strong or severe enough to alter their behavior.

A challenge emerges here for all faculty members in assisting students in understanding academic misconduct. On the surface, could it be that these findings suggest that in many cases students are perhaps just confused as to what actually constitutes academic dishonesty in the mind of their faculty members? Are educators being naive in accepting the response from students that they didn't always know what constitutes cheating behavior?

Hardy (1981-82) found that variations in classroom size, seating arrangements, and testing methods are correlated with examination cheating. For example, the larger the class, the more students cheat on examinations; presenting students with an environment to cheat leads to increased academic misconduct; single form examinations

lead to more cheating than multiple form examinations; and the use of proctors reduces examination cheating tendencies.

The Attitudes and Perceptions of Cheating

In a 1986 article entitled, "By Honor Bound: Encouraging Academic Honesty," Fass (1986) reported on the state of academic attitudes, perceptions, and behaviors in the U.S. After delineating the high level of cheating in the U.S., Fass (1986) projected a need for policy regarding unethical classroom behavior. The author's evidence centered on the 40 percent of the students surveyed who considered cheating as a "normal part of life;" and the 30 percent who had not felt any shame about cheating.

Fass (1986) asked, "why do students cheat?" and "how can the behavior be nullified?" He observed some broader issues of society which could have an influence on the student attitude. "Today's college students have grown up in a decade marked by scandal involving public servants, major corporations, and private citizens" (Fass, 1986, p. 32). Students concluded that cheating is just another generally accepted way of getting ahead. Pressure for grades, competition, general academic stress, and confusion caused by inconsistent application of academic regulations are all cited as explanations for partaking in cheating (Baird, 1980; Nuss, 1984). Competition for better schools has created an increase in cheating in the Scholastic Assessment Test (SAT). Blum (1995) reports that, on average, 1,800 students yearly are accused of cheating on their SATs. Although a small number when compared to the 1.8 million test takers, cheating at the national level is problematic.

Identifying causes and motivations of student cheating behavior may be an important step in devising a strategy to improve measures for detection and prevention,

both domestically and globally. Many U.S. studies examine the issues of motivations and causes of cheating in students.

Achievement Motivation and Social Approval. Eve and Bromley (1981), Fakouri (1972), Gilligan (1963), Hill and Kochendorfer (1969), Johnson and Gormly (1971), and Michaels and Miethe (1989) posited that increases in cheating behavior for most students is a function of "achievement motivation." Although the rewards may be public, the instigation of deviant achievement responses can typically be kept relatively private and thus can be based on motivation for positive achievement. In other words, since cheating can at times be instrumental to success, it is perceived as being helpful in the sense of providing social approval.

Daniel (1995), Hill and Kochendorfer (1969), and Shelton and Hill (1969) further bolstered the notion of social approval as one motivator for cheating. They found support for the hypothesis that more subjects will cheat with knowledge of peers' scores than without. Thus, a student's perception of his/her own relative academic failure is more than just objective academic measurement. Low scores affect a student's standing or relationship in his/her immediate peer group. This finding calls into question whether or not students should be given their position or rank in a class relative to others after each exam or assignment is graded. The provision of information about successful peer performance may increase some student's incentive to cheat.

Risk Level of Detection. Aylin (1992), Diekhoff (1996), Fischer (1970), Gardner and Melvin (1988), Hill and Kochendorfer (1969), Leming (1978), and Trusler (1992) corroborated that the risk level of detection influences the student's cheating behavior. They found that cues signaling the possibility of detection served to inhibit cheating. The

absence of strong risk perceptions by students in regard to academic misconduct punishments seems to encourage cheating behaviors.

Teacher Relationship. Another cheating behavior catalyst is teacher mannerisms. Gardner et al. (1988) reported that cheating might not always entail risk. They argue that a permissive instructor may invite cheating by ignoring violations. Instructors may also set standards that are flexible, allowing them to be nonpragmatic when dealing with student conduct issues. The use of written honor pledges was determined to be ineffective in reducing cheating tendencies. Fass (1986) surmised that the relationship between cheating and academic enforcement is an important issue of consideration. Faculty can greatly affect the prevalence of cheating through greater awareness, by upholding the standards, by discussing cheating with the students up front, and by enforcing punishments for cheating (Ackerman, 1971; Aylin, 1992; Fenton, 1927; Forsyth, Pope, & McMillan, 1985; Houser, 1982; Houston, 1983; Jendrek, 1989; Leming, 1978; McCabe, 1993; Olson, 1970; Roberts & Rabinowitz, 1992, Sears, Rose, & Alpert, 1965; Sistrunk, 1997).

Stress and Anxiety. Stress and anxiety are also major motivators on student cheating. Barnett and Dalton (1981) in a survey at one major university posed the survey item: "Students are unable to keep up with reading, homework, and assignments." Fifty-nine percent of the faculty respondents said this was "very descriptive," while only 29 percent of the student respondents concurred. This disparity in response is not entirely surprising given the expected roles of the two groups. Evidence suggests that one of the coping mechanisms for stress or anxiety related to completing assignments is cheating (Antion & Michael, 1983; Barnett & Dalton, 1981; Lipson & McGavern, 1993; Michaels

& Miethe, 1989; Zastrow, 1970). Roig and DeTommaso (1995) measured a high correlation between procrastination and cheating. The stress of waiting to the last possible minute to complete an assignment or prepare for an examination tends to lead to increased levels of cheating.

Criminal Types and Intelligence. Some U.S. researchers imply that certain student types or groups might be more prone to engage in academic misconduct than others. As discussed by Bunn, Caudill, and Gropper (1992), Davis, Simon, Handler, and Miller (1992), and Mixon (1996), there could be an analogy between "deviant" or "criminal behavior" in society and that in the classroom. Some individuals have a greater propensity than others to commit such acts. Sims (1991) measured a positive relationship between cheating that ex-U.S. students admitted to partaking in and the dishonesty that ex-U.S. students later exhibited in the workplace. In 1993, Sims also reported a positive relationship between undergraduate academic dishonesty and unethical business practices. The support for this notion, however, is mixed at best. Gardner et al. (1988) report that very few students could be classified as either chronically dishonest or chronically honest.

Several studies support the premise that students of lower intelligence cheat more frequently than students of higher intelligence (Bushway & Nash, 1977; Hetherington & Feldman, 1964; Johnson & Gormly, 1971; Kanfer & Duerfeldt, 1968; Kelly & Worrell, 1978; Vitro, 1971).

Fraternities and Sororities. McCabe and Bowers (1996) and McCabe and Trevino (1997) found statistically significant differences in behavior between fraternity and sorority members and non-members. Fraternity and sorority students are reported to

cheat more than non-members do (Baird, 1980; Eve & Bromley, 1981), although the preclusion of Greek organizations on a campus would not reduce overall campus cheating levels (McCabe & Bowers; 1996).

Ethnicity and Religion. Sutton and Huba (1995) are the only researchers to examine cheating perceptions of African-American and Caucasian college students. Additionally, they looked at attitudes about cheating according to students' level of religious participation. Both religion and racial differences were statistically significant. African-American college students perceived that getting questions or answers about an examination from someone who has already taken the examination as engaging in cheating. Caucasian college students felt this was not cheating. Additionally, college students involved in religion perceived copying from someone's paper without the person's knowledge as cheating.

Classroom Arrangement. Houston (1976; 1986) suggested, in two related studies, that part of the cause of student cheating on examinations is simply a function of how close students are allowed to be seated near to one another and whether or not the students are acquaintances. In his experiments, he found support for the hypothesis that student spacing in the classroom during examinations did impact cheating behavior. Students seated more closely to one another in such a position to have clear views of other students' examination papers engaged in cheating more frequently. Additionally, he found that assigned seating reduced cheating behavior over free seating. Hardy (1981-82) and Newhouse (1982) also identified a correlation between classroom environment (classroom size, seating arrangements) and examination cheating. In short, the less

rigorous the seating assignments and arrangements, the increased tendency to partake in cheating.

Student Major. Of particular concern to business faculty is the predisposition of their students to cheat based on anecdotal stories about the unethical nature of business students. The empirical evidence gives mixed results for this assertion. O'Clock and Okleshen (1993) and Roig and Ballew (1994) reported business students self-perceive higher ethical standards and more tolerant attitudes towards cheating than their peer students in other disciplines. Yet, Baird (1980), Bowers (1964), Harp and Taeitz (1966), Lowell and Laufer (1997), Stevens and Stevens (1987) and Karlins et al. (1989) found that business students are more likely to cheat than those of another major. Eve and Bromley (1981) found cheating tendencies among business students more in line with all college student majors. Collison (1990b) concluded that economic students were more likely to cheat than others. A study by Sierles, Hendrickx, and Circle (1980) found high incidences of cheating among premedical students at 88 percent and among medical students at 58 percent. Indeed, the U.S. literature is not clear on which students by major tend to cheat more often.

Gender. Gender differences have also been hypothesized as being related to cheating behavior but the findings to date yield mixed results. It has been inferred that at the very least women do not cheat more than men. Lord and Chiodo (1995) and Newhouse (1982) found that males were more likely to cheat on examinations than women; however, women more often than men would let another person copy from their work and allow them to submit that work as their own. Davis et al. (1994), Baird (1980), and Calabrese and Cochran (1990), all reported that, overall, male students cheat more

often than female students. Jacobson, Berger, and Millham (1970) reported, however, that female students cheated significantly more than male students. Yet, many studies found gender barely or not all significant (Haines et al., 1986; Houston, 1983; Roberts & Rabinowitz, 1992).

Canning (1956) and Leming (1980) conducted separate experiments that found female college students cheated more often than male students. The lower the risk of detection, the more female students engaged in cheating (Leming, 1980). The threat of sanctions by a faculty member has the greatest impact in reducing cheating behaviors among women (Leming, 1980; Tittle & Rowe, 1973). A longitudinal study conducted by McCabe and Trevino (1996) found female students increasingly engaging in cheating from 59 percent in 1963 to 70 percent in 1993. During that same time period incidences of cheating among male students remained unchanged from 69 percent in 1963 to 70 percent in 1993.

Kelly and Worrell (1978) studied 591 college students finding that both female and male students cheat often and equally but for different reasons. Male students that engage in cheating tend to be more aggressive and interpersonally domineering than those males that do not engage in cheating, yet they are dependent upon others for peer approval. Males tend to cheat for better grade achievement. Female students who engage in cheating tend to be more impulsive and socially alienated. Additionally, the study implies that mere act of cheating for female students is more for status or attention than for better grades.

Stevens and Stevens (1987) conducted a series of tests and concluded male and female college students' perceptions of what constitutes cheating are similar. That is,

there were no statistically significant differences on cheating perceptions and tendencies between male and female students. Stern and Havlicek (1986) also found few differences between female and male students. Male students tend to use more crib notes during examinations than female students do, although females purchased test banks more often from commercial providers. Evans and Craig (1990b) found no significant effects when measuring gender against grade level and achievement. Ward and Beck (1990) found women were more inclined to engage in excuse making prior to cheating than were men. In short, the U.S. literature is not conclusive when looking at gender and cheating.

In summary, over 200 U.S. journal articles and reports have looked at academic cheating (Payne & Nantz, 1994). The majority of U.S. research reported high cheating incidences pertaining to examinations and plagiarism (Maramark & Maline, 1993). The pertinent U.S. literature to this dissertation has explored two main areas: (a) reporting the incidences and types of cheating, and (b) reporting the causes of cheating (behavioral and situational). Additional studies have measured the reaction of academicians and researchers toward cheating, discussed prevention and control of cheating, and presented research methodologies used to measure academic misconduct (Payne & Nantz, 1994). As stated earlier, there is a plethora of U.S. research addressing the cheating phenomenon; however, international research is nearly nonexistent.

International Perspective on Cheating

In the U.S., it appears that students are the major source and benefactor of the problem of academic dishonesty. Yet global educators cannot assert that international differences exist in terms of attitudes about cheating, perceptions of what cheating really constitutes, and how often students cheat. As more U.S. educators teach abroad, research

clarifying this nature becomes vital to effective classroom management. A review of the international academic dishonesty literature reveals a small number of country specific studies looking at post-secondary and high school education. Three major cross-national studies have been identified -- two involving high school students and the other college students. No research to date has compared cheating attitudes, perceptions, and tendencies between Central European and American business college students.

The international literature provides mainly anecdotal evidence supported by a few research studies. International-based studies and reports have looked at college students in Australia (Maslen, 1996; Waugh & Godfrey, 1994), Canada (Black, 1962; Chidley, 1997; Harpp & Hogan, 1993, 1998; Genereux & McLeod, 1995; Jenkinson, 1996), Great Britain (Baty, 1997; Bushby, 1997; Franklyn-Stokes & Newstead, 1995; Mackenzie & Smith, 1995; Newstead, Franklyn-Stokes, & Armstead, 1996), Palestine (Surkes, 1994), Poland (Curry, 1997), and Russia (Poltorak, 1995), and high school students in Austria (Hanisch, 1990), Germany (Rost & Wild, 1990), and Italy (In Brief, 1996). Two cross-national studies have looked at 11th grade students in Australia, Austria, Canada, Costa Rica, East Germany, and West Germany (Evans, Craig, & Mietzel, 1993; Waugh, Godfrey, Evans, & Craig, 1995), and one other cross-national study looked at Australia and U.S. college students (Davis, Noble, Zak, & Dreyer, 1994).

International Literature

Australia. Maslen (1996) reported that the prevalence of cheating in Australian universities is growing with cheating incidents ranging from 33 to 75 percent. Male and female students are taking advantage of technology to cheat during examinations. Students are mainly using traditional crib notes and false identification cards to cheat

during examinations. Moving beyond the crib notes, some college students are employing radio transmitters on pen tops and pre-programmed calculators. The ability for faculty members to discuss academic conduct expectations in advance appears to reduce the cheating incidences. However, it is estimated that Australian educators only catch two in every 100 cheaters, and most universities are slow to enforce academic misconduct policies. Parental pressure on students also appears to be a deterrent to academic misconduct. Waugh and Godfrey (1994) identified the major reasons why Australian high school students engage in cheating. The four major reasons to cheat reflected concerns about achieving good grades, pressure from parents and teachers, low levels of supervision during an examination, and the likelihood of low detection.

Canada. In Alberta, Canada, college student cheating incidences have increased including the use of crib notes and plagiarism (Chidley, 1997). Black (1962) using Alberta senior college students, measured perceptions of detection and abilities to change an examination score at the expense of instructor error. Students tended to positively change examination scores when detection of getting caught was low. Poor performing students would change scores more often than better performing students. Gender, age, and program of study were not found to be significant. Harpp and Hogan (1993, 1998) also observed Canadian chemistry students cheating on examinations and proposed ways to detect and reduce cheating by using multiple version of an examination. Cheating was reported to be widespread in Canadian universities.

Surveying 365 Canadian college students, Genereux and McLeod (1995) identified two faculty related circumstances rated most likely to increase cheating: (a) low instructor vigilance, and (b) lack of student welfare by the instructor. Faculty

practices and test and grading policies, as well as student perceptions toward instructor capability are reported to have positive or negative affects on cheating tendencies. Twenty percent of the student respondents reported copying answers during an examination. The two highest frequency rates reported in the study were 58 percent admitting to telling the answers to examination questions to a student who has yet to take the examination and 49 percent admitting to asking for examination questions from a student who has already taken the examination. Overall, the Canadian college students reported high incidences of cheating, with men cheating more often than females and those with lower GPAs cheating more often than those with higher GPAs. Jenkinson (1996) examined allegations that public school teachers in Alberta helped students to cheat on standardized achievement tests. With increased competition among schools for students, some teachers and administrators were condoning cheating.

Great Britain. In a speech given to the Society for Research into Higher Education, Peter Ashworth, Director of the Learning and Teaching Institute at Sheffield Hallam University, spoke of academic integrity issues which reflect Great Britain's college student cheating in magnitude, attitude, and behavior (Baty, 1997). Copying from others, collusion, and plagiarism are widespread in British education (Baty, 1997; Bushby, 1997). Franklyn-Stokes and Newstead (1995) sampled 2,000 undergraduates enrolled at the University of Plymouth. More than half of the respondents admitted to having cheated, ranging from two percent who admitted to seducing tutors to 54 percent who admitted to copying homework. In light of the high incidence of cheating in Great Britain, Ashworth recommended that faculty "guidance" be used as an optimal tool to instill a better understanding for students on the benefits of learning. This type of

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problem solving would be more cost effective and less time consuming when compared to the option to increase "bureaucratic control mechanisms." Newstead, Franklyn-Stokes, and Armstead (1996) found that the United Kingdom has similar cheating tendencies and perceptions as those identified in U.S. studies.

Ashworth also referred to the relationship between the students and the instructors, as well as the ratio of tutor to student factors. He submitted that, if students feel neglected, "they often deflect blame for their cheating on their institution" (Baty, 1997, p. 3). This tendency to place blame was also found significant in a study of four Moscow state universities; the Russian college students placed blame on their educational institution for the cheating problems (Poltorak, 1995).

A final point by Baty (1997) focused on the propensity to cheat in relationship to the perceived formality of the coursework. Cheating on informal assignments, especially those which involve working with peers, is viewed as more justified by students. In contrast, students would find it less justified to cheat in the more formal context of an examination. Mackenzie and Smith (1995) found similar findings measuring the attitudes of medical students in Great Britain towards cheating. Medical students understood they were breaking the rules when cheating on examinations. There also appears to be a positive correlation between increased cheating and the difficulty of the course load.

Newstead, Franklyn-Stokes, and Armstead (1996) discovered in another study conducted at the University of Plymouth widespread cheating differences among different groups. Surveying 943 college students, they found students engaged in coursework cheating more than examination cheating, 54 percent and 13 percent, respectively. Cheating was more common among men than women and more common

among younger students and than older. The science and technology students reported higher cheating incidences than other majors. Business students were not included in the study. The final conclusions found that students interested in achieving just good grades tended to engaged in more cheating than those interested in learning, and cheating appears widespread in England.

Italy, Palestine, Austria, and Germany. The incentive for faculty to prosecute students is often diminished by the system. A high school student in Italy took the education ministry to court after being disqualified from an examination in which he was caught cheating. The student won his case (In Brief, 1996). Cheating is also widespread in Palestine (Surkes, 1994). Reacting to prevalent cheating incidences, the Justice Department announced that anyone involved in cheating would be arrested and jailed for at least six months.

Hanisch (1990) studied Austrian public school students and found personal traits as significant in determining cheating incidences. Ninety-five percent of the Austrian students reported the engagement in some sort of classroom cheating within the first three months of beginning school. Rost and Wild (1990) reported that cheating is also widespread in German high schools and appears to be viewed by students as more of a game than serious academic misconduct.

Central Europe and Russia. A few reports from Central Europe and Russia find the definition and prevalence of cheating to be the same as those reported in the U.S. Curry (1997) discussed examination cheating in Poland. The challenge in reducing academic dishonesty in Poland is to enforce classroom rules and policies. Poland appears to be typical of all the Visegrad countries (Fogal, 1994). Students report they cheat

because of time pressure, peer pressure, teacher apathy, and established norms. The Polish education system, which values rote memorization over general understanding and critical thinking, has created an environment of "the ends justify the means."

Poltorak (1995) researched cheating perceptions and attitudes of college students studying at four Moscow universities. Precluding freshmen, the study surveyed sophomores, juniors, and seniors. Overall, the most common types of cheating were found to be widespread and prevalent: (a) using crib sheets during examinations, (b) looking at someone's examination, (c) using unauthorized lecture notes during examinations, (d) using someone's finished homework to copy from, and (e) purchasing term papers and plagiarizing. Male college students were reported to have higher incidences of cheating than female students. Over 80 percent reported cheating at least once during college study, with many of those incidences occurring during examinations. The correlation between cheating and socio-economic background was not significant, suggesting all Russian students engaged in some type of cheating.

Important to this dissertation research and future cross-national studies, Poltorak (1995) is the first and only post-socialist study to operationally define cheating as those terms reported in the U.S. literature (crib sheets, looking at someone's exam, using unauthorized lecture notes during exams, using someone's finished homework to copy from, purchased term papers, plagiarism).

Cross-national Cheating Research

Evans, Craig, and Mietzel (1993) studied 11th grade students from Costa Rica, Germany, and the U.S. to assess the similarities and differences of cheating associated with the different cultures, achievement status, and gender. German students generally

differed substantially from both Costa Rican and U.S. students in beliefs about effective ways to control cheating in the school. It appears that German high school students study in a more rigorous and controlled classroom environment perhaps reducing the prevalence of cheating. Some of the similarities between the U.S. and Costa Rica were the definition of cheating and the situation cheating mostly is to occur. The high school students agreed that cheating was looking at another student's examination during a test, previewing an old copy of an examination, plagiarizing on a paper, not reporting a positive grade mistake to the teacher, and sharing a paper with another student. The German students also reported these as examples of cheating but at lower rates. U.S. and Costa Rica students felt cheating was correlated with the teacher's attitude toward the students. If the teacher was boring or disrespectful, students tended to cheat more often. Achievement and gender effects were less substantial but were uniform across the three groups.

Further research on the Evans, Craig, and Mietzel (1993) data were performed when Waugh, Godfrey, Evans, and Craig (1995) collected and compared additional data from 11th grade students in Australia, Costa Rica, the U.S., former East Germany, West Germany, and Austria. Of the six countries, Australians had the strongest feelings that cheating was wrong, followed second by the Costa Ricans. The West Germans were at the other end of the continuum having the weakest feelings towards cheating as being wrong; the Austrians followed. East German and U.S. students had moderate feelings about cheating being wrong. Finally, "The perceptions that cheating can be discouraged by placing a strong emphasis on ethics and doing the right thing was easy for the Australian, East German, Costa Rican and Austrian students, but difficult for the West

German and USA student” (p. 78). U.S. high school students are more individualistic and competitive, where as West German high school students are more team oriented and cooperative. Overall, the study reported mix findings among the six countries.

The only major cross-national study to date measuring college student cheating is research conducted by Davis, Noble, Zak, and Dreyer (1994). They reported that a majority of Australia and U.S. college students cheated more in high school than they did in college. The study is unique in that cheating is linked to grade-oriented and learning-oriented attitudes. It appears that Australians attend school for learning’s sake rather than for a grade. U.S. college students are much more grade focused. Thus, what motivates Australian college students to cheat is different than that for U.S. college students. Australian students cheat because of internal motivators such as personal standards and strong morals, where U.S. students cheat because of external motivators such as pressures of good grades and better jobs. Only one country gender difference emerged with Australian women cheating less than their U.S. counterparts.

Operationally Defining Cheating Between the U.S. and Central Europe

The U.S. literature is numerous and consistent in defining cheating in U.S. post-secondary schools (See Table 3). Most examples cited in the U.S. literature report academic misconduct as some variation of examination cheating and/or plagiarism. The international literature, while limited, reports similar definitions of cheating as those listed in the U.S. literature (See Table 4). However, when addressing the definition of cheating in Central Europe, several challenges emerged. First, there appears to be no official definition of cheating in the Central Europe printed literature. A literature review conducted in Slovakia and Poland by Ms. Jaroslava Hlavacova, Marketing Research

Specialist, found no cheating definition in any of the major dictionaries or published articles. Second, informal interviews with several Slovak deans and administrators at the state universities also revealed no “official” definition of cheating but anecdotally showed cheating was understood and a problem. In short, the need to better define cheating between the U.S. and Central Europe was necessary.

Table 3

Cheating Definitions as Reported in U.S. Literature

Study	Year	Definition
Alschuler & Blimling	1995	Copying from another student during an examination, using crib notes, helping someone else cheat, plagiarizing, falsifying, or using dishonest methods to complete assignments
Antion & Michael	1983	Copying from another student during an examination, using crib notes, helping someone else cheat, plagiarizing
Baird	1980	Obtaining test information from other students, allowing someone to copy one’s work, copying someone else’s work, plagiarizing, copying someone’s test work, concealing a professor’s errors, crib notes, stealing a paper or test, exchanging tests, taking a test for another student
Borin & Gail	1988	Looking at another student’s exam paper, unauthorized crib notes, presenting someone else’s paper, etc. as one’s own, asking someone else to write a paper, etc. for one’s own use, copying words, etc. out of books or journals without referencing the source, asking someone for the exam answers during an examination, exchanging papers during an examination, asking one to take an examination for oneself, obtaining a copy of the examination paper prior to the test, giving the answers to someone during an examination
Bunn, Caudill & Gropper	1992	Looking at another student’s exam paper, plagiarizing
Davis & Ludvigson	1995	Copying from a nearby paper, crib notes, trading papers during an examination, intricate patterns of hand and foot positions during an examination
Drake	1941	Dishonesty on examinations, copying from another examination
Evans & Craig	1990b	Copying answers directly from another students’ test, hiding/not reporting grading mistakes by a teacher, plagiarizing
Eve & Bromley	1981	Submitting paper written by another student, purchasing a paper written by another student, coping answers from another student during an examination, using crib notes, giving another student answers during an examination, plagiarizing

(table continues)

Table 3. (continued)

Study	Year	Definition
Gardner & Melvin	1988	Giving answers to someone else during the examination, using test files prior to the examination, plagiarizing, purchasing a term paper from someone else, discussing examination questions with students from an earlier section, giving examination questions to students in a later section
Gardner, Roper, Gonzales & Simpson	1988	Violation of course rules which could potentially increase course credits
Hardy	1981-82	Looking at another student's exam paper during tests, using crib notes, looking at advance copies of the examination from the professor's office, borrowing another student's speech, paper or report and presenting it as one's own, plagiarizing
Herman	1966	Crib notes, Morse code, outright copying during an examination
Houston	1976, 1977, 1980, 1983	Copying answers from another's examination, obtaining test information from another, allowing someone to copy your homework, plagiarizing, concealing professor's errors, using crib sheets, illegal notes, stealing/copying a exam, changing a test paper, taking a test for someone, bribery or blackmail
Jendrek	1989	Cheating on an examination
LaBeff, Clark, Haines & Diekhoff	1990	Looking at someone else's paper, copying homework, buying a term paper, asking a friend to write a term paper
Leming	1980	Copying answers from an examination
Lord & Chiodo	1995	Sharing homework, coping phrases out of books, etc., using crib notes during examination
McCabe	1992	Using unauthorized crib notes on a test, copying from another student during an exam, padding bibliographies, collaborating on homework assignments
McCabe & Trevino	1996	Using unauthorized crib notes on a test, copying from another student during an exam, padding bibliographies, collaborating on homework assignments
Nelson & Schaefer	1986	Using crib sheets, looking of someone else's exam, plagiarizing
Nuss	1994	Taking an examination for another student, having another student take an examination for one, altering or forging an official university document, paying someone to write a term paper, arranging for someone to provide answers to an examination during the test, copying from someone's examination paper without them knowing it, allowing another student to look off one's examination, plagiarizing, padding bibliographies
Oaks	1975	Copying from another student during an exam, using unauthorized crib notes on a test, taking advance copies of exams from the professor's office or mimeo room, plagiarizing
Partello	1993	Padding bibliographies, collaborating on homework assignments
Roberts & Rabinowitz	1992	Copying from another student during an exam

(table continues)

Table 3. (continued)

Study	Year	Definition
Scheers & Dayton	1987	Copying from another student during an exam, buying a term paper, taking advance copies of exams from a test file
Singhal & Johnson	1983	Copying from another student during an examination, using crib notes, copying from a book during an examination, obtaining a copy of the exam to be given prior to taking the test, taking a test for someone
Stern & Havlicek	1986	Copying from another student during an examination, unauthorized crib notes on a test, sitting for (taking) an examination for another student, taking advance copies of examinations from the professor's office or mimeo room, plagiarism, having another student perform one's homework, faking laboratory results
Stevens & Stevens	1987	Plagiarizing, failing to report grading errors, copying homework, using crib notes, giving examination questions to students in a later section, falsifying or fabricating a bibliography, obtaining answers from someone else during an examination, taking a test for someone, obtaining a copy of the examination to be given prior to taking the test, writing a term paper for someone else, giving answers to someone else during the examination, having someone else write a term paper, discussing examination questions with students from an earlier section
Webster's Dictionary	1996	To take an examination or test in a dishonest way, as by improper access to answers
Wright & Kelley	1974	Copying off the exam paper of another during an examination, knowingly letting someone copy off an exam paper, using crib notes during an examination, using outside material for a paper without citing the references, using exam "files" to prepare for an examination, dry running the lab without doing the experiment
Zastrow	1970	Using crib notes during an examination, plagiarizing, padding bibliographies

Table 4

Cheating Definitions as Reported in International Literature

Study	Year	Site	Definition of Cheating
Evans, Craig & Mietzel	1993	Costa Rica, Germany, U.S.	Letting another student copy answers from your homework paper, allowing another student to use a class paper one has written to get credit for class, listing books or articles that one did not read in the bibliography, examining a copy of an old test that the teacher does not want one to see
Genereux & McLeod	1995	Canada	Telling exam questions to a student who has yet to write the examination, getting exam questions from a student who already wrote the examination, listing false references in a paper, allowing a student to copy one's answers in an examination, plagiarizing, making up research data, copying exam answers
Harpp & Hogan	1993	Canada	Counterfeiting term papers, copying lab reports, using crib sheets, any type of collaboration on examinations
Newstead, Franklyn-Stokes & Armstead	1996	England	Using crib sheets, peeping at someone's exam, using unauthorized lectured notes during exam, using someone's finished homework to copy from, purchased term papers etc., plagiarism, bribery
Poltorak	1995	Russia	Using crib sheets, peeping at someone's exam, using unauthorized lectured notes during exam, using someone's finished homework to copy from, purchased term papers etc., plagiarism
Waugh, Godfrey, Evans & Craig	1995	Australia, Austria, Canada, Costa Rica, East Germany, West Germany	Letting another student copy answers from your homework paper, allowing another student to use a class paper one has written to get credit for class, listing books or articles that one did not read in the bibliography, examining a copy of an old test that the teacher does not want one to see

To help validate the survey instrument and study, a second, preliminary study was conducted to operationally define cheating between Central Europe (City University Slovakia) and the U.S. (Colorado State University and Bentley College). The study was conceived and implemented by the researcher for a graduate course final project: VE792 Qualitative Research. Dr. Arnold Danzig, Associate Professor, Colorado State University

assisted the researcher in developing an open-ended questionnaire survey to help operationally define cheating between Central Europe and the U.S. (See Appendix D).

HyperResearch was used to analyze 12 Slovak (Central Europe) and 16 U.S. business college students and their definitions of cheating. The research found similarities between the Slovak and U.S. respondents in terms of cheating definitions and perspectives. Copying from another during an examination, looking at personal notes during an examination, and plagiarism were all cited as major forms of cheating. The preliminary study also found thematic similarities of academic dishonesty and academic misconduct among the Slovak and U.S. business college students. This research suggests that both regions have the same definitions of cheating terms and as those defined by the U.S studies (Refer to Tables 3 and 4).

As recommended by Strauss and Corbin (1990), the researcher used line-by-line open coding to break down, examine, compare, and categorize the cheating definitions/themes. Accordingly, the researcher generated six major HyperResearch codes or descriptors based on the student responses (See Table 5). The ultimate goal was to define what business college students felt constitutes cheating. The use of an open-ended questionnaire is a strength over the traditional close-ended questionnaire to identify themes and meanings (Wolcott, 1994). The results suggest both regions indeed have similar perspectives on cheating definitions and issues.

Table 5

HyperResearch Terms Generated for Major Codes or Descriptors

What the HyperResearch Code or Descriptors Represent	HyperResearch Code/Descriptor Slovakia (Central Europe)	HyperResearch Code/Descriptor U.S.
Plagiarism – Submitting another student’s paper, buying papers, inappropriate use of citations, no references, etc.	Cheating Submitting others Work	Cheating Submitting others Work
Providing examination information to another student after just taking the test and receiving information from a student about examination answers	Cheating Exam Infor Others	Cheating Exam Infor Others
Crib notes, other illegal notes, books, etc. during an examination	Cheating is Using Notes	Cheating is Using Notes
Looking at another student’s notes/answers during an examination (copying)	Cheating is Looking other Notes	Cheating is Looking other Notes
Recycling papers	Cheating is recycling papers	N/A*
Unfair behavior	Cheating is unfair behavior	Cheating is unfair behavior

* Students did not report information fitting this descriptor.

When asking the Slovak and U.S. students to discuss what they feel represents the cheating concept in general, the majority stated two main themes: (a) presenting work that is not one's own (plagiarism, not citing references) and (b) copying from someone's examination or sharing one's examination answers with someone during an examination. Additional questions prodded the students to go beyond the cheating concept and actually define cheating, describe cheating situations, and provide specific examples. Overall, both regions agreed that cheating is taking credit for schoolwork that is not one's own and any copying of or using illegal material during an examination.

The students were asked to list as many examples as possible of cheating. Both regions reported similar examples (See Table 6). Overall, the Slovak and U.S. students

felt cheating was taking, using or stealing someone's work. These are identical to those definitions reported in the plethora of U.S. literature.

Table 6

Five Most Common Cheating Examples Reported by U.S. and Slovak Business Students (Percentage and Frequency Count)

Cheating Definition	Unites States		Central Europe (Slovakia)	
	Percent	Count	Percent	Count
Cheating is submitting another student's work as your own	62.5	10	75	9
Cheating is looking at another student's answers during an examination	81.25	13	41.7	5
Cheating is using unauthorized notes during an examination (crib notes)	18.75	3	41.7	5
Cheating is recycling written papers	0	0	16.7	2
Cheating is sharing the content of one's examination with another after the examination	0	0	8.3	1

Academic dishonesty, academic misconduct, and academic integrity are terms used throughout the U.S. literature. To identify the definitions of these three terms and any perceived differences, the students were asked to describe the concept and indicate if the term was the same or different than those reported under cheating definition.

Academic dishonesty and academic misconduct are related concepts with the former representing specific cheating (plagiarism, copying from notes, etc.) and the latter representing the larger scope of unethical behavior (cheating is breaking school rules, damaging to school reputation, leaving rude notes on bathroom walls, inappropriate behavior, hurting others, bad behavior on campus, etc.). It appears that academic dishonesty and academic misconduct are associated with cheating as a negative connotation.

Academic integrity for both Slovak and U.S. business students is the antithesis of cheating, however, with slightly different interpretations. For U.S. business students, academic integrity meant taking responsibility for one's actions, working hard, knowing what is right and wrong, and working independently. For Slovak business students, academic integrity meant working to help others, working together, and cooperation among students. It appears academic integrity is associated with non-cheating as a positive connotation, albeit somewhat different in meaning between regions.

To this end, the researcher is confident that the definitions of cheating by business college students in Central Europe are the same as those students in the U.S. (See Appendix E for Raw Data). The definitions and themes associated with cheating appear to be the same as those reported in the U.S. literature. Additionally, the definitions and themes appear to be similar between Central Europe and the U.S., with the exception of academic integrity.

Summary

A review of the U.S. literature identified 146 studies and monographs over the past one hundred years which examine academic dishonesty and cheating. The U.S. literature is prolific and diverse when addressing cheating differences among U.S. students. The international literature measuring academic cheating, however, is limited. Only one major cross-national study exists which looks at U.S. and Australia college students. This dissertation is the first cross-national investigation comparing U.S. business college students with Central European business college students. The study is also the first to investigate gender differences among U.S. and Central European males and females.

The U.S. cheating literature shows that although there is convergence of faculty and student opinions as to what constitutes cheating, there are still high reported incidence rates among college students. This would suggest that for most students, the risk of cheating is seen as low. That is, the penalties and sanctions associated with being caught are not sufficiently harsh as to adequately discourage the academic misconduct. Perhaps the most pervasive finding identified in the literature is that a majority of college students do participate in some sort of academic dishonesty with some studies reporting cheating tendencies above 70 percent. The results are mixed at best when suggesting male students cheat more than female students. The most common infractions appear to be those associated with examination cheating and plagiarism.

The U.S. literature is numerous and consistent in defining cheating in U.S. post-secondary schools. Most examples cited in the U.S. literature report academic misconduct as some variation of examination cheating and/or plagiarism. The international literature reports similar cheating definitions as those listed in the U.S. literature.

U.S. education continues to expand globally, especially into Central Europe which is in need of local college graduates educated by U.S. business educators. U.S. educators teaching abroad must better understand the classroom management and nuances associated with different societies. Cheating is one such area that appears to be a global problem. To date, three major cross-national studies have been conducted with only one of these looking at college students. As U.S. schools and educators continue to increase in their presence abroad, research will become vital to classroom management and program success.

CHAPTER III

PROCEDURES

Introduction

The purpose of this study is to compare U.S. and Central European business college students on their attitudes, perceptions, and tendencies toward academic cheating. Additionally, the study compares U.S and Central European male and female business college students on their attitudes, perceptions, and tendencies toward academic cheating. The two independent attribute variables of interest were nationality (two levels, United States versus Central European), and gender (two levels, male versus female). The objectives of the study are to:

1. Determine if there is a difference in the percentage of students who cheat on examinations.
2. Determine if there is a difference in the knowledge of others who have cheated on examinations.
3. Determine if there is a difference in the beliefs about what constitutes a cheating situation.
4. Determine if there is a difference in the perceptions that cheating on examinations is wrong.
5. Determine if there is a difference in the attitudes about the instructor's responsibility on reducing cheating incidents.

In order to achieve the research objectives, it was necessary to conduct a comparative study using a 2 x 2 factorial design with multiple ANOVAs (See Figure 1). Huck and Cormier (1996) stated the ANOVA features a strong Omnibus *F*. The Omnibus *F* allows for violations among kurtosis and skewness as well as the homogeneity of variance, precluding the necessity to use nonparametric statistics (Glass, Peckham, & Sanders, 1972; Huck & Cormier, 1996; Morgan & Griego, 1997).

		Gender	
		Male	Female
Region	United States		
	Central Europe		

Figure 1. The 2 x 2 ANOVA Framework

To meet the research objectives and to test the null hypotheses of the study, the following activities were performed:

1. An in-depth review of the domestic and international literature.
2. A determination of the research design.
3. The securing of permission from two U.S. colleges for survey administering.
4. The submission of a research proposal to the researcher's co-advisors and graduate committee members.

5. The approval of an established survey instrument to be used to gather data (See Appendix A).
6. The obtaining of human research project approval from the Human Research Committee of Colorado State University for the U.S. business college data collections (See Appendix B).
7. The obtaining of the letters of permission from Colorado State University and Bentley College to collect data (See Appendix C).
8. The administering of the preliminary study to help operationalize the cheating terminology (See Appendix D).
9. The scoring of the preliminary study data with HyperResearch (See Appendix E for Raw Data).
10. The final operationally defining of the terms from the U.S. and international literature as well as the U.S. and Central European qualitative studies.
11. The administering of the two main U.S. campus surveys.
12. The scoring of the two main U.S. campus surveys.
13. The statistical analysis of all four data sets using SPSS (See Appendix F for SPSS Code book and Appendix G for Total Responses).
14. The presentation of the results.

Description of the Population

The population of this study was business students representing four universities: Wyższa Szkoła Biznesu [Higher School of Business] (WSB), City University Slovakia (CUS), Colorado State University (CSU), and Bentley College (BC). Survey data for the two Central European schools are unpublished and were collected in 1997 by City University Slovakia (City University Slovakia, 1997). A grand total of 1390 surveys were returned representing all four schools with 1337 surveys deemed useable.

Research Site I

Wyższa Szkoła Biznesu [Higher School of Business] (WSB) operates a campus in Tarnow, Poland, a city with a population of 120,000. The university has grown from a group of less than 100 students in 1995 to a current enrollment of approximately 300 students, with substantial growth predicted for 1999. It offers a fully accredited Bachelor of Science in Business Administration (BSBA) degree. To prepare the Polish students for their university studies in business, the school offers extensive business English as a Second Language (ESL) instruction. The undergraduate program primarily attracts students between the ages of 19 and 25 with an average age of 21.

Three groups of students were surveyed: freshmen, sophomore, and juniors.¹ The WSB data represented a total of 192 usable surveys or 64 percent of the total campus undergraduate population. Eighty-three (83) respondents were male and 109 female; 43.2 percent and 56.8 percent respectively. Ninety-five percent were between the ages of 19 and 27 with a medium age of 22.0 years. The average GPA reported was 2.87

¹ Wyższa Szkoła Biznesu (WSB) offers a three-year business degree.

(A=4.0). Freshman accounted for 54.7 percent of the survey respondents, while sophomore and juniors accounted for 29.7 percent and 13.0 percent, respectively.

Research Site II

City University Slovakia (CUS) operates two main campuses in Slovakia, Bratislava and Trencin, with populations of 200,000 and 70,000 respectively and has been offering courses since 1991. The university has grown from a few dozen students in 1991 to a current total enrollment of approximately 1300 students, with further substantial growth predicted for 1999. It offers fully accredited Bachelor of Science in Business Administration (BSBA) and Master of Business Administration (MBA) degrees. To prepare Slovak students for their university studies in English, the school offers extensive business English as a Second Language (ESL) instruction as preparation for credit course study in business. The undergraduate program primarily attracts students between the ages of 17 and 25 with the medium age of 19.8.

Four groups of students were asked to participate: freshmen, sophomores, juniors and seniors. The CUS data represented a total of 485 usable surveys or 37 percent of the total campus undergraduate, student population. Two-hundred forty-seven (247) of these respondents were male and 231 female, 50.9 percent and 47.6 percent respectively. Nine students did not report gender. Ninety-five percent of the CUS respondents were between the ages of 18 and 23 with a medium age of 20.0 years. The average GPA reported was 3.15 (A=4.0). Freshmen accounted for 32.8 percent of the survey respondents, while sophomores, juniors, and seniors accounted for 29.5 percent, 22.3 percent and 14.8 percent, respectively.

Research Site III

Colorado State University (CSU) is located in Fort Collins, Colorado, a city that has a population of 120,000. The College of Business offers a fully accredited Bachelor of Science in Business Administration (BSBA) degree and Master of Business Administration (MBA) degree. The university has a current total undergraduate enrollment of approximately 22,500, with 1900 of those enrolled in the College of Business. The undergraduate program primarily attracts students between the ages of 18 and 25 with an average age of approximately 22 for business graduates.

Two groups of students were asked to participate: juniors and seniors.² The CSU data represented a total of 445 usable surveys or 2.0 percent of the total campus undergraduate, student population and 23.4 percent of the undergraduate College of Business student population. Two-hundred twenty-one (221) of these respondents were male and 222 female, 49.9 percent and 51.1 percent respectively. Ninety-five percent of the CSU respondents were between the ages of 19 and 27 with a medium age of 21.2 years. The average GPA reported was 3.02 (A=4.0). Freshmen accounted for .4 percent of the survey respondents, while sophomores, juniors, and seniors accounted for .4 percent, 51.9 percent and 45.6 percent, respectively.

Research Site IV

Bentley College (BC) is located in Waltham, Massachusetts, a city that has a population of 60,000. The College of Business offers a fully accredited Bachelor of Science in Business Administration (BSBA) degree and Master of Business Administration (MBA) degree. The school hosts approximately 3200 undergraduate

² A small percentage were freshmen and sophomore students.

students, with 1200 of those enrolled in the School of Business. The undergraduate program primarily attracts students between the ages of 17 and 25 with an average age of approximately 23 for business students.

Two groups of students were asked to participate: juniors and seniors.³ The BC data represented a total of 215 usable surveys or 6.7 percent of the total campus undergraduate, student population and 25.5 percent of the undergraduate School of Business student population. One-hundred nine (109) of these respondents were male and 104 female, 51.2 percent and 48.8 percent respectively. Two students did not report gender. Ninety-five percent of the BC respondents were between the ages of 19 and 26 with a medium age of 22.2 years. The average GPA reported was 2.87 (A=4.0). Freshmen accounted for .5 percent of the survey respondents, while sophomores, juniors, and seniors accounted for 3.3 percent, 21.9 percent and 70.7 percent, respectively.

Overall, 659 males, 667 females and 11 nonresponse gender participated in the study of which 24.9 percent are U.S. male, 24.6 percent U.S. female, 24.9 percent Central European male, and 25.6 percent Central European female. Approximately 20.1 percent are freshmen, 15.7 percent sophomore, 30.9 percent juniors, and 32.1 percent seniors.

The data from Central Europe are convenience samples; the questionnaires were administered to students in their classes. While this was not a random process, the results are likely to be representative. The classes were assigned; there was no self-selection into different lectures. Thus, each class was likely to be representative of its degree program and year.

The U.S. schools were chosen for their demographic and socioeconomic similarities, one representing the western region and the other the eastern region.

Concerning the U.S. samples, the researcher attempted to administer the survey in mutually exclusive business courses. Care was taken to survey classes that were scheduled at conflicting times (i.e. introductory lectures, required upper level business courses). The U.S. samples are also convenience samples.

Data Collection

Instrument

To evaluate the attitudes, perceptions, and tendencies towards academic cheating, a 29-question self-reporting survey instrument was used consisting of dichotomous (yes/no) and seven-point scale (1 = strongly disagree/7 = strongly agree) questions. Some questions dealt with general attitudes towards examination cheating and other questions looked at how much examination cheating was taking place during college. The short survey allowed for minimal classroom disruption and was completed within ten minutes. The respondents were asked to answer as many questions as possible, as long as they felt comfortable with the particular question. The survey included basic demographic questions.

The U.S. literature guided the development of the survey instrument. Survey instruments developed by Baird (1980), Evans, Craig, and Mietzel (1993), Gardner and Melvin (1988), Lord and Chiodo (1995), Schab (1969), and Stevens and Stevens (1987) assisted in developing questions to ascertain cheating tendencies, cheating situations, cheating tactics, faculty issues, and basic demographics. The final survey instrument was based on collaborative efforts between City University Slovakia and California State University-San Bernardino. It is not copyrighted.

³ A small percentage were freshmen and sophomore students.

Most empirical studies attempting to measure students' attitudes, perceptions, and tendencies about cheating use self-reporting questionnaires (Payne & Nantz, 1994). Although a number of studies have used experimental control groups with interventions, Payne and Nantz (1994) stated self-reporting questionnaires increase the accuracy and percentages reported. The use of self-reporting questionnaires is valid when measuring cheating attitudes (Gardner et al. 1988). Additionally, Payne and Nantz (1994) found benefit in using supplemental open-ended questions, qualitative research to record perceptions and attitudes. Thus, this dissertation was supported by a preliminary study to operationally define the cheating terms between the U.S. and Central Europe, and used a self-reporting survey instrument to collect data on cheating attitudes, perceptions, and tendencies.

Measures and Reliability of Measures

Validity has been established by reviewing the U.S. and international cheating studies and reports, by evaluating existing data sets measuring cheating from Central European studies, by discussing the survey content with the researcher's graduate committee, and by soliciting U.S. student feedback. A positive correlation has been identified between those who cheat and those who admit to cheating (Gardner et al., 1988). The survey instrument appears to have face validity.

Data Analyses

Huck and Cormier (1996) report that the ANOVA or Omnibus *F* is designed to examine differences in two or more means. The strength of the ANOVA is its ability to measure two or more independent variables of multiple levels while assigning the variances attributed to each variable of interest. Less variability is attributed to error.

Additionally, the Omnibus F can overcome minor problems of kurtosis and skewness as well as unequal variances (Glass, Peckham, & Sanders, 1972; Morgan & Griego, 1997). The researcher was able to identify the relationship of each independent variable on the dependent variables of interest. The goal was to identify statistically significant differences at the .05 level or less. This means that there is a 95 percent probability that, when a significant difference is found, the difference is due to something other than chance. The data was entered and analyzed by the researcher using SPSS.

Summary

This chapter presents the tasks and events which were used to implement this study. The population consists of a total of 1337 usable surveys representing undergraduate business students from four universities: Wyzaza Szkoła Biznesu (N = 192), City University Slovakia (N = 485), Colorado State University (N = 445) and Bentley College (N = 215). Overall, 659 males, 667 females and 11 nonresponse gender participated in the study of which 24.9 percent are U.S. male, 24.6 percent U.S. female, 24.9 percent Central European male, and 25.6 percent Central European female. Approximately 20.1 percent are freshmen, 15.7 percent sophomore, 30.9 percent juniors, and 32.1 percent seniors.

The data analysis used ANOVAs to look for statistically significant differences among the means at the .05 percent confidence level. The strength of using the Omnibus F overcame any minor kurtosis and skewness as well as unequal variances among different samples. The large sample numbers also overcame any minor violations.

A separate preliminary study was used to operationally define the cheating concepts identified in the U.S. literature and between the U.S. and Central European

samples. This study helped validate the survey instrument (See Chapter 2). The study using HyperResearch identified similarities of cheating definitions between U.S. and Central European business students. In short, the definition of cheating is the same in both regions and as reported by the U.S. literature.

CHAPTER IV

FINDINGS

Introduction

This research study compared the attitudes, perceptions, and tendencies of U.S. and Central European business college students toward academic cheating and compared the attitudes, perceptions, and tendencies among U.S. and Central European male and female business college students toward academic cheating. The two independent attribute variables of interest were nationality (two levels, U.S. versus Central European), and gender (two levels, male versus female). The data was obtained from a 29-question self-reporting survey instrument consisting of fill-in-the-blank, dichotomous (yes/no), and seven-point scale (1 = strongly disagree/7 = strongly agree) questions. Some questions dealt with general attitudes towards examination cheating and other questions dealt with specific cheating incidents. The survey included basic demographic questions. A grand total of 1390 surveys were returned representing all four schools with 1337 surveys deemed useable. Surveys with only a few questions completed were excluded from the study. Information generated from SPSS statistical analysis of the data is presented in table and narrative form.

This chapter presents the SPSS analysis of the findings from the data collection and is divided into three sections: (a) preliminary data analysis and tests of assumptions, (b) findings on objectives and hypotheses, and (c) supplemental findings of the study.

Preliminary Data Analysis and Tests of Assumptions

To evaluate the attitudes, perceptions, and tendencies towards academic cheating, a 29-question self-reporting survey instrument was used consisting of several fill-in-the-blank questions, 16 dichotomous (yes/no) questions, and eight seven-point scale (1 = strongly disagree/7 = strongly agree) questions. The survey included basic demographic questions. The four data sets, one representing each campus, were combined into a SPSS worksheet to facilitate preliminary data analysis, tests of assumptions, and statistical analysis.

The researcher reduced six seven-point items into three conceptual composite scales: (a) giving or using an exam from a prior semester is cheating (Hypotheses 3 and 8 – questions 21 and 22r), (b) the instructor is responsible for reducing cheating tendencies (Hypotheses 5 and 10 - questions 18 and 25), and (c) most students cheat (Supplemental analysis - questions 23 and 24). In the survey, questions 19, 20, and 22 are reversed scales and were adjusted in SPSS. Factor analysis confirmed all three clusters at the .70 or higher level (See Table 7). The KMO measure of sampling adequacy and Bartlett's test of sphericity were both within acceptable levels and statistically significant (KMO > .50 at .528; Bartlett's sig. < .0001).

A fourth summated scale was conceptually developed from yes/no dichotomous questions, which created approximately interval data (Hypotheses 2 and 6 - Questions 2, 3, 4, and 5). One cluster "known or seen someone who has cheated *in this class*" was statistically confirmed by bivariate correlation (Questions 3 and 5). The other questions "known someone that has cheated on an exam *at this university*" and "seen someone cheat on an exam *at this university*" exhibited weak correlations and were tested only as

supplemental single dichotomous items (See Table 8). It was not necessary to factor analyze survey questions one and 19 because both were interval in nature and were used separately to test hypotheses one and six as well as four and nine.

Table 7

Factor Analysis - Rotated Component Matrix for the Survey Scales – Questions 18, 21, 22, 23, 24, and 25

Question	Component		
	1	2	3
Instructor discussing cheating issues reduces cheating incidents (Q18)		-.366	
The instructor is responsible for making sure students do not cheat (Q25)		.383	
Giving someone your exams from a prior semester is cheating (Q21)			
Using an exam from a prior semester is not cheating (Q22)			
Most students cheat on exams (Q23)			
Most students cheat on assignments outside of class (Q24)			

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
 Rotation converged in 4 iterations.

Table 8

Internal Reliability Bivariate Pearson Correlation for Questions 2, 3, 4, and 5

Question	Q2	Q4	Q3	Q5
Have you known someone that has cheated on an exam <i>at this university?</i> (Q2)		.480**	.336**	.298**
Have you ever seen someone cheat on an exam <i>at this university?</i> (Q4)			.325**	.396**
Have you known someone that has cheated on an exam <i>in this class?</i> (Q3)				.766**
Have you ever seen someone cheat on an exam <i>in this class?</i> (Q5)				

Correlation is significant at the .01 level (2-tailed)

Testing the assumption of equal variances was performed on each hypothesis resulting in rejections of the null on all but one scale: “cheating situation is giving or using previous semester examinations” (See Table 9). This suggests that some of the variances between the two samples were not equal. However, because the two samples had large almost identical *N*s and the statistical test used was the ANOVA, any violation of equal variances was not problematic (Glass, Peckham, & Sanders, 1972; Huck & Cormier, 1996; Morgan & Griego, 1997). This precluded the use of nonparametric statistics.

Table 9

Levene’s Test for Equality of Variances on the Five Dependent Variables of Interest

Source	Levene Statistic	df1	df2	Sig.
Estimated percentage students cheating on exams	115.47	1	1227	.0001
Knowledge of others cheating on exams in class	537.59	1	1317	.0001
Cheating situation is giving or using previous semester examinations	.793	1	1312	.373
Cheating on examinations is wrong	49.2	1	1320	.0001
Instructor’s impact	8.78	1	1295	.003

Further analysis on the five dependent variables of interest revealed no skewness and some minor kurtosis on one scale (See Table 10). Only one variable slightly violated the normal distribution criterion. Thus the researcher felt comfortable using the variables in the study because all but one of the kurtosis indices were less than ± 1.0 away from zero. This benchmark for acceptance is prescribed by Huck and Cormier (1996).

Table 10

Skewness and Kurtosis of the Five Dependent Variables

Question	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Estimated percentage students cheating on exams	0.789*	0.07	-0.393*	0.139
Knowledge of others cheating on exams in class	-0.574*	0.67	-1.523	0.135
Cheating situation is giving or using previous semester examinations	0.352*	0.67	-0.82*	0.135
Cheating on examinations is wrong	-0.464*	0.68	-0.914*	0.134
Instructor's impact	-0.057*	0.67	-0.361*	0.136

* Normally distributed

In summary, the research design used the ANOVA, which features the Omnibus *F*. The strength of the ANOVA is its ability to measure two or more independent variables of multiple levels while assigning the variances attributed to each variable of interest (Huck & Cormier, 1996). The Omnibus *F* is robust to violations of the homogeneity of variance assumptions and violations of kurtosis and skewness (Glass, Peckham, & Sanders, 1972; Huck & Cormier, 1996; Morgan & Griego, 1997). Additionally, the large almost identical *N*s of the two samples overcame any violation of equal variances (Glass, Peckham, & Sanders, 1972; Huck & Cormier, 1996). Thus, the preliminary data analysis and tests of assumptions were included in this chapter as informative documentation for this dissertation and future research endeavors.

Findings on Objectives and Hypotheses

This section presents the findings on the ten hypotheses. These hypotheses were generated from the objectives of the study and were concerned with perceptions, attitudes, and tendencies about cheating. The analysis of the data was designed to determine if the objectives of the study had been achieved, as evidenced by the results of the testing of the hypotheses.

The significance of the differences between mean scores for region and gender on each dependent variable was determined with the use of the ANOVA and the Omnibus *F*. A significant *F* value suggested that the mean scores of two groups were statistically different and not by chance alone. Following the identification of a significant *F* value on gender, Tukey's post hoc was used to identify which gender by country was significant (U.S. male and female; Central European male and female). Statistical significance was predetermined to be at the .05 level.

Five 2 x 2 ANOVAs were used for analysis on two independent variables each with two levels: regions (U.S. and Central Europe) and gender (male and female). None of the five 2 x 2 ANOVAs revealed any significant interaction effects between region and gender among the dependent variables, and only one variable had significant main effects on gender (See Tables 11 & 12 for summaries). See Appendix G for total survey responses. Each null hypothesis will now be addressed.

Table 11

2 x 2 ANOVA Summary Table for Region and Gender

Source	Region		Gender		Interaction	
	F	Sig.	F	Sig.	F	Sig.
Estimated percentage students cheating on exams (Hypotheses 1 and 6)	143	.0001	13.65	.0001	.025	.873
Knowledge of others cheating on exams in class (Hypotheses 2 and 7)	612	.0001	.062	.804	1.245	.265
Cheating situation is giving or using previous semester examinations (Hypotheses 3 and 8)	244	.0001	.003	.945	.251	.617
Cheating on examinations is wrong (Hypotheses 4 and 9)	386	.0001	.378	.539	1.160	.281
Instructor's impact (Hypotheses 5 and 10)	11.12	.001	.019	.890	2.30	.130

Table 12

Mean and Standard Deviation Summary Table for Region and Gender

Source	Means & SD							
	Region				Gender			
	U.S. \bar{x}	SD	C.E. \bar{x}	SD	M \bar{x}	SD	F \bar{x}	SD
Estimated percentage students cheating on exams (Hypotheses 1 and 6)	26.54*	20.51	43.35*	28.28	32.36*	25.97	37.54*	25.75
Knowledge of others cheating on exams in class (Hypotheses 2 and 7)	1.90*	.274	1.39*	.448	1.64	.450	1.64	.450
Cheating situation is giving or using previous semester examinations (Hypotheses 3 and 8)	2.60*	1.60	4.00*	1.64	3.30	1.79	3.30	1.73
Cheating on examinations is wrong (Hypotheses 4 and 9)	5.61*	1.45	3.83*	1.81	4.70	1.87	4.80	1.85
Instructor's impact (Hypotheses 5 and 10)	3.96*	1.23	4.20*	1.38	4.08	1.39	4.09	1.23

*Significant at the .01 level (2-tailed)

Findings of Each Hypothesis

Hypothesis 1: There is no statistically significant difference in the mean percentages of student perceptions of overall cheating on examinations, between U.S. and Central European business college students. **Hypothesis 6:** There is no statistically significant difference in the mean percentages of student perceptions of overall cheating on examinations, among U.S. and Central European male and female business college students.

To test the hypotheses that the estimated percentage of student perceptions of overall cheating on examinations is the same between the U.S. and Central European business college students as well as among U.S. and Central European male and female business college students, a two-way ANOVA was performed (See Table 13). Both main

effects were significant (Region, $F=143$, $p<.0001$; Gender, $F=13.65$, $p<.0001$); thus rejecting the null hypotheses. There was no interaction. The U.S. and Central Europe estimated percentage of cheating on examinations were 26.55 percent and 43.35 percent, respectively. At the 95 percent level, the confidence intervals for the U.S. were 24.63 percent to 28.46 percent and for Central Europe were 41.38 percent to 45.32 percent. Male students estimated examination cheating at 32.36 percent with female students estimating 37.54 percent. The 95 percent confidence intervals for male students were 30.43 percent to 34.29 percent and for female students were 35.58 percent to 39.50 percent. There were no significant differences within the U.S. or Central European samples on gender.

Table 13

Analysis of Variance of Estimated Cheating Percentage by Region and Gender

Source	SS	DF	MS	F
Region	86118	1	86118	143.69*
Gender	8179	1	8179	13.65*
Interaction	15.25	1	15.25	.025
Residual	729405	1217	599.35	

* $p < .01$

Hypothesis 2: There is no statistically significant difference in students who have knowledge of others cheating on examinations, between U.S. and Central European business college students. Hypothesis 7: There is no statistically significant difference in students who have knowledge of others cheating on examinations, among U.S. and Central European male and female business college students.

To test the hypotheses of the student's knowledge of others cheating on examinations in class by region and gender, a two-way ANOVA was performed (See Table 14). Only the region main effect was significant (Region, $F=612$, $p<.0001$), thus rejecting only null hypothesis two. Gender was not significant and there was no interaction. The U.S. and Central European student means for knowledge of others cheating on examinations in class were 1.90 and 1.39, respectively.⁴ At the 95 percent level, the confidence intervals for the U.S. were 1.87 to 1.92 and for Central Europe 1.36 to 1.41.

Table 14

Analysis of Variance of Student's Knowledge of Others Cheating on Exams in Class by Region and Gender

Source	SS	DF	MS	F
Region	84.53	1	84.53	612.12 [*]
Gender	.008	1	.008	.062
Interaction	.172	1	.172	1.245
Residual	180.09	1304	1.25	

^{*} $p < .01$

Hypothesis 3: There is no statistically significant difference in student beliefs about what constitutes a cheating situation, between U.S. and Central European business college students. Hypothesis 8: There is no statistically significant difference in student beliefs about what constitutes a cheating situation, among U.S. and Central European male and female business college students.

To test the hypotheses that a cheating situation is considered giving or using a previous semester examination by region and gender, a two-way ANOVA was performed

⁴ On a three-point scale (1 = two yeses/1.5 = one yes/2 = no yeses).

(See Table 15). Only the region main effect was significant (Region, $F=244$, $p<.0001$), thus rejecting only null hypothesis three. Gender was not significant and there was no interaction. The U.S. and Central European student means for rating a cheating situation as giving or using a previous semester examination were 2.60 and 4.0, respectively.⁵ At the 95 percent level, the confidence intervals for the U.S. were 2.47 to 2.72 and for Central Europe were 3.87 to 4.12.

Table 15

Analysis of Variance of Cheating Situation Giving or Using Previous Semester Examinations by Region and Gender

Source	SS	DF	MS	F
Region	638.30	1	638.30	244.23*
Gender	.008	1	.008	.003
Interaction	.656	1	.656	.251
Residual	3400.26	1305	2.614	

* $p < .01$

Hypothesis 4: There is no statistically significant difference in student perceptions that cheating on an examination is wrong, between U.S. and Central European business college students. Hypothesis 9: There is no statistically significant difference in student perceptions that cheating on an examination is wrong, among U.S. and Central European male and female business college students.

To test the hypotheses that cheating on an examination is wrong by region and gender, a two-way ANOVA was performed (See Table 16). Only the region main effect was significant (Region, $F=386$, $p<.0001$), thus rejecting only null hypothesis four. Gender was not significant and there was no interaction. The U.S. and Central European

⁵ On a seven-point scale (1 = strongly disagree/7 = strongly agree).

student means for cheating on an examination is wrong were 5.61 and 3.83, respectively.⁶ At the 95 percent level, the confidence intervals for the U.S. were 5.49 to 5.74 and for Central Europe were 3.71 to 3.96.

Table 16

Analysis of Variance of Cheating on Examinations is Wrong by Region and Gender

Source	SS	DF	MS	F
Region	1036.79	1	1036.79	386.06 [*]
Gender	1.07	1	1.07	.378
Interaction	3.13	1	3.13	1.64
Residual	3512.71	1308	2.69	

^{*} $p < .01$

Hypothesis 5: There is no statistically significant difference in student attitudes about the instructor's impact in reducing cheating incidents, between U.S. and Central European business college students. Hypothesis 10: There is no statistically significant difference in student attitudes about the instructor's impact in reducing cheating incidents, among U.S. and Central European male and female business college students.

To test the hypotheses that the instructor's impact can reduce cheating incidents by region and gender, a two-way ANOVA was performed (See Table 17). Only the region main effect was significant (Region, $F=11.12$, $p<.0001$), thus rejecting only null hypothesis five. Gender was not significant and there was no interaction. The U.S. and Central European student means for instructor's impact were 3.96 and 4.2, respectively.⁷ At the 95 percent level, the confidence intervals for the U.S. were 3.86 to 4.06 and for Central Europe were 4.1 to 4.3.

⁶ On a seven-point scale (1 = strongly disagree/7 = strongly agree).

⁷ On a seven-point scale (1 = strongly disagree/7 = strongly agree).

Table 17

Analysis of Variance of Instructor's Impact by Region and Gender

Source	SS	DF	MS	F
Region	18.91	1	18.91	11.12 [*]
Gender	.03	1	.03	.019
Interaction	3.91	1	3.91	2.30
Residual	2187.82	1286	1.7	

^{*} $p < .01$

Supplemental Findings

In addition to testing the ten hypotheses on region and gender, 11 other individual cheating questions and three other independent variables (class standing, GPA, and age) were analyzed using Chi Square (Cramer's V), ANOVA (Omnibus F), and association (Pearson R) statistics.

Cheating Scenarios. Respondents were asked to read a short scenario representing several cheating incidences as reported by example in the U.S. literature. Three questions were presented each dealing with a degree of cheating (Questions 8, 9, and 10). Chi Square analysis was used to test the variables. All three questions on region were significant at a .0001 or less p value (See Figure 2). Gender was not significant.

Both regions felt it was not cheating when one student provided another student with previous course material to use in an upcoming class (U.S. = 91 percent; Central Europe = 83 percent). That is, the student providing the material was not academically dishonest. Fifty-eight percent of the Central European students felt that when students used another students' examination from a previous course to prepare for an upcoming examination they were cheating. Eighty-three percent of the U.S. students felt that it was

not a form of cheating. Both regions felt turning in another student's written work for class constituted cheating (U.S. = 76 percent; Central Europe = 65 percent).

Figure 2

Attitude Concerning Cheating: Mini Case Scenario

John Doe took Marketing 400 in the Fall Semester, 1995. His friend, Jane, took Marketing 400 in the Spring Semester, 1996. John gave Jane all his prior work from the course. Jane found John's answers to prior exams and uses these to prepare for tests in the course.

Question	<u>Region</u>		Sig.	<u>Gender</u>		Sig.
	Percent Yes US/CE	Cramer's V		Percent Yes Male/Female	Cramer's V	
Do you believe that John has cheated?	11%/17%	.079*	.004	14%/14%	.005	.866
Do you believe that Jane has cheated?	17%/58%	.417*	.0001	35%/40%	.051	.064

Jane also discovered that John had received good grades on some written assignments for the class. Many of these assignments required John to go to the library to look up articles about various topics. Jane decides to forgo the library work and uses John's articles for her papers in the class.

Question	<u>Region</u>		Sig.	<u>Gender</u>		Sig.
	Percent Yes US/CE	Cramer's V		Percent Yes Male/Female	Cramer's V	
Do you believe that Jane has cheated?	76%/65%	.120*	.0001	68%/72%	.038	.171

*Significant at the .01 level (2-tailed)

Cheating Perceptions on Examinations. Two additional questions on cheating perceptions were tested using 2 x 2 ANOVAs on the two independent variables region and gender (See Tables 18 and 19). The first question asked the business students if they felt most students cheated on examinations (Question 23). Only region was significant ($F=130, p<.0001$), indicating that U.S. students slightly disagreed that most students cheat on examinations ($M = 3.03$) and that Central Europeans slightly agreed, although not by much ($M = 4.12$).⁸

⁸ On a seven-point scale (1 = strongly disagree/7 = strongly agree).

The second question asked the business students if telling someone in a later class section about the examination they just finished taking was a form of cheating (Question 20r). Once again, only region was significant ($F=39.86, p<.0001$), indicating that U.S. students were neutral ($M = 4.00$) and that Central European students slightly disagreed ($M = 3.38$).⁹

Table 18

Supplemental 2 x 2 ANOVA Summary Table for Region and Gender

Source	Region		Gender		Interaction	
	F	Sig.	F	Sig.	F	Sig.
Most students cheat on exams (q23)	130	.0001	10.67	.059	.003	.958
Telling someone in a later section about the exam you just took is wrong (q20r)	39.86	.0001	.033	.856	3.72	.275

Table 19

Supplemental Mean and Standard Deviation Summary Table for Region and Gender

Source	Means & SD							
	Region				Gender			
	U.S. \bar{x}	SD	C.E. \bar{x}	SD	M \bar{x}	SD	F \bar{x}	SD
Most students cheat on exams (q23)	3.03*	1.53	4.12*	1.91	3.49	1.83	3.67	1.79
Telling someone in a later section about the exam you just took is wrong (q20r)	4.00*	1.69	3.38*	1.84	3.70	1.86	3.68	1.72

*Significant at the .01 level (2-tailed)

Cheating Incidents on Examinations. Finally, the students responded to six additional dichotomous (yes/no) questions which looked at various cheating situations (Questions 2, 4, 6, 11, 13, and 14). Chi Square analysis was used to test the variables.

⁹ On a seven-point scale (1 = strongly disagree/7 = strongly agree).

All six questions on region were significant at a .05 or less p value and three questions on gender were significant at a .01 or less p value (See Table 20).

Eighty-six percent of the Central European students and 80 percent of the U.S. students reported knowing someone who had cheated on an examination at school. Gender was not significant. Seventy-three percent of the Central European students reported actually seeing someone cheat at school. Only 64 percent of the U.S. students reported seeing someone cheat at school. Male students observe more students cheating than did the female students (Male = 72 percent; Female = 66 percent).

When asked if they ever cheated on a paper or examination during college, Central European students reported engaging in these two types of cheating more often than U.S. students (U.S. = 58 percent; Central Europe = 66 percent). Male students reported higher rates of cheating on papers and examinations than female students (Male = 68 percent; Female = 56 percent).

Three final incident questions dealt with using, giving, or receiving exams for the purpose of gaining or giving insight into an upcoming examination. Overall, U.S. students reported higher tendencies toward these types of cheating than Central European students. The largest significant difference observed dealt with using someone's examination answers from a previous exam. Eighty-three percent of the U.S. respondents have engaged in this type of cheating. Only 31 percent of the Central European students reported this type of cheating. Gender was not significant.

When asked if they had ever cheated by providing information about an examination just taken to another student, both regions reported incident rates above 60 percent (U.S. = 68 percent; Central Europe = 63 percent). Seventy-two percent of the

female students admitted to giving a student in a later section examination information.

Only 60 percent of the male respondents indicated they had engaged in this activity.

Table 20

Supplemental Summary Table for Six Additional Questions on Cheating Tendencies

Question	Region			Gender		
	Percent Yes US/CE	Cramer's V	Sig.	Percent Yes Male/Female	Cramer's V	Sig.
Have you known someone that has cheated on an exam at this university?	80%/86%	.074*	.007	85%/81%	.049	.074
Have you seen someone cheat on an exam at this university?	64%/73%	.097*	.0001	72%/66%	.070**	.011
Have you ever cheated (Exam/paper) during college?	58%/66%	.074*	.007	68%/56%	.119*	.0001
Have used someone's exam answers from a previous examination?	83%/31%	.528*	.0001	59%/55%	.021	.450
After an exam, have you given a student in a later section the answers?	68%/63%	.054**	.049	60%/70%	.102**	.0001
Have you ever received information for an upcoming exam from a student who has just taken exam?	72%/60%	.132*	.0001	64%/68%	.043	.116

*Significant at the .01 level (2-tailed)

**Significant at the .05 level (2-tailed)

Three Additional Independent Variables – Class Standing, Age, and GPA. Three

additional independent variables, class standing (freshmen, sophomore, etc.), age, and GPA were tested against four selected dependent variables: (a) estimated percentage of examination cheating, (b) cheating situation is giving or using previous semester examinations, (c) instructor's impact on reducing cheating incidents, and (d) cheating on an examination is wrong. ANOVA analysis on class standing revealed statistically significant differences. Correlation statistics on Age and GPA exhibited no association. Age and GPA did not correlate to any linear, quadratic, or cubic line and were precluded from the analysis section.

One way ANOVAs with Tukey's post hoc were used to test class standing on the four items (See Table 21). Three out of four items were statistically significant at the .01 or less level: (a) estimated percentage students cheating on examinations ($F=31.77$, $p<.0001$), (b) cheating situation is giving or using previous semester examinations ($F=30.60$, $p<.0001$), and (c) cheating on an examination is wrong ($F=54.89$, $p<.0001$). When reviewing the post hoc tests, freshmen and sophomores were significantly different than juniors and seniors, except for instructor's impact on reducing cheating, which was not statistically significant. That is, freshmen and sophomores responded similarly and juniors and seniors responded similarly.

Table 21

Supplemental Mean and Standard Deviation Summary Table for Class Standing

Source	Means & SD							
	Fr \bar{x}		So \bar{x}		Jr \bar{x}		Sr \bar{x}	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
Estimated percentage students cheating on exams	46.3*	28.6	46.0*	26.0	29.8*	23.3	26.3*	21.6
Cheating situation is giving or using previous semester examinations	4.0*	1.5	4.0*	1.7	2.8*	1.6	2.9*	1.7
Instructor's impact	4.2	1.4	4.0	1.4	4.1	1.2	3.9	1.2
Cheating on an exam is wrong	3.5*	1.8	3.9*	1.7	5.0*	1.6	5.4*	1.5

*Significant at the .01 level (2-tailed)

Fr = Freshmen

So = Sophomore

Jr = Junior

Sr = Senior

Summary

There were statistically significant differences between U.S. and Central European post-secondary business college students of what constitutes a cheating situation and how often they engaged in such cheating types. Five 2 x 2 ANOVAs were used for analysis on two independent variables each with two levels: regions (U.S. and Central Europe) and gender (male and female). None of the five 2 x 2 ANOVAs revealed any significant interaction effects between region and gender among the dependent variables, and only one variable had significant main effects on gender: Estimation of percentage cheating on examinations $F=13.647, p<.05$.

Five significant main effects, however, were found on region: (a) estimation of percentage cheating $F=143, p<.0001$; (b) knowledge of others cheating on exams in class $F=612, p<.0001$; (c) cheating situation is giving or using previous semester examinations $F=244, p<.0001$; (d) cheating on an examination is wrong $F=386, p<.0001$; and (e) instructor impact $F=11.2, p<.001$.

Eleven additional cheating questions and three additional independent variables (class standing, GPA, and age) were analyzed using Chi Square, ANOVA and association statistics. Business students were asked to read a short scenario representing several cheating incidences. Both U.S. and Central European business students felt that the student who provided a previous examination to another students was exonerated from blame. However, Central European students felt the beneficiary who receives the examination material was engaging in academic dishonesty. Sharing previous papers or written material with other students was looked upon as cheating by both regions.

U.S. students disagreed that most students cheat on examinations and Central Europeans slightly agreed. When asking if telling someone in a later class section about the examination they just finished taking was a form of cheating, U.S. students were neutral and Central European students slightly disagreed. Gender was not significant for either question.

Eighty-six percent of the Central European students and 80 percent of the U.S. students reported knowing someone who had cheated on an examination at school. Seventy-three percent of the Central European students reported actually seeing someone cheat at school. Sixty-four percent of the U.S. students reported seeing someone cheat. Male students observed more students cheating on an examination than did female students.

Sixty-six percent of the Central European students reported cheating on a paper or examination during college. U.S. students reported only 58 percent. Once again, male students reported higher rates of cheating on papers and examinations than did female students.

U.S. students admitted to using, giving, or receiving exams for the purpose of gaining insight into an upcoming examination more often than did Central European students. Eighty-three percent of the U.S. respondents admitted to using someone's examination answers from a previous exam. Only 31 percent of the Central European students reported this type of cheating. Both regions reported cheating incidents above 60 percent when asked if they had ever provided information about an examination just taken to another student.

Seventy percent of the female students admitted one time or another to giving a student in a later section examination information. Only 60 percent of the male respondents had engaged in this activity. Seventy-two percent of the U.S. students and 60 percent of the Central European students admitted that they had received information for an upcoming examination from another student who just finished the exam.

Analysis on three additional independent variables revealed statistically significant differences only on class standing (freshmen, sophomore, etc.). As business students advanced through the education system, they observed less cheating activity and felt cheating on an examination was wrong. However, they disagreed more often that cheating is defined as giving or using a previous semester examination for an upcoming exam. Age and GPA on attitudes, perceptions, and tendencies had no correlations, indicating no associations.

CHAPTER V
SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Introduction

A review of the U.S. literature identified many studies and monographs over the past century which examine reasons why cheating occurs and the relationship between individual behavior and cheating. While the U.S. journal literature on student cheating gives the impression that cheating is widespread and well accepted among students, international comparative research measuring cheating attitudes, perceptions, and tendencies between U.S. and Central European post-secondary business education appears to be non-existent.

The need for this research is evident by the increased expansion of U.S. colleges and universities globally. U.S. schools continue to send faculty abroad to develop education programs and to collaborate with foreign institutions around the world. Demand for U.S. education and business curricula has risen dramatically in Central and Eastern Europe since the fall of the Berlin Wall. U.S. educators teaching abroad and hosting foreign students locally need to better understand the nuances and attitudes of different student populations and their impact on classroom management. The purpose of this study was to compare U.S. and Central European business college students on cheating attitudes, perceptions, and tendencies. The following objectives were developed to accomplish these goals:

1. Determine if there is a difference in the percentage of students who cheat on examinations.
2. Determine if there is a difference in the knowledge of others who have cheated on examinations.
3. Determine if there is a difference in the beliefs about what constitutes a cheating situation.
4. Determine if there is a difference in the perceptions that cheating on examinations is wrong.
5. Determine if there is a difference in the attitudes about the instructor's responsibility on reducing cheating incidents.

Hypotheses of the Research

The following null hypotheses were formulated from the review of literature and the stated purpose of the study:

Hypothesis 1: There is no statistically significant difference in the mean percentages of student perceptions of overall cheating on examinations, between U.S. and Central European business college students.

Hypothesis 2: There is no statistically significant difference in students who have knowledge of others cheating on examinations in class, between U.S. and Central European business college students.

Hypothesis 3: There is no statistically significant difference in student beliefs about what constitutes a cheating situation, between U.S. and Central European business college students.

Hypothesis 4: There is no statistically significant difference in student perceptions that cheating on an examination is wrong, between U.S. and Central European business college students.

Hypothesis 5: There is no statistically significant difference in student attitudes about the instructor's impact in reducing cheating incidents, between U.S. and Central European business college students.

Hypothesis 6: There is no statistically significant difference in the mean percentages of student perceptions of overall cheating on examinations, among U.S. and Central European male and female business college students.

Hypothesis 7: There is no statistically significant difference in students who have knowledge of others cheating on examinations in class, among U.S. and Central European male and female business college students.

Hypothesis 8: There is no statistically significant difference in student beliefs about what constitutes a cheating situation, among U.S. and Central European male and female business college students.

Hypothesis 9: There is no statistically significant difference student perceptions that cheating on an examination is wrong, among U.S. and Central European male and female business college students.

Hypothesis 10: There is no statistically significant difference in student attitudes about the instructor's impact in reducing cheating incidents, among U.S. and Central European male and female business college students.

Procedures

The instrument used in the study to evaluate the attitudes, perceptions, and tendencies towards academic cheating was a 29-question self-reporting survey instrument. It consisted of several fill-in-the-blank questions, 16 dichotomous (yes/no) questions, and eight seven-point scale (1 = strongly disagree/7 = strongly agree) questions. The survey included basic demographic questions. The four data sets, one representing each campus, were combined into a SPSS worksheet to facilitate preliminary data analysis, tests of assumptions, and statistical analysis.

The population of the study consisted of undergraduate business students from four universities: Wyższa Szkoła Biznesu (N = 192) in Poland, City University Slovakia (N = 485) in Slovakia, Colorado State University (N = 445) in Colorado, and Bentley College (N = 215) in Massachusetts. There was a total of 1337 usable surveys.

The data analysis on the ten hypotheses used ANOVAs to look for statistically significant differences among the means at the .05 percent confidence level. The Omnibus *F* overcame minor kurtosis and unequal variances among the samples. The large sample sizes also helped to overcome unequal variance violations.

A separate preliminary study was used to operationally define the cheating concepts identified in the U.S. literature and between the U.S. and Central European samples. This study helped validate the survey instrument. The study using HyperResearch identified similarities of cheating definitions between U.S. and Central European business students. In short, the definition of cheating is the same in both regions and as reported by the plethora U.S. literature.

Findings

The purpose of this study was to compare U.S. and Central European business college students on cheating attitudes, perceptions, and tendencies. There were statistically significant differences on cheating attitudes, perceptions, and tendencies between U.S. and Central European business college students and limited differences among U.S. and Central European male and female business college students.

All five dissertation objectives were analyzed and addressed through the testing of the ten hypotheses. Six out of the ten hypotheses failed to accept the null. There were significant region and gender differences on the first objective: the estimated percentage of students cheating on examinations. There were no gender differences among the other four objectives. Thus, there were region differences in the knowledge of others who have cheated on examinations; in the beliefs about what constitutes a cheating situation; in the perceptions that cheating on an examination is wrong; and in the attitudes about the instructor's responsibility on reducing cheating incidents. A summary of the findings from the planned (ten hypotheses) and supplemental analyses of the data follows.

Planned Findings

1. A two-way ANOVA was used to test the hypotheses that the percentage of student perceptions of overall cheating on examinations is the same between U.S. and Central European business college students as well as among U.S. and Central European male and female business college students. Both main effects were significant (Region, $F=143, p<.0001$; Gender, $F=13.65, p<.0001$), thus rejecting both null hypotheses. There was no interaction. The U.S. and Central European business students'

estimated percentage of cheating on examinations were 26.55 percent and 43.35 percent, respectively. Overall, male students estimated 32.36 percent cheating on examinations and female students 37.54 percent. There were no differences within the U.S. and Central European samples on gender.

2. A two-way ANOVA was used to test the hypotheses of a student's knowledge of others cheating on examinations in class by region and gender. Only the region main effect was significant (Region, $F=612$, $p<.0001$), thus only rejecting the region null hypothesis. Gender was not significant and there was no interaction. The U.S. and Central European student means for knowledge of others cheating on examinations in class were 1.90 and 1.39, respectively.¹⁰
3. A two-way ANOVA was used to test the hypotheses that a cheating situation is considered giving or using a previous semester examination by region and gender. Only the region main effect was significant (Region, $F=244$, $p<.0001$), thus only rejecting the null hypothesis for region. Gender was not significant and there was no interaction. The U.S. and Central European student means for rating a cheating situation as giving or using a previous semester examination were 2.60 and 4.0, respectively.¹¹
4. A two-way ANOVA was used to test the hypotheses that cheating on an examination is wrong by region and gender. Only the region main effect was significant (Region, $F=386$, $p<.0001$), thus only rejecting the null

¹⁰ On a three-point scale (1 = two yeses/1.5 = one yes/2 = no yeses).

¹¹ On a seven-point scale (1 = strongly disagree/7 = strongly agree).

hypothesis for region. Gender was not significant and there was no interaction. The U.S. and Central European student means for cheating on an examination is wrong were 5.61 and 3.83, respectively.¹²

5. A two-way ANOVA was used to test the hypotheses that the instructor's impact can reduce cheating incidents by region and gender. Only the region main effect was significant (Region, $F=11.12$, $p<.0001$), thus only rejecting the null hypothesis for region. Gender was not significant and there was no interaction. The U.S. and Central European student means for instructor's impact were 3.96 and 4.2, respectively.¹³

Supplemental Findings

6. Chi Square analysis was used to test three questions dealing with three cheating scenarios. All three questions on region were significant at a .0001 or less p value. Gender was not significant. The U.S. and Central European students felt it was not cheating when one student provided another student with previous course material to use in an upcoming class (U.S. = 91 percent; Central Europe = 83 percent). That is, the student providing the material was not academically dishonest. However, 58 percent of the Central European students felt that when students used another student's examination from a previous course to prepare for an upcoming examination they were cheating. Eighty-three percent of the U.S. students felt that it was not a form of cheating. Both regions felt

¹² On a seven-point scale (1 = strongly disagree/7 = strongly agree).

¹³ On a seven-point scale (1 = strongly disagree/7 = strongly agree).

turning in another student's written work as one's own for class constituted cheating (U.S. = 76 percent; Central Europe = 65 percent).

7. To evaluate cheating incidents, two additional 2 x 2 ANOVAs were used for analysis on the two independent variables region and gender. The first question asked business students if they felt, in general, that most students cheat on examinations. Only region was significant ($F=130, p<.0001$), indicating that U.S. students somewhat disagreed that most students cheat on examinations ($M = 3.03$) and that Central Europeans slightly agreed, although not by much ($M = 4.12$). The second question asked business students if telling someone in a later class section about the examination they just finished taking was a form of cheating. Once again, only region was significant ($F=39.86, p<.0001$), indicating that U.S. students were neutral ($M = 4.00$) with Central European students slightly in disagreement ($M = 3.38$).
8. Chi Square analysis was used to test six questions dealing with cheating prevalence. All six questions on region were significant at a .05 or less p value and three questions on gender were significant at a .01 or less p value. There is a significant difference in opinion between U.S. and Central European business college students on what constitutes cheating. Although 86 percent of Central European students reported knowing someone who had cheated on an examination at school, 80 percent of the U.S. students also reported knowing someone who had cheated. Gender was not significant.

Seventy-three percent of the Central European students reported actually seeing someone cheat at school with 64 percent of the U.S. students seeing someone cheat. Male students observed more students cheating than did female students (Male = 72 percent; Female = 66 percent).

When asked if they had ever cheated on a paper or examination during college, Central European students engaged in these types of cheating more than U.S. students (U.S. = 58 percent; Central Europe = 66 percent). Male students reported higher rates of cheating on papers and examinations than did female students (Male = 68 percent; Female = 56 percent).

More U.S. students used, gave, or received exams for the purpose of gaining or receiving insight into an upcoming examination than did Central European students. Eighty-three percent of the U.S. respondents used someone's examination answers from a previous exam. Only 31 percent of the Central European students reported this type of cheating. Gender was not significant. Both regions reported incidents above 60 percent when asked if they had ever provided information about an examination just taken to another student (U.S. = 68 percent; Central Europe = 63 percent). Seventy percent of the female students admitted one time or another to giving a student in a later section exam information. Only 60 percent of the male respondents engaged in this activity.

When asking business students from both regions if they had ever received information for an upcoming examination from another student who just finished the exam, 72 percent of the U.S. students and 60 percent of the Central European students agreed. Gender was not significant.

9. A one-way ANOVA with Tukey's post hoc was used for analysis on class standing (freshmen, sophomore, etc.) against four dependent variables: (a) estimated percentage of examination cheating, (b) cheating situation is giving or using previous semester examinations, (c) instructor's impact on reducing cheating incidents, and (d) cheating on an examination is wrong. Class standing revealed statistically significant differences on three of the four dependent variables at the .01 or less level: (a) estimated percentage students cheating on examinations ($F=31.77$, $p<.0001$), (b) cheating situation is giving or using previous semester examinations ($F=30.60$, $p<.0001$), and (c) cheating on an examination is wrong ($F=54.89$, $p<.0001$). The post hoc tests revealed that freshmen and sophomores were significantly different than juniors and seniors, except for instructor's impact on reducing cheating, which was not statistically significant. Freshmen and sophomores responded similarly and juniors and seniors responded similarly.
10. Correlation statistics on the independent variables Age and GPA exhibited virtually no association against four selected dependent variables: (a) estimated percentage of examination cheating, (b) cheating situation is giving or using previous semester examinations, (c) instructor's impact on

reducing cheating incidents, and (d) cheating on an examination is wrong.

Age and GPA did not correlate to any linear, quadratic, or cubic line.

Conclusions

This study confirms that cheating is a global event showing that some students of different countries view cheating differently. The U.S. literature is quite diverse when addressing differences among U.S. groups. This study is the first, however, to compare U.S. post-secondary business college students with Central European post-secondary business college students. Overall, this study found statistically significant differences between U.S. and Central European business college students and limited differences among male and female business college students. The following conclusions were based on the results of this study:

1. Female business college students perceived higher levels of cheating on examinations than did male business college students. More male business college students than female students have cheated on papers and examinations.
2. Central European business college students engaged in higher levels of examination cheating than their counterparts in the U.S.
3. U.S. business college students felt cheating on examinations is wrong.
4. Central European business college students felt that when students used another student's examination from a previous course to prepare for an upcoming examination they were cheating. U.S. business college students felt that it was not a form of cheating.

5. **Central European and U.S. business college students were indecisive about the instructor's ability to reduce cheating.**
6. **Central European and U.S. business college students felt it was not cheating when one student provided another student with previous course material to use in an upcoming class.**
7. **Central European and U.S. business college students felt turning in another student's written work for class constituted cheating.**
8. **Central European and U.S. business college students have known someone who had cheated on an examination at school.**
9. **Central European business college students have actually seen a student peer cheat more often than U.S. students.**
10. **Central European business college students have admitted to cheating on a paper or examination more often than U.S. students.**
11. **U.S. business college students have used someone's examination answers from a previous exam to prepare for an upcoming examination more often than Central European students.**
12. **Central European and U.S. business college students have provided examination information to other students after taking a test.**
13. **U.S. business college students have received information for an upcoming examination from another student who had just finished the exam more often than Central European students.**

Implications of the Study

It appears that U.S. and Central European post-secondary business college students reported cheating perceptions, attitudes, and tendencies that were both similar and different. These results may provide insight into cross-national cheating for U.S. faculty teaching abroad or hosting foreign students domestically. The following implications were noted.

- 1. Examination cheating and plagiarism are prevalent in both the U.S. and Central Europe. Although U.S. faculty have dealt with the challenges of academic dishonesty locally, they need to be able to assess and address cheating in Central Europe. U.S. faculty teaching in Central Europe may need to offer alternative testing tools such as oral presentations, open-book examinations, or multiple test versions.**
- 2. Male and female business college students are involved in cheating, albeit different degrees of academic dishonesty. U.S. faculty teaching in the U.S. or Central Europe should be prepared to address cheating problems with both genders.**
- 3. Institutions from both regions need to better define cheating and uphold academic integrity. It is more than a faculty/student challenge. U.S. faculty teaching abroad need the resources to combat cheating. They need better tools to help decipher where and how student papers were written. The Internet and recycled papers both have added to the problem of plagiarism.**

4. Both students and faculty agree that cheating is using crib notes during an examination, copying from another student's examination, and padding bibliographies. Central European and U.S. business college students admitted to cheating on a paper or examination during college. The attitudes and perceptions of teachers and students are demarcated when looking at actual cheating incidents. Students from the U.S. and Central Europe may understand cheating but their behavior implies something else. Central European and U.S. educators need to identify ways to reduce cheating incidents through honor codes and increased detection.

Recommendations

The findings overall indicate that cheating is prevalent in Central Europe. Both regions, however, engaged in various forms of examination cheating and plagiarism. Educators, administrators, students, parents, and businesses can benefit from the information gained from this research. Indeed, cheating has a profound effect on society. Bok (1980) captures the essence of the problem associated with academic dishonesty:

Deceptive practices are immutable. In an imperfect world, they cannot be wiped out altogether; but surely they can be reduced and counteracted. ...Trust and integrity are precious resources, easily squandered, hard to regain. They can thrive only on a foundation of respect for veracity.

S. Bok 1980

Close examination of the U.S. and international literature and the dissertation findings indicate that no simple measure or issue is, by itself, an answer to academic dishonesty. Rather, it is the coordination and collaboration of strategies and faculty that is necessary. Based on the findings and conclusions of this study, the following recommendations are made:

1. U.S. and Central Europe faculty should endeavor to make clear to students that cheating violations will be met with consequences. Evidence has been presented which argues that even when faculty and students agree on a cheating situation, there were still high reported incidences. In short, it appears for most U.S. and Central European students the risk of cheating is seen as low. Making sure students understand potential retribution is one way to lower cheating incidents.
2. U.S. and Central Europe faculty should collaborate on defining academic dishonesty. The literature and findings suggest that there were different degrees or levels of cheating behavior. What seems to be necessary is some sort of schedule of academic misconduct and their related sanctions that is understood by both students and faculty. For example, the penalty for plagiarism on a short paper might be one degree of punishment, and the penalty for copying from a student peer during an examination another degree of punishment.
3. U.S. and Central Europe faculty should collaborate on a universal academic honor code. This could be a declaration for which other schools and countries could adopt. As educators enter the 21st century, global education will no doubt continue to expand. Demand for U.S. education abroad and global education via technology will continue to bring faculty, schools, and students of the world closer together. Teachers will be required to think – and teach – outside their classroom and campuses.

4. U.S. faculty should develop better test preparation strategies which are flexible enough to expand to other countries. Using multiple versions of an examination, oral examinations, or open book examinations may help reduce cheating in the classroom. Other strategies to reduce examination cheating include essay questions and case analysis.
5. U.S. and Central European faculty should identify better ways to influence cheating behavior. The U.S. literature refers to this as faculty “power.” Faculty may have the ability to reduce cheating based on how they approach the class. As stated in the literature, students who do not perceive the risk of cheating to be high were often then implicitly encouraged by their teachers to violate academic integrity. Therefore, teachers must increase the perceived risk of detection during examinations.

Recommendations for Further Research

While much of the research in the domain of academic integrity has looked at U.S. students and their position toward cheating, more work needs to be done to explore the international dimensions associated with this problem. It appears that international differences do exist in terms of attitudes about cheating, perceptions of what cheating really constitutes, and how often students cheat. As more U.S. educators teach abroad, research of this nature becomes vital to effective classroom management. Based on the findings and conclusions of this study, the following recommendations for further research are made:

1. **This study should be replicated in other countries. Comparative research looking at countries from around the world would provide deeper insight to the similarities and differences of academic misconduct. This research should include gender differences within and among countries.**
2. **Longitudinal research is needed on cross-national and international cheating to evaluate, monitor, and forecast trends. Ongoing research by faculty and/or international associations would be invaluable to global educators and institutions.**
3. **Future research should compare Russian college students with Central European college students. Russia had strong influence over Central and Eastern European school systems during Communism. Post-socialist comparisons on cheating would provide knowledge about the changes occurring among these countries.**
4. **Future cross-national research should look at faculty perceptions from different countries and schools. Additionally, cross-national research comparing faculty and student perceptions would be invaluable to all educators.**
5. **Future research should look more in-depth at the international literature addressing national and cross-national cheating. This requires money and resources needed to locate and translate the various literature and studies.**
6. **Future research should study faculty impact on reducing cheating behavior. Do students from around the world behave similar when faculty**

address cheating and present honor codes? Additionally, how can the educational institutions support faculty in this endeavor?

- 7. Future research should look at ways to develop consistent and ongoing discussions between college students and faculty about cheating and academic dishonesty. This may help clarify what constitutes cheating and may help reduce cheating overall. Staff should be included as well as parents, if possible, to increase visibility and solicit feedback.**

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APPENDIX A
SURVEY INSTRUMENT

Dear Student,

I am currently involved in a research project addressing cross-national (by country) academic dishonesty issues related to cheating. The project examines the perceptions, beliefs, and tendencies of university cheating inside and outside the classroom. The study is performed in partial fulfillment of the requirements for my Ph.D. degree in Education and Human Resource Studies at Colorado State University.

Your participation in the survey study will provide useful cross-national comparative information on university cheating. The data will compare cheating differences and similarities between the U.S and Central Europe. Overall, the results will help faculty and students from around the world better understand differences and similarities in classroom management.

You qualify for participation if you are between the ages of 18 and 65. You will be asked to complete the attached 29-question survey comprised of yes/no, fill-in-the-blank, and seven-point scale questions. The approximate time to complete the survey is 10 minutes.

Participation in this study is strictly voluntary. You may choose not to complete the survey without any penalty. Participation is not associated with your class grade. All data from this project are confidential and will be used for research purposes only. Data from the questionnaires are anonymous. Names will not be asked for nor connected to information or scores.

Although there are no foreseeable risks to the participant, the 29-question survey contains general questions regarding cheating tendencies in college. If you feel questions of this type would upset you, please feel free to decline participation at any point in this survey.

Thank you in advance for your assistance.



Robert A. Lupton
(970) 963-5834

The survey you are about to complete addresses your attitudes, opinions, and beliefs regarding cheating behavior. Thank you for your participation.

1) Please estimate the percentage of students you believe cheat on exams. _____

2) Have you known someone that has cheated on an exam at this university?

Yes ____ (1)

No ____ (2)

3) Have you known someone that has cheated on an exam in this class?

Yes ____ (1)

No ____ (2)

4) Have you ever seen someone cheat on an exam at this university?

Yes ____ (1)

No ____ (2)

5) Have you ever seen someone cheat on an exam in this class?

Yes ____ (1)

No ____ (2)

6) Have you ever cheated (on an exam or written assignment) during the course of your college education?

Yes ____ (1)

No ____ (2)

7) Did you cheat (on an exam or written assignment) in this course?

Yes ____ (1)

No ____ (2)

John Doe took Marketing 400 in the Fall Semester, 1995. His friend, Jane, took Marketing 400 in the Spring Semester, 1996. John gave Jane all his prior work from the course. Jane found John's answers to prior exams and uses these to prepare for tests in the course.

8) Do you believe that John has cheated?

Yes ____ (1)

No ____ (2)

9) Do you believe that Jane has cheated?

Yes ____ (1)

No ____ (2)

Jane also discovered that John had received good grades on some written assignments for the class. Many of these assignments required John to go to the library to look up articles about various topics. Jane decides to forego the library work and uses John's articles for her papers in the class.

10) Do you believe that Jane has cheated?

Yes ____ (1)

No ____ (2)

11) Have you ever used someone's answers to an exam from a previous semester as a study guide for a current exam?

Yes ____ (1)

No ____ (2)

12) For this class, have you used someone's answers to an exam from a prior semester as a study guide for an exam in the course?

Yes ____ (1)

No ____ (2)

13) After taking an exam, have you ever given a student in a later section information about the exam?

Yes ____ (1)

No ____ (2)

14) Have you ever received information about an upcoming exam from a student in an earlier section that has just completed the exam?

Yes ____ (1)

No ____ (2)

15) For this class, have you ever given a student in a later section information about an exam?

Yes ____ (1)

No ____ (2)

Not applicable (In later section.) ____ (3)

16) For this class, have you ever received information about an exam from a student in an earlier section?

Yes ____ (1)

No ____ (2)

Not applicable (In earlier section.) ____ (3)

17) For this class, have you ever used a fellow student's work for any projects or homework?

Yes ____ (1)

No ____ (2)

18) Having the instructor discuss the problems, ethicality, and penalties related to cheating reduces the amount of cheating that will occur in a class.

Strongly Disagree 1---2---3---4---5---6---7 Strongly Agree

19) Cheating on one exam in a course is not really that bad.

Strongly Disagree 1---2---3---4---5---6---7 Strongly Agree

20) Telling someone in a latter section about the exam you just took is OK.

Strongly Disagree 1---2---3---4---5---6---7 Strongly Agree

21) Giving someone your exams from a prior semester is cheating.

Strongly Disagree 1---2---3---4---5---6---7 Strongly Agree

22) Using an exam from a prior semester is not cheating.

Strongly Disagree 1---2---3---4---5---6---7 Strongly Agree

23) I believe that most students cheat on exams.

Strongly Disagree 1---2---3---4---5---6---7 Strongly Agree

24) I believe that most students cheat on assignments that are completed out-of-class (e.g., homework, reports, papers.).

Strongly Disagree 1---2---3---4---5---6---7 Strongly Agree

25) It is the responsibility of the instructor in the class to make sure students do not cheat.

Strongly Disagree 1---2---3---4---5---6---7 Strongly Agree

26) What is your current GPA? _____

27) What is your class standing? Freshman ____ (1) Sophomore ____ (2)
 Junior ____ (3) Senior ____ (4)
 Graduate Student ____ (5)
 Continuing Education Student ____ (6)

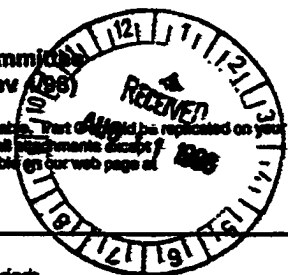
28) What is your gender? Male ____ (1)
 Female ____ (2)

29) What is your age? _____

Thank You.

APPENDIX B
HUMAN RESEARCH COMMITTEE APPROVAL

**Colorado State University Human Research Committee
Application to Use Human Subjects (H-100, Rev 1998)**



Complete Part A and Part B. On separate pages, list all questions from Part C and respond to each as applicable. Part C should be completed on your computer. For full review protocols, return the ORIGINAL (with original signatures) and 11 copies (each with all attachments except proposal/dissertation/thesis) to Regulatory Compliance, 410 University Services Center. Assistance is available on our web page at <http://www.research.colostate.edu/hrc/>.

Action of the CSU Human Research Committee

<input type="checkbox"/>	Approved as EXEMPT research	Approval number: _____	Period: _____
<input checked="" type="checkbox"/>	Approved as NON-EXEMPT research	Approval number: <u>98-18411</u>	Period: <u>7/23/98-9/23/99</u>
<input type="checkbox"/>	Conditions: use of approved consent form		
<input checked="" type="checkbox"/>	Other (see attachment for details)		
<input type="checkbox"/>	Cannot be approved as currently submitted (see attached memo for details)		
<input type="checkbox"/>	Tabled (see attached memo for details)		
HRC Authorization: <u><i>Alie Dinkel</i></u>		Date: <u>9/23/98</u>	

Part A. COVER SHEET

New Protocol Resubmission

- Project Title: **Measuring Business Students' Perceptions and Tendencies about Cheating in Central Europe and the USA**
- Principal Investigator (PI): Dr. Duane Jansen, Professor
- Telephone: (970) 491-6534
- Department: School of Education
- E-mail: jansen@cahs.colostate.edu
- Co-Principal Investigator: Robert A. Lupton, Doctoral Candidate
- Telephone: (970) 963-5834
- Department: School of Education
- E-mail: lupton@soprie.net
- If Co-PI is a student, is this project for a: Thesis Dissertation Neither
(Dissertation proposal attached)
- Date project activity to begin: September 1, 1998
- Will this project be supported by external funds? Yes (answer 13-15) No (go to signatures)
- Funding Agency (attach proposal or methodology section):
- Grant/contract number:
- Proposal deadline:

As the PI submitting this proposed research and signing below, I agree to conduct the research involving human subjects as presented in the protocol or modifications to it and as approved by the Department and the Human Research Committee; to obtain and document informed consent and provide a copy of the consent form to each subject unless this is waived by the HRC; to present any proposed modifications in the research to the HRC for review and approval prior to implementation; to retain records for the mandated lengths of time; and to report to the HRC any problems or injuries to subjects.

PI Signature: *Duane Jansen* Date: 8/10/98

Department Chair/Head or Acting (circle which) Signature
My signature below certifies that I have read this protocol and approve of this research.

Signature: *Phil Smith* Date: 8/11/98

RETAIN THIS PAGE WITH YOUR APPROVAL NOTIFICATION



Office of Regulatory Compliance
Office of Vice President for Research
and Information Technology
Fort Collins, CO 80523-2046
(970) 491-1563
FAX: 491-2293

IMPORTANT REQUIREMENTS REGARDING YOUR HUMAN SUBJECTS APPROVAL

- This project is approved with no conditions.
- This project is approved with the condition that the attached consent form is signed by the subjects and each subject is given a copy of the form. It is the investigator's responsibility to obtain this consent form from all subjects. No changes may be made to this document without first obtaining the approval of the Committee.
- This project is approved with the condition that all subjects must receive a copy of the approved cover letter printed on departmental letterhead. Because of the nature of this research, it will not be necessary to obtain a signed consent form.
- This project is approved with the following additional condition(s): Letters of cooperation are provided from Bentley College and CSU School of Business

This project is approved for the following number of subjects: 816

It is the responsibility of the investigators to

- immediately inform the HRC of any serious complications, unexpected risks or injuries resulting from this research;
- notify the HRC of any changes in experimental design, participant population, or consent procedures. This can be done with a memo which completely describes the changes and their consequences (new consent form, or altered survey instrument, for example).

A status report of this project will be required within a 12-month period from the date of approval. The necessary form (H-101) will be mailed to the Principal Investigator prior to that date. The Principal Investigator will report on the numbers of subjects who have participated this year and project-to-date, about problems encountered, and provide a verifying copy of the consent form or cover letter used.

Students serving as Co-Principal Investigators may not alter projects without first obtaining PI approval. The PI is ultimately responsible for the conduct of the project.

Any questions about the Committee's action on this project should be directed to

Celia S. Walker
Administrator, Human Research Committee
Regulatory Compliance Office
410 USC Campus 2046

Telephone: 970-491-1563
e-mail: cwalker@research.colostate.edu

Information on human subjects research is available on the web at www.research.colostate.edu/regulatory/

APPENDIX C
LETTERS OF PERMISSION TO SURVEY
COLORADO STATE UNIVERSITY AND BENTLEY COLLEGE



Department of Marketing
College of Business
Fort Collins, Colorado 80523-1278
(970) 491-3000
FAX: (970) 491-7466
www.ma.colostate.edu

November 2, 1998

Mr. Robert A. Lupton
Doctoral Candidate
937 Wheel Circle
Carbondale, CO 81623

Dear Mr. Lupton:

I am in receipt of your request for the College of Business, Colorado State University to support your research project entitled "Measuring Business Students' Perceptions and Tendencies about Examination Cheating in Central Europe and the USA." I understand that this study, which is being monitored by Dr. Duane Jansen who is your research advisor, involves the collection of data by surveys administered to classroom samples of sophomore, junior and senior business/marketing students.

The college is supportive of this project and has agreed to assist you with it in the fall of 1998. I am comfortable that it will be accomplished with no detriment to the students or their business/marketing program. Further, I understand that you will protect the confidentiality of the students' scores as required by Colorado State University, state, and federal regulations and laws.

Therefore, I am pleased to grant you permission to conduct this research project asking that you share the results of the study, as appropriate, with our faculty in support of their increased knowledge of cheating in the classroom.

Best wishes with you study.

Sincerely,

Tom Ingram
Chair

Cc: Dr. Duane Jansen, SOE
Dr. Tim Davies, SOE



BENTLEY

175 Forest Street
Waltham, Massachusetts
02154-4703

Department of Marketing

TEL: 781.891.3184
FAX: 781.891.3410
www.bentley.edu

8/26/98

To Whom it May Concern:

This letter grants permission to collect survey data from Bentley College students regarding their attitudes, beliefs and perceptions regarding cheating behaviors. It is understood that the students will be asked to complete a questionnaire and that no individual identifying information will be collected. The survey data will be aggregated, therefore maintaining the anonymity of individual respondents. Furthermore, it is understood that the students will be informed the study is voluntary and that refusal to participate will not involve any penalty.

Sincerely,

Kenneth J. Chapman
Asst. Professor of Marketing
(781) 891-3151
kchapman@bentley.edu

APPENDIX D
PRELIMINARY SURVEY INSTRUMENT



Education and Human Resource Studies
School of Education
Fort Collins, Colorado 80523

Dear Student,

I am currently involved in a research project addressing cross-national (by country) academic dishonesty issues related to cheating. The project examines the definition of university cheating inside and outside the classroom. The study is performed a partial fulfillment of the requirements for my Ph.D. degree in Education and Human Resource Studies at Colorado State University.

Your participation in the survey study will provide useful cross-national comparative information on the definition of cheating. The data will compare cheating definition differences and similarities between the U.S and Central Europe. Overall, the results will help faculty and students from around the world better understand differences and similarities in classroom management.

You qualify for participation if you are between the ages of 18 and 65. You will be asked to complete the attached 11-open-ended question survey. The approximate time to complete the survey is 10 minutes. It is recommended that you respond via a personal computer. Please return an electronic version or hard copy to the researcher or person administering this survey.

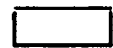
Participation in this study is strictly voluntary. You may choose not to complete the survey without any penalty. Participation is not associated with any class grade. All data from this project are confidential and will be used for research purposes only. Data from the questionnaires are anonymous. Names will not be asked for nor connected to information or scores.

Although there are no foreseeable risks to the participant, the 11-question survey contains general questions regarding cheating definitions in college. If you feel questions of this type would upset you, please feel free to decline participation at any point in this survey.

Thank you in advance for your assistance.

A handwritten signature in black ink that reads "Robert A. Lupton".

Robert A. Lupton
(970) 963-5834



The survey/interview you are about to complete/partake addresses your perceptions and definitions regarding cheating. I am extremely interested in feedback on how you define cheating. This research is very important to me.

Please be assured that all your answers are completely anonymous and confidential. Please answer all the questions honestly and to the best of your ability. Feel free to skip a question. Remember that your answers are anonymous, and there is no intention of using this information for any other reason than trying to get a better understanding of cheating definitions. The data will be analyzed as a group and not individually. There will, in no fashion, be any attempt to identify individuals. This data will not be reviewed and analyzed at this university so that your responses can in no way be used against you. Thank you for your participation.

1. In your own words, please describe the concept of cheating.
2. How would you define cheating?
3. What constitutes a cheating situation? When does one cheat?
4. What do you feel is cheating? Please list as many examples as possible.
5. What do you feel is not cheating? Please list as many examples as possible.
6. In your own words, please describe academic dishonesty.
7. Is academic dishonesty different than cheating? Why or why not?
8. In your own words, please describe academic misconduct.
9. Is academic misconduct different than cheating? Why or why not?
10. In your own words, please describe academic integrity.
11. Is academic integrity different than cheating? Why or why not?

APPENDIX E
PRELIMINARY SURVEY
RAW DATA

REPORT HEADER _____

This report is on the following cases:

Untitled

_____ (End list of cases)

The cases reported upon are based on the following criteria:

{ }

_____ (End selection criteria)

This Report is on the following codes:

Academic Dishonesty
Academic Dishonesty Different
Academic Integrity
Academic Integrity Different
Academic Misconduct
Academic Misconduct Different
Cheating Concept
Cheating Defined
Cheating Exam Infor Others
Cheating is Looking other Notes
Cheating is recycling papers
Cheating is unfair behavior
Cheating is Using Notes
Cheating Situation
Cheating Submitting others Work
Not Cheating Aids with Homework
Not Cheating Group Work
Not Cheating Open Book or Notes
Not Cheating Studying Advance
Not Cheating Tell Exam Content
Not Cheating Works References

_____ (End list of codes)

_____ END OF HEADER _____

**Slovakia Results (Central Europe)
Raw Data from 12 Surveys. Collected in Spring 1998.**

- 1. In your own words, please describe the concept of cheating.**
 - I understand cheating as presenting a work that was not from my own knowledge, but rather rewriting someone else's solutions to a problem.
 - Using notes during exams. Recycling already graded research papers. Rewriting books.
 - Cheating is rewriting someone else's ideas, work or knowledge during an exam, and presenting it as his/her own.
 - Pretending that someone else's ideas, work, ... is my own.
 - Sharing of info during exams and coping someone else's work into own products.
 - Cheating means copying other's work or getting help from them. It's unfair because cheaters don't have to work as much as others while getting the same benefits.
 - Looking in somebody else's paper and take the thoughts and information out of there. It is a kind of stealing.
 - Taking advantage of someone else's work without stating it in the paper, or copying someone else's answer on the test which would bring an unfair advantage.
 - Taking somebody's ideas, or advising somebody during examination.
 - Cheating is taking someone else's work and sign it as my own, looking for answer to classmate's exam, etc.
 - Unfair practice students are using in order to hide their laziness.
 - Cheating is practices to make work on preparing for exam easier - by avoiding preparing and using ways to finish exam successfully.

- 2. How would you define cheating?**
 - See above.
 - Taking advantage over other students by knowing what they don't know (using cheat sheets.)
 - Cheating is using improper sources of information, that can give you advantage in comparison to the others.
 - Using someone else's ideas and knowledge when not allowed.
 - Submitting someone else's work for own and use this unfair advantage to get a good grade.
 - Unfair copying of other's work.
 - It is stealing the information.
 - The same like #1.
 - Taking advantage over other students.
 - Same as above.
 - Using notes during exam.
 - Doing all things that are against university policy.

- 3. What constitutes a cheating situation? When does one cheat?**
 - When too much and too difficult information is required at a time.
 - No continual preparation for a class.
 - When the student is under pressure because of lack of study time or laziness to study.
 - When one has no sufficient info & knowledge, and is under pressure to finish/achieve something important.
 - Anytime a student uses unfair advantage of using notes during exams and/or call someone else's work by his/her own name.
 - One cheats when he sees an opportunity: to reduce necessary work, improve grade, and keep risk down.
 - One cheats when he/she steals information.
 - Submitting someone else's paper as own copying some passages of a book without stating it using notes on test when it's not allowed.
 - During examinations, tests, while writing research paper.
 - Same as in #1.

- Anytime he or she is exposed to high pressure. Person is usually forced to cheat in courses that are not relevant.
 - A person cheats when is forced to show his/her knowledge, wants to show that he/she has knowledge and uses tools as information sources that are prohibited.
- 4. What do you feel is cheating? Please list as many examples as possible.**
- Using notes, looking for answers in neighbor's paper, using work of others to hand in as my own.
 - Using notes during exams, rewriting books when making a research paper.
 - Looking into neighbor's test or exam, plagiarism, using else's ideas, stealing written works.
 - Quoting without mentioning the source, plagiarism, rewriting someone else's work word by word.
 - Using cheat sheets, plagiarism.
 - Copying someone else's papers, exams, Asking about exam questions before the test, Have more info than others do.
 - No answer.
 - The same like #3.
 - Unfair behavior towards others.
 - Recycling research papers, and same as in #1.
 - Using notes during exams, recycling research papers.
 - Using information sources prohibited during exam
 - Doing nothing during team project and gaining score for it, using work of other fellow students to take information without permission of the students.
- 5. What do you feel is not cheating? Please list as many examples as possible.**
- Putting on paper just what's in my head, using notes and books when allowed
 - Helping with a homework assignment.
 - Telling the content of an exam to other classes, doing work in study groups, when the work is supposed to be done alone.
 - Look up an idea and write own opinion, prepare notes and use them during exam, coordinated teamwork where everyone participates.
 - Using already published works through citations or other academic tools.
 - Helping others.
 - When you count on yourself.
 - Studying together for a test, sharing information of sources.
 - Studying together with classmates, working together on research paper.
 - Helping each other.
 - Using computers for math and statistics homework.
 - Team projects, research papers of one person from previous terms.
- 6. In your own words, please describe academic dishonesty.**
- I don't know.
 - Take an exam before and tell the answers or concept included to classmates.
 - Using ideas without the author's permission.
 - Using "illegal" behavior, methods, ... to achieve a preset goal..
 - Cheating and plagiarism.
 - Cheating, plagiarism, unfair behavior.
 - It is when you don't follow the rules and principles that are supposed to be followed.
 - The same like cheating.
 - Plagiarism, cheating.
 - Plagiarism, cheating.
 - Don't know.
 - Academic dishonesty is doing anything that is against a whole university rules or policy. Cheating is a part of academic dishonesty.

- 7. Is academic dishonesty different than cheating? Why or why not?**
- I don't know.
 - No, because both damage reputation of a school.
 - Academic dishonesty is the complex of all kinds of cheating.
 - Cheating is a part of academic dishonesty.
 - No, because I feel it's the same thing.
 - No, who is cheating, breaks university rules.
 - No, because in both cases you break some rules and laws.
 - No.
 - I don't think it's different. Cheating is one part of academic dishonesty.
 - Yes, cheating belongs under it.
 - Don't know.
 - Academic dishonesty includes cheating. Cheating is doing things against class policies or exam policies - it is only a part of academic dishonesty.
- 8. In your own words, please describe academic misconduct.**
- Impolite behavior.
 - Leaving and impolite messages on toilettes, in the hall, ...
 - It means to behave without respect to other classmates and colleagues.
 - Not adequate behavior.
 - Behavior against academic policies and rules.
 - Breaking academic rules.
 - The same likes #6.
 - Behavior that break ethical rules but not academic honesty.
 - It's also academic dishonesty. Taking advantage over other students. Cutting edges.
 - I think it's misbehavior.
 - Bad behavior inside of campus.
 - Academic misconduct is doing things that are against university rules but not against class or exam rules.
- 9. Is academic misconduct different than cheating? Why or why not?**
- Yes, someone might be impolite, but honest.
 - No, because both hurt the image of the Slovak school.
 - No, both are serious oversteps of academic politics.
 - It is a much broader category and may cause different - more serious problems.
 - Yes, but cheating is a part of it.
 - Cheating is one form of academic misconduct.
 - No, the same like #7.
 - Yes, academic misconduct is not an unfair practice that would benefit someone's grade.
 - I don't think it's different.
 - It can be, but there can belong also cheating. It also depends on culture because in Slovakia it is OK to help others on exams.
 - Yes. Cheating is misconduct as well, however the concept is harsher.
 - Yes. Bringing guns, drugs, racism are different than cheating.
- 10. In your own words, please describe academic integrity.**
- One can't know everything. Sharing ideas makes the whole work better. Cooperation among individuals improves not only their final results, but also they can learn new ways, information...
 - Students should more cooperate among themselves. Student ideas should be also taken into account by management of the Slovak school. More will be done, more people would be satisfied.
 - Cooperation among academic population.
 - Cooperation, helping each other.

- Feeling of belonging to academy.
- Students helping each other.
- Don't know.
- Helping with notes, giving advises about instructor's teaching or grading methods.
- Probably cooperation among students.
- I don't know exactly, but I think it's something like school or class itself. We are one team.
- Students are helping each other.
- Team papers, team exams, and cooperation with other schools. It can also be keeping with students -if one student sees another to cheat and says " no I didn't see" When asked by instructor.

11. Is academic integrity different than cheating? Why or why not?

- Yes. Cheating might apply to certain projects. Besides that, cooperation among students is a sign of a good relationship and mutual helpfulness.
- Yes, I feel that student integrity contributes to better understanding of concepts covered in class. I don't perceive integrity as something negative. I think it helps.
- Yes, if the academic integrity is used to misuse someone's work or ideas.
- Yes!
- Yes!
- Yes, if you help someone, it doesn't mean you cheat.
- Don't know.
- Yes, academic integrity is fair, cheating is not.
- If academic integrity helps achieve common goal and doesn't harm anyone, it's good.
- Yes, I think it is, but it depends on what someone thinks cheating is. In our culture cheating is good and it belongs here.
- Yes, helping others is not necessary a cheating.
- Yes, it is. If somebody wants to make a good score is different then hiding somebody because he has cheated. The primary purpose of the school is to teach students and the secondary one is to develop behavior.

**U.S Results (Colorado State University and Bentley College)
Raw Data from 16 Surveys. Collected in Fall 1998.**

- 1. In your own words, please describe the concept of cheating.**
 - Getting something for nothing-not doing the work, study, assignments & accepting the benefits as if you had done so.
 - Using someone else's information as your own. Getting something from someone else to benefit yourself.
 - Using someone else's answers to benefit yourself.
 - Using information in written and spoken word other than ones own.
 - Looking at someone's paper to get the answers, seeing the test answers.
 - A dishonest attempt to advance your own interest / grades by using / copying an other individual.
 - During a test looking at another person's paper or having another person looking at yours.
 - Using someone else's resources instead of your own.
 - Cheating is not taking one's own responsibility or commitment to his or her own knowledge.
 - An act that is committed when doing something that is not your own work. Not holding up to the expectations that are expected of you.
 - The act of not doing your work to the best of your ability, coming to a conclusion or obtaining an answer to work that is not your own.
 - Using someone else's answers or papers.
 - Knowingly doing something that is wrong.
 - Stealing someone else's work and calling it your own.
 - Ones own ability to achieve something that you don't deserve.
 - Gain through corrupt means.

- 2. How would you define cheating?**
 - Taking credit for work not done.
 - Using someone else's information as your own. Getting something from someone else to benefit yourself.
 - Using sources other than your own.
 - Breaking the honor code.
 - Dishonest act of copying / taking another's work.
 - Doing something that you know is wrong, to do better at school especially with tests, quizzes.
 - Using someone else's resources instead of your own.
 - Cheating is copying someone else's work, using someone else's answers.
 - Do something that is not your own work and not holding up to the expectations that are expected of you.
 - The act of no doing your work to the best of your ability, coming to a conclusion or obtaining an answer or work that is not your own.
 - Not using your own resources to do school work.
 - Knowingly doing something that is wrong.
 - Cheating to me means that you purposely bring materials to a test with the answers on them-or look at someone else's paper.
 - Anyway to get something without personally knowing.
 - Acquiring answers or other grades without working for them or earning them.

- 3. What constitutes a cheating situation? When does one cheat?**
 - Copying answers, homework performed by someone else. Taking credit for work performed by someone else.
 - Looking at someone's test to get an answer-using "the system" to get something you can get yourself.
 - A big exam, not knowing the information.
 - When a person copies the answers from another source during testing or paper writing.
 - Breaking the honor code.

- Anytime you use another's work to advance your own. Ex. Test, homework, essay, plagiarize, betrayal, disloyal.
 - When someone doesn't study or thinks they can have someone else carry them.
 - Copying a test situation-a desperate situation-using someone else's work.
 - When one does not do his or her own work.
 - When one feels that they can not do a good job and they look at someone else and copy.
 - A person should never cheat because in reality they are only hurting themselves, although everyone has done it at one time or another, in one way or another.
 - In a test or on a paper.
 - In school, when taking a test, someone has written on cards or oneself to do better on a test.
 - A cheating situation may be when someone works at another's paper for answers during a test. Someone may cheat because they are unprepared.
 - Mostly for test.
 - A situation in which someone takes work or answers from another.
- 4. What do you feel is cheating? Please list as many examples as possible.**
- Crib notes-taking credit for others work-copying text word for word-looking at others work-not thinking for yourself.
 - Looking at someone's test to get an answer-using "the system" to get something you can get yourself.
 - Taking someone else's answers.
 - Copying answers, crib notes, taking extra copies of tests for classmates, writing answers on a hidden source.
 - Breaking the honor code.
 - Copying, betrayal, disloyal, slander, plagiarize, gossip.
 - During a test looking at another person's paper or having another person looking at yours.
 - Copying in a test situation, a desperate situation, using someone else's work.
 - Copying, lying, infidelity.
 - When you do something that is wrong and use other people's work like not doing an essay and using someone else's.
 - Copying answers off a test-doing things the easiest way-copying homework-Infidelity to spouse-giving up.
 - Copying another's answer, using someone's paper as your own.
 - Cheating to get a good grade on a test. As in sports(cheating), pushing / trying to hurt someone to get them out of a game.
 - Looking at others papers, writing answers on desk, hand, shoe, etc., giving answers-taking someone else's work and calling it your own.
 - Wrong-one should have enough ability and self respect to do there own work.
 - Coping answers from another.
- 5. What do you feel is not cheating? Please list as many examples as possible.**
- Being prepared-doing your own work.
 - Using your own answers on your test.
 - Using your own brain.
 - Doing a test on your own with no help from others.
 - Helping one another to understand. Discussing and analyzing.
 - Studying together.
 - Helping each other; studying, understanding concepts, showing technique.
 - What constitutes my values, beliefs
 - Using your own answers to questions on tests.
 - Being honest.
 - Do your own work, asking for explanations.
 - Doing your own work.
 - Doing your own work, preparing for a test and doing your test.

- 6. In your own words, please describe academic dishonesty.**
- Being prepared.
 - Using someone's answers as your own, using someone's word (like in an essay) as your own.
 - Using your own brain.
 - Lying about the source of information-taking credit for work no one's own.
 - Breaking the honor.
 - Copying, using others, stealing.
 - Copying each other plagiarizing.
 - Cheating.
 - Copying or using someone else's ideas.
 - Borrowing answers from another student to study.
 - Cheating during testing.
 - Turing work in that is not your own.
 - Asking for answers that you should find yourself.
 - Gaining academic achievement with out working towards it.
- 7. Is academic dishonesty different than cheating? Why or why not?**
- No it's cheating it's not nice.
 - No, it's cheating.
 - No, I don't know.
 - No the principle is the same taking credit for answers for work one didn't do.
 - It's the same breaking the honor system.
 - No because academic dishonesty is an art of cheating.
 - No they are both wrong.
 - I would say that they are the same-you are misrepresenting your abilities.
 - No.
 - No because if you are using someone else's ideas then you are cheating yourself of an education.
 - Yes, because maybe you are not trying to pass a test, but you could not fully be using your own answers.
 - No.
 - I don't know.
 - Don't think so.
 - No.
- 8. In your own words, please describe academic misconduct.**
- No it's cheating, it's not nice.
 - No.
 - Same however perhaps you're going against the school's honor code.
 - Having someone do your homework or copying others papers.
 - I don't know what the difference is, aren't they the same, Dishonesty and misconduct.
 - Academic misconduct would involve yourself and those around you.
 - Not abiding by the rules within institute and one's behaviors.
 - Less than dishonesty.
 - Cheating, being disrespectful to others (students and teachers)
 - Inappropriate behavior in the classroom.
 - Hurting anyone with your actions.
- 9. Is academic misconduct different than cheating? Why or why not?**
- No it's cheating.
 - No it's cheating.
 - No I don't know.
 - Yes you're going against the foundation of the principles the institution.

- It's the same breaking the honor code.
- I don't know what the difference, not holding to the honor code.
- No cheating is cheating.
- Cheating harms yourself, misconduct harms others, students and teachers.
- Yes
- Yes, cheating is the worst case scenario.
- Is more than cheating.
- Yes, I think because to me misconduct means disrupting classes etc.
- Yes its misconduct.
- No.

10. In your own words, please describe academic integrity.

- Trusting yourself enough to follow your own beliefs and morals.
- Good stuff
- Taking responsibility and interest and having pride in your work-you don't need to cheat.
- Don't know.
- Not cheating-making academic advancement on your own merit. Remaining honest.
- Your ethics or the schools.
- Your own values, ethics and standards.
- Feeling that you want to do your best without using another's answers.
- Trying to do your best at all times.
- Doing good work and being proud of it.
- Knowing what's right and wrong.
- Working independently.

11. Is academic integrity different than cheating? Why or why not?

- Yes & no they are intertwined.
- Yes.
- Yes they're opposite.
- Yes, you don't have the need to cheat.
- Don't know.
- Yes academic integrity not cheating, trying to do best. Cheating the opposite, being dishonest, no honor.
- Yes, I hope your ethics are higher than that.
- No cheating is cheating.
- They are completely opposite.
- Yes.
- Yes, do your own work and be proud of it instead of stealing somebody else's you'll benefit from it.
- Yes, if you have integrity in yourself you wouldn't most likely cheat.
- Yes.

APPENDIX F
SPSS CODE BOOK

SPSS CODEBOOK CHEATING STUDY - LUPTON
List of variables on the working file

Name
Position

CASE

1

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Q1

Est. Percentage Cheating

2

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

0 Percent
100 Percent

Q2

Known someone cheated on exam at university

3

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q3

Known someone cheated on exam in this class

4

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q4
5

Seen someone cheat on exam at university

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q5
6

Seen someone cheat on exam in this class

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q6
7

Have you ever cheated (Exam/paper) during college

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q7
8

Have you ever cheated (Exam/paper) in this course

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q8
9

Did John cheat

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Yes
2	No

Q9
10

Did Jane cheat

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Yes
2	No

Q10
11

Did Jane cheat I

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Yes
2	No

Q11
12

Used someone's answers to exam from previous semester

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Yes
2	No

Q12 For this class, used someone's answers to exam from previous
13

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q13 After an exam, given a student in later section answers
14

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q14 Received information for upcoming exam from student just tak
15

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q15 For this class - After an exam, given a student in later sec
16

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No
3 N/A (In later section)

Q16 For this class - Received information for upcoming exam from
17

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F6
Write Format: F8

Value Label

1 Yes
2 No
3 N/A (In earlier section)

Q17 For this class, ever copied a fellow student's homework
18

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Yes
2 No

Q18 Instructor discussing cheating issues reduces cheating tende
19

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Strongly Disagree
7 Strongly Agree

Q19 Cheating on one exam is really not that bad
20

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Strongly Disagree
7 Strongly Agree

Q20 Telling someone in a later section about an exam is OK
21

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Strongly Disagree
7	Strongly Agree

Q21 Giving someone your exams from a prior semester is cheating
22

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Strongly Disagree
7	Strongly Agree

Q22 Using an exam from a prior semester is not cheating
23

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Strongly Disagree
7	Strongly Agree

Q23 Most students cheat on exams
24

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Strongly Disagree
7	Strongly Agree

Q24 Most students cheat on assignments out-of-class
25

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Strongly Disagree
7	Strongly Agree

Q25 The instructor is responsible for making sure students do no
26

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Strongly Disagree
7	Strongly Agree

Q26 Current GPA
27

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F9.2
Write Format: F9.2

Value	Label
.00	GPA
4.00	GPA

Q27 Class Standing
28

Measurement Level: Ordinal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Freshmen
2	Sophomore
3	Junior
4	Senior
5	Graduate Student
6	Continuing Ed Student

Q28
29

Gender

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	Male
2	Female

Q29
30

Age

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
16	Years
80	Years

SCHOOL
31

School/University

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	CSU
2	Bentley
3	WBS Poland
4	CU Slovakia

GENDER2
32

Gender

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value	Label
1	U.S. Male
2	U.S. Female
3	Central European Male
4	Central European Female

REGION
33

U.S. and Central Europe

Measurement Level: Nominal
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 U.S.
2 Central Europe

Q19R
34

Cheating on one exam is wrong

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Strongly Disagree
7 Strongly Agree

Q20R
35

Telling someone in a later section about exam is wrong

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Strongly Disagree
7 Strongly Agree

Q22R
36

Using an exam from a prior semester is cheating

Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8
Write Format: F8

Value Label

1 Strongly Disagree
7 Strongly Agree

Q3Q5 Knowledge of others cheating on exams in class
37 (Summation of Questions 3 and 5)
Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	Two Yeses
1.50	One Yes
2.00	No Yeses

Q21Q22R Cheating Situation
38 (Summation of Questions 21 and 22r)
Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1	Strongly Disagree
7	Strongly Agree

Q18Q25 Instructor Impact
39 (Summation of Questions 18 and 25)
Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1	Strongly Disagree
7	Strongly Agree

Q23Q24 Most students cheat
40 (Summation of Questions 23 and 24)
Measurement Level: Scale
Column Width: Unknown Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	Strongly Disagree
7.00	Strongly Agree

END ☺

APPENDIX G
TOTAL SURVEY RESPONSES

Frequencies U.S. Sample Cheating Survey

Statistics

	N		Mean	Median	Mode	Std. Deviation	Min	Max
	Valid	Missing						
Est. Percentage Cheating	629	31	26.46	20.00	20	20.49	0	99
Known someone cheated on exam at university	660	0	1.20	1.00	1	.40	1	2
Known someone cheated on exam in this class	659	1	1.87	2.00	2	.34	1	2
Seen someone cheat on exam at university	659	1	1.36	1.00	1	.48	1	2
Seen someone cheat on exam in this class	659	1	1.92	2.00	2	.27	1	2
Have you ever cheated (Exam/paper) during college	657	3	1.42	1.00	1	.49	1	2
Have you ever cheated (Exam/paper) in this course	660	0	1.95	2.00	2	.22	1	2
Did John cheat	659	1	1.89	2.00	2	.31	1	2
Did Jane cheat	656	4	1.82	2.00	2	.38	1	2
Did Jane cheat I	654	6	1.24	1.00	1	.43	1	2
Used someone's answers to exam from previous semester	657	3	1.17	1.00	1	.37	1	2
For this class, used someone's answers to exam from previous semester	659	1	1.92	2.00	2	.27	1	2
After an exam, given a student in later section answers	660	0	1.32	1.00	1	.47	1	2
Received information for upcoming exam from student just taken exam	659	1	1.28	1.00	1	.45	1	2
For this class - After an exam, given a student in later section answers	658	2	2.04	2.00	2	.53	1	3

Statistics

	N		Mean	Median	Mode	Std. Deviation	Min	Max
	Valid	Missing						
For this class - Received information for upcoming exam from student just taken exam	657	3	1.97	2.00	2	.50	1	3
For this class, ever copied a fellow student's homework	658	2	1.94	2.00	2	.30	1	6
Instructor discussing cheating issues reduces cheating tendencies	650	10	4.14	4.00	5	1.62	1	7
Cheating on one exam is really not that bad	656	4	2.39	2.00	1	1.45	1	7
Telling someone in a later section about an exam is OK	654	6	4.00	4.00	4	1.69	1	7
Giving someone your exams from a prior semester is cheating	655	5	2.41	2.00	1	1.67	1	7
Using an exam from a prior semester is not cheating	653	7	5.21	6.00	7	1.99	1	7
Most students cheat on exams	653	7	3.02	3.00	2	1.53	1	7
Most students cheat on assignments out-of-class	653	7	3.89	4.00	4	1.69	1	7
The instructor is responsible for making sure students do not cheat	656	4	3.79	4.00	4	1.77	1	7
Current GPA	629	31	2.9748	3.0000	3.00	.4326	1.75	4.00
Class Standing	656	4	3.56	4.00	4	.60	1	6
Gender	656	4	1.50	1.00	1	.50	1	2
Age	647	13	22.22	21.00	21	2.89	19	42
School/University	660	0	1.33	1.00	1	.47	1	2
U.S. and Central Europe	660	0	1.00		1	.00	1	1

Frequency Table

Est. Percentage Cheating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Percent	4	.6	.6	.6
	1	3	.5	.5	1.1
	2	11	1.7	1.7	2.9
	3	10	1.5	1.6	4.5
	4	1	.2	.2	4.6
	4	2	.3	.3	4.9
	5	51	7.7	8.1	13.0
	6	2	.3	.3	13.4
	7	5	.8	.8	14.1
	8	2	.3	.3	14.5
	10	89	13.5	14.1	28.6
	12	3	.5	.5	29.1
	13	1	.2	.2	29.3
	15	58	8.8	9.2	38.5
	17	1	.2	.2	38.6
	18	1	.2	.2	38.8
	19	1	.2	.2	39.0
	20	97	14.7	15.4	54.4
	22	1	.2	.2	54.5
	25	58	8.8	9.2	63.8
	27	1	.2	.2	63.9
	29	1	.2	.2	64.1
	30	56	8.5	8.9	73.0
	31	1	.2	.2	73.1
	35	18	2.7	2.9	76.0
	38	1	.2	.2	76.2
	40	41	6.2	6.5	82.7
	45	6	.9	1.0	83.6
	48	3	.5	.5	84.1
	49	1	.2	.2	84.3
	50	33	5.0	5.2	89.5
	55	2	.3	.3	89.8
	57	1	.2	.2	90.0
	60	19	2.9	3.0	93.0
	65	4	.6	.6	93.6
	70	3	.5	.5	94.1
	75	12	1.8	1.9	96.0
	80	14	2.1	2.2	98.3
	85	3	.5	.5	98.7
	89	1	.2	.2	98.9
	90	4	.6	.6	99.5
	96	1	.2	.2	99.7
	98	1	.2	.2	99.8
	99	1	.2	.2	100.0
	Total	629	95.3	100.0	
Missing	System	31	4.7		
Total		660	100.0		

Known someone cheated on exam at university

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	527	79.8	79.8	79.8
	No	133	20.2	20.2	100.0
	Total	660	100.0	100.0	

Known someone cheated on exam in this class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	85	12.9	12.9	12.9
	No	574	87.0	87.1	100.0
	Total	659	99.8	100.0	
Missing	System	1	.2		
Total		660	100.0		

Seen someone cheat on exam at university

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	424	64.2	64.3	64.3
	No	235	35.6	35.7	100.0
	Total	659	99.8	100.0	
Missing	System	1	.2		
Total		660	100.0		

Seen someone cheat on exam in this class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	54	8.2	8.2	8.2
	No	605	91.7	91.8	100.0
	Total	659	99.8	100.0	
Missing	System	1	.2		
Total		660	100.0		

Have you ever cheated (Exam/paper) during college

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	383	58.0	58.3	58.3
	No	274	41.5	41.7	100.0
	Total	657	99.5	100.0	
Missing	System	3	.5		
Total		660	100.0		

Have you ever cheated (Exam/paper) in this course

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	34	5.2	5.2	5.2
	No	626	94.8	94.8	100.0
	Total	660	100.0	100.0	

Did John cheat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	73	11.1	11.1	11.1
	No	586	88.8	88.9	100.0
	Total	659	99.8	100.0	
Missing	System	1	.2		
Total		660	100.0		

Did Jane cheat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	115	17.4	17.5	17.5
	No	541	82.0	82.5	100.0
	Total	656	99.4	100.0	
Missing	System	4	.6		
Total		660	100.0		

Did Jane cheat i

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	494	74.8	75.5	75.5
	No	160	24.2	24.5	100.0
	Total	654	99.1	100.0	
Missing	System	6	.9		
Total		660	100.0		

Used someone's answers to exam from previous semester

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	547	82.9	83.3	83.3
	No	110	16.7	16.7	100.0
	Total	657	99.5	100.0	
Missing	System	3	.5		
Total		660	100.0		

For this class, used someone's answers to exam from previous semester

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	53	8.0	8.0	8.0
	No	606	91.8	92.0	100.0
	Total	659	99.8	100.0	
Missing	System	1	.2		
Total		660	100.0		

After an exam, given a student in later section answers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	447	67.7	67.7	67.7
	No	213	32.3	32.3	100.0
	Total	660	100.0	100.0	

Received information for upcoming exam from student just taken exam

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	477	72.3	72.4	72.4
	No	182	27.6	27.6	100.0
	Total	659	99.8	100.0	
Missing	System	1	.2		
Total		660	100.0		

For this class - After an exam, given a student in later section answers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	80	12.1	12.2	12.2
	No	474	71.8	72.0	84.2
	N/A (In later section)	104	15.8	15.8	100.0
	Total	658	99.7	100.0	
Missing	System	2	.3		
Total		660	100.0		

For this class - Received information for upcoming exam from student just taken exam

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	92	13.9	14.0	14.0
	No	495	75.0	75.3	89.3
	N/A (In earlier section)	70	10.6	10.7	100.0
	Total	657	99.5	100.0	
Missing	System	3	.5		
Total		660	100.0		

For this class, ever copied a fellow student's homework

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	45	6.8	6.8	6.8
	No	611	92.6	92.9	99.7
	3	1	.2	.2	99.8
	6	1	.2	.2	100.0
	Total	658	99.7	100.0	
Missing	System	2	.3		
Total		660	100.0		

Instructor discussing cheating issues reduces cheating tendencies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	32	4.8	4.9	4.9
	2	100	15.2	15.4	20.3
	3	92	13.9	14.2	34.5
	4	133	20.2	20.5	54.9
	5	142	21.5	21.8	76.8
	6	114	17.3	17.5	94.3
	Strongly Agree	37	5.6	5.7	100.0
Total	650	98.5	100.0		
Missing	System	10	1.5		
Total		660	100.0		

Cheating on one exam is really not that bad

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	219	33.2	33.4	33.4
	2	205	31.1	31.3	64.6
	3	94	14.2	14.3	79.0
	4	72	10.9	11.0	89.9
	5	40	6.1	6.1	96.0
	6	16	2.4	2.4	98.5
	Strongly Agree	10	1.5	1.5	100.0
Total	656	99.4	100.0		
Missing	System	4	.6		
Total		660	100.0		

Telling someone in a later section about an exam is OK

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	60	9.1	9.2	9.2
	2	81	12.3	12.4	21.6
	3	97	14.7	14.8	36.4
	4	161	24.4	24.6	61.0
	5	116	17.6	17.7	78.7
	6	92	13.9	14.1	92.8
	Strongly Agree	47	7.1	7.2	100.0
	Total	654	99.1	100.0	
Missing	System	6	.9		
Total		660	100.0		

Giving someone your exams from a prior semester is cheating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	261	39.5	39.8	39.8
	2	173	26.2	26.4	66.3
	3	70	10.6	10.7	76.9
	4	71	10.8	10.8	87.8
	5	26	3.9	4.0	91.8
	6	28	4.2	4.3	96.0
	Strongly Agree	26	3.9	4.0	100.0
	Total	655	99.2	100.0	
Missing	System	5	.8		
Total		660	100.0		

Using an exam from a prior semester is not cheating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	54	8.2	8.3	8.3
	2	45	6.8	6.9	15.2
	3	43	6.5	6.6	21.7
	4	59	8.9	9.0	30.8
	5	59	8.9	9.0	39.8
	6	154	23.3	23.6	63.4
	Strongly Agree	239	36.2	36.6	100.0
	Total	653	98.9	100.0	
Missing	System	7	1.1		
Total		660	100.0		

Most students cheat on exams

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	93	14.1	14.2	14.2
	2	208	31.5	31.9	46.1
	3	121	18.3	18.5	64.6
	4	122	18.5	18.7	83.3
	5	55	8.3	8.4	91.7
	6	38	5.8	5.8	97.5
	Strongly Agree	16	2.4	2.5	100.0
	Total	653	98.9	100.0	
Missing	System	7	1.1		
Total		660	100.0		

Most students cheat on assignments out-of-class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	47	7.1	7.2	7.2
	2	115	17.4	17.6	24.8
	3	121	18.3	18.5	43.3
	4	130	19.7	19.9	63.2
	5	108	16.4	16.5	79.8
	6	87	13.2	13.3	93.1
	Strongly Agree	45	6.8	6.9	100.0
	Total	653	98.9	100.0	
Missing	System	7	1.1		
Total		660	100.0		

The instructor is responsible for making sure students do not cheat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	80	12.1	12.2	12.2
	2	109	16.5	16.6	28.8
	3	88	13.3	13.4	42.2
	4	142	21.5	21.6	63.9
	5	116	17.6	17.7	81.6
	6	72	10.9	11.0	92.5
	Strongly Agree	49	7.4	7.5	100.0
	Total	656	99.4	100.0	
Missing	System	4	.6		
Total		660	100.0		

Current GPA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.75	1	.2	.2	.2
	1.88	1	.2	.2	.3
	1.90	1	.2	.2	.5

Current GPA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.92	1	.2	.2	.6
	1.93	1	.2	.2	.8
	1.94	1	.2	.2	1.0
	1.98	1	.2	.2	1.1
	2.00	12	1.8	1.9	3.0
	2.08	1	.2	.2	3.2
	2.10	2	.3	.3	3.5
	2.17	1	.2	.2	3.7
	2.20	10	1.5	1.6	5.2
	2.25	1	.2	.2	5.4
	2.30	15	2.3	2.4	7.8
	2.33	1	.2	.2	7.9
	2.40	8	1.2	1.3	9.2
	2.46	1	.2	.2	9.4
	2.48	1	.2	.2	9.5
	2.50	37	5.6	5.9	15.4
	2.55	1	.2	.2	15.6
	2.56	1	.2	.2	15.7
	2.60	23	3.5	3.7	19.4
	2.62	1	.2	.2	19.6
	2.65	2	.3	.3	19.9
	2.67	3	.5	.5	20.3
	2.69	1	.2	.2	20.5
	2.70	49	7.4	7.8	28.3
	2.72	1	.2	.2	28.5
	2.74	1	.2	.2	28.6
	2.75	2	.3	.3	28.9
	2.76	1	.2	.2	29.1
	2.77	1	.2	.2	29.3
	2.79	1	.2	.2	29.4
	2.80	57	8.6	9.1	38.5
	2.82	1	.2	.2	38.6
	2.85	4	.6	.6	39.3
	2.86	1	.2	.2	39.4
	2.87	1	.2	.2	39.6
	2.88	1	.2	.2	39.7
	2.90	37	5.6	5.9	45.6
	2.92	1	.2	.2	45.8
	2.93	1	.2	.2	45.9
	2.95	3	.5	.5	46.4
	2.97	3	.5	.5	46.9
	2.98	2	.3	.3	47.2
	3.00	92	13.9	14.6	61.8
	3.01	1	.2	.2	62.0
	3.02	1	.2	.2	62.2
	3.03	1	.2	.2	62.3
	3.05	1	.2	.2	62.5
	3.08	1	.2	.2	62.6

Current GPA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.10	33	5.0	5.2	67.9
	3.14	1	.2	.2	68.0
	3.15	1	.2	.2	68.2
	3.20	35	5.3	5.6	73.8
	3.23	1	.2	.2	73.9
	3.25	7	1.1	1.1	75.0
	3.26	1	.2	.2	75.2
	3.27	1	.2	.2	75.4
	3.27	1	.2	.2	75.5
	3.29	1	.2	.2	75.7
	3.30	24	3.6	3.8	79.5
	3.31	1	.2	.2	79.7
	3.32	1	.2	.2	79.8
	3.33	1	.2	.2	80.0
	3.34	1	.2	.2	80.1
	3.35	2	.3	.3	80.4
	3.38	1	.2	.2	80.6
	3.38	1	.2	.2	80.8
	3.40	30	4.5	4.8	85.5
	3.41	1	.2	.2	85.7
	3.42	1	.2	.2	85.9
	3.43	1	.2	.2	86.0
	3.45	1	.2	.2	86.2
	3.48	2	.3	.3	86.5
	3.50	16	2.4	2.5	89.0
	3.52	1	.2	.2	89.2
	3.52	2	.3	.3	89.5
	3.56	1	.2	.2	89.7
	3.59	1	.2	.2	89.8
	3.60	13	2.0	2.1	91.9
	3.63	2	.3	.3	92.2
	3.63	1	.2	.2	92.4
	3.64	1	.2	.2	92.5
	3.65	3	.5	.5	93.0
	3.69	1	.2	.2	93.2
	3.70	9	1.4	1.4	94.6
	3.72	1	.2	.2	94.8
	3.75	2	.3	.3	95.1
	3.76	1	.2	.2	95.2
	3.76	1	.2	.2	95.4
	3.77	1	.2	.2	95.5
	3.78	1	.2	.2	95.7
	3.80	10	1.5	1.6	97.3
	3.83	1	.2	.2	97.5
	3.85	3	.5	.5	97.9
	3.87	1	.2	.2	98.1
	3.88	1	.2	.2	98.3
	3.90	5	.8	.8	99.0

Current GPA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.96	2	.3	.3	99.4
	GPA	4	.6	.6	100.0
	Total	629	95.3	100.0	
Missing	System	31	4.7		
Total		660	100.0		

Class Standing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Freshmen	3	.5	.5	.5
	Sophomore	9	1.4	1.4	1.8
	Junior	278	42.1	42.4	44.2
	Senior	355	53.8	54.1	98.3
	Graduate Student	8	1.2	1.2	99.5
	Continuing Ed Student	3	.5	.5	100.0
	Total	656	99.4	100.0	
Missing	System	4	.6		
Total		660	100.0		

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	330	50.0	50.3	50.3
	Female	326	49.4	49.7	100.0
	Total	656	99.4	100.0	
Missing	System	4	.6		
Total		660	100.0		

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19	4	.6	.6	.6
	20	125	18.9	19.3	19.9
	21	210	31.8	32.5	52.4
	22	136	20.6	21.0	73.4
	23	69	10.5	10.7	84.1
	24	20	3.0	3.1	87.2
	25	27	4.1	4.2	91.3
	26	15	2.3	2.3	93.7
	27	12	1.8	1.9	95.5
	28	5	.8	.8	96.3
	29	7	1.1	1.1	97.4
	30	5	.8	.8	98.1
	33	3	.5	.5	98.6
	34	1	.2	.2	98.8
	35	1	.2	.2	98.9
	36	1	.2	.2	99.1
	38	1	.2	.2	99.2
	39	1	.2	.2	99.4
	40	1	.2	.2	99.5
	42	1	.2	.2	99.7
	42	2	.3	.3	100.0
	Total	647	98.0	100.0	
Missing	System	13	2.0		
Total		660	100.0		

School/University

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CSU	445	67.4	67.4	67.4
	Bentley	215	32.6	32.6	100.0
	Total	660	100.0	100.0	

U.S. and Central Europe

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	U.S.	660	100.0	100.0	100.0

Frequencies

Central Europe Sample

Cheating Survey

Statistics

	N		Mean	Median	Mode	Std. Deviation	Min	Max
	Valid	Missing						
Est. Percentage Cheating	600	77	43.36	40.00	50	28.29	0	100
Known someone cheated on exam at university	675	2	1.15	1.00	1	.35	1	2
Known someone cheated on exam in this class	663	14	1.35	1.00	1	.48	1	2
Seen someone cheat on exam at university	675	2	1.27	1.00	1	.44	1	2
Seen someone cheat on exam in this class	663	14	1.42	1.00	1	.49	1	2
Have you ever cheated (Exam/paper) during college	666	11	1.35	1.00	1	.48	1	2
Have you ever cheated (Exam/paper) in this course	652	25	1.70	2.00	2	.46	1	2
Did John cheat	653	24	1.83	2.00	2	.37	1	2
Did Jane cheat	664	13	1.42	1.00	1	.49	1	2
Did Jane cheat I	654	23	1.35	1.00	1	.48	1	2
Used someone's answers to exam from previous semester	672	5	1.69	2.00	2	.46	1	2
For this class, used someone's answers to exam from previous semester	659	18	1.87	2.00	2	.34	1	2
After an exam, given a student in later section answers	671	6	1.37	1.00	1	.48	1	2
Received information for upcoming exam from student just taken exam	671	6	1.40	1.00	1	.49	1	2
For this class - After an exam, given a student in later section answers	659	18	1.90	2.00	2	.63	1	3

Statistics

	N		Mean	Median	Mode	Std. Deviation	Min	Max
	Valid	Missing						
For this class - Received information for upcoming exam from student just taken exam	660	17	1.91	2.00	2	.58	1	3
For this class, ever copied a fellow student's homework	662	15	1.82	2.00	2	.39	1	2
Instructor discussing cheating issues reduces cheating tendencies	658	19	3.79	4.00	4	1.64	1	7
Cheating on one exam is really not that bad	666	11	4.16	4.00	4	1.81	1	7
Telling someone in a later section about an exam is OK	662	15	4.63	5.00	4 ^a	1.84	1	7
Giving someone your exams from a prior semester is cheating	665	12	3.81	4.00	1	2.09	1	7
Using an exam from a prior semester is not cheating	666	11	3.83	4.00	4	2.01	1	7
Most students cheat on exams	665	12	4.13	4.00	4	1.90	1	7
Most students cheat on assignments out-of-class	665	12	3.78	4.00	4	1.80	1	7
The instructor is responsible for making sure students do not cheat	664	13	4.61	5.00	4	1.88	1	7
Current GPA	491	186	3.0851	3.0000	3.00	.5739	.00	4.00
Class Standing	674	3	2.04	2.00	1	1.04	1	5
Gender	670	7	1.51	2.00	2	.50	1	2
Age	657	20	20.77	20.00	20	2.12	18	35
School/University	677	0	3.72	4.00	4	.45	3	4
U.S. and Central Europe	677	0	2.00		2	.00	2	2

a. Multiple modes exist. The smallest value is shown

Frequency Table

Est. Percentage Cheating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Percent	7	1.0	1.2	1.2
	0	1	.1	.2	1.3
	0	1	.1	.2	1.5
	0	1	.1	.2	1.7
	0	1	.1	.2	1.8
	0	1	.1	.2	2.0
	0	1	.1	.2	2.2
	1	1	.1	.2	2.3
	1	3	.4	.5	2.8
	2	4	.6	.7	3.5
	3	2	.3	.3	3.8
	4	1	.1	.2	4.0
	5	24	3.5	4.0	8.0
	6	1	.1	.2	8.2
	7	1	.1	.2	8.3
	7	2	.3	.3	8.7
	9	1	.1	.2	8.8
	10	56	8.3	9.3	18.2
	12	1	.1	.2	18.3
	13	1	.1	.2	18.5
	15	20	3.0	3.3	21.8
	16	1	.1	.2	22.0
	17	1	.1	.2	22.2
	18	1	.1	.2	22.3
	20	46	6.8	7.7	30.0
	21	1	.1	.2	30.2
	23	1	.1	.2	30.3
	25	18	2.7	3.0	33.3
	27	1	.1	.2	33.5
	28	1	.1	.2	33.7
	28	1	.1	.2	33.8
	30	61	9.0	10.2	44.0
	31	1	.1	.2	44.2
	32	1	.1	.2	44.3
	33	1	.1	.2	44.5
	33	1	.1	.2	44.7
	34	1	.1	.2	44.8
	35	10	1.5	1.7	46.5
	40	36	5.3	6.0	52.5
	42	3	.4	.5	53.0
	45	9	1.3	1.5	54.5
	48	1	.1	.2	54.7
	50	1	.1	.2	54.8
	50	73	10.8	12.2	67.0
	51	2	.3	.3	67.3
	55	6	.9	1.0	68.3
	60	32	4.7	5.3	73.7
	65	4	.6	.7	74.3

Est. Percentage Cheating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	70	31	4.6	5.2	79.5
	72	1	.1	.2	79.7
	75	14	2.1	2.3	82.0
	78	1	.1	.2	82.2
	80	41	6.1	6.8	89.0
	85	8	1.2	1.3	90.3
	86	1	.1	.2	90.5
	90	1	.1	.2	90.7
	90	32	4.7	5.3	96.0
	91	1	.1	.2	96.2
	93	2	.3	.3	96.5
	95	4	.6	.7	97.2
	96	1	.1	.2	97.3
	98	1	.1	.2	97.5
	99	1	.1	.2	97.7
	99	1	.1	.2	97.8
	99	5	.7	.8	98.7
	100	1	.1	.2	98.8
	100	1	.1	.2	99.0
		Percent	6	.9	1.0
	Total	600	88.6	100.0	
Missing	System	77	11.4		
Total		677	100.0		

Known someone cheated on exam at university

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	577	85.2	85.5	85.5
	No	98	14.5	14.5	100.0
	Total	675	99.7	100.0	
Missing	System	2	.3		
Total		677	100.0		

Known someone cheated on exam in this class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	433	64.0	65.3	65.3
	No	230	34.0	34.7	100.0
	Total	663	97.9	100.0	
Missing	System	14	2.1		
Total		677	100.0		

Seen someone cheat on exam at university

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	495	73.1	73.3	73.3
	No	180	26.6	26.7	100.0
	Total	675	99.7	100.0	
Missing	System	2	.3		
Total		677	100.0		

Seen someone cheat on exam in this class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	384	56.7	57.9	57.9
	No	279	41.2	42.1	100.0
	Total	663	97.9	100.0	
Missing	System	14	2.1		
Total		677	100.0		

Have you ever cheated (Exam/paper) during college

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	436	64.4	65.5	65.5
	No	230	34.0	34.5	100.0
	Total	666	98.4	100.0	
Missing	System	11	1.6		
Total		677	100.0		

Have you ever cheated (Exam/paper) in this course

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	197	29.1	30.2	30.2
	No	455	67.2	69.8	100.0
	Total	652	96.3	100.0	
Missing	System	25	3.7		
Total		677	100.0		

Did John cheat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	108	16.0	16.5	16.5
	No	545	80.5	83.5	100.0
	Total	653	96.5	100.0	
Missing	System	24	3.5		
Total		677	100.0		

Did Jane cheat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	385	56.9	58.0	58.0
	No	279	41.2	42.0	100.0
	Total	664	98.1	100.0	
Missing	System	13	1.9		
Total		677	100.0		

Did Jane cheat I

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	422	62.3	64.5	64.5
	No	232	34.3	35.5	100.0
	Total	654	96.6	100.0	
Missing	System	23	3.4		
Total		677	100.0		

Used someone's answers to exam from previous semester

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	208	30.7	31.0	31.0
	No	464	68.5	69.0	100.0
	Total	672	99.3	100.0	
Missing	System	5	.7		
Total		677	100.0		

For this class, used someone's answers to exam from previous semester

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	86	12.7	13.1	13.1
	No	573	84.6	86.9	100.0
	Total	659	97.3	100.0	
Missing	System	18	2.7		
Total		677	100.0		

After an exam, given a student in later section answers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	420	62.0	62.6	62.6
	No	251	37.1	37.4	100.0
	Total	671	99.1	100.0	
Missing	System	6	.9		
Total		677	100.0		

Received information for upcoming exam from student just taken exam

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	402	59.4	59.9	59.9
	No	269	39.7	40.1	100.0
	Total	671	99.1	100.0	
Missing	System	6	.9		
Total		677	100.0		

For this class - After an exam, given a student in later section answers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	170	25.1	25.8	25.8
	No	387	57.2	58.7	84.5
	N/A (In later section)	102	15.1	15.5	100.0
	Total	659	97.3	100.0	
Missing	System	18	2.7		
Total		677	100.0		

For this class - Received information for upcoming exam from student just taken exam

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	142	21.0	21.5	21.5
	No	434	64.1	65.8	87.3
	N/A (In earlier section)	84	12.4	12.7	100.0
	Total	660	97.5	100.0	
Missing	System	17	2.5		
Total		677	100.0		

For this class, ever copied a fellow student's homework

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	121	17.9	18.3	18.3
	No	541	79.9	81.7	100.0
	Total	662	97.8	100.0	
Missing	System	15	2.2		
Total		677	100.0		

Instructor discussing cheating issues reduces cheating tendencies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	62	9.2	9.4	9.4
	2	96	14.2	14.6	24.0
	3	102	15.1	15.5	39.5
	4	208	30.7	31.6	71.1
	5	83	12.3	12.6	83.7
	6	61	9.0	9.3	93.0
	Strongly Agree	46	6.8	7.0	100.0
	Total	658	97.2	100.0	
Missing	System	19	2.8		
Total		677	100.0		

Cheating on one exam is really not that bad

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	55	8.1	8.3	8.3
	2	88	13.0	13.2	21.5
	3	104	15.4	15.6	37.1
	4	130	19.2	19.5	56.6
	5	103	15.2	15.5	72.1
	6	108	16.0	16.2	88.3
	Strongly Agree	78	11.5	11.7	100.0
	Total	666	98.4	100.0	
Missing	System	11	1.6		
Total		677	100.0		

Telling someone in a later section about an exam is OK

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	49	7.2	7.4	7.4
	2	54	8.0	8.2	15.6
	3	72	10.6	10.9	26.4
	4	130	19.2	19.6	46.1
	5	101	14.9	15.3	61.3
	6	126	18.6	19.0	80.4
	Strongly Agree	130	19.2	19.6	100.0
	Total	662	97.8	100.0	
Missing	System	15	2.2		
Total		677	100.0		

Giving someone your exams from a prior semester is cheating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	123	18.2	18.5	18.5
	2	103	15.2	15.5	34.0
	3	86	12.7	12.9	46.9
	4	109	16.1	16.4	63.3
	5	56	8.3	8.4	71.7
	6	86	12.7	12.9	84.7
	Strongly Agree	102	15.1	15.3	100.0
	Total	665	98.2	100.0	
Missing	System	12	1.8		
Total		677	100.0		

Using an exam from a prior semester is not cheating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	113	16.7	17.0	17.0
	2	93	13.7	14.0	30.9
	3	93	13.7	14.0	44.9
	4	125	18.5	18.8	63.7
	5	64	9.5	9.6	73.3
	6	91	13.4	13.7	86.9
	Strongly Agree	87	12.9	13.1	100.0
	Total	666	98.4	100.0	
Missing	System	11	1.6		
Total		677	100.0		

Most students cheat on exams

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	53	7.8	8.0	8.0
	2	117	17.3	17.6	25.6
	3	90	13.3	13.5	39.1
	4	133	19.6	20.0	59.1
	5	79	11.7	11.9	71.0
	6	88	13.0	13.2	84.2
	Strongly Agree	105	15.5	15.8	100.0
	Total	665	98.2	100.0	
Missing	System	12	1.8		
Total		677	100.0		

Most students cheat on assignments out-of-class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	76	11.2	11.4	11.4
	2	120	17.7	18.0	29.5
	3	100	14.8	15.0	44.5
	4	137	20.2	20.6	65.1
	5	96	14.2	14.4	79.5
	6	81	12.0	12.2	91.7
	Strongly Agree	55	8.1	8.3	100.0
	Total	665	98.2	100.0	
Missing	System	12	1.8		
Total		677	100.0		

The instructor is responsible for making sure students do not cheat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	58	8.6	8.7	8.7
	2	58	8.6	8.7	17.5
	3	55	8.1	8.3	25.8
	4	133	19.6	20.0	45.8
	5	105	15.5	15.8	61.6
	6	123	18.2	18.5	80.1
	Strongly Agree	132	19.5	19.9	100.0
	Total	664	98.1	100.0	
Missing	System	13	1.9		
Total		677	100.0		

Current GPA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GPA	1	.1	.2	.2
	1.00	1	.1	.2	.4
	1.40	1	.1	.2	.6
	1.50	1	.1	.2	.8
	1.80	1	.1	.2	1.0
	2.00	44	6.5	9.0	10.0
	2.10	1	.1	.2	10.2
	2.20	4	.6	.8	11.0
	2.30	4	.6	.8	11.8
	2.50	16	2.4	3.3	15.1
	2.60	9	1.3	1.8	16.9
	2.70	7	1.0	1.4	18.3
	2.76	1	.1	.2	18.5
	2.77	1	.1	.2	18.7
	2.80	25	3.7	5.1	23.8
	2.86	1	.1	.2	24.0
	2.90	23	3.4	4.7	28.7
	3.00	125	18.5	25.5	54.2
	3.03	1	.1	.2	54.4
	3.05	1	.1	.2	54.6
	3.10	11	1.6	2.2	56.8
	3.12	1	.1	.2	57.0
	3.15	1	.1	.2	57.2
	3.16	1	.1	.2	57.4
	3.20	26	3.8	5.3	62.7
	3.22	1	.1	.2	62.9
	3.24	1	.1	.2	63.1
	3.25	3	.4	.6	63.7
	3.30	28	4.1	5.7	69.5
	3.32	1	.1	.2	69.7
	3.34	1	.1	.2	69.9
	3.35	1	.1	.2	70.1
	3.40	17	2.5	3.5	73.5
	3.42	1	.1	.2	73.7
3.45	3	.4	.6	74.3	
3.48	1	.1	.2	74.5	
3.49	1	.1	.2	74.7	
3.50	27	4.0	5.5	80.2	
3.60	15	2.2	3.1	83.3	
3.65	2	.3	.4	83.7	
3.70	16	2.4	3.3	87.0	
3.73	1	.1	.2	87.2	
3.75	2	.3	.4	87.6	
3.80	7	1.0	1.4	89.0	
3.90	2	.3	.4	89.4	
GPA	52	7.7	10.6	100.0	
Total	491	72.5	100.0		
Missing	System	186	27.5		
Total		677	100.0		

Class Standing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Freshmen	264	39.0	39.2	39.2
	Sophomore	200	29.5	29.7	68.8
	Junior	133	19.6	19.7	88.6
	Senior	72	10.6	10.7	99.3
	Graduate Student	5	.7	.7	100.0
	Total	674	99.6	100.0	
Missing	System	3	.4		
Total		677	100.0		

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	329	48.6	49.1	49.1
	Female	341	50.4	50.9	100.0
	Total	670	99.0	100.0	
Missing	System	7	1.0		
Total		677	100.0		

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	59	8.7	9.0	9.0
	19	115	17.0	17.5	26.5
	20	1	.1	.2	26.6
	20	166	24.5	25.3	51.9
	21	132	19.5	20.1	72.0
	22	102	15.1	15.5	87.5
	23	1	.1	.2	87.7
	23	31	4.6	4.7	92.4
	24	16	2.4	2.4	94.8
	25	10	1.5	1.5	96.3
	26	6	.9	.9	97.3
	27	8	1.2	1.2	98.5
	28	2	.3	.3	98.8
	29	2	.3	.3	99.1
	30	4	.6	.6	99.7
	31	1	.1	.2	99.8
	35	1	.1	.2	100.0
		Total	657	97.0	100.0
Missing	System	20	3.0		
Total		677	100.0		

School/University

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	WBS Poland	192	28.4	28.4	28.4
	CU Slovakia	485	71.6	71.6	100.0
	Total	677	100.0	100.0	

U.S. and Central Europe

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Central Europe	677	100.0	100.0	100.0

Lupton - Dissertation

Measuring Business Students' Attitudes, Perceptions, and Tendencies about Cheating in Central Europe and the USA

