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# Perceptions of Cheating at a Small, Private Ecuadorian Institution

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UNIVERSITY OF MIAMI

PERCEPTIONS OF CHEATING AT A SMALL, PRIVATE ECUADORIAN  
INSTITUTION

By

L. Enrique Ponce

A DISSERTATION

Submitted to the Faculty  
of the University of Miami  
in partial fulfillment of the requirements for  
the degree of Doctor of Education

Coral Gables, Florida

December 2017

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PERCEPTIONS OF CHEATING AT A SMALL, PRIVATE ECUADORIAN  
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The topic of student cheating at higher education institutions has been studied empirically for more than 80 years in the U.S. and has become a subject of concern in the rest of the world, where academic research has spread to other continents. However, institutional research has just begun in South American countries, where studies and surveys conducted in higher education institutions may not exceed twenty studies. In Ecuador, the studies on this topic are almost non-existent. This study aimed to encourage further research on this area with a hope to set the parameter that can make future studies in Ecuador comparable and with research conducted in other parts of the world. With the goal of obtaining first-hand information on student perceptions of what constitutes as an act of cheating, the data collected was analyzed using a series of two independent samples *t*-tests, one-way Analysis of Variances (ANOVA), and multiple linear regressions. Results showed that age was a good predictor of explaining variation in one's perceptions on cheating behaviors. Gender was also found to be a significant predictor of cheating perception related to assignments and data. Finally, self-reported GPA was significantly related to cheating perception on plagiarism. This study hopefully will set a footprint that can be followed by other researchers in the future and further help faculty, students, administrators and practitioners establish ethical standards among

Ecuadorian institutions and remind everyone that the main objective of higher education is learning, not simply approving classes in order to obtain a title or diploma.

## **DEDICATION**

To my beloved mother Lourdes, who helped me and supported me during my whole college and school career. Thanks for your patience and continuous encouragement to keep on working until this work was completed. To my beautiful daughter Daniela, hoping that she understands that reading and studying are good habits that should never end. In loving memory of my father and grandfather. Both passed away during this long journey. You are both always in my mind. In order to finish I also tried to keep in mind my grandfather's words: "The best inheritance a man can get, is definitely his education!"

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## **Chapter One: Introduction**

Academic integrity is defined as “understanding what it is to be honest in the particular culture of the academic world, and being able to apply the scholarly conventions of acknowledgment” (East & Donnelly, 2012, p. 1). Administrators, faculty, and higher education practitioners should always be looking for new ways to improve ethical standards and moral values within the student body population. Institutions are expected to promote and encourage the formation of ethical values in students. They play an important role in the formation of student ethical standards. Universities must acknowledge their responsibility in the formation of ethical leaders of the future. However, at least one study shows reports of lack of ethics and responsibility/accountability among college graduates, and calls the role of higher education into question (Halbesleben, Wheeler, & Buckley, 2005).

McCabe and Trevino (1996) surveyed students from nine medium-to-large U.S. universities and found high prevalence rate of college students’ commitment to different forms of dishonest acts. These include 52% related to copying from another student, 27% related to using crib notes during exam, and 37% related to assisting another student for cheating. In addition, a 20-year longitudinal study (Vandeley, Diekhoff, & LaBeff, 2007) showed that prevalence rates have been steady over 20 years, showing 54% in 1984, 61% in 1994, and 57% in 2004. It was further reported that some specific forms of dishonest acts such as “cheating on quizzes and on assignments remained significantly higher in 2004 than in 1984” (Vandeley et al., 2007, p. 471).

The lack of college students’ academic integrity may result in loss of money and time of faculty and administrators who need to deal with these issues, and further lead to

the negative reputation of institution as a whole (Nonis & Swift, 2001). The literature also stressed that many faculty members have stated that accusing students of unethical behaviors is one of the most negative aspects of their job (Keith-Spiegel, Tabachnick, Whitley, & Wasburn, 1998). Therefore, many researchers such as Nonis and Swift (2001) argued that promoting academic integrity is more effective. Likewise, researchers and educators have agreed upon the importance of inculcating ethical values to students. However, no consensus has been made regarding how ethical values can be taught and whether they can be even developed over time (Löfström, Trotman, Furnary, & Shephard, 2015).

Traditionally, institutions have implemented mechanisms such as honor codes for detecting students' dishonest acts in academia. Others are asking students to report unethical incidents that their peers commit to university authorities, with a goal to build a stronger culture of responsibility/ accountability for their acts (McCabe, Trevino, & Butterfield, 2001). It might be partly because those institutions might not want to punish students in order to avoid legal actions and rather pass the burden of responsibility to students (McCabe, Butterfield, & Trevino, 2003). However, faculty members have reported that these mechanisms implemented by many institutions of higher education have not been effective enough to prevent students from violating ethical standards. It was also found that students were reluctant to report their peers' misconducts for different reasons, such as social pressure, bureaucratic academic procedures, etc. (McCabe et al., 2001). Similarly, Baetz and colleagues (2011) reported that when the student noticed that other students in the line to hand in their tests took advantage of the

opportunity to copy from one another, he/she chose to suggest the professor uses an alternative way of collecting the exams in the future, without telling the teacher of the actual cheating event (Baetz, Zivcakova, Wood, Nosko, De Pasquale, and Archer, 2011). Likewise, enforcing peer reporting academic misconduct on campus has not been found to be effective (McCabe et al., 2001).

As a result, focus has been recently shifted toward the promotion of the desired behaviors rather than identifying particular undesired behaviors (Ferguson, Masur, Olson, Ramirez, Robyn, & Schmaling, 2007). Institutions have been looking for actions that deter academic misconduct in schools and better prepare students to deal with ethical dilemmas in workplaces (Winrow, 2016). Another study showed that due to a positive link between a student's individual values and "his or her ethical behavior, a common learning objective in ethics course was to increase the students' awareness of ethical values and its role in decision making" (Sheehan & Schmidt, 2015, p. 186). The main idea is that institutions can reduce academic misconduct if students are better informed on what they should do or should not do through education on what is considered to be ethical behaviors in academia.

Cheating can be as simple as cheating on exams, and may include copying from another student, the utilization of prohibited crib notes, and learning in advance what the exam was about from another student who previously took the class (Teixeira & Rocha, 2010). In the current study, *cheating*, is used to broadly define different forms of student's unethical behaviors in academia, which also includes plagiarism. When someone cheats on exams, he or she is undermining the basic and central purpose of a

higher education institution. It also “corrupts the meaning of grades as a measure of subject matter mastery, and significantly harms honest students” (Fendler & Godbey, 2016, p. 71).

Behaviors such as using a paper for more than one class or allowing someone else to copy your homework can be loosely defined as academic dishonest acts (Schmelkin, Gilbert, Spencer, Pincus, & Silva, 2008). Some students might be confused about which acts are considered as plagiarism. Researchers have argued that students’ perceptions vary with regard to what acts are considered cheating and those that are not (Passow, Mayhew, Finelli, Harding, & Carpenter, 2006). Therefore, clarification is needed regarding which behaviors are acceptable or not (Passow et al., 2006) and institutions need to specify what actions encompass cheating behaviors. Although many schools have academic misconduct policies, it is suggested that institutions in developing countries be more specific and provide appropriate tools to students such that they can identify and avoid unethical behaviors.

Furthermore, researchers suggested that in order to advance research on this subject in the future, the next step is to “distinguish cheating in different contexts such as cheating on homework and cheating on tests” (Brent & Atkisson, 2011, p. 654). For instance, recent studies have focused on differentiating cheating behaviors by contexts. If you ask one student whether s/he has cheated last semester, that student might answer no because s/he considers cheating to be only an act like copying from someone else’s exam; and not the instance where s/he asked for help on a homework where the instructor specifically forbade it. This “next step” suggested by Brent and Atkisson (2011) was

followed by Ma and colleagues (2013) in an empirical study conducted in China, where college students' perceptions on cheating were examined in different contexts such as test cheating, paper cheating, and assignment cheating (Ma, McCabe, & Liu, 2013).

Other researchers collected students' perceptions on cheating and examined their responses in three distinctive areas: (1) test cheating (In this study it is called "perceptions of cheating related to exams"), (2) paper cheating (here it is called "cheating perception related to plagiarism"), and (3) assignment cheating (here it is called "perceptions of cheating related to assignments"). Ma and colleagues (2013) found that in many cases of assignment and homework cheating, teachers choose to criticize, educate or lower the grade rather than report the student to school authorities. However, regarding cheating on tests, most teachers will likely penalize students for their academic misconduct (Ma et al., 2013).

The current study is unique in that this study was conducted in Ecuador, where no empirical research on this topic exists. Specifically, this study focused on how college students from a small private university in Ecuador perceive cheating behaviors, with a hope to open up further discussions on how to deal with Ecuadorian students' perceptions on possible cheating behaviors in academia. Following Ma and colleagues (2013) operational definitions of cheating, the current study aimed to understand how college students in Ecuador perceive cheating behaviors and how serious those are if they commit to cheating behaviors at all.

### **Research on Cheating Behaviors Outside Ecuador**

The prevalence and its effect of cheating behaviors have been vastly studied across many countries. First, early academic research on this topic in the U.S. and Canada goes back to the 1960s (Bowers, 1964), and some of these studies have been replicated decades later so as to examine how the prevalence of dishonest behaviors have evolved over time (McCabe & Bowers, 1994; Vandelely et al., 2007). In a longitudinal study that used the same format of questions conducted in 1986, 1996 and then in 2006, other researchers found that 57% of students admitted to cheating during their college careers (Vandehey et al., 2007). However, others found that although academic dishonesty levels remained around 64% between 1986 and 1996, some specific forms of cheating (on exams, assignments, and quizzes) had increased by 11% over ten years (Diekhoff, LaBeff, Clark, Williams, Francis, & Haines, 1996).

Second, many studies on cheating behaviors have been conducted in other countries outside the U.S. and Canada. One study conducted in eight transitional economies (countries from the former Soviet Union countries moving towards open market economies) in Eastern Europe, Central Asia, and U.S., showed that students in the transitional economies applied higher ethical standards during their college careers than students in the U.S. (Grimes, 2004). McCabe and his colleagues (2008) investigated the nature of the relationship between contextual factors (e.g., peers' approval of cheating and probability of being reported) and cheating in China, which showed evidence of a strong relationship between the perception of peer's behavior and the student's personal understanding of decisions concerning cheating actions (McCabe, Feghali, & Abdallah,

2008). Another study conducted in sixty Ethiopian universities found that faculty had at least one errant student during the course of a typical examination. However, in another study 80% of the responding faculty blamed placing too many examinees in a reduced hall as a factor that increases unethical behaviors (Teferra, 2001).

Third, a relatively small number of studies have been conducted in South America. The first study in South America was conducted in Colombia. Mejía and Ordoñez (2004) showed that 82% of the respondents had no issue with letting a fellow student copy from an exam. These authors also showed that business students scored 20 percentage points higher than the average score on letting someone else copy their exam (92.3% vs. 71.9%). In this study, it was shown that the prevalence of cheating in this country was surprisingly high. More than 70% of the students surveyed acknowledged that they showed their answers to another student during an exam at least once during their college careers. Only one study conducted in Argentina was found (Ventura, Biagoni, Bozicovich, & Borgobello, 2012); two in Brazil (da Costa, Martins, Mata-Virgem, Rolim, Santana, Battaglia, Neto, & Pena, 2006; Garcia Barbastefano, & Gomez de Souza, 2006); three in Colombia (Díaz Caballero, González Martínez, Carmona Arango, 2010; Mejía & Ordoñez, 2004; Ordoñez, Mejía, & Castellanos, 2006); and two in Perú (Huamaní, Dulanto-Piza, & Rojas-Revoredo, 2006; Saldaña-Gastulo, Quezada-Osoaira, Peña-Oscuivilca, & Mayta-Tristán, 2010). Further studies in the region should be encouraged by higher education institutions.

### **Research on Cheating Behaviors in Ecuador**

Only one empirical but publicly available study examining cheating was found in Ecuador, where ethical and moral values of odontology students in their ninth semester were studied. This study by Navarro (2016) was conducted at the Universidad Central del Ecuador, which is the national (or state) university in Ecuador. Questions used in Navarro's study were directed to possible scenarios in a future working place as oral health practitioners (i.e., "Would you tell your patient if you found evidence of malpractice conducted by a previous doctor once you begin your practice?") rather than in an academic setting during their college careers, which is the focus of the current study. Navarro found that many students felt the topic of ethics and moral values was poorly covered by professors during classes and also believed they were not prepared on how to react or respond to their patients when evidence of previous malpractice was found during their professional careers. Navarro concluded that greater emphasis on ethical and moral values should be placed on the curricula of oral health practitioners at this Ecuadorian institution.

The current study is the first empirical investigation that was based on a survey of college students in Ecuador that examined the perceptions of cheating behaviors under different contexts (e.g., cheatings related to homework, cheatings related to exam). It is expected that the current study would help understand how college students in Ecuador perceive cheating behaviors and further compare whether their perceptions are similar or different than their peers in other universities in Ecuador, and lead to further studies on this topic in Ecuador.

### **Theoretical Basis of the Study**

The focus of this study was on behaviors of cheating and the most relevant theories are the ones that describe psychosocial, cognitive, and moral and ethical identity development. Many researchers have proposed different theoretical frameworks related to ethical development. Of them, theories used to understand students' behaviors towards cheating behaviors in the current study include: Chickering's Theory of Identity Development (1969, 1993), Kohlberg's Theory of Moral Development (1958), Perry's Theory of Intellectual and Ethical Development (1970) and Gilligan's Theory of Women's Moral Development (1982).

First, Chickering's Theory of Identity Development (1969, 1993) explains how a college student develops his/her identity. This theory contains seven vectors: Developing competence, managing emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing identity, developing purpose, and finally developing integrity. It is argued that the last vector - developing integrity - should be a top priority in higher education institutions to help young adults develop into responsible adults, and also help them to keep congruence between what they do in the classroom and their moral behaviors outside of them (Roberts & Hai-Jew, 2009).

Institutions should advise higher education practitioners to help the institutions in the formation of students' characters and encourage values formation in young adults.

Second, Kohlberg's theory of Moral Development (1958) showed that when individuals think morally on a higher level, chances that s/he will cheat are lower because it is not easy to find a viable excuse or justification to do so. This is why it is suggested

that higher education institutions should encourage adding more courses that focus on ethical values during the students' college careers.

Third, Perry's theory of Ethical Development (1970) is based on his studies of students' cognitive and ethical development. Perry argued that college students first see the world in its simple form of absolutely right or wrong. As time goes by, he or she realizes that it is a complex world where things can have relative values. In the latter stage, student would see that world can be analyzed with different lenses, and as they mature in time, they tend to question previous beliefs (Austin, Simpson, & Reynen, 2005).

Lastly, Gilligan's theory of Women's Moral Development (1982) sees one's moral development at three distinctive stages. Three stages include: selfishness, social or conventional morality, and post conventional or principled morality (Gilligan, 1982). By understanding the aforementioned four theories, professionals in student affairs are able to identify and address student different needs, design programs, develop policies, and create healthy environments that encourage positive growth (Patton, Renn, Guido, Quaye, & Forney, 2016).

### **The Present Study**

The current study aimed to understand the perception of college students from a small private university in Ecuador on different acts of cheating behaviors related to assignments, exams, data, and plagiarism. Cheating behaviors related to exams refers specifically to in-class exams, and does not include quizzes. Assignments in the usual Ecuadorian class formats include homework and course projects. This is the first

empirical study that explores what acts college students in Ecuador consider to be an act of cheating, and how serious they are. Furthermore, the current study examined how student background variables including gender, major, age and self-reported GPA are related to student's perceptions related to test cheating, assignment cheating, plagiarism, and homework cheating.

The main objective of the current research was accomplished by answering the following five specific research questions targeting the student perceptions of cheating behaviors at an Ecuadorian University:

**Research Question 1**

1. How do students at a small, private Ecuadorian university perceive overall cheating behaviors?
2. Are there any differences in student perception on overall cheating behaviors by students' demographic variables: gender, major, age and self-reported GPA?

**Research Question 2**

1. How do students at a small, private Ecuadorian university perceive cheating related to assignments?
2. Are there any differences in student perception on cheating related to assignments by students' demographic variables: gender, major, age and self-reported GPA?

**Research Question 3**

1. How do students at a small, private Ecuadorian university perceive cheating on exams?

2. Are there any differences in student perception on cheating on exams by students' demographic variables: gender, major, age and self-reported GPA?

#### **Research Question 4**

1. How do students at a small, private Ecuadorian university perceive cheating related to data?
2. Are there any differences in student perception on cheating related to data by students' demographic variables: gender, major, age and self-reported GPA?

#### **Research Question 5**

1. How do students at a small, private Ecuadorian university perceive cheating related to plagiarism?
2. Are there any differences in student perception on cheating related to plagiarism by students' demographic variables: gender, major, age and self-reported GPA?

#### **The Significance of Present Study**

Navarro (2016) focused on students' reactions to possible future scenarios related to cheating behaviors during their professional careers rather than on acts of cheating or plagiarism during college years. The significance of this study lies on the fact that it is the first empirical study investigating academic misbehavior during college years in Ecuador. In particular, the current study operationalizes cheating behaviors by various contexts, rather than studying cheating in general. Recent studies have found students' perception on cheating behaviors can vary widely by context (Ma et al., 2013; Vandelely et al., 2007).

Furthermore, the current study relates various individual factors such as gender, age, major and self-reported GPA to students' perceptions on what constitutes cheating

and how serious they are. Since this study examined how student background variables are related to students' perception on cheating behaviors, hopefully institutions can find new ways of reducing the number of incidents. Understanding how college students' background variables are related to their perceptions on cheating in academic setting will be a first step. As an example, a suggestion for institutions could be to give introductory courses on ethics at their first or second semester and see if these reduce incidents of cheating behaviors. Also, institutions might want to promote eliminating multiple-choice tests in larger classrooms if smaller classrooms were less prone to cheating than larger classrooms (Teferra, 2001).

Likewise, the current study hopes to provide a better understanding on how to educate students and further reduce unethical behaviors at the college level. Therefore, if certain acts that may be considered cheating and seemed as simply frowned upon acts by a significant percentage of student population, administrators might find the implementation of certain deterrents, such as honor codes, a viable solution to mitigate the problem. In addition, the current study can serve as an anchor to provide empirical evidence for future study where students' perceptions are examined on the subject of what constitutes unethical behaviors in the future. This study should assist researchers to follow similar patterns of research in order to make studies comparable among different institutions and studies conducted in other countries around the world. Finally, this study can help American higher education institutions understand better the perceptions on cheating behaviors held by Ecuadorian students that complete their undergraduate education in their countries and continue their graduate work in the U.S.

## **Chapter Two: Literature Review**

The topic of academic dishonesty and cheating behaviors in higher education has been vastly studied in the U.S. since the 1940s (Gallant, 2008). Before elaborating further on empirical research conducted in this topic, historical backgrounds on academic dishonesty and cheating behaviors are first reviewed. Second, cheating behaviors were conceptually/operationally defined in relation to academic dishonesty. Third, how institutions of higher education have handled cheating behaviors was reviewed, accompanied with an extensive review of literature on cheating behaviors. Specifically, empirical studies conducted across the different countries including U.S., Canada, Europe, South Asia, and Latin America were summarized. The focus on the review of empirical studies includes the prevalence of cheating behaviors, contextual differences among students that might influence cheating behaviors, and individual differences that might influence cheating behaviors among students. Then, existing research conducted in Ecuador was reviewed such that unique contribution of the current study was emphasized (Navarro, 2016). Finally, theoretical backgrounds and empirical evidences supporting the current study were reviewed with a focus on student's perception on cheating behaviors.

### **History of Research on Academic Dishonesty and Cheating Behaviors**

Academic dishonesty and cheating behaviors have been studied abundantly in the U.S. during the twentieth century. However, academic dishonesty in institutions of higher education had been observed and analyzed for many years before that century. Gallant (2008) mentioned that during the Antebellum Period (1760-1860) classrooms that focused on recitation and memorization of course material might have contributed students to utilize methods such as cribbing and/or cheat sheets to stay in school

(Allmendinger, 1973; as cited by Gallant, 2008). During the Research University period (1860-1945) (Gallant, 2008), the author stated that with the passing of the Copyright Act in 1909, American society gained interest in protecting and encouraging knowledge production and encouraged administrators of higher education to enforce policies regarding the supervision of student writing activities in a general effort to curb potential copyright infringement and to teach the student population about the importance of new law.

In the Mass Education period (1945-1975) (Gallant, 2008), students from different backgrounds regarding socioeconomic class, race, age, ability, and gender began to attend higher education institutions. This period differs from others in the sense that higher education was considered elitist in the past. Incoming classes from different economic, social and ethnical backgrounds than before might have had an effect on general perceptions of ethical behaviors at the time. The G.I. Bill and increased funding for universities and colleges created a system that had to become more responsive to public and student's needs. Furthermore, students became more vocal and expressed out loud what bothered them in public during the 1960s and 1970s (Gallant, 2008). Lastly, in the Contemporary University Period (1975 to present) (Gallant, 2008), competition among students for decreasing public funds along with a shift towards universal access led to what many referred as the commercialization of postsecondary education. The spread of the internet and advances in technology in American campuses had also been cited as new forces that shaped the students' academic conduct, faculty roles and organizational responses to academic integrity (Gallant, 2008).

### **Academic Dishonesty and Cheating Behaviors**

According to Nuss (1984), academic dishonesty is any act that “results in students giving or receiving unauthorized assistance in an academic exercise or receiving credit for work which is not their own” (p. 1). Examples include plagiarism, cheating, falsifying data, multiple submissions, among other acts. Institutions of higher education define academic dishonesty according to their own perspectives and may differ from one institution to another (Nuss, 1984). Cheating behavior, which is considered to be a form of academic dishonesty, is defined as a “way to present others’ academic work as one’s own interfering with the learning and the evaluation process, a fraudulent means of achieving grades, being accompanied by the risk of detection and punishment” (Farnese, Tramontano, Fida, & Paciello, 2011, p. 357). A conceptual definition of cheating is to violate rules dishonestly (Merriam-Webster, 2017). This definition will be used in this study.

However, it becomes more difficult to come to a clear definition in practice of what is a cheating behavior (Schmelkin et al., 2008). Although some acts such as copying from someone else’s exam are generally agreed on, other actions, such as using the same paper for different classes, are not considered cheating by many students since it is their own work (Schmelkin et al., 2008). More recently, researchers have operationalized cheating behaviors by separating them under different contexts. For instance, in a study conducted in Taiwan with a sample of about 2,000 college students, students were surveyed on four specific domains of cheating behaviors: (1) cheating on exam, (2) cheating on assignment, (3) plagiarism, and (4) falsifying data/documents (Lin & Wen, 2007). Others

have used a similar way of classifying cheating behaviors. For instance, Ma et al. (2013) conducted a study in China that surveyed college students' perception on cheating in three domains: Test cheating, paper cheating, and assignment cheating.

Following the operational definition of cheating defined by Pedhazur Schmelkin et al. (2008) and Ma et al. (2013), the current study defines cheating behaviors as specific actions that are considered to be academically dishonest and operationalizes cheating in the following four domains: (1) cheating related to exams, (2) cheating related to assignments, (3) cheating on data, and 4) cheating related to plagiarism. This operational definition of cheating behaviors is used throughout this study, which examines how students perceive cheating behaviors under each context.

### **Theoretical Foundation of the Current Study**

The current study was based on the following theoretical backgrounds: Chickering's theory of identity development (1969, 1993), Kohlberg's theory of Moral Development (1958), Perry's theory of Intellectual and Ethical Development (1970), and Gilligan's theory of Women Moral Development (1982). When developmental theories are applied to the issue of cheating, it has also been suggested that undergraduate students lack the self-authority (ability to construct one's ideas), make their own informed decisions, and take responsibility for their actions.

**Chickering's Theory of Identity Development (1969, 1993).** Chickering's theory is considered a key theory on student development. Chickering explained that his seven vectors of student development are multiple tasks that students go through. These vectors are: 1) developing competence. When a student develops intellectual competence, he/she

has to understand that learning is the final goal of higher education institutions, not simply obtaining passing grades and using unethical ways to achieve this goal. 2) managing emotions: students under stress to maintain high GPAs in order to stay eligible for scholarships will be tempted to resort to cheating in order to stay in school. Other vectors in this theory are: 3) moving through autonomy toward interdependence, 4) developing mature interpersonal relationship, 5) establishing identity, 6) developing purpose, and 7) developing integrity. The seventh vector, developing integrity, also relates directly to the compromise of higher education institutions in helping the student develop congruence between their actions and a moral behavior (Roberts & Hai-Jew, 2009). Chickering's theory of identity development is a theoretical foundation for this study because college years is the period that the personality of young adults begins to form and personal values must be developed. Institutions of higher education would create a structure of education and support for students and help students become fully aware of the fact that their values would have direct implications for their actions.

According to some authors (Roberts & Hai-Jew, 2009), the seventh vector or developing integrity, relates directly to the honor system and judicial councils. They suggest that students should apply congruent ethical-decision making strategies into their daily lives. Obviously, they should consider every ethical consideration before resorting to cheating behaviors whether on tests, assignments, data, or plagiarism.

**Perry's Theory of Intellectual and Ethical Development (1970).** Perry's Theory of Intellectual and Ethical Development (1970) describes one's cognitive development, which begins with simpler form, where the world is in two extreme terms of absolutely

right or wrong, and then develops to perceive world in more complex forms, where things have relative values. One's position would move on a continuum from duality (where everything is black or white, right or wrong) to evolving commitments within relativism.

When the individual approaches the latter stage, he or she would learn to analyze points of views with different lenses. It is important to understand how students today develop a sense of tolerance towards cheating when they see it happening among their peers. As students mature over time, they tend to question previous beliefs and move towards a conventional morality, one that is based on understanding of the social order at the institution they attend, and that also includes better notions of loyalty and trust. (Austin, et al., 2005).

Perry's Theory of Intellectual and Ethical Development is used as a theoretical foundation for this study because its applications in counseling and advising students can be very helpful for student service practitioners since they can give advice to students on how to deal constructively with these young adults with different background characteristic; and more important, counselors can have a better picture when it comes to design some form of response (Patton et al., 2016). In other words, institutions must develop alternative actions to reduce cheating events among the student population. Counseling at higher education institutions should include the topic of cheating behaviors when they give advice to students, mainly when counselling those recently admitted to the university.

**Kohlberg's Theory of Moral Development (1958).** Kohlberg argues that there are stages in moral development. In Stage 1, there is obedience and punishment orientation.

Individuals stay away from actions that result in some form of punishment. In stage 2, called instrumental orientation (Kohlberg, 1958), individuals consider what is in there for them. In stage 3, called interpersonal or tribal conformity (Kohlberg, 1958), individuals follow peers' actions. In Stage 4 called law and order (Kohlberg, 1958), there is a respect for fixed and existing rules. In Stage 5, called prior rights and social contract (Kohlberg, 1958), moral actions can be ambiguous. Finally, in Stage 6, it is indicated that individuals respect others as equals. However, stage 2 will be the focus in this study.

Kohlberg explains that many individuals at stage 2 tend to follow rules as if it is in their interest to do so. People will always have conflicts between their interests vs. other people's interests. They will choose an option considered to be fair to them and to others (Kohlberg, 1958). Students who find themselves at stage 2 maintain a pragmatic perspective. Therefore, they look to satisfy their own needs and at the same time they minimize negative consequences. In other words, if the chances of getting caught are relatively low, many students (at stage 2) might attempt to cheat. They also consider rules as situational and even flexible, and have to be in accordance with their own personal beliefs and principles in order to be accepted and followed (Austin et al., 2005).

Individuals move through stages, and their concept of justice moves from one system that serves oneself to one that serves one's close friends and family (Mayhew, Seifert, & Pascarella, 2010). College is one of the best places to encourage values development in young adults. College experiences permit young adults to progress from individual rights towards concern with comprehensive and consistent ethical principles (White, 1980).

Kohlberg's theory is a theoretical foundation for this study because Kohlberg holds that moral reasoning has been found to be significantly related to a number of behaviors that included cheating, cooperative behavior, voting preferences, and delinquency (Kohlberg & Candee, 1984). Institutions should build strong solid values and further teach their students to learn proper ways to react when they are faced with situations where they have to use proper moral reasoning. Efforts at the college level have been made to adapt some of Kohlberg's educational programs and include in classes the discussion of moral dilemmas (Patton et al., 2016). Institutions today should include the discussion of cheating behaviors and their consequences in this programs and classes.

**Gilligan's Theory of Women's Moral Development (1982).** Gilligan criticized Kohlberg's theory of moral development because Kohlberg's study was conducted with white, upper class men and boys only. Gilligan argued that Kohlberg's study did not include women or girls. Gilligan believed that women are not deficient on how they reason but just do it differently than men. Women and girls' goals are centered on keeping interpersonal relationships or just want to stay connected (Gilligan, 1982).

Gilligan's theory of women's moral development would provide a theoretical foundation to help understand why men might resort to acts of academic dishonesty more frequently than women. Such difference was relevant because according to Gilligan, women have been socialized in order to resist temptation and obey rules (Gilligan, 1982, as cited on Hendershott, Drinan, & Cross, 1999). According to Gaberson (1997), women tend to comprehend their moral behaviors in terms of relationships, and they tend to choose appropriate moral actions based on whether their actions will hurt, help, or be

neutral to relationships they have with important people in their lives. Gilligan's theory is a theoretical foundation for this study because other researchers (Canon & Brown, 1985; Delworth & Seeman, 1984) have linked this theory's ethic of care and justice and suggest that student affairs practitioners can always find new and creative ways in order to integrate moral theory into their practices (Patton et al., 2016). This message can also be transmitted to student leaders when they have to deal with their peers that have committed cheating (i.e., student tribunals) and help them grasp a better understanding on how care and justice might shape their roles at the institution and enhance leadership development (Picard & Guido-DiBrito, 1993). According to Gilligan, a woman uses criteria when she judges moral dilemmas and it "shifts from independence and selfishness to connection and responsibility" (Patton et al., 2016, p. 112).

One objective for higher education practitioners is to reduce cheating to minimum levels. In order to achieve this objective, educators had to understand the roles that structures played in the learning environment. Course designs, classroom practices, nature of exams and homework, and the relationship between the professor and the student can all be modified in order to reduce or induce cheating (Lang, 2013). According to Lang (2013), the main goal of building a theory was not as much as to reduce cheating in classrooms, but to increase the amount that students learned.

### **Studies on Cheating Behaviors Conducted in the U. S. and Canada**

Studies on cheating behaviors conducted in the U. S. showed that cheating behaviors among college students are on the rise (Williams & Hosek, 2003). In a survey conducted in 1992, researchers found that two out of three college students had

committed some forms of cheating behaviors during their studies at the higher education level (McCabe & Trevino, 1993). Although many students in the U.S. understood that cheating is against the rules, when they considered that other students were cheating, and peers believed cheating was acceptable, cheating behaviors at that particular institution increased in number (Rettinger & Kramer, 2009). As indicated in the historical background section at this chapter, evidence of cheating behavior in American higher education institutions is found since the 1800s. However, only in the 20<sup>th</sup> century did academic scholars begin to conduct research that could be backed up with actual data.

Empirical studies on student cheating probably began with the first large-scale study conducted by Bowers (1964). Bowers focused on self-reported data regarding college students' cheating behaviors. Since then, studies in U.S. have begun to surge (e.g., Burnett, Rudolph, & Clifford, 1998; Genereux & McLeod, 1995; McCabe & Drinan, 1999; McCabe & Trevino, 1997). Some of these studies have focused their scope to three aspects of cheating behaviors: self-reported dishonesty, personal characteristics of dishonest students, and the relationship between institutions and self-reported cheating rates (Gallant & Drinan, 2006). Another study stated that cheating is prevalent and that some forms of cheating behaviors have "increased dramatically over the last 30 years" (McCabe et al., 2001, p. 219). Researchers began to focus on the different characteristics that students possessed in order to understand what type of students were at a higher risk of committing an act of cheating.

Haines, Diekhoff, LaBeff, and Clark (1986) summarized that two train of thoughts exist in research related to cheating behaviors: (1) studies that address personal

characteristics of students and can be predictive of higher levels of cheating, and (2) studies that examined situational or contextual factors that led to higher levels of cheating in different scenarios (McCabe & Trevino, 1997). By the end of the 20th century, when McCabe and Trevino were already the leading researchers in this field, they began to conduct multi-campus investigations. Results in these multi-campus studies were similar to what previous studies pointed out: older students, females and students with high GPAs reported less unethical behavior events (McCabe & Trevino, 1997).

According to McCabe, Butterfield, and Trevino (2006), a number of contextual factors such as likelihood of being reported by peers, severity of penalties if caught, behavior of one's peers and the student's understanding and acceptance of academic integrity policies can predict cheating behaviors. Therefore, several techniques for reducing instances of cheating were suggested. Some include: not allowing cell phones or PDAs during exams, showing the students how easy it is to detect plagiarism using specialized software such as turnitin.com, Urkund, etc. (McCabe et al., 2006). Culture is also mentioned as an important factor that can influence the decision-making process of a student (McCabe et al., 2008). When a student considers cheating on a test, circumstances are different than when he or she considers plagiarism. Now the issue of privacy plays a role.

Researchers have emphasized the role of faculty for helping students understand the importance of individual work as these are important parts of group effort. For instance, assignments that focus on individual work should be developed more often with students and also faculty should be more careful when they communicate with their students

regarding their expectations regarding team work and perhaps create some practice assignments that can help students grasp these concepts better (Shrader, Ravenscroft, Kaufmann, & West, 2012). Hutton (2006) also provided recommendations regarding how institutions can inform faculty members to follow in order to increase awareness in student perceptions on cheating. These recommendations focused on providing orientation on policies and institutional policies and actions when the student begins his or her college career, explain to faculty which actions they can take to enforce these policies, insist with faculty on the importance of academic integrity, and inform faculty on new forms of cheating that students could be utilizing to get an advantage on other students (Hutton, 2006).

### **Studies on Cheating Behaviors Conducted Outside U. S. and Canada**

As much as cheating behaviors had been studied in length in countries such as U.S., Canada, and few European countries, it was only recently that studies began to be conducted outside U. S. and Canada. According to Hayes and Introna (2005), a rising number of international students in Western countries required institutions to reevaluate some of their practices. Hayes and Introna (2005) considered differing cultural values among overseas students toward plagiarism and the implications this might have for postgraduate education in Western context. Another study showed that although international students comprised only 10% of the campus population, they constituted 46.7% of cheating cases (Williams & Hosek, 2003). McCabe (2005) found that similarities were more frequent than differences among data collected in North America

and Asia, indicating that perhaps corrective measures that were implemented in U.S. and Canada could be effective against academic dishonesty events in Asia.

Academic cheating is known to be a widespread and common experience of college students in the transitional economies (the movement from a centralized socialist economy to an economy based on market relations). Less than 10 percent of the students in the transitional economies reported never observing academic cheating while about 16 percent of American students reported no observations (Grimes, 2004). Clearly, a large majority of all college students have seen fellow students engaged in dishonest academic behavior (Grimes, 2004). Grimes mentioned that about one-half of the American students self-reported that they had cheated at least once in college. The author also mentioned that more than three-fourths of the students in the transitional economies reported previous cheating behavior (Grimes, 2004).

A study conducted in different regions of the world (Asia, South Pacific, Europe, Canada and Latin America) was conducted in order to improve the comprehension of similarities and differences in codes of conduct (Hilliard, Crudele, Matulich, & McMurrian, 2011). These authors (Hilliard et al, 2011) addressed the establishment of a code of conduct (or honor codes) in institutions of higher education. According to these researchers, the importance of culture and 'home-grown' ethics becomes more essential. Another study also found that even faculties and students from different countries have different definitions of what constitutes honest academic work when compared to American faculty and students' conceptions (Park, 2003).

Studies in Asia are also increasing in number. Chapman and Lupton (2004) conducted a study in Hong Kong and compared its results with one based on American students. They concluded that academic dishonesty is a serious problem in China. Cheating on Graduate Record Examinations (GRE) and Test of English as a Foreign Language (TOEFL) exam forced the Educational Testing Services to suspend testing in China in 2002 (Chapman & Lupton, 2004). It was also found that men and women have different attitudes when it comes to cheating in this country (Chapman & Lupton, 2004). Another study in Asia that utilized econometric models to measure the effect of independent variables such as gender, GPA, and class rank among others in South Korea found that gender was a weak predictor in the dependent variable academic dishonesty (Ledesma, 2011). It should be noted that although Ledesma found significant difference in cheating behaviors by class size and that seniors and juniors cheated more than freshmen and sophomores, the question was formulated in a sense of having cheated during their college career, giving more semesters to older students to commit dishonest acts.

Studies conducted in the Middle East are less common. McCabe investigated the nature of the relationship between contextual factors and academic dishonesty using samples from three private institutions in Lebanon and compared the results with data collected from seven large universities in the U.S. This study supported the view that Lebanese's higher education institutions are strongly influenced by the norms of a collectivistic society where they were raised as opposed to the more individualistic society found in the United States (McCabe et al., 2008). Other studies (Chapman &

Lupton, 2004; Magnus, Polterovich, Danilov, & Savvateev, 2002) found that collectivistic cultures tend to tolerate more cheating, as helping other students in exams may be accepted and even encouraged. Another study conducted in Pakistan collected data from 958 respondents studying at graduate and undergraduate levels in different Pakistani universities (Nazir & Aslam, 2010). They stated the issue has become so severe for education and business sectors in the region that institutions must address these issues in college in order to prevent this problem from gravitating to the business levels in the country.

The number of international students who study in the U.S. continues to grow worldwide (Chapman & Lupton, 2004). This creates a sense of urgency for institutions of higher education in the U.S. to investigate the perceptions on cheating of students overseas, as a high percentage of these students might end up completing their graduate education in the U. S. after they finish their undergraduate studies in their respective countries. Research shows that through communication across countries, a more comprehensive approach can be taken by universities to not only eliminate loopholes, but also create a code of conduct and culture of academic integrity that spans globally; creating more ethical students, while reducing temptation to cheat. Having a code of conduct and living a culture of academic integrity is important for any institution.

### **Studies on Cheating Behaviors Conducted in Latin America**

According to Medina Díaz and Bermejo Carrión (2016), lack of a culture of integrity and honesty erodes the reputation of a higher education institution and also tarnishes the confidence of its alumni. This study exposes the frequency of unethical

behaviors in Latin American institutions as reported in institutions “located in Argentina, Brazil, Colombia, Costa Rica, Mexico, Peru and Puerto Rico” (Medina Díaz & Verdejo Carrión, 2016, p. 2). Some of the reasons most students mention for cheating are: the pressure to obtain high grades, too many assignments and exams, and the examination’s level of difficulty (Medina Diaz & Bermejo, 2016).

It is important to understand cultural differences between South and North American students since researchers found in another study that as much as 60% of Colombian students felt that solidarity, as it is understood by individual or social pressures, friendship, reciprocity and companionship, is one of the main reasons that may lead these students to commit academic dishonesty (Ordoñez et al., 2006). Another study conducted in Colombia at the Andean University showed academic dishonesty rates to be higher than those encountered in the U.S. and Canada. Students in law and business reported that they had cheated at least once during their college careers at this particular institution (Mejía & Ordoñez, 2004). The study by Mejía and Ordoñez (2004) also found that more than 70% of the students had allowed other students copy from their exams at least once in their college careers and 50% admitted to copying from someone else’s exam also at least once in their college careers. In other Latin American countries (Mexico and Brazil), similar studies also found that allowing another student copy from one’s exam at least once in their college careers was higher than 78% (da Costa et al., 2006; Diez-Martinez, 2014).

### **Studies on Cheating Behaviors Conducted in Ecuador**

Results from the study by Navarro (2016) indicate that moral and ethical obligations of practicing students regarding patients are done on its entirety only on 14% of the cases; they are followed almost always in 50% of the cases; but the investigator shows its preoccupation than in 28% of the cases, students mentioned they follow every ethical and moral obligation with the patient “very few times” (Navarro, 2016, p. 59) and 7% of the students stated that they never follow ethical and moral obligations with their patients in their pre-professional practices. In the recommendations of this dissertation, the author recommends faculty at this school should ask for administrative authorities at the Universidad Central del Ecuador for assistance in the creation of seminars and lectures on ethical and moral issues, to stimulate the students’ development of skills and attitudes that comply and follow ethical norms in their future professionals as dental care practitioners. Navarro also emphasized on the importance that faculty should express their opinions in diverse ethical and moral dilemmas that these future professionals might encounter, and reminds us that faculty should teach ethical and moral values by example in their daily actions (Navarro, 2016).

Provided that no existing study looks at students’ perception on cheating behaviors in Ecuador, it is imperative to first establish an empirical ground on the relationship between individual-level factors and college students’ perception on cheating behaviors. Then, the role of contextual/situational factors can be empirically examined in the relation to college students’ perception on cheating behaviors in the future. It should be noted that this study will not cover contextual/situational factors. As described by

McCabe and Trevino (1997), the current study was based on the assumption that individual students have different predispositions to cheat. Therefore, the focus of this study was on how individual background variables are related to college students' perception on cheating behaviors. Below is the review on empirical studies supporting the relationship between individual background variables and college students' perception on cheating behaviors.

### **Students' Background Variables and Perception on Cheating Behaviors**

Existing literature related cheating behaviors of college students relates to two factors (McCabe & Trevino, 1997; Haines et al., 1986): one is personal background variable and the other is situational/contextual factors. First, McCabe and Trevino (1996) argued that most literature on cheating behaviors of college students generally examined the relation of cheating behaviors to individual background variables such as age, gender, academic achievement, parent's education, and participation in extra-curricular activities (McCabe & Trevino, 1996). Second, McCabe and Trevino also pointed out the importance of situational factors in the relation to cheating behaviors. For instance, even though McCabe and Trevino indicated that fraternity/sorority membership is considered as an individual's characteristic, many studies out there sees it as a contextual factor. Other situational/contextual factors that were used by researchers include peer behaviors, peer's approval/disapproval of cheating, and peer reporting of cheating.

Many pointed out that college students' perception on cheating behaviors is related to individual factors. These include gender (Genereux & McLeod, 1995; Hendershott et al., 1999; Tibbets, 1999), age (Crown & Spiller; 1998; McCabe & Trevino, 1996),

academic achievement (Diekhoff et al., 1996; McCabe & Trevino, 1997; Tibbets, 1999), major (Caruana, Ramaseshan & Ewing, 2000; Harris, 1989; Wood & Longenecker, 1988), parental education (Bowers, 1964), involvement in extracurricular activities (Bowers, 1964; Haines et al., 1986), intercollegiate athletics and part or full-time jobs (Bowers, 1964; Haines et al., 1986). Of them, the present study focuses on gender, age, area of study and self-reported GPA.

**Gender and student perceptions on cheating behaviors.** The relationship between gender and cheating behaviors was been widely discussed in the literature. Research suggests that males cheat more than women (Bowers, 1964; Lin & Wen, 2007; Diekhoff et al., 1996; Hendershott et al., 1999; Hetherington & Feldman, 1964; McCabe & Trevino, 1997; McCabe & Bowers, 1994; McCabe & Trevino, 1996; McCabe & Trevino, 1997; Simon, Carr, McCulloughs, Morgan, Oleson, & Ressel 2004). Tibbets (1999) found that self-reported cheating differed significantly by gender. He found that men had significantly higher levels of low self-control and intentions to cheat. On the other hand, women showed higher levels of shame and greater awareness of perceived external sanctions. Another study found that males reported having more positive attitudes towards cheating than females. Behavioral gender differences have remained relatively stable during the 1960s to the 1990s, whereas over the same time period, men's attitudes toward cheating had become more positive than women's (Tibbets, 1999).

Another study found that female students were more likely to report suspected cases of cheating than were their male counterparts. Furthermore, women seem to be guided by moral decision-making when it comes to cheating when compared to males

(Tibbets, 1999). Recent trends indicate that as females tend to enroll more often in traditionally male dominated careers such as business and engineering, the number of cheating instances among female students has been increasing in the last decades (McCabe et al., 1999). In another study, while 35.7% of the students indicated that they would report a case of suspected cheating, the gender difference was significant, showing about 46% of the female students stating they would report it and only 30% of the males indicated they would report others cheating (Simon et al., 2004).

**Major and student perceptions on cheating behaviors.** Several studies found that students in Business Administration may cheat more often than students from other disciplines. Some studies indicate that students with business majors have lower ethical values than their peers (Caruana, Ramaseshan & Ewing, 2000; Harris, 1989; Wood & Longenecker, 1988;). Rakovski and Levy studied the perceptions of cheating of 1,255 business students and concluded that students who reported participating in dishonest acts had lower GPAs, and were younger than those who did not. Rakovski and Levy (2007) also showed high correlation between the degree of cheating behavior and the amount of punishment that students felt the act deserved. Furthermore, they found that students in management committed more serious cheating behaviors such as using crib sheets or copying from other students during exams. Another study paired 13 comparable business and academic situations and surveyed students in three relatively small (less than 3,500 students) institutions in the United States. Results showed that non-business majors are, on the average, more ethical than business majors (Smyth, Davis, & Kroncke, 2009).

D'arcy, Connolly, Lentz, and Morrison (2006) mentioned that although most of the research regarding business students has been conducted in a way to discover characteristics of those who engage more in cheating behavior, little research has attempted to develop a general model for understanding the motives and predispositions for engaging in such acts. D'arcy et al. (2006) focused their study on what they call the fraud triangle-incentive, rationalization and opportunity- as a significant determinant of student cheating. They hypothesized a relationship between “academic dishonesty (a type of fraud) and the incentive to cheat (obtain a better letter grade), the opportunity to cheat (e.g., faculty do not deter cheating) and the ability to rationalize cheating (e.g., lack of severe penalties)” (D'arcy et al., 2006, p. 38). Their results showed that age and students reported level of partying and going out had a significant impact on the level of cheating. Student GPAs, gender and hours worked per week did not show any significance.

A study conducted by Reisenwitz (2012) indicated that many business schools have incorporated ethics courses and/or courses that have ethics components into their business school curriculum. The rationale behind this was to improve the ethical behavior of business students before they graduate and enter the labor force. This study attempted to measure if business ethics can be taught, and if so, whether students will apply business ethics to their own ethical behavior. The study suggested the inclusion of “additional courses in business ethics may be necessary to further positively influence students’ ethical behaviors” (Reisenwitz, 2012, p. 126). Furthermore, Reisenwitz (2012) also suggests that students might be better off with the addition of courses that

incorporate personal ethics, versus business ethics, as an alternative to change the student's personal ethical behavior.

**Age and student perception on cheating behaviors.** Students early in their college are reported to commit cheating behavior acts more frequently than students late in their college careers (McCabe & Trevino, 1997; Tibbets, 1999). One study conducted in Australia (Mirshekary, Yaftian, & Mir, 2010) found that there was statistically significant difference in cheating behaviors between younger and older students. In another study conducted in the United States (Bisping, Patron, & Roskelley, 2008), Bisping and colleagues found that age was negatively related to cheating. That is, the older the student, the less likely he or she was to commit an academically dishonest act. Furthermore, in a twenty-year follow-up study (Vandeley et al., 2007), it was found that one of the variables that continue to discriminate between cheaters and non-cheaters, was age (cheaters are younger).

Some argued that it is because as students get closer to finishing their college careers, classes are smaller in size and number of students, and in addition, the topics of classes are more closely related to their majors or career of their choice. Therefore, many researchers including Vandeley and colleagues (2007) pointed out that educating younger generation of students on topics that relate to campus culture is vital to reduce cheating events.

**GPA and student perception on cheating behaviors.** Some studies indicated that the higher the GPA of the student, the lesser the chance of an academically dishonest event taking place (Bisping et al., 2008). This inverse relationship between students'

performance and propensity to cheat was also found across countries (Texeira & Rocha, 2001). The study included institutions from the American (4), European (14), African (2), and Oceania (1) continents. Hetherington and Feldman (1964) found that there was a higher incidence of cheating among students with lower GPAs. A similar finding was in Vandeley and colleagues (2007)'s study, where cheaters have lower grades than non-cheaters. Furthermore, in a decade of research (McCabe et al., 2001; McCabe & Trevino, 1997; McCabe et al., 1999) it was also found that students with lower GPAs report more cheating than students with higher GPAs. It is also mentioned that the students with lower GPAs might attempt to cheat more often than students with higher GPAs because of the increasing pressure in the world today to apply and get accepted into top graduate programs that require minimum GPAs just to apply to these schools. However, another argument could be that students with high GPAs obtained these by cheating. Further research should be conducted to determine this statement. On the other hand, Nowell and Laufer (1997) pointed out that students that did well in the class had no need to cheat and apparently did not do so. Smyth, Davy, Rosenberg, and Haight (2003) concluded that when summarizing results of previous studies, students with greater academic performance engage less often in cheating when compared to students with lower performance.

### **Summary**

The literature review focused first on the history of research on academic dishonesty in the U.S. Special attention was given to Bertram-Gallant's history of cheating from the eighteenth century to the present. Then the relationship between academic dishonesty and

cheating behaviors was examined. The theoretical foundations for this study was analyzed. The current study aimed to survey Ecuadorian students at a small, private university in possible scenarios of cheating behaviors and understand their perceptions on whether these acts should be considered cheating or not, and how serious they are. Based on Chickering's theory of Moral Development (1969), Perry's Theory of Intellectual and Ethical Development (1970), Kohlberg's Theory of Moral Development (1976), and Gilligan's Theory of Women's Moral Development (1982), the current study explored student perceptions of cheating behaviors in Ecuador and their relationship with four specific individual factors: Gender, age, GPA and major. Studies on cheating behaviors conducted in the U.S. and Canada was analyzed next. Studies conducted outside the U.S. and Canada were revised, then studies conducted in Latin America were covered. Finally, it was mentioned that only one study was found in Ecuador. Since there is only one empirical study on this topic in Ecuador, which is not directly looking at student's perception on cheating at the college, this study would provide valuable information that others bring to table. This study aims to help researchers everywhere in the understating of perceptions of cheating among students in Ecuador.

### **Chapter Three: Methodology**

The current study aimed to understand the perception on cheating behaviors of full time undergraduate students in Ecuador. Participants responded to questionnaires, which measure their perception on cheating behaviors and provided information related to individual background variables including gender, age, major, and self-reported cumulative GPA. The present chapter summarizes research design, population, sample, measures and variables, and statistical analysis used in the current study.

#### **Research Design**

The present study was quantitative and correlational in nature (Creswell, 2005), which examines the degree to which a set of variables (dependent and independent) were related. The main objective of this study was to understand if there are significant relationships between individual background variables and students' perception on what constitutes an act of cheating under the assumption that individual students might have different predispositions to commit cheating behaviors as described by McCabe and Trevino (1997). As a result, the current study was not focused on contextual factors such as membership to fraternities or sororities (types of student associations that do not exist in Ecuadorian higher education institutions), peer disapproval of cheating, and perceived severity of penalties for offenders.

This study was based on participants' self-reported responses on a survey. Some of the advantages of the survey include: 1) specific data: this form of research enables investigators to gather information about a topic that are specific to the issue, and 2) exclusivity of information: the findings of the survey are exclusively designed, and strategies to address the problem can be targeted with specific solutions (Atwork, 2015).

On the other hand, disadvantages of the survey include: 1) time: the use of primary data consumes time and can sometimes become irrelevant, 2) cost: the implementation of large surveys involves personnel, among other investigative costs, like transportation and housing, and 3) interpretation: when a participant takes a survey, his personal interpretation of the question can mislead researchers towards wrong conclusions (Liebler, 2016). However, advantages outweigh disadvantages and a self-report survey seems to be the appropriate tool to use in the first study of this nature in Ecuador.

### **Population and Sample**

The population for this study consists of the full time undergraduate students in Ecuador. Samples for the current study are the full time undergraduate students enrolled in on-campus classes at a small, private university campus located in Quito, Ecuador, who answered a survey sent via email between June of 2015 and July of 2015.

Participants were expected to be young adults, whose age range between 18 and 24 years old, who are considered to be classically traditional college students. If a participant responding to the survey was identified to be a legal minor or under the age of 18, he/she was not allowed to continue to respond the questionnaire.

Although the main campus is located in Quito, there are other facilities around the country. There are two more campuses in Quito (Quito's population was approximately 2,500,000 people in 2015), one campus in Guayaquil (The most populated city in the country; approximately 3,200,000 people in 2015), one campus in Loja (Loja's approximate population was 190,000 people in 2015), and one campus in the Galapagos islands; more specifically located at the port of Santa Cruz island (Port Ayora's

population was approximately 15,000 people in 2015). At the time when this study was conducted, university had 2,347 students enrolled at this particular campus. This institution is divided in eleven schools and/or colleges. These schools are (in alphabetical order): Applied Sciences (109 student), Architecture (90 students), Automotive Engineering (715 students), Business Administration (251 students), Hospitality Management (171 students), Law (161), Medical sciences (648 students), and Social Sciences and Communications (202 students).

The student body is composed of 65% men, 35% women. Exception was found in the School of Mechanical Engineering, where only 8 (0.01%) women exist out of 704 students in 2015. Most of the students (are from the province of Pichincha (84%), where Quito is the capital of this province. The remaining students come from the other 23 provinces in Ecuador.

### **Data Collection**

The present study followed the requirements of IRB approvals from two institutions. The survey was sent to the entire full time undergraduate students enrolled in on-campus classes at a small, private university campus located in Quito, Ecuador between June of 2015 and July of 2015 via an electronic email through the Information Systems Department (ISD) in order to avoid direct contact of the participants to the researcher. In particular, e-mails including questionnaires measuring cheating perception and demographic information (as shown in Appendix A and B), consent form (as shown in Appendix C), and a confidentiality certification (As shown in Appendix D) was sent to the entire full-time undergraduate students' directory list by the ISD. A survey reminder

was sent to encourage to the students for their participation every two weeks during data collection. The survey was open for a time period of eight weeks.

### **Variables and Measures**

The research questions are:

#### **Research Question 1**

1. How do students at a small, private Ecuadorian university perceive overall cheating behaviors?
2. Are there any differences in student perception on overall cheating behaviors by students' demographic variables: gender, major, age and self-reported GPA?

#### **Research Question 2**

1. How do students at a small, private Ecuadorian university perceive cheating related to assignments?
2. Are there any differences in student perception on cheating related to assignments by students' demographic variables: gender, major, age and self-reported GPA?

#### **Research Question 3**

1. How do students at a small, private Ecuadorian university perceive cheating on exams?
2. Are there any differences in student perception on cheating on exams by students' demographic variables: gender, major, age and self-reported GPA?

#### **Research Question 4**

1. How do students at a small, private Ecuadorian university perceive cheating related to data?

2. Are there any differences in student perception on cheating related to data by students' demographic variables: gender, major, age and self-reported GPA?

#### **Research Question 5**

1. How do students at a small, private Ecuadorian university perceive cheating related to plagiarism?
2. Are there any differences in student perception on cheating related to plagiarism by students' demographic variables: gender, major, age and self-reported GPA?

The goal of the current study was to identify what types of acts students perceive as a cheating behavior, and how serious these actions were perceived. Table 1 describes the variable names, type of variable (Dependent or independent), the level of measurement, and the values for each variable.

**Perceptions on cheating behaviors.** The set of items were drawn from one of the sections used in a survey developed by McCabe in 2003 (Appendix A). The original instrument was created by McCabe to measure not only the perceptions of the student, but the students were also asked if they had any knowledge or had themselves any direct participation in these events. Since the purpose of the present study was to understand student perceptions on cheating behaviors, items in the original survey developed by McCabe, which measure whether students had participated in the events, were not used for the current study.

Students were asked to answer 25 items related to their perceptions on academic cheating behavior. They were asked to rate their perception on a 4 points Likert-scale

regarding whether that specific action was considered as (1) Not cheating at all, (2) Trivial cheating, (3) Moderate cheating, or (4) Serious cheating. A composite score for overall cheating was computed by summing each response, which ranges from 1 to 100. Then, 25 questions were divided into four subscales including (1) Perceptions of cheating related to assignments, (2) perceptions of cheating related to exams, (3) perceptions of cheating related to data, and (4) perceptions of cheating related to plagiarism.

First, a subscale measuring cheating perception related to assignments was created by summing responses on six items (e.g., “Working on an assignment with others in person when the instructor asked for individual work, “Working on an assignment with others via email or Instant Messaging when the instructor asked for individual work”, “Receiving unpermitted help on an assignment”), whose score ranges from 1 to 24.

Second, a subscale measuring cheating perception related to exams was created by summing responses on nine items (e.g., “Getting questions or answers from someone who has already taken the test”, “Helping someone else cheat on a test”, Copying from another student with his or her knowledge”), whose score ranges from 1 to 36.

Third, a subscale measuring cheating perception related to data was created by summing responses on two items (e.g., “Fabricating or falsifying lab data” and “Fabricating or falsifying research data”), whose score ranges from 1 to 8. Lastly, a subscale score measuring cheating perception related to plagiarism was created by summing responses on eight items (e.g., “Fabricate or falsify bibliography”, “In a course requiring computer work, copying a few sentences from a book, magazine, or journal not electronic or Web-based? - without footnoting them in a paper you submitted”,

“Submitting a paper you purchased or obtained from a Website such as ‘Schoolsucks.com’ - without footnoting them in a paper you submitted”), whose score ranges from 1 to 24.

**Student background variables.** The independent variables for this study were the individual background variables including gender, age, major, and self-reported GPA. First, the participant was asked for their gender (i.e., male vs. female). Second, the participant was asked for their major or area of study (i.e., Business vs other 10 schools). Third, the participant was asked the semester they were enrolled in (i.e., 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> semester). Students from 1<sup>st</sup> to 5<sup>th</sup> semester were predetermined as young students, and students from 6<sup>th</sup> to 10<sup>th</sup> semester were categorized as older students. It should be noted that these are five-year degrees now due to the increase in required credits for graduation by the Ecuadorian government in 2007. The actual number of credits required for graduation is 225. For the purposes of this study, students enrolled in the first five semesters of the career will be considered younger students, and those on the sixth to tenth semester will be considered older students. Finally, the participant was asked for their self-reported cumulative GPA at the time when the survey was taken, which were recorded into three categories – low GPA (GPA less than 80), medium (GPA between 80 and 89), and high (GPA of 90 and above).

### **Data Analysis**

All the data analysis was conducted using SPSS (IBM, 2013). First, descriptive statistics for respondents’ background characteristics (Gender, age, major and self-reported GPA) were summarized. Responses on each item were graphically summarized.

Second, in order to examine if there were mean differences by demographic variables (i.e., gender, major, and age) on total cheating score and each of four subscales of cheating perception, a series of independent samples *t*-tests were performed. Third, in order to understand whether there were mean differences by GPA on total cheating score and each of four subscales of cheating perception, a series of one-way between-subjects analyses of variance (ANOVA) were performed. Lastly, a series of multiple linear regressions were conducted in order to determine whether any of participants' background variables is significantly related to total cheating score and each of four subscales of cheating perception.

## **Chapter Four: Results**

The Statistical Package for the Social Sciences (SPSS) (IBM Corp., 2013) was used to analyze survey responses in order to answer the posited research questions for the current study. First, frequency tables of survey respondents by student background characteristics (i.e., gender, age, major, and self-reported GPA) were created. Second, descriptive statistics for all survey respondents were computed on total score on cheating perception and four sub-scores on perceptions of cheating related to assignments, exams, data, and plagiarism. Third, a series of independent samples *t*-test or Analysis of Variance (ANOVA) were performed to see whether each student characteristic including gender, age, major and self-reported GPA is related to total perceptions of cheating score and four sub-scores on perceptions of cheating related to assignments, exams, data, and plagiarism. Lastly, a series of linear multiple regression model were conducted to explore the unique effect of gender, age, major, and self-reported GPA on total cheating perception score and four sub-scores on cheating perception related to assignments, exams, data, and plagiarism. Below, results from these analyses are discussed.

### **Descriptive Statistics**

The total number of survey respondents was 532. From the total 532 respondents, 25 students did not answer questions regarding student demographics, consequently leaving the number of valid survey responses for further subsequent statistical analyses to 507. Table 2 summarizes the frequency (and percentages) of survey respondents by gender, age, major, and self-reported GPA.

First, there were a slightly higher number of males responding to the survey ( $n = 272$ , 51%) than females ( $n = 235$ , 46%). Second, students were asked to answer what semester they were enrolled in, when the survey was taken. The results were as follows: 46 students (9%) in the first semester, 62 students (12%) in the second semester, 34 (7%) in the third semester, 90 students (18%) in the fourth semester, 31 students (6%) in the fifth semester, 51 students (10%) in the sixth semester, 30 students (6%) in the seventh semester, 56 students (11%) in the eighth semester, 35 students (7%) in the ninth semester, and 72 (14%) in the tenth semester. For the purposes of this study, students in the first through fifth semester were grouped together as younger students ( $n = 263$ , 52%), while those enrolled in the sixth through tenth semester were grouped as older students ( $n = 244$ , 48%). This dichotomous grouping of survey respondents was done in order to see if younger students had different opinions when it comes to perception on the seriousness of different cheating scenarios.

Third, almost half of the students from the Business school responded to the survey ( $n = 92$ , 17%), which were followed by those in Medicine ( $n = 161$ , 32%), Automotive Mechanical Engineering ( $n = 85$ , 17%), Law ( $n = 31$ , 6%), Communications ( $n = 26$ , 5%), Mechatronics ( $n = 18$ , 4%), and Other Schools including Architecture, International Relations, Tourism, Hotel Management, Gastronomy, Computer Science, and Information Technology ( $n = 94$ , 19%). For the purpose of this study, students from non-business schools were grouped together, leading to a total of 440 (83%) non-Business students. Fourth, regarding self-reported GPA, as shown in Table 2, only four students with a self-reported GPA under 70 answered the survey (1%), and 57 (11%) had a self-

reported GPA between 71 and 80. The highest percentage of survey responses was from students with a self-reported GPA between 81 and 89 ( $n = 314$ , 62%), followed by students with self-reported GPA between 90 and 100 ( $n = 132$ , 26%). For the purpose of this study, students were grouped in three: students with self-reported GPA lower than 80 (low), students with self-reported GPA between 80 and 89 (medium), and students with self-reported GPA of 90 or higher (high).

Lastly, total score on perceptions of cheating had a mean of 79.21 with a standard deviation of 14.88 ( $Min = 25$ ,  $Max = 100$ ). And, mean scores by sub-score on perceptions of cheating were distributed around 16.50 with a standard deviation of 4.22 ( $Min = 6$ ,  $Max = 24$ ) for perceptions of cheating related to assignments, 29.71 with a standard deviation of 6.06 ( $Min = 9$ ,  $Max = 36$ ) for perceptions of cheating related to exams, 7.22 with a standard deviation of 1.32 ( $Min = 2$ ,  $Max = 8$ ) for perceptions of cheating related to data, and 25.78 with a standard deviation of 5.08 ( $Min = 8$ ,  $Max = 32$ ) for perceptions of cheating related to plagiarism.

### **Perceptions of cheating related to assignments**

Six items were used to represent one's perceptions of cheating related to assignments. These include item 2 (Working on an assignment with others in person when the instructor asked for individual work), item 3 (Working on an assignment with others via email or Instant Messaging when the instructor asked for individual work), item 12 (Receiving unpermitted help on an assignment), item 13 (Copying by hand or in person another student's assignment), item 14 (Copying using digital means such as Instant Messaging or email another student's homework), and item 16 (Turning in a

paper from a “paper mill” a paper written and previously submitted by another student and claiming it as your own).

**Response on each item.** Figure 1 displays responses on each item. On item 2, 30.64% ( $n = 163$ ) responded as “not cheating”, 33.65% ( $n = 179$ ) responded as “trivial cheating”, 25.38% ( $n = 135$ ) responded as “moderate cheating”, and 10.34% ( $n = 55$ ) as “serious cheating”. On item 3, 28.38% ( $n = 151$ ) responded as “not cheating”, 36.09% ( $n = 192$ ) responded as “trivial cheating”, 24.44% ( $n = 130$ ) responded as “moderate cheating”, and 11.09% ( $n = 59$ ) responded as “serious cheating”. On item 12, 16.54% ( $n = 88$ ) responded as “no cheating,” 29.70% ( $n = 158$ ) responded as “trivial cheating,” 33.08% ( $n = 176$ ) responded as “moderate cheating,” and 20.68% ( $n = 110$ ) responded as “serious cheating”. On item 13, 5.83% ( $n = 31$ ) responded as “no cheating,” 17.86% ( $n = 95$ ) responded as “trivial cheating”, 38.72% ( $n = 206$ ) responded as “moderate cheating,” and 37.59% ( $n = 200$ ) responded as “serious cheating”. On item 14, 6.39% ( $n = 34$ ) responded as “no cheating,” 19.86% ( $n = 103$ ) responded as “trivial cheating,” 36.65% ( $n = 195$ ) responded as “moderate cheating,” and 37.59% ( $n = 200$ ) responded as “serious cheating”. And finally, on the assignments section, on item 16, 3.01% ( $n = 16$ ) responded as “no cheating,” 10.34% ( $n = 55$ ) responded as “trivial cheating,” 25.56% ( $n = 136$ ) responded as “moderate cheating,” and 61.09% ( $n = 325$ ) responded as “serious cheating”.

In summary, when it comes to working on assignments with others when the instructor asks for individual work (item 2), almost 1 out of 3 respondents considered this is not cheating. Only about 10% of respondents believe this action is serious cheating.

When this is done via email or instant messaging (item 3), responses were similarly distributed. When the question addressed receiving unpermitted help on an assignment, almost two out of three respondents considered it either trivial or moderate cheating. Copying another student's homework was only considered "not cheating" by 5% and considered "serious" by 37% of the respondents. However, copying another student's homework using a digital mean was considered either moderate or serious cheating by almost 3 out of 4 respondents. Similarly, submitting a paper previously submitted by another student was considered "serious cheating" by 61% of the respondents.

**Perceptions of cheating related to assignments by student characteristics.** A composite score for perceptions of cheating related to assignments was computed by summing responses on six items related to assignments. The score on perceptions of cheating related to assignments ranged from 6 to 24. The estimated Cronbach's alpha of sub-score on perceptions of cheating related to assignment for the sample in the current study was .86.

A series of an independent samples *t*-test were used to analyze how sub-score on perceptions of cheating related to assignments differ by each of the following student background variables: (1) gender (female vs. male), (2) age (younger vs. older students), and (3) major (students from Business school versus other 10 schools). Results from independent samples *t*-tests are displayed in Table 2. Then, a one-way between-subject Analysis of Variance (ANOVA) was used to examine whether students' self-reported GPA (categorized as low GPA group with students with a self-reported GPA of 80 points and below; medium GPA group with students with a self-reported GPA between 80 and

90 points; and high GPA group with students with a self-reported GPA between 90 and 100 points) is related to sub-score on perceptions of cheating related to assignment. Table 3 displays result from a one-way between-subject ANOVA on sub-score on perceptions of cheating related to assignment by a self-reported GPA.

First, an independent samples *t*-test was analyzed to compare sub-scores on perceptions of cheating related to assignments by gender. Levene's test suggests that equal variances in sub-scores on perceptions of cheating related to assignments between female and male students can be assumed ( $F = 0.13$   $p = .72$ ). Result from the independent samples *t*-test indicates that there is statistically significant mean difference in sub-score on perceptions of cheating related to assignments by gender ( $t(505) = 2.04$ ,  $p = .04$ ), showing that male students ( $M = 16.15$ ,  $SD = 4.26$ ,  $n = 272$ ) had significantly lower mean cheating score related to assignments than female students ( $M = 16.93$ ,  $SD = 4.24$ ,  $n = 235$ ).

Second, the independent samples *t*-test was analyzed to compare sub-score on perceptions of cheating related to assignments by major. Levene's test suggests that equal variances in sub-scores on perceptions of cheating related to assignments between business and non-business students can be assumed ( $F = 0.51$   $p = .48$ ). Result from an independent samples *t*-test suggests that there is no statistically significant mean difference in sub-score on perceptions of cheating related to assignments by major ( $M = 17.12$ ,  $SD = 4.09$ ,  $n = 92$  for students from Business school;  $M = 16.37$ ,  $SD = 4.24$ ,  $n = 440$  for students from non-Business schools),  $t(530) = -1.56$ ,  $p = .12$

Third, an independent samples *t*-test was analyzed to compare sub-scores on perceptions of cheating related to assignments by age. Levene's test suggests that equal variances in sub-scores on perceptions of cheating related to assignments between younger and older students can be assumed ( $F = 2.56, p = .11$ ). Result from the independent samples *t*-test indicates that there is statistically significant mean difference in in sub-scores on perceptions of cheating related to assignments by age ( $t(505) = -2.05, p = .04$ ), showing that younger students ( $M = 16.14, SD = 4.04, n = 263$ ) had a significantly lower mean sub-score on perceptions of cheating related to assignments than older students ( $M = 16.91, SD = 4.47, n = 244$ ).

Fourth, a one-way between-subject ANOVA test was used to see whether perceptions of cheating related to assignments differs by students' self-reported GPA. As shown in Table 4, result from a one-way between-subject ANOVA shows that there was no statistically significant mean difference in sub-scores on perceptions of cheating related to assignments by students' self-reported GPA levels ( $F(2, 504) = 2.18, p = .12, \eta^2 = .01$ ).

**Results from correlation analysis.** As shown in Table 5, sub-score on perceptions of cheating related to assignments was significantly and positively correlated with sub-score on cheating perception related to exams ( $r = .74, p < .01$ ), sub-score on perceptions of cheating related to data ( $r = .46, p < .01$ ), sub-score on cheating related to plagiarism ( $r = .74, p < .01$ ), males ( $r = -.09, p < .05$ ), a self-reported GPA above 90 ( $r = -.09, p < .05$ ), and older students ( $r = .09, p < .05$ ). However, sub-score on perceptions of cheating

related to assignments was significantly and negatively correlated with males ( $r = -.09, p < .05$ ) and a self-reported GPA above 90 ( $r = -.09, p < .05$ ).

**Results from multiple regression.** As shown in Table 6, a linear multiple regression was performed to predict sub-score on perceptions of cheating related to assignments based on gender, age, major, and a self-reported GPA. An overall model was found to be statistically significant ( $F(6, 500) = 2.27, p = .04$ ), with an  $R^2$  value of .03. Of all the independent variables, age was found to be only statistically significant predictor of sub-score on perceptions of cheating related to assignments ( $b = 0.87, SE = .38, t = 2.29, p = .02$ ), indicating that older students showed higher perceptions of cheating related to assignments than younger students, after controlling for gender, major, and self-reported GPA.

### **Perceptions of cheating related to exams**

Nine items were included to represent one's perceptions of cheating related to exams. These include item 4 (Getting questions or answers from someone who has already taken the test), item 6 (Helping someone else cheat on a test), item 9 (Copying form another student with his or her knowledge), item 10 (Copying form another student without his or her knowledge), item 11 (Using digital technology such as text messaging- to get unpermitted help form someone during a test or examination), item 19 (Using unpermitted handwritten crib notes or cheat sheets during a test or exam), item 20 (using and electronic/digital device as an unauthorized aid during an exam), item 23 (Using a false or forged excuse to obtain an extension on a due date or delay taking an exam), and item 25 (Cheating on a test on any other way).

**Response on each item.** Figure 2 displays responses on each item. On item 4, 7.14% ( $n = 38$ ) responded as “not cheating,” 15.04% ( $n = 80$ ) responded as “trivial cheating,” 31.20% ( $n = 166$ ) responded as “moderate cheating,” and 46.62% ( $n = 248$ ) responded as “serious cheating”. On item 6, 2.82% ( $n = 15$ ) responded as “not cheating,” 11.65% ( $n = 62$ ) responded as “trivial cheating,” 31.39% ( $n = 167$ ) responded as “moderate cheating,” and 54.14% ( $n = 288$ ) responded as “serious cheating”. On item 9, 6.39% ( $n = 34$ ) responded as “not cheating,” 15.79% ( $n = 84$ ) responded as “trivial cheating,” 35.34% ( $n = 188$ ) responded as “moderate cheating,” and 42.48% ( $n = 226$ ) responded as “serious cheating”. On item 10, 2.44% ( $n = 13$ ) responded as “no cheating,” 10.15% ( $n = 54$ ) responded as “trivial cheating,” 21.43% ( $n = 114$ ) responded as “moderate cheating,” and 65.98% ( $n = 351$ ) responded as “serious cheating”.

On item 11, 2.44% ( $n = 13$ ) responded as “no cheating,” 10.34% ( $n = 55$ ) responded as “trivial cheating,” 25.19% ( $n = 134$ ) responded as “moderate cheating,” and 62.03% ( $n = 330$ ) responded as “serious cheating”. On item 19, 3.38% ( $n = 18$ ) responded as “no cheating,” 10.90% ( $n = 58$ ) responded as “trivial cheating,” 24.06% ( $n = 128$ ) responded as “moderate cheating,” and 61.65% ( $n = 328$ ) responded as “serious cheating”. On item 20, 3.01% ( $n = 16$ ) responded as “no cheating,” 11.47% ( $n = 61$ ) responded as “trivial cheating,” 22.56% ( $n = 120$ ) responded as “moderate cheating,” and 62.97% ( $n = 335$ ) responded as “serious cheating”. On item 23, 19.36% ( $n = 103$ ) responded as “no cheating,” 22.18% ( $n = 118$ ) responded as “trivial cheating,” 27.63% ( $n = 147$ ) responded as “moderate cheating,” and 30.83% ( $n = 164$ ) responded as “serious cheating”. Finally, on item 25, 3.01% ( $n = 16$ ) responded as “no cheating,” 9.59% ( $n =$

51) responded as “trivial cheating,” 25.56% ( $n = 136$ ) responded as “moderate cheating,” and 61.84% ( $n = 329$ ) responded as “serious cheating”.

In summary, more than 45% considered getting questions or answers from someone who has already taken the test as “serious cheating”. If the other student was aware of this action, the percentage of responses on “serious cheating” goes down to 42.48%. Helping someone to cheat on a test was considered “serious cheating” by more than half of the respondents (54.14%). Again, using crib notes or digital means to cheat on a test had percentages of responses of “serious cheating” above 60%. And, the largest number of students considers copying from another student without his knowledge to be “serious cheating”.

**Perceptions of cheating related to exams by student characteristics.** The composite score for perceptions of cheating related to exams was computed by summing responses on nine items related to exams. The sub-scores on cheating perception related to exams ranged from 9 to 36. The estimated Cronbach’s alpha of sub-score on perceptions of cheating related to exams for the sample in the current study was .92.

A series of independent samples  $t$ -test were used to analyze how perceptions of cheating related to exams differ by each of the following student background variables: (1) gender (female vs. male), (2) age (young vs. old), and (3) major (students from business school versus others). Results from independent samples  $t$ -tests are displayed in Table 3. Then, one-way between-subject Analysis of Variance (ANOVA) was used to examine whether students’ self-reported GPA (categorized as low GPA group with students with a self-reported GPA of 80 points and below; medium GPA group with

students with a self-reported GPA between 80 and 90 points; and high GPA group with students with a self-reported GPA score between 90 and 100 points) is related to sub-score perceptions of cheating related to exams. Table 4 displays result from a one-way between-subject ANOVA on sub-score on perceptions of cheating related to exams by a self-reported GPA.

First, the independent samples *t*-test was analyzed to compare sub-scores on perceptions of cheating related to exams by gender. Levene's test suggests that equal variances in sub-scores on cheating perception between female and male can be assumed ( $F = 0.84$   $p = .36$ ). Result from the independent samples *t*-test indicates that there is no statistically significant mean difference in sub-score on perceptions of cheating related to exams by gender ( $M = 29.47$ ,  $SD = 6.29$ ,  $n = 272$  for male students;  $M = 30$ ,  $SD = 5.93$ ,  $n = 235$  for female students),  $t(505) = 0.96$ ,  $p = .34$ .

Second, the independent samples *t*-test was analyzed to compare sub-score on perceptions of cheating related to exams by major. Levene's test suggests that equal variances in sub-scores on perceptions of cheating related to exams between business and non-business students can be assumed ( $F = 0.33$   $p = .57$ ). Result from the independent samples *t*-test shows that there is no statistically significant mean difference in sub-score on cheating perception related to exams by major ( $M = 29.91$ ,  $SD = 6.29$ ,  $n = 92$  for business students;  $M = 29.67$ ,  $SD = 6.02$ ,  $n = 440$  for non-business students),  $t(530) = -0.34$ ,  $p = .73$ .

Third, the independent samples *t*-test was analyzed to compare sub-scores on perceptions of cheating related to exams by age. Levene's test indicates that equal

variances in sub-scores on perceptions of cheating related to exams between younger and older students can be assumed ( $F = 2.53, p = .11$ ). Result from the independent samples  $t$ -test shows that there is significant mean difference in sub-scores on perceptions of cheating related to exams by age ( $t(505) = -2.03, p = .04$ ), showing that younger students ( $M = 29.19, SD = 6.31, n = 263$ ) had a significantly lower mean perception of cheating related to exams than older students ( $M = 30.29, SD = 5.88, n = 244$ ).

Fourth, a one-way between-subject ANOVA test was used to see whether sub-score on perceptions of cheating related to exams differ by students' self-reported GPA. Result from the ANOVA indicated that there was no statistically significant mean difference in sub-scores on perceptions of cheating related to exams by students' self-reported GPA levels ( $F(2, 504) = 1.62, p = .20, \eta^2 = .01$ ).

**Results from correlation analysis.** As shown in Table 5, sub-score on perceptions of cheating related to exams was significantly and positively correlated with sub-score on perceptions of cheating related to data ( $r = .60, p < .01$ ), sub-score on perceptions of cheating related to plagiarism ( $r = .67, p < .01$ ), and older students ( $r = .09, p < .05$ ).

**Results from multiple regression.** As shown in Table 6, a linear multiple regression was done to predict sub-score on perceptions of cheating related to exams based on gender, age, major, and self-reported GPA. An overall model was found to be statistically significant ( $F(6, 500) = 1.39, p = .22$ ), with a  $R^2$  value of .02. Of all the independent variables, age was found to be statistically significant ( $b = 1.11, SE = .55, t = 2.02, p = .04$ ), indicating that older students showed significantly higher sub-score on

perceptions of cheating related to exams than younger students, after controlling for gender, major, and self-reported GPA.

### **Perceptions of cheating related to data**

Two items were used to measure one's cheating perception related to data falsification. These include item 7 (Fabricating or falsifying lab data) and item 8 (Fabricating or falsifying research data).

**Response on each item.** Figure 3 displays responses on each item. On item 7, 2.07% ( $n = 11$ ) responded as “no cheating,” 7.33% ( $n = 39$ ) responded as “trivial cheating,” 19.74% ( $n = 105$ ) responded as “moderate cheating,” and 70.86% ( $n = 377$ ) responded as “serious cheating”. On item 8, 2.44% ( $n = 13$ ) responded as “no cheating,” 5.83% ( $n = 31$ ) responded as “trivial cheating,” 18.05% ( $n = 96$ ) responded as “moderate cheating,” and 73.68% ( $n = 392$ ) responded as “serious cheating”. In sum, more than 70% of students considered falsifying data as “serious cheating”. The percentage of responses as “serious cheating” was even higher (73.68%) when it comes to falsifying research data.

**Perceptions of cheating related to data by student characteristics.** The composite sub-score on perceptions of cheating related to data was computed by summing responses on two items. Sub-score on perceptions of cheating related to data ranged from 2 to 8. The estimated Cronbach's alpha of sub-score on perceptions of cheating related to data for the sample in the current study was .84.

A series of independent samples *t*-test were used to analyze how sub-score on perceptions of cheating related to data differ by each of the following student background

variables: (1) gender (female vs. male), (2) age (young vs. old), and (3) major (students from business school vs. others). Results from independent samples *t*-tests are displayed in Table 2. Then, a one-way between-subject Analysis of Variance (ANOVA) was used to examine whether students' self-reported GPA (categorized as low GPA group with students with a self-reported GPA of 80 points and below; medium GPA group with students with a self-reported GPA between 80 and 90 points; and high GPA group with students with a self-reported GPA score between 90 and 100 points) is related to sub-score on perceptions of cheating related to data. Table 3 displays result from a one-way between-subject ANOVA on sub-score on perceptions of cheating related to data by a self-reported GPA.

First, the independent samples *t*-test was analyzed to compare sub-scores on perceptions of cheating related to data by gender. Levene's test suggests that equal variances cheating perception between female and male cannot be assumed ( $F = 9.47$   $p < .01$ ). Therefore, a degree of freedom for testing a null hypothesis for an independent samples *t*-test was adjusted. Result from the independent samples *t*-test suggests that there is significant mean difference in sub-scores on perceptions of cheating related to data by gender ( $t(503.3) = 2.41$ ,  $p = .02$ ), showing that male students ( $M = 7.09$ ,  $SD = 1.43$ ,  $n = 272$ ) had significantly lower mean sub-score on perceptions of cheating related to data than female students ( $M = 7.37$ ,  $SD = 1.17$ ,  $n = 235$ ).

Second, the independent samples *t*-test was analyzed to compare sub-scores on perceptions of cheating related to data by major. Levene's test suggests that equal variances in sub-scores on cheating perception between business and non-business

students can be assumed ( $F = 0.18$ ,  $p = .67$ ). Result from the independent samples  $t$ -test suggests that there is no significant mean difference on sub-scores on perceptions of cheating related to data by major ( $M = 7.23$ ,  $SD = 1.32$ ,  $n = 92$  for business students;  $M = 7.22$ ,  $SD = 1.32$ ,  $n = 440$  for non-business students),  $t(530) = -0.04$ ,  $p = .97$

Third, the independent samples  $t$ -test was analyzed to compare sub-scores on perceptions of cheating related to data by age. Levene's test suggests that equal variances in sub-scores on perceptions of cheating between younger and older students cannot be assumed ( $F = 14.91$ ,  $p < .001$ ). Therefore, a degree of freedom for testing a null hypothesis for an independent samples  $t$ -test was adjusted. Result from the independent samples  $t$ -test suggests that there is significant mean difference in sub-scores on perceptions of cheating related to data by age ( $t(497.7) = -3.57$ ,  $p < .001$ ), showing that younger students ( $M = 7.02$ ,  $SD = 1.42$ ,  $n = 263$ ) had a significantly lower mean sub-score on perceptions of cheating related to data than older students ( $M = 7.43$ ,  $SD = 1.17$ ,  $n = 244$ ).

Fourth, results from a one-way between-subject ANOVA indicates that there was no significant mean difference in sub-score on perceptions of cheating related to data by students' self-reported GPA levels ( $F(2, 504) = 2.46$ ,  $p = .08$ ,  $\eta^2 = .01$ ).

**Results from correlation analysis.** As shown in Table 5, sub-score on perceptions of cheating related to data was significantly and positively correlated with sub-score on perceptions of cheating related to plagiarism ( $r = .67$ ,  $p < .01$ ), male ( $r = .11$ ,  $p < .05$ ), and older students ( $r = .09$ ,  $p < .05$ ).

**Results from multiple regression.** As shown in Table 6, a linear multiple regression was done to predict sub-score on perceptions of cheating related to data based on gender, age, major, and self-reported GPA. An overall model was found to be statistically significant ( $F(6, 500) = 3.89, p < .01$ ) with a  $R^2$  value of .05. Of all the independent variables, age was found to be statistically significant ( $b = .44, SE = .12, t = 3.80, p < .01$ ), indicating that older students showed higher perceptions of cheating related to data than younger students after controlling for gender, major, and self-reported GPA.

### **Perceptions of cheating related to plagiarism**

Eight items represent one's perceptions of cheating related to plagiarism. These include item 1 (Fabricate or falsify bibliography), item 5 (In a course requiring computer work, copying from another student's program rather than writing your own), item 15 (Paraphrasing or copying a few sentences from a book, magazine, or journal not electronic or Web-based- without footnoting them in a paper you submitted), item 17 (Paraphrasing or copying a few sentences of material from an electronic source e.g., the internet without footnoting them in a paper you submitted), item 18 (Submitting a paper you purchased or obtained from a Web site such as [ww.schoolsucks.com](http://ww.schoolsucks.com)- without footnoting them in a paper you submitted), item 21 (Copying material, almost word by word, from any written source and turning it in as your own work), item 22 (Turning in a paper copied, at least in part, from another student's paper, whether or not the student is currently taking the same course ), and item 24 (Turning in work done by someone else).

**Response on each item.** Figure 4 displays responses on each item. On item 1, 3.76% ( $n = 20$ ) responded as “not cheating”, 16.35% ( $n = 87$ ) responded as “trivial cheating,” 31.39% ( $n = 167$ ) responded as “moderate cheating,” and 48.50% ( $n = 258$ ) responded as “serious cheating”. On item 5, 2.26% ( $n = 12$ ) responded as “not cheating,” 8.83% ( $n = 47$ ) responded as “trivial cheating,” 28.76% ( $n = 153$ ) responded as “moderate cheating”, and 60.15% ( $n = 320$ ) responded as “serious cheating”. On item 15, 10.71% ( $n = 57$ ) responded as “not cheating,” 29.70% ( $n = 158$ ) responded as “trivial cheating,” 30.64% ( $n = 163$ ) responded as “moderate cheating,” and 28.95% ( $n = 154$ ) responded as “serious cheating”.

On item 17, 9.96% ( $n = 53$ ) responded as “no cheating,” 25.38% ( $n = 135$ ) responded as “trivial cheating,” 35.15% ( $n = 187$ ) responded as “moderate cheating,” and 29.51% ( $n = 157$ ) responded as “serious cheating”. On item 18, 3.38% ( $n = 18$ ) responded as “no cheating,” 12.78% ( $n = 68$ ) responded as “trivial cheating,” 25.56% ( $n = 136$ ) responded as “moderate cheating,” and 58.27% ( $n = 310$ ) responded as “serious cheating”. On item 21, 3.57% ( $n = 19$ ) responded as “no cheating,” 9.59% ( $n = 51$ ) responded as “trivial cheating,” 25.75% ( $n = 137$ ) responded as “moderate cheating,” and 61.09% ( $n = 325$ ) responded as “serious cheating”. On item 22, 6.95% ( $n = 37$ ) responded as “no cheating,” 20.68% ( $n = 110$ ) responded as “trivial cheating,” 37.22% ( $n = 198$ ) responded as “moderate cheating,” and 35.15% ( $n = 187$ ) responded as “serious cheating. And finally, on item 24, 2.26% ( $n = 12$ ) responded as “no cheating,” 6.58% ( $n = 35$ ) responded as “trivial cheating,” 19.55% ( $n = 104$ ) responded as “moderate cheating,” and 71.62% ( $n = 381$ ) responded as “serious cheating”.

In sum, a large portion of students considered the followings as “serious cheating”:  
(1) falsifying or fabricating bibliography, (2) copying another student’s program, and (3) copying material, almost word by word. However, no clear pattern was found when students rated how serious “paraphrasing or copying a few sentences from books, magazines or journals” is.

**Perceptions of cheating related to plagiarism by student characteristics.** The composite score for perceptions of cheating related to plagiarism was computed by summing responses on eight items. Sub-score on perceptions of cheating related to plagiarism ranged from 8 to 32. The estimated Cronbach’s alpha of sub-score on perceptions of cheating related to plagiarism for the sample in the current study was .88.

A series of independent samples *t*-test were used to analyze how sub-score on perceptions of cheating related to plagiarism differ by each of the following student background variables: (1) gender (female vs. male), (2) age (young vs. old), and (3) major (students from business school vs. others). Results from independent samples *t*-tests are displayed in Table 2. Then, a one-way between-subject Analysis of Variance (ANOVA) was used to examine whether students’ self-reported GPA (categorized as low GPA group with students with a self-reported GPA of 80 points and below; medium GPA group with students with a self-reported GPA between 80 and 90 points; and high GPA group with students with a self-reported GPA score between 90 and 100 points) is related to sub-score on perceptions of cheating related to plagiarism. Table 3 displays result from a one-way between-subject ANOVA on sub-score on perceptions of cheating related to plagiarism by a self-reported GPA.

First, the independent samples *t*-test was analyzed to compare sub-scores on perceptions of cheating related to plagiarism by gender. Levene's test suggests that equal variances sub-scores on cheating perception related to plagiarism between female and male can be assumed ( $F = 0.01$   $p = .95$ ). Result from the independent samples *t*-test suggests that there is no significant mean difference in sub-scores on perceptions of cheating related to plagiarism by gender ( $M = 25.59$ ,  $SD = 5.15$ ,  $n = 272$  for female students;  $M = 25.96$ ,  $SD = 5.07$ ,  $n = 235$  for male students),  $t(505) = 0.81$ ,  $p = .41$

Second, the independent samples *t*-test was analyzed to compare sub-scores on perceptions of cheating related to plagiarism by major. Levene's test suggests that equal variances in sub-scores on perceptions of cheating related to plagiarism between business and non-business students can be assumed ( $F = 0.21$   $p = .65$ ). Result from the independent samples *t*-test suggests that there is no significant mean difference in sub-scores on perceptions of cheating related to plagiarism by major ( $M = 26.21$ ,  $SD = 5.08$ ,  $n = 92$  for business students;  $M = 25.69$ ,  $SD = 5.08$ ,  $n = 440$  for non-business students),  $t(530) = -0.89$ ,  $p = .37$ .

Third, the independent samples *t*-test was analyzed to compare sub-scores on perceptions of cheating related to plagiarism by age. Levene's test suggests that equal variances in sub-scores on perceptions of cheating related to plagiarism between younger and older students cannot be assumed ( $F = 1.99$ ,  $p = .16$ ). Result from an independent samples *t*-test suggests that there is significant mean difference in sub-scores on perceptions of cheating related to plagiarism by age ( $t(505) = -2.11$ ,  $p = .04$ ), showing that younger students ( $M = 25.30$ ,  $SD = 5.21$ ,  $n = 263$ ) had a significantly lower mean

sub-score on perceptions of cheating related to plagiarism than older students ( $M = 26.26$ ,  $SD = 4.96$ ,  $n = 244$ ).

Fourth, a one-way between-subject ANOVA test was performed to see if perceptions of cheating on plagiarism differs by student's self-reported GPA. Result indicated that there was significantly mean difference in sub-scores on perceptions of cheating related to plagiarism by self-reported GPA levels ( $F(2, 504) = 3.81$ ,  $p = .02$ ,  $\eta^2 = .02$ ). A post-hoc test using Tukey method indicates that there was a significant mean difference on cheating perception related to plagiarism between students with medium GPA ( $M = 25.42$ ,  $SD = 4.88$ ,  $n = 314$ ) and students with low GPA ( $M = 25.28$ ,  $SD = 5.57$ ,  $n = 61$ ). Also, a significant mean difference in sub-scores on perceptions of cheating related to plagiarism was found between students with high GPA ( $M = 26.81$ ,  $SD = 5.32$ ,  $n = 132$ ) and students with low GPA ( $M = 25.28$ ,  $SD = 5.57$ ,  $n = 61$ ). However, no significant mean difference in sub-scores on perceptions of cheating related to plagiarism was found between students with medium GPA ( $M = 25.42$ ,  $SD = 4.88$ ,  $n = 314$ ) and students with high GPA ( $M = 26.81$ ,  $SD = 5.32$ ,  $n = 132$ ).

**Results from correlation analysis.** As shown in Table 5, sub-score on perceptions of cheating related to plagiarism was significantly and positively correlated with GPA above 90 ( $r = .12$ ,  $p < .05$ ), and older students ( $r = .09$ ,  $p < .05$ ).

**Results from multiple regression.** As shown in Table 6, a multiple linear regression was performed to predict sub-score on perceptions of cheating related to plagiarism based on gender, age, major, and self-reported GPA. An overall model was found to be statistically significant ( $F(6, 500) = 2.14$ ,  $p = .05$ ), with an  $R^2$  value of .03.

Of all the independent variables, age was found to be statistically significant ( $b = .95$ ,  $SE = .46$ ,  $t = 2.08$ ,  $p = .04$ ), indicating that older students showed higher sub-score on cheating perception related to plagiarism than younger students, after controlling for gender, major and self-reported GPA.

### **Total score on perceptions of cheating**

A total 25 items were used to represent a level of total perceptions of cheating for each individual student. Figures 1 – 4 display response patterns on all the items measuring one's perception on cheating. As the distribution of responses on each item was discussed above, no further information is provided.

**Total perceptions of cheating by student characteristics.** A composite score was computed for each survey respondent by summing responses on all 25 questions. The composite score for total perceptions of cheating ranged from 25 to 100. The estimated Cronbach's alpha of total perceptions of cheating for the sample in the current study was .76.

Independent samples  $t$ -tests were used to analyze how total score on perceptions of cheating differ by each of the following student background variables: (1) gender (female vs. male), (2) age (young vs. old), and (3) major (students from business school vs. others). Results from independent samples  $t$ -tests are displayed in Table 2. Then, a one-way between-subject Analysis of Variance (ANOVA) was used to examine whether students' self-reported GPA (categorized as low GPA group with students with a self-reported GPA of 80 points and below; medium GPA group with students with a self-reported GPA between 80 and 90 points; and high GPA group with students with a self-

reported GPA score between 90 and 100 points) is related to total perceptions of cheating.

Table 3 displays result from a one-way between-subject ANOVA on total score on perceptions of cheating by a self-reported GPA.

First, results obtained from the independent samples *t*-test that compares total score on perceptions of cheating by gender was analyzed. Mean total score on cheating perception for male students was 78.31 ( $n = 272$ ,  $SD = 15.38$ ), while mean total score on perceptions of cheating for female students was 80.25 ( $n = 235$ ,  $SD = 14.54$ ). Levene's test suggested that equal variances in total perceptions of cheating' score between female and male can be assumed ( $F = 0.24$ ,  $p = .62$ ). Result from the independent samples *t*-test suggests that there was no statistically significant mean difference in total perceptions of cheating' score by gender ( $t(505) = 1.45$ ,  $p = .15$ ).

Second, an independent samples *t*-test was performed comparing total score on perceptions of cheating by major. Mean total score on perceptions of cheating for non-business students was 78.95 ( $n = 440$ ,  $SD = 14.84$ ), while mean score cheating perception for business students was 80.47 ( $n = 92$ ,  $SD = 15.11$ ). Levene's score suggests that equal variance in total scores on perceptions of cheating between business students and non-business students can be assumed ( $F = 0.15$ ,  $p = .70$ ). The result from the independent samples *t*-test suggests that there was no statistically significant mean difference on perceptions of cheating by major ( $t(530) = 0.89$ ,  $p = .37$ ).

Third, an independent samples *t*-test was conducted comparing total score on perceptions of cheating by age. Mean score on perceptions of cheating for younger

students was 77.65 ( $n = 262$ ,  $SD = 15.14$ ), while mean total score on perceptions of cheating for older students was 80.89 ( $n = 244$ ,  $SD = 14.72$ ). Levene's score suggests that equal variances in total score on perceptions of cheating between younger and older students can be assumed ( $F = .45$ ,  $p = .50$ ). Result from the independent samples  $t$ -test suggests that there was a significant mean difference on total score on perceptions of cheating by age ( $t(505) = -2.44$ ,  $p = .02$ ), showing that older students had a significantly higher mean total score on perceptions of cheating than younger students.

Lastly, results from a one-way between-subject ANOVA indicates that there was no significant mean difference in total score on perceptions of cheating by student's self-reported GPA level ( $F(3, 503) = 1.95$ ,  $p = .12$ ,  $\eta^2 = .01$ ).

**Results from correlation analysis.** As shown in Table 5, total score on perceptions of cheating was significantly and positively correlated with sub-score on perceptions of cheating related to assignment ( $r = .88$ ,  $p < .05$ ), sub-score on cheating perception related to exam ( $r = .93$ ,  $p < .05$ ), sub-score on cheating perception related to plagiarism ( $r = .69$ ,  $p < .05$ ), students with a self-reported GPA above 90 ( $r = .10$ ,  $p < .01$ ), and older students ( $r = .09$ ,  $p < .05$ ).

**Results from multiple regression.** As shown in Table 6, a multiple linear regression was done to predict perceptions of cheating based on gender, GPA, age, and major. An overall model was found to be statistically significant ( $F(6, 500) = 2.22$ ,  $p = .04$ ), with a  $R^2$  value of .03. Of all the independent variables, age was found to be statistically significant ( $b = 3.38$ ,  $SE = 1.34$ ,  $t = 2.58$ ,  $p = .01$ ), indicating that older students showed higher total score

on perceptions of cheating than younger students after controlling for gender, major and self-reported GPA.

## **Chapter Five: Discussion**

The purpose of this study was to understand the way college students in Ecuador perceive different forms of cheating behaviors and how serious these actions were perceived, if they were considered cheating at all. Research questions for this study were to analyze perceptions of cheating in a wide range or variety of areas. It divided the total overall score into four sub-scores: Perceptions of cheating related to assignments, to exams, to data, and to plagiarism. This trend of analyzing academic dishonesty by areas was previously conducted by McCabe (2005), who used questionnaires that separated student cheating behaviors in three sections: Test and examinations, written assignments, and other assignments.

Five research questions were addressed in the current study, and each question was divided in two parts. The first part asked what the general perceptions concerning the specific perceptions of cheating (total perceptions of cheating, perceptions of cheating related to assignment, perceptions of cheating related to exams, perceptions of cheating related by data, and perceptions of cheating related by plagiarism) held by students at a small, private Ecuadorian university have. The second part addressed specifically the effect that individual background variables (gender, age, major, and self-reported GPA) had on students' perceptions (total perceptions of cheating, perceptions of cheating related to assignment, perceptions of cheating related to exams, perceptions of cheating by data, and perceptions of cheating by plagiarism).

### **Summary of study findings**

The number of survey respondents for the current study was 532, which tends to be a good representation of the student body for this institution (23% response rate). The population is closer to the range of a 6 to 4 male to female ratio. Findings on the study reveal the following results to the research question. For research question 1, students perceived that falsifying lab and research data was the most serious cheating behavior. Cheating on assignments was the least serious cheating behavior for the Ecuadorian students at the institution. Regarding the background variables, only age was found to be a significant predictor of overall perceptions of cheating, suggesting that older students were more likely to consider the behaviors as cheating than younger students.

For research question 2, when students collaborated personally on an assignment where the teacher had asked for individual work, 6 out of 10 students considered the action as no cheating or trivial cheating. This might be an issue to be studied further in Ecuador since differences between collective and individualistic societies might show students tend to collaborate with other students even when instructed not to do it by the professor. A similar response resulted from 64% of the respondents if the collaboration occurred via email or texting. However, copying another student's assignment was considered as moderate or serious cheating by a significant number of students (3 out of 4 students). Additionally, gender and age were found to be significant predictors of perceptions of cheating on assignment. A study conducted by McCabe (2005) found graduate students had higher ethical standards on what not to do and what was allowed to do on collaboration on assignments than undergraduate students in general.

Regarding research question 3, approximately 93% of the respondents considered that obtaining the answers or exam questions from someone who had already taken the test, as some form of cheating. Almost half (46%) of these respondents considered it as serious cheating. Furthermore, more than half (54%) considered helping someone else to cheat on a test as serious cheating. Concerning the use of cheat sheets, almost 85% of the respondents considered this behavior moderate or serious cheating. However, on the use of a false or forged excuse to delay an exam, the answers were more evenly distributed among the four options of responses. When controlling for other variables, older students showed significantly higher scores on perceptions of cheating than younger students.

In research question 4, 7 out of 10 respondents considered fabricating or falsifying lab data as serious cheating. This is something to be considered further research since the population at this particular school had a high percentage of students studying careers that involve lab data, such as mechanical engineering. This was the question with the lowest percentage of no cheating responses (2%). The responses were similar for the question regarding falsifying research data. In part b, gender proved to be a good predictor for perceptions of cheating related to data. It seems that students in Ecuador consider these two actions more serious than students in the U.S. and Canada, where only 19% reported to have fabricated or falsified lab data during the previous academic year, and 8% of students had reported to have fabricated or falsified research data on the previous academic year (McCabe, 2005). In a similar way, age was found to be a significant predictor as self-reported GPA, which was supported by the existing literature

(Hetherington & Feldman, 1964; McCabe et al., 1997; Texeira & Rocha, 2010; Vandeley et al., 2007).

Regarding research question 5, 48 percent of the respondents considered falsifying a bibliography as a serious act of cheating. Almost 1 out of 4 considered paraphrasing a few paragraphs from the internet as no cheating at all, which should be a matter of concern for educators everywhere. Another interesting finding that may be considered alarming was the fact that more than one third of the respondents considered buying a paper online as no cheating or trivial cheating. This should be addressed in orientation courses and incoming students should be aware of the serious consequences they might face if they commit these types of cheating behaviors. Furthermore, institutions are encouraged to use specialized software such as turnitin.com as a resource to minimize these practices. Programs that focus on papers written in Spanish are now at the disposal of faculty at South American institution. The program is called Urkund and it is expected to be promoted among the student body helping students understand that it will be far easier to detect papers purchased on lines since they are digital. And furthermore, they have to be made aware that this is a very serious fault and not a trivial fault or less. This type of cheating can get you spelled from the institution. The only significant predictor for perceptions of cheating with relation to data was age, demonstrating that older students have higher sub-scores on perceptions of cheating than younger students.

In summary, gender was found to be a significant factor in predicting difference in student perceptions with relation to assignments and data. Self-reported GPA was found to explain variation in perceptions of cheating with relation to plagiarism. Of all the

background variables explored in the current study, age was most significant in predicting overall and subscale of cheating perception, suggesting that older students have higher scores on overall and subscale perception scale, which is in accordance with most of the existing literature. However, major did not have any effect on the results. Responses from business students did not differ from students studying other careers.

### **Implications**

Implications driven from the current study are discussed below separately for students, faculty, administrators and institutions, practitioners in higher education, and researchers in Ecuador.

**Implications for students.** Students at higher education institutions have to become more aware that they are an important part of solving this complicated issue. Peer disapproval is a key issue and a climate of high ethical standards should be encouraged and promoted by student governments. Students should understand that reporting dishonest acts are part of their responsibilities as members of a community that is constantly trying to curve down the number of incidents. This should be specified in honor codes and students should be informed that they could be considered accomplices to infractors if they know they are engaging in cheating behaviors. Most of these codes usually require students to report cheating when they identify it happening with other peers. Furthermore, the participation of students in courts that administer punishment for infractions should also encourage an environment of higher ethical standards in the campus. Students in Ecuador have to become part of the solution to curving down cheating behaviors. Changing the culture of the institution and curving down the number

of cheating incidents should also be a part of the student council goals in research institutions.

**Implications for faculty members.** An institution needs to continuously train the faculty on the importance of informing on policies and rules at the beginning of each academic period. They should also address directly about cheating instances that happen specifically in their courses with specific situational examples and should try to be as clear as possible. Faculty members need to establish a university-wide climate of academic integrity by teaching ethical decision-making. They also should remember that reporting incidents is an obligation and not a burden. Faculty should also be aware that if they do not enforce punishment when cheating behaviors occur in the classroom, other students might be encouraged to engage in those behaviors. In addition, institutions should be supportive of faculty members that deter cheating behaviors among students as one out of four faculty members who followed institutional procedures in cheating cases expressed dissatisfaction with the way that suspected cases were handled (McCabe et al., 2003). Faculty should receive the support of authorities when they believe a cheating behavior act has taken place.

**Implications for administrators and institutions.** Administrators should promote academic integrity policies among the whole campus community and enforce the teaching of these policies in mandatory initial courses that all the student have to take during their college careers. Another suggestion for institutions is to promote the participation of students in judiciary systems. When students are judged by their peers and realize these acts are not only frowned upon but can actually can have major

consequences in their college careers. Another suggestion is to encourage rehabilitation of first-time offenders. Young students should learn from their mistakes and also tell other incoming students about their experiences with student judicial hearings on cheating behaviors. combination of penalties as reduction of grades, required attendance to academic integrity seminars, among others, can be good deterrents of cheating practices. Institutions should also consider the implementation of honor codes, as faculty members at institutions with honor codes are more willing to participate in the education of students in the subject of unethical behaviors.

**Implication for practitioners at higher education institutions.** Practitioners at student services as well as advisors can also play a role in reducing cheating behaviors in higher education institutions. Advisors should be aware that students with high loads of classes and participating in too many extra-curricular activities can be at a higher risk of cheating than their peers. This is important because they can intervene and advice students on these topics before the student encounter him or herself in a situation where he/she might recourse to this type of behaviors. Regarding the use of psychosocial development theory at institutions, the results of this study partially confirm Gilligan's theory that females might hold themselves to higher ethical standards than males, at least when it comes to perceptions of cheating related to assignment and data. It is recommended that special care be performed for entering women in male-dominated careers, as for example the college of automotive engineering, in order to make the school accountable for higher ethics rather than women learning the wrong behaviors shown by males in these two areas. Educational practitioners in the area of student

counseling can also apply Kohlberg's theories on how students can develop tolerance to cheating behaviors if they see it happening in their classes and neither peers nor teachers react to them. When an institution promotes higher ethical standards among the student body, peer reporting can also become a positive strategy.

Universities should provide a clear message so these young adults become responsible young adults and positive role models for future generations of students. The optimal choice will depend heavily on the particular culture and traditions that exist on any determined campus. Institutions have to independently determine which individual actions are more effective for them, according to their cultural and academic setting. If cheating behaviors are specially found in freshmen incoming classes, then introductory educational seminars on academic integrity can be a good strategy to minimize cheating. Other institutions cultures that promote collective participation rather than individual work, as for example Asian countries, will have to be more specific on what students can and cannot do, especially when it comes to assignments and papers.

**Implications to research in Ecuador.** Although Navarro's (2016) study was innovative, this study was focused to understand behaviors of future oral care practitioners and did not ask about classroom behaviors of the students. The understanding of cheating behaviors perceptions in Ecuadorian higher education institutions is practically unexplored. This first attempt should encourage other researchers to pursue similar goals and hopefully to follow the same parameters of this study in order to make them comparable. Separating perceptions of cheating by areas can also improve the application of realistic solutions to the cheating problem in South

American and Ecuadorian institutions of higher education. Additionally, Ecuador can further explore the different perceptions among its population that, for a small country in size, actually hosts four different cultural regions: coastal, Andean, Amazonian, and Galapagos Islands inhabitants.

### **Limitations and further research**

There were four main limitations to this study. First, given the size of this particular and private institution, we should be careful not to generalize the results and conclusions to institutions of larger size or others located in other regions of Ecuador. Ecuador is a relatively small country in size with an area of 260,000 square kilometers, but with very four different geographic regions within it: the Andean region, the Coastal region, the Amazon region, and the Galapagos Islands region. The population in these four areas are very different from each other. The second limitation to be considered is that the high number of male students in the largest school at this particular institution (Mechanical Engineering) can create a bias when it comes to the variable gender. Almost a fifth of the total respondents to the survey came from this male-dominated career and school. Third, the sensitive nature of the topic can affect the answers of the students. Students might be reluctant to discuss cheating behaviors even if their identities are not revealed. This is something to consider when self-report surveys are conducted. Finally, in the original survey conducted by McCabe, no definitions of what should be considered trivial, moderate or serious cheating were given. It should be noted that students might have different interpretations of these concepts and this becomes another limitation of the present study.

Further research should be encouraged in order to conduct other studies in Ecuador that separate cheating behaviors in a similar format conducted here, in order to make these studies comparable as well as with studies conducted in the rest of the world. Cheating behaviors should be differentiated by assignment, exam, data and plagiarism and not place all of them together. This will facilitate comparisons with other studies conducted in Ecuador and others in the rest of the world. Once different attitudes towards cheating in institutions with different characteristics such as size, careers, public or private, etc., are analyzed, more general approaches can be suggested for this country.

Finally, comparisons among different institutions of higher education should be encouraged. In the case of Ecuador, a limitation is that many institutions do not like to share personal information regarding their student body with other institutions. Therefore, collaboration should be promoted within institutions and create an awareness that cheating affects them all in a negative way. It should also become aware that promoting academic integrity among the whole university system in this country will be positive for everybody.

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## APPENDICES

### APPENDIX A: Variables Description

Table A1: *List of Variables in the Model*

Variable Name	Role Taken	Level of Measurement	Values
Perceptions of cheating	Dependent	Continuous	25 to 100
Perceptions of cheating related to assignments	Dependent	Continuous	6 to 24
Perceptions of cheating related to exams	Dependent	Continuous	9 to 6
Perceptions of cheating related to data	Dependent	Continuous	2 to 8
Perceptions of cheating related to plagiarism	Dependent	Continuous	8 to 32
Gender	Independent	Categorical	Female vs. Male
Age	Independent	Categorical	Younger (1 <sup>st</sup> to 5 <sup>th</sup> ) vs. Older (6 <sup>th</sup> to 10 <sup>th</sup> )
Major	Independent	Categorical	Business vs. Non-Business
Self-reported GPA	Independent	Categorical	Students with GPA lower than 80, 80 to 89, more than 90

Table A2: *Survey Respondents by Student Characteristics*

	<i>N</i>	%
Gender		
Female	235	46.40%
Male	272	51.10%
Total	507	
Age		
Younger (1 <sup>st</sup> to 5 <sup>th</sup> Semester)	263	49.40%
Older (6 <sup>th</sup> to 10 <sup>th</sup> Semester)	244	45.90%
Total	507	
Major		
Business	92	17.30%
Non-Business	440	82.70%
Total	532	
Self-reported GPA		
Lower than 70	4	0.80%
Between 70 and 80	57	10.70%
Between 80 and 90	314	59.00%
Higher than 90	132	24.80%
Total	507	

## APPENDIX B: Statistical Results

Table B1: *Independent Samples t-tests on Perceptions of cheating by Gender, Major, and Age*

	Levene's test		Independence samples <i>t</i> -test						
	<i>F</i>	<i>p</i>	<i>T</i>	<i>df</i>	<i>P</i>	<i>Mdiff</i>	<i>SE (Mdiff)</i>	95%CI	
								<i>LL</i>	<i>UL</i>
<b><i>Perceptions of cheating related to assignments</i></b>									
Gender	0.13	0.72	2.04	505	.04	0.77	0.38	0.03	1.52
Major	0.51	0.48	-1.56	530	.12	-0.75	0.48	-1.7	0.209
Age	2.56	0.11	-2.05	505	.04	-0.77	0.38	-1.52	-0.03
<b><i>Perceptions of cheating related to exams</i></b>									
Gender	0.85	0.36	0.96	505	.34	0.52	0.55	-0.55	1.60
Major	0.33	0.57	-0.35	530	.73	-0.24	0.7	-1.61	1.13
Age	2.53	0.11	-2.02	505	.04	-1.1	0.54	-2.17	-0.03
<b><i>Perceptions of cheating related to data</i></b>									
Gender	9.47	0.01	2.37	503.3	.02	0.28	0.12	0.05	0.51
Major	0.18	0.67	-0.04	530	.97	-0.01	0.15	-0.3	0.29
Age	14.91	< .01	-3.57	497.7	< .01	-0.41	0.12	-0.64	-0.19
<b><i>Perceptions of cheating related to plagiarism</i></b>									
Gender	0.04	0.95	0.81	505	.41	0.37	0.45	-0.52	1.26
Major	0.21	0.65	-0.89	530	.37	-0.52	0.58	-1.66	0.62
Age	1.99	0.16	-2.11	505	.04	-0.95	0.45	-1.84	-0.07
<b><i>Total perceptions of cheating</i></b>									
Gender	0.24	0.62	1.45	505	.15	1.94	1.34	-0.68	4.57
Major	0.15	0.7	0.89	530	.37	1.52	1.71	-1.83	4.87
Age	0.45	0.5	-2.44	503	.02	-3.24	1.33	-5.85	-0.63

Table B2: *Correlations among All Variables*

	1	2	3	4	5	6	7	8	9	10	11
1. Total cheating score	-										
2. Perceptions of cheating related to assignments	.88*	-									
3. Perceptions of cheating related to exams	.93*	.74**	-								
4. Perceptions of cheating related to data	.69*	.46**	.60**	-							
5. Perceptions of cheating related to plagiarism	.92*	.74**	.75**	.67**	-						
6. Male	.07	-.09*	-.04	-.11*	-.04	-					
7. Business	.04	.07	.02	.00	.04	-.11*	-				
8. GPA b/w 70 & 80	-.05	-.03	.06	-.04	-.02	.11*	-.10*	-			
9. GPA b/w 80 & 90	-.06	-.06	-.02	-.06	-.09	.09*	-.12**	-.45**	-		
10. GPA above 90	.10*	-.09*	.07	.08	.12**	-.19**	.21*	-.21**	-.76**	-	
11. Older	.11*	.09*	.09*	.16**	.09*	.08	-.08	-.06	.04	.01	-

Note. \*  $p < .05$ ; \*\*  $p < .01$

Table B3: Results from Analysis of Variance (ANOVA) by Self-reported GPA

Source	SS	Df	MS	F	P	$\eta^2$
<b>Perceptions of cheating related to assignments</b>						
GPA	78.80	2	39.40	2.18	.12	0.01
Error	9123.87	504	18.10			
Total	9202.67	506				
<b>Perceptions of cheating related to data</b>						
GPA	5.63	2	2.82	1.62	.20	0.01
Error	878.50	504	1.74			
Total	884.13	506				
<b>Perceptions of cheating related to exams</b>						
GPA	140.16	2	70.08	1.87	.16	0.01
Error	18848.94	504	37.40			
Total	18989.10	506				
<b>Perceptions of cheating related to plagiarism</b>						
GPA	196.72	2	98.36	3.81	.02	0.02
Error	13006.88	504	25.81			
Total	13203.60	506				
<b>Total perceptions of cheating</b>						
GPA	1308.08	3	436.03	1.95	.12	0.01
Error	112719.76	503	224.10			
Total	114027.84	506				

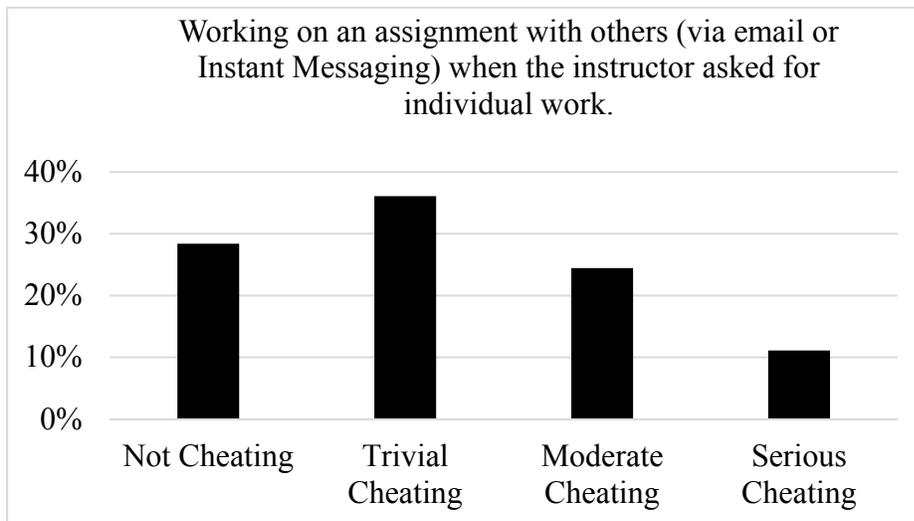
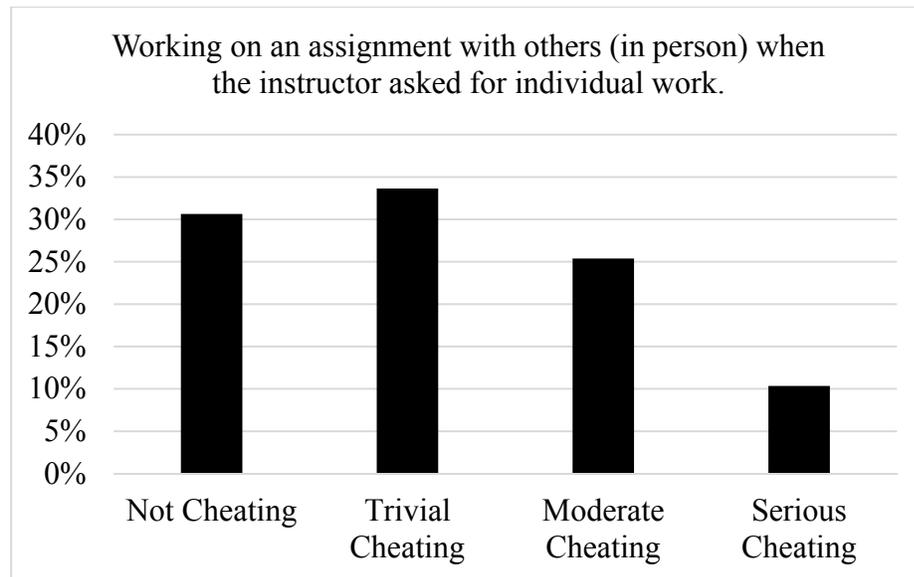
Table B4: Results from Multiple Linear Regression Model Predicting Perceptions of cheating

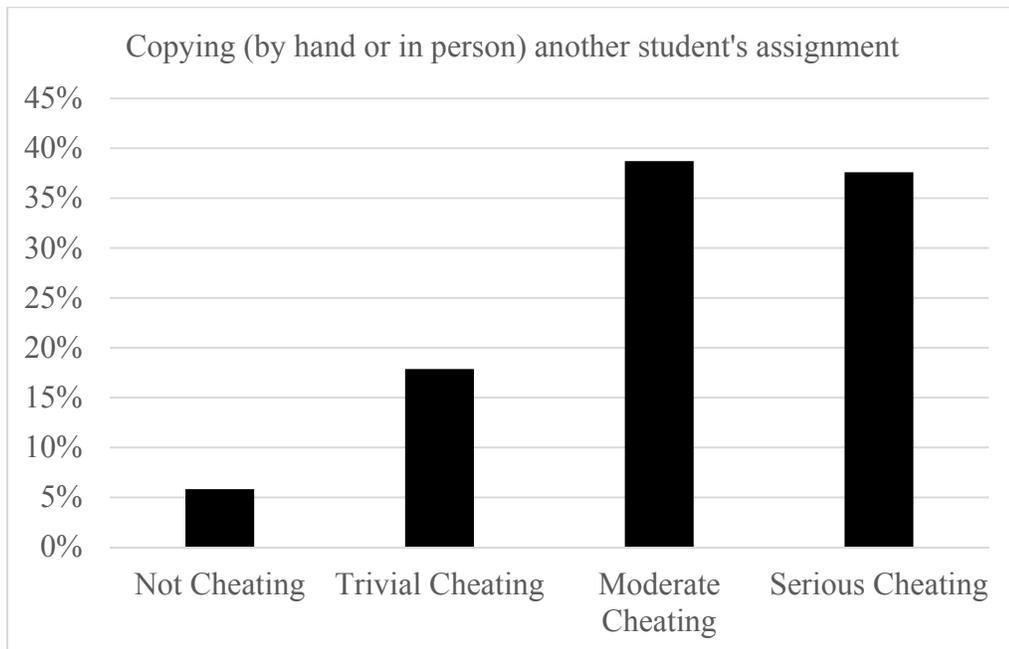
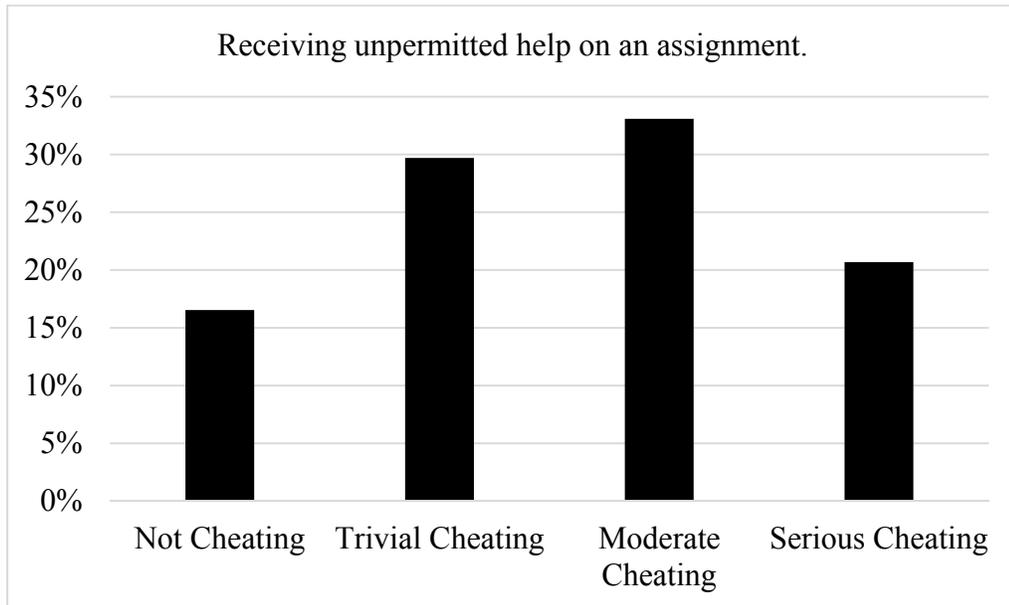
	<i>b</i>	<i>SE(b)</i>	<i>B</i>	<i>t</i>	<i>P</i>	95% CI	
						<i>LL</i>	<i>UL</i>
<b><i>Perceptions of cheating related to assignments</i></b>							
Intercept	17.53	2.14		8.20	< .01	13.33	21.72
Male	-0.70	0.39	-0.08	-1.81	.07	-1.46	0.06
Business major	0.58	0.50	0.05	1.15	.25	-0.41	1.57
GPA b/w 70 & 80	-1.32	2.20	-0.10	-0.60	.55	-5.63	3.00
GPA b/w 80 & 90	-1.34	2.14	-0.15	-0.63	.53	-5.55	2.87
GAP above 90	-0.70	2.17	-0.07	-0.32	.75	-4.96	3.56
Older student	0.87	0.38	0.10	2.29	.02	0.12	1.62
<b><i>Perceptions of cheating related to exams</i></b>							
Intercept	30.07	3.09		9.75	< .01	24.01	26.13
Male	-0.43	0.56	-0.04	-0.77	.44	-1.53	0.67
Business major	0.03	0.73	0.00	0.04	.97	-1.40	1.45
GPA b/w 70 & 80	-1.60	3.17	-0.08	-0.50	.62	-7.83	4.63
GPA b/w 80 & 90	-0.78	3.09	-0.06	-0.25	.80	-6.86	5.29
GAP above 90	-0.00	3.13	0.00	0.00	.99	-6.16	6.15
Older student	1.11	0.55	0.09	2.02	.04	0.03	2.19
<b><i>Perceptions of cheating related to data</i></b>							
Intercept	7.97	0.66		12.15	< .01	6.68	9.26
Male	-0.29	0.12	-0.11	-2.45	.02	-0.52	-0.06
Business major	-0.03	0.15	-0.01	-0.16	.87	-0.33	0.28
GPA b/w 70 & 80	-0.86	0.67	-0.21	-1.27	.20	-2.18	0.47
GPA b/w 80 & 90	-0.86	0.66	-0.32	-1.31	.19	-2.15	0.43
GAP above 90	-0.68	0.67	-0.22	-1.01	.31	-1.98	0.63
Older student	.44	.12	.17	3.80	< .01	.21	.67

<i>Perceptions of cheating related to plagiarism</i>							
Intercept	23.40	2.56		9.14	< .01	18.37	28.44
Male	-0.21	0.46	-0.02	-0.44	.66	-1.12	0.71
Business major	0.27	0.60	0.02	0.46	.65	-0.91	1.46
GPA b/w 70 & 80	1.76	2.63	0.11	0.67	.51	-3.42	6.93
GPA b/w 80 & 90	1.62	2.57	0.15	0.63	.53	-3.42	6.66
GAP above 90	2.93	2.60	0.25	1.13	.26	-2.18	8.04
Older student	0.95	0.46	0.09	2.08	.04	0.05	1.85
<i>Total score on perceptions of cheating</i>							
Intercept	78.97	7.52		10.50	< .01	64.19	93.75
Male	-1.63	1.36	-0.05	-1.19	.23	-4.31	1.05
Business major	0.85	1.77	0.02	0.48	.63	-2.62	4.33
GPA b/w 70 & 80	-2.02	7.73	-0.04	-0.26	.79	-17.20	13.17
GPA b/w 80 & 90	-1.37	7.54	-0.04	-0.18	.86	-16.18	13.45
GAP above 90	1.55	7.64	0.05	0.20	.84	-13.45	16.56
Older student	3.38	1.34	0.11	2.52	.01	0.74	6.01

## APPENDIX C: Independent responses of perceptions of cheating related by area

Figure C1: Responses on items related to assignments





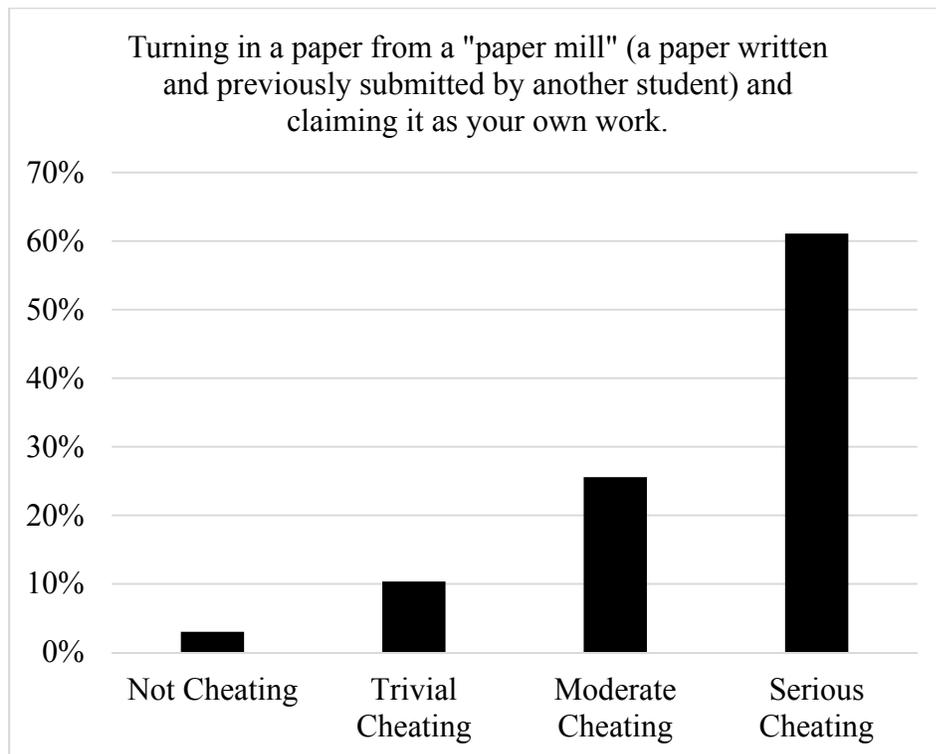
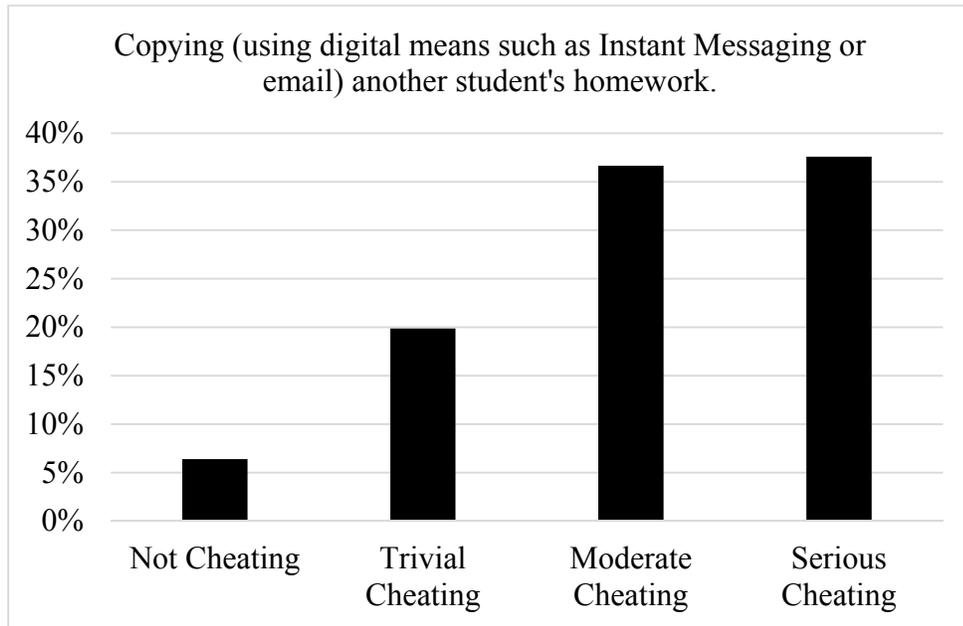
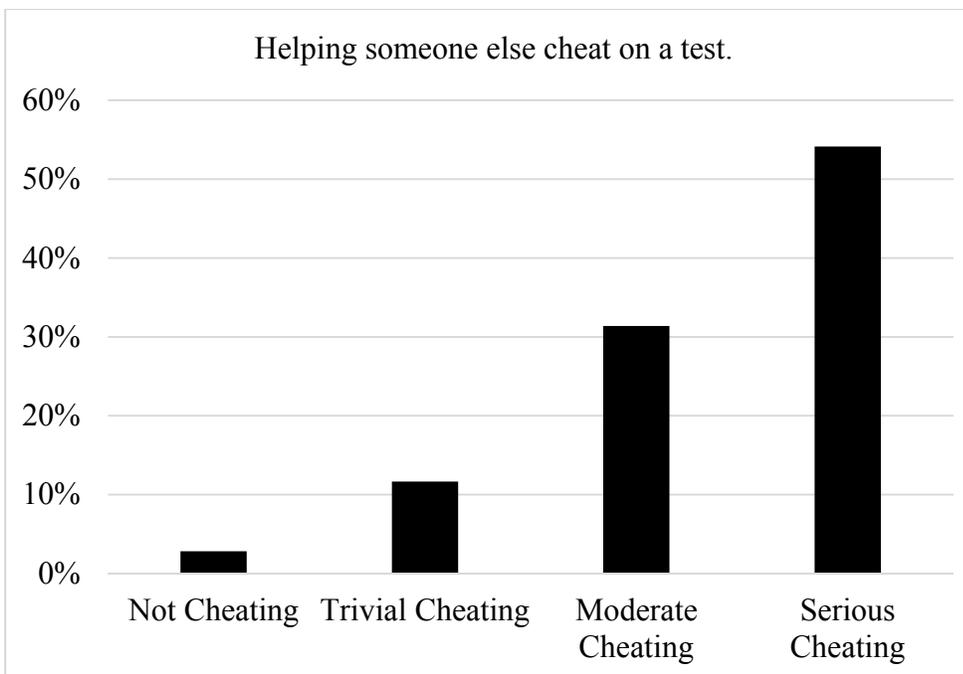
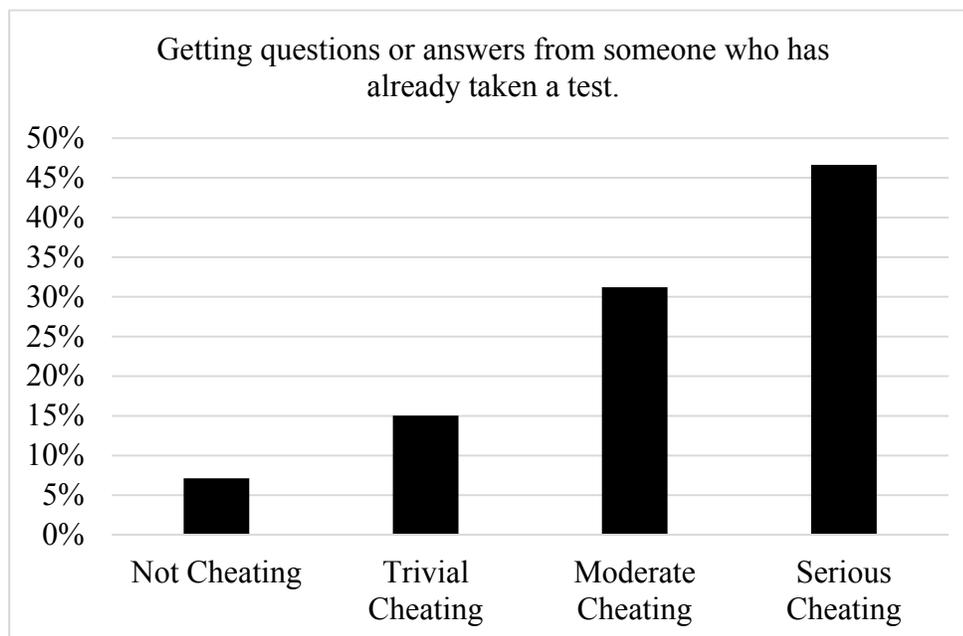
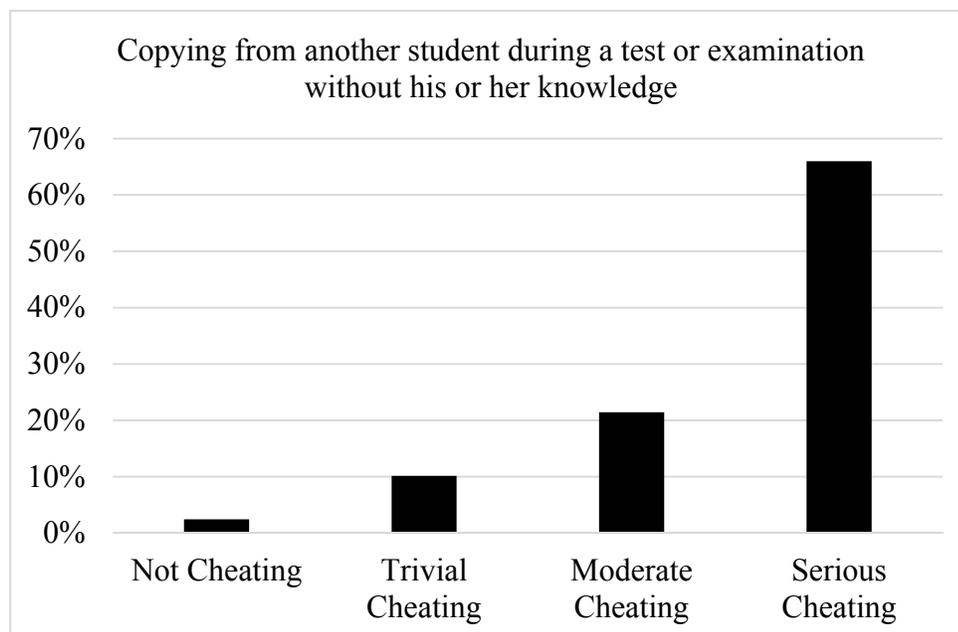
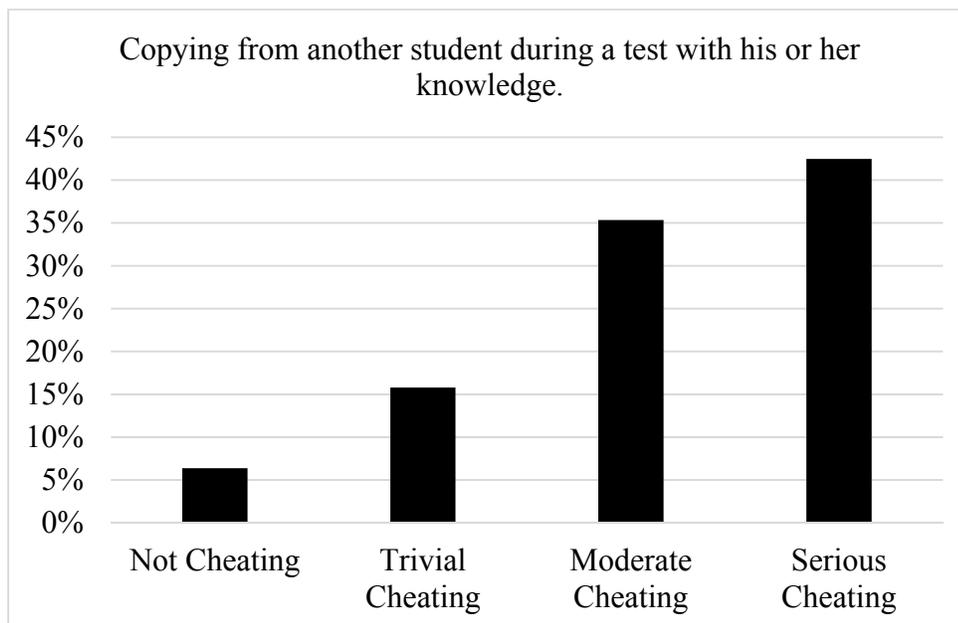
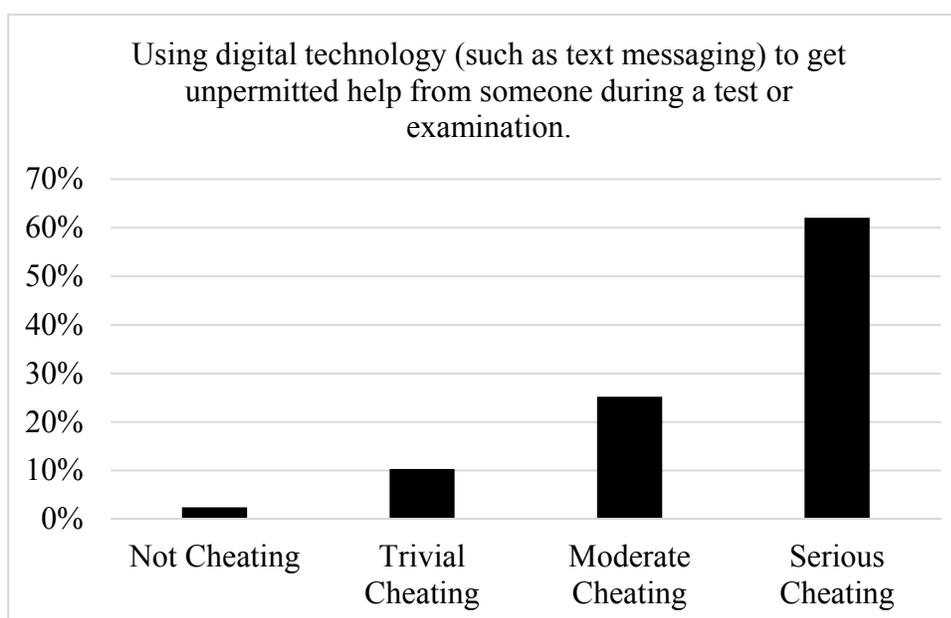
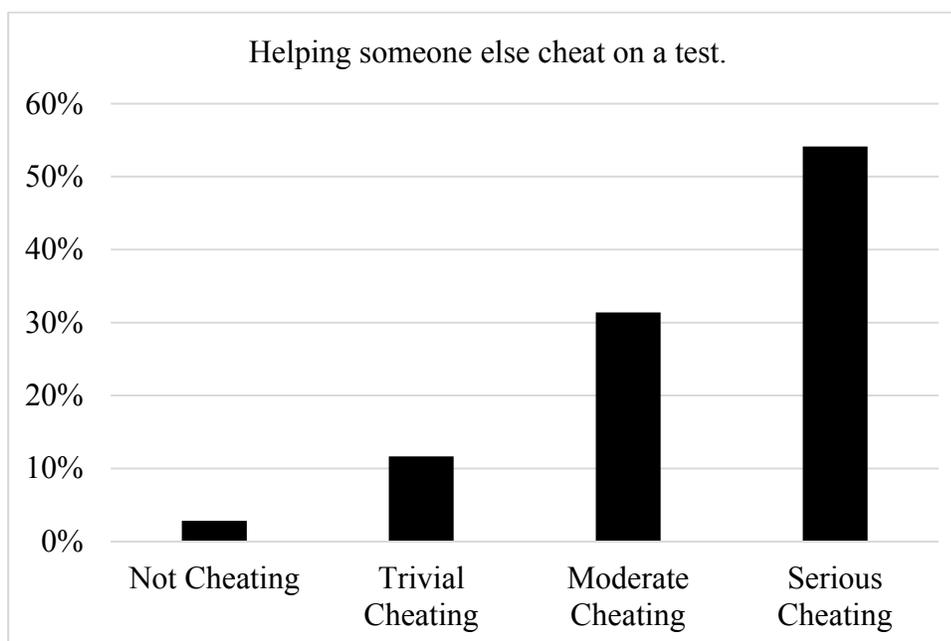
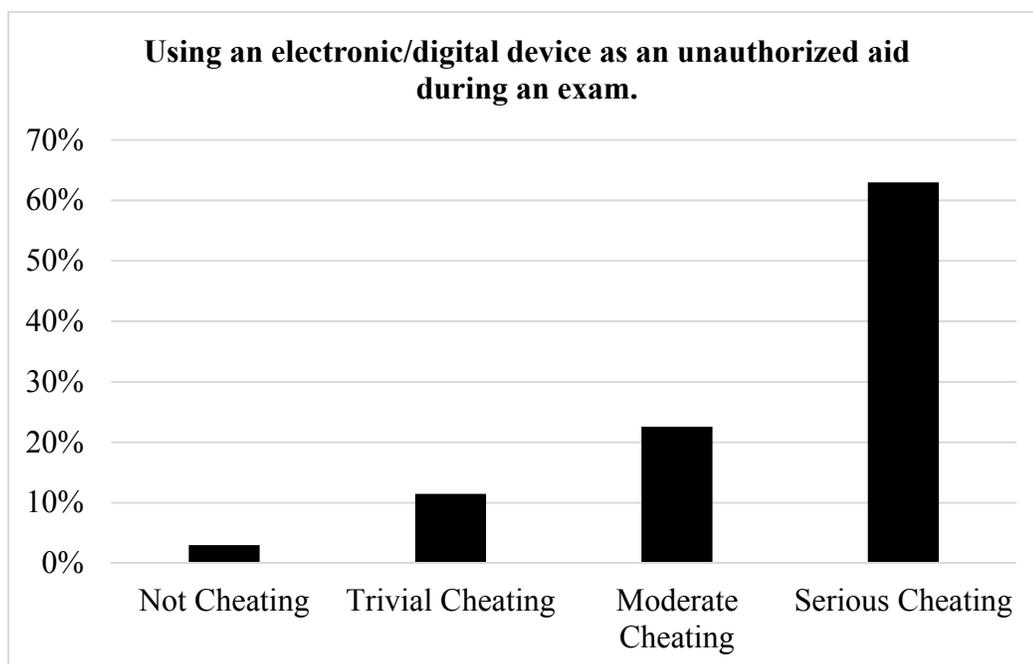
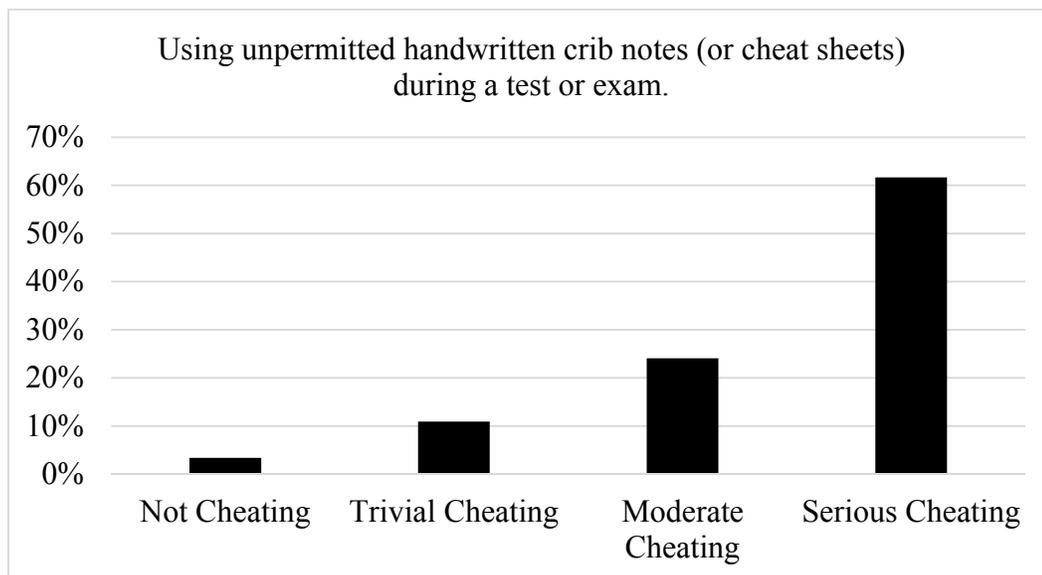


Figure C2: Responses on items related to exams









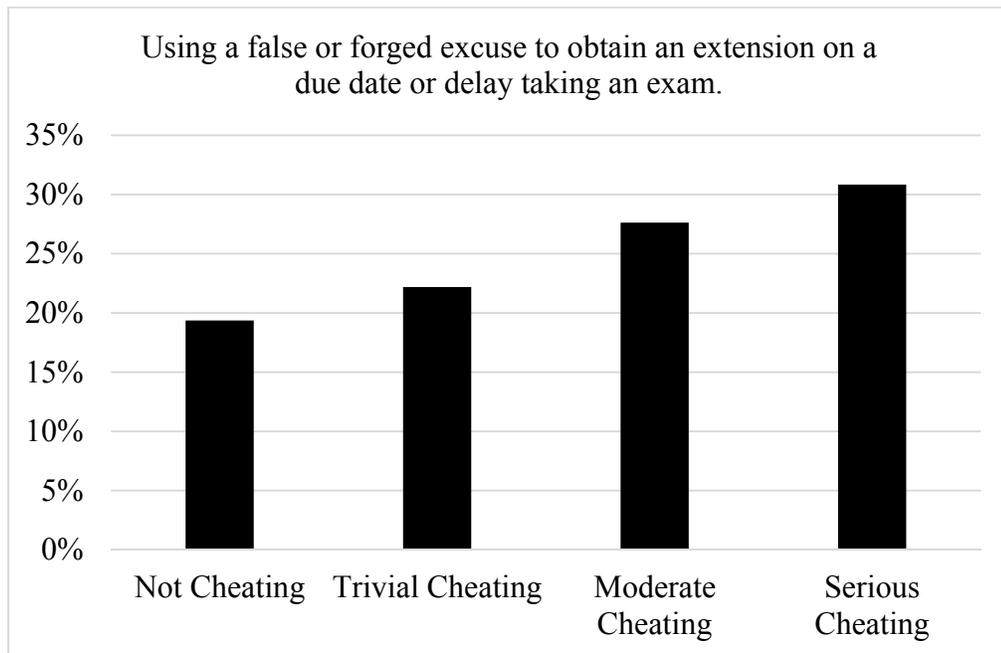


Figure C3: Responses on items related to data

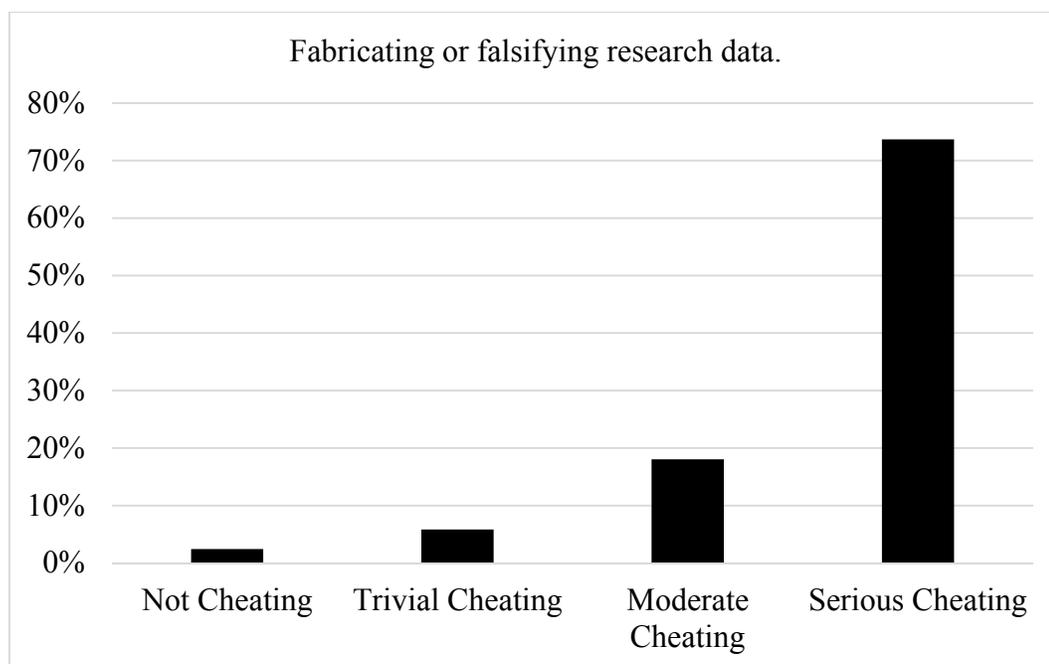
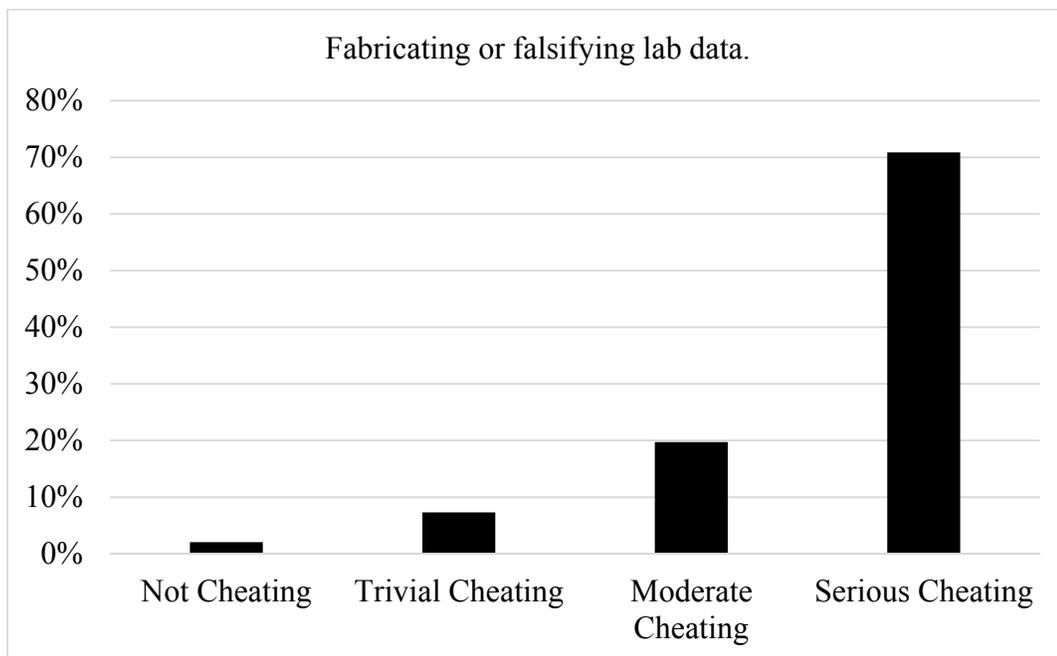
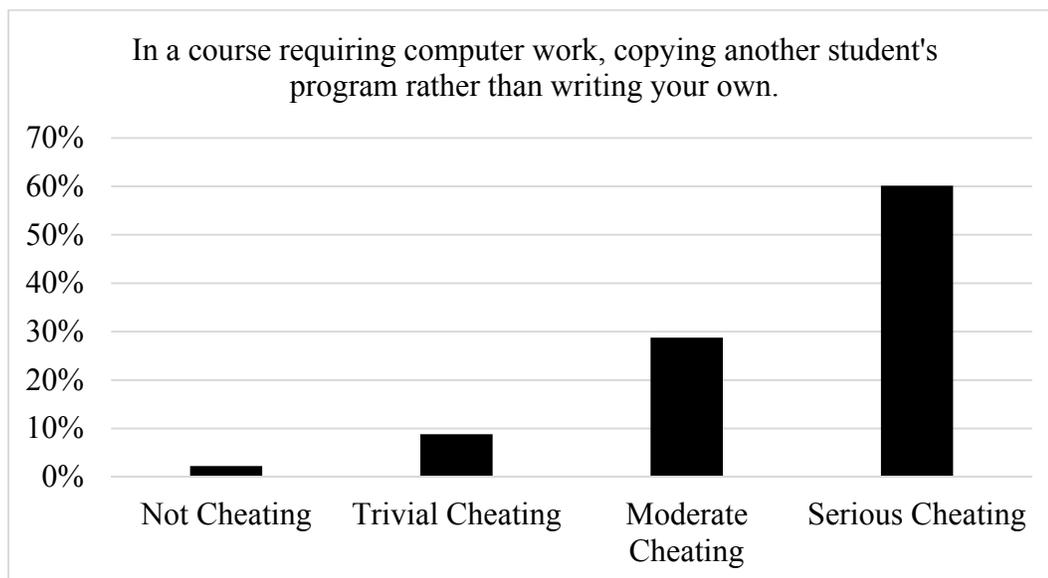
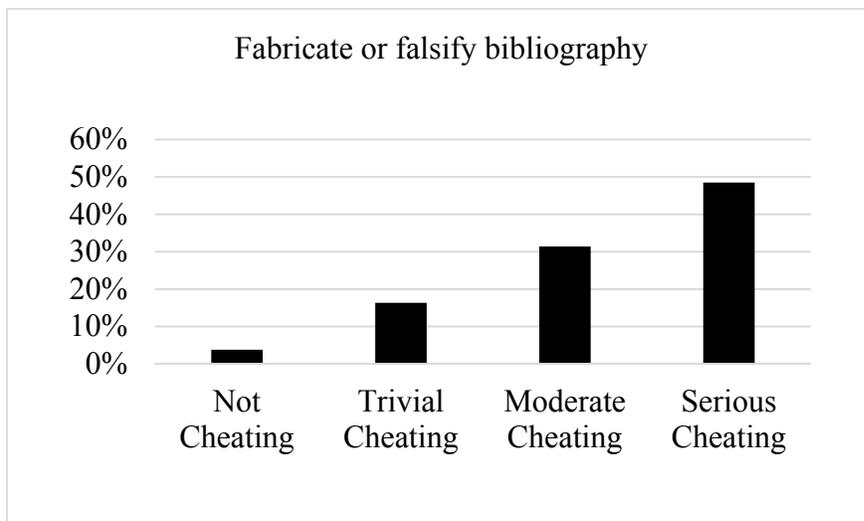
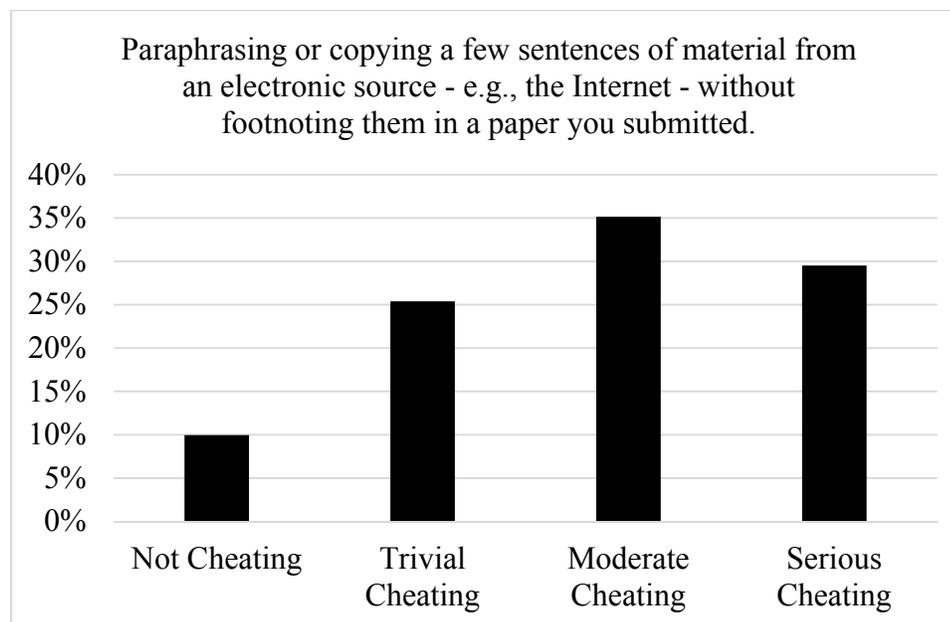
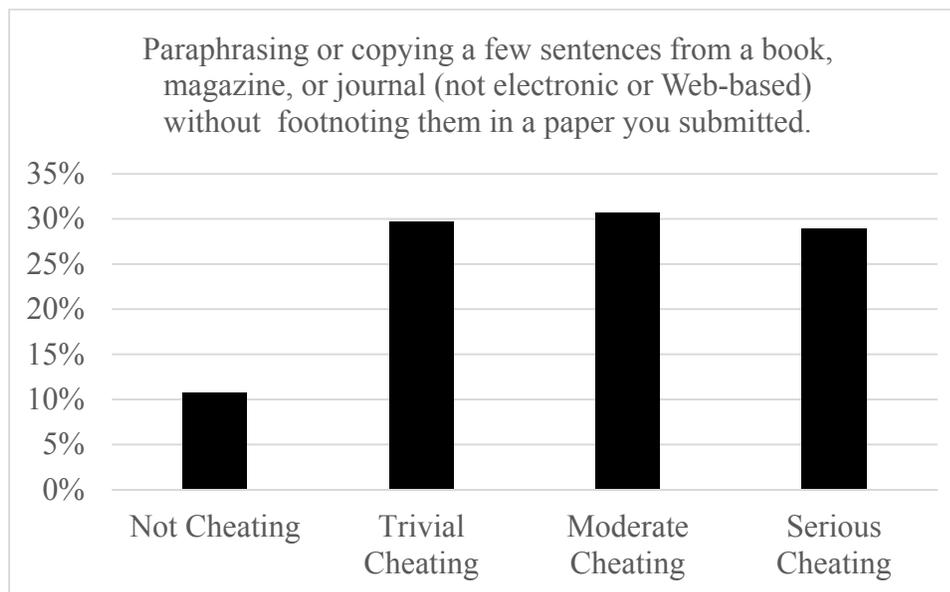
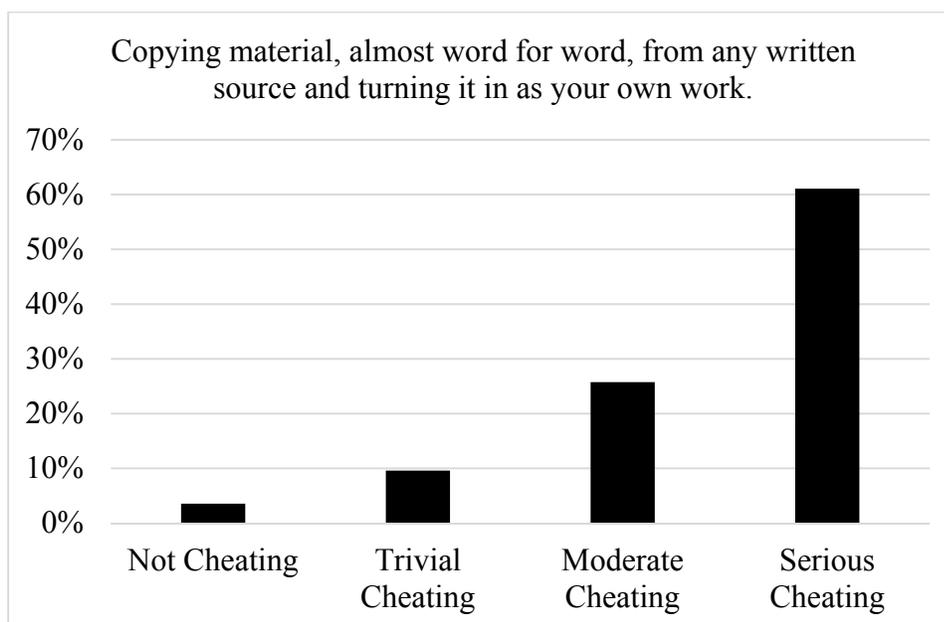
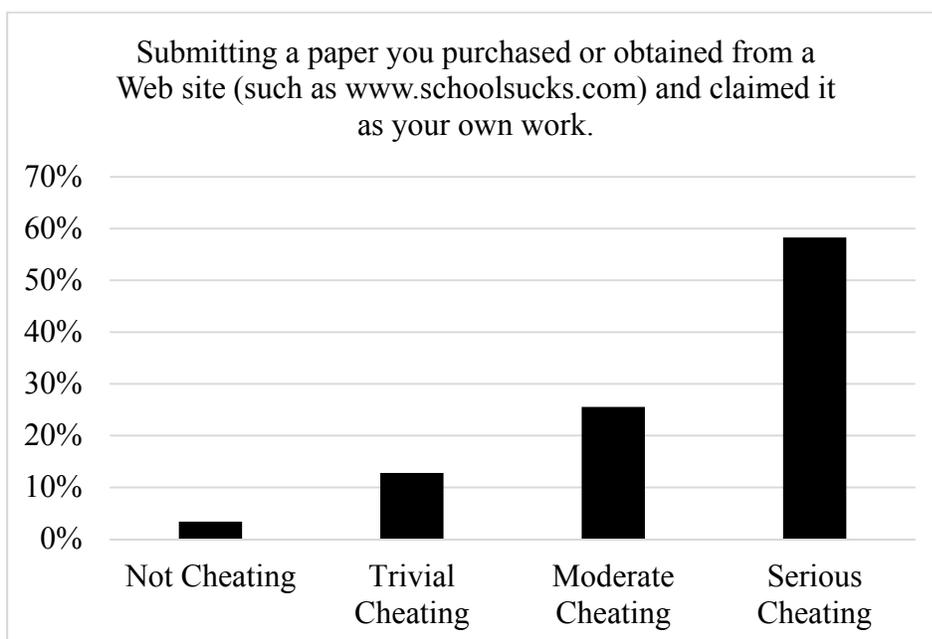
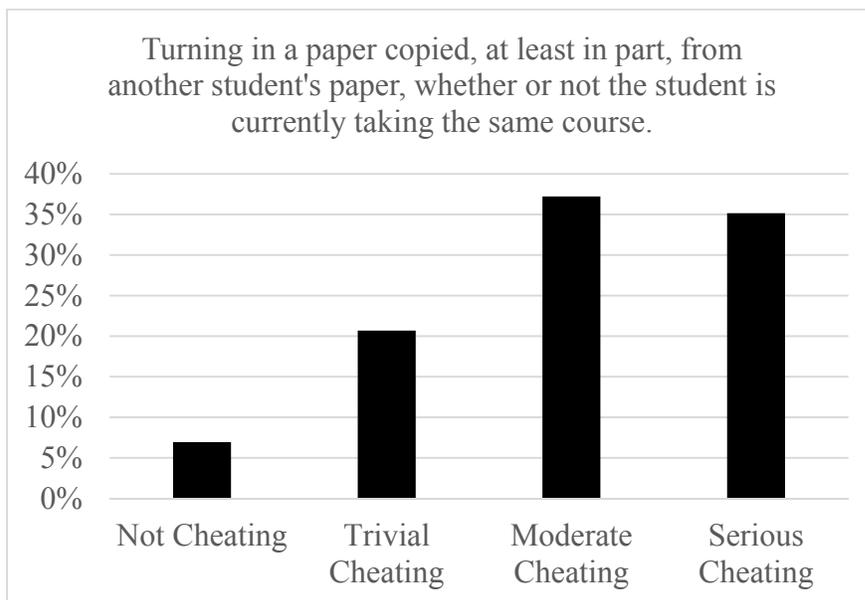


Figure C4: Responses on items related to plagiarism









## APPENDIX D: Academic Integrity (Student Survey)

### PLEASE READ AND COMPLETE THIS SECTION BEFORE STARTING THE SURVEY

For the protection of every student completing this survey, we would like to confirm that you have read the e-mail you were sent describing the purpose of this Academic Integrity survey, that you wish to voluntarily participate, and that you are 18 years of age or older. Please affirm these points by checking the following "I Agree" box and then you may proceed to complete the survey.

I Agree

---

#### Specific Behaviors

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

1. Please mark **how serious** you think each type of behavior is.

	Not Cheating	Trivial Cheating	Moderate Cheating	Serious Cheating
Fabricating or falsifying a bibliography.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working on an assignment with others (in person) when the instructor asked for individual work.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Working on an assignment with others (via email or Instant Messaging) when the instructor asked for individual work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting questions or answers from someone who has already taken a test.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
In a course requiring computer work, copying another student's program rather than writing your own.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helping someone else cheat on a test.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fabricating or falsifying lab data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fabricating or falsifying research data.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Copying from another student during a test with his or her knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copying from another student during a test or examination without his or her knowledge	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Using digital technology (such as text messaging) to get unpermitted help from someone during a test or examination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Receiving unpermitted help on an assignment.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Copying (by hand or in person) another student's homework.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copying (using digital means such as Instant Messaging or email) another student's homework.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<b>Not Cheating</b>	<b>Trivial Cheating</b>	<b>Moderate Cheating</b>	<b>Serious Cheating</b>
Paraphrasing or copying a few sentences from a book, magazine, or journal (not electronic or Web-based) without footnoting them in a paper you submitted.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Turning in a paper from a "paper mill" (a paper written and previously submitted by another student) and claiming it as your own work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paraphrasing or copying a few sentences of material from an electronic source - e.g., the Internet - without footnoting them in a paper you submitted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Submitting a paper you purchased or obtained from a Web site (such as www.schoolsucks.com) and claimed it as your own work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using unpermitted handwritten crib notes (or cheat sheets) during a test or exam.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using electronic crib notes (stored in PDA, phone, or calculator) to cheat on a test or exam.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using an electronic/digital device as an unauthorized aid during an exam.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copying material, almost word for word, from any written source and turning it in as your own work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turning in a paper copied, at least in part, from another student's paper, whether or not the student is currently taking the same course.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turning in work done by someone else.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cheating on a test in any other way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Not Cheating</b>	<b>Trivial Cheating</b>	<b>Moderate Cheating</b>	<b>Serious Cheating</b>

## DEMOGRAPHIC VARIABLES

**1. What is your academic class standing?**

1st Semester student	<input type="checkbox"/>
2nd Semester student	<input checked="" type="checkbox"/>
3rd Semester student	<input type="checkbox"/>
4th Semester student	<input checked="" type="checkbox"/>
5th Semester student	<input type="checkbox"/>
6th Semester student	<input type="checkbox"/>
7th Semester student	<input checked="" type="checkbox"/>
8th Semester student	<input type="checkbox"/>
9th Semester student	<input checked="" type="checkbox"/>
10th Semester student	<input type="checkbox"/>

**2. Sex:**

Female	<input type="checkbox"/>
Male	<input checked="" type="checkbox"/>

**3. What School do you belong to?**

(A) Business	<input type="checkbox"/>
(B) Mechanical Engineering	<input checked="" type="checkbox"/>
(C) Medicine	<input type="checkbox"/>
(D) Law	<input checked="" type="checkbox"/>
(E) Communication	<input checked="" type="checkbox"/>
(F) Other Schools	<input type="checkbox"/>

**4. What is your approximate cumulative grade point average?**

(A) 95-100	<input type="checkbox"/>
------------	--------------------------

(B) 90-94	<input type="checkbox"/>
(C) 85-89	<input type="checkbox"/>
(D) 80-84	<input type="checkbox"/>
(F) 75-79	<input type="checkbox"/>
(A) 70-74	<input type="checkbox"/>
(B) less than 70	<input type="checkbox"/>

THANKS FOR PARTICIPATING IN THIS SURVEY

## **APPENDIX E: Email to Students**

Ref: Participate in Academic Integrity Survey!

Dear student:

Your Institution is interested in finding out what are your perceptions regarding on what constitutes an act of cheating. A survey has been designed for this purpose and we will be interested in your participation. Different scenarios will be presented and you will have to decide how serious (or not) that act is. You will categorize the act as: a) Not cheating, b) Trivial cheating, c) Moderate cheating, or d) Serious cheating.

This survey will be completely confidential. Your anonymity will be guaranteed.

**THANKS FOR PARTICIPATING!**

**APPENDIX F: Academic Integrity (Student Survey)**

**PLEASE READ AND COMPLETE THIS SECTION BEFORE STARTING THE  
SURVEY**

For the protection of every student completing this survey, we would like to confirm that you have read the e-mail you were sent describing the purpose of this Academic Integrity survey, that you wish to voluntarily participate, and that you are 18 years of age or older. Please affirm these points by checking the following "I Agree" box and then you may proceed to complete the survey.

I Agree

## **APPENDIX G: Confidentiality Agreement**

### **ACUERDO DE CONFIDENCIALIDAD - UIDE**

En el presente acuerdo, Yo, Xavier Palacios, Director del Departamento de Sistemas de la Universidad Internacional del Ecuador, me comprometo a cumplir en su totalidad este acuerdo que se basa en proteger la información recogida por el encuestador.

Específicamente, debo cumplir los siguientes enunciados.

1. Voy a ser la única persona en el departamento de Sistemas que manejará la información recolectada en esta encuesta dirigida a la población estudiantil.
2. Me comprometo a no divulgar ningún tipo de información que los alumnos divulguen o mencionen en dicha encuesta.
3. Me comprometo a no pasar o distribuir esta información a terceras personas o empresas comerciales. La información recolectada será entregada exclusivamente al encuestador.
4. Me comprometo a quitar cualquier tipo de información en el resultado de la encuesta que pueda permitir, de alguna manera, que el encuestador o cualquier persona adicional, pueda identificar o conectar al encuestado y su identidad.
5. Me comprometo a borrar toda la información recolectada una vez que esta haya sido enviada al encuestador. El Departamento de Sistemas de la Universidad Internacional del Ecuador acepta que dicha encuesta, así como sus resultados, es parte de la propiedad intelectual de los encuestadores.

Se agrega también que tanto yo como el Departamento que represento comprendemos la importancia de respetar la confidencialidad de los encuestados. Esta institución no puede utilizar dicha información para ningún otro fin que el de recolectar información con fines de investigación.

---

XAVIER PALACIOS  
DIRECTOR DEPT. DE SISTEMAS

UNIVERSIDAD INTERNACIONAL DEL ECUADOR

**APPENDIX H: Institutional Authorization to Conduct Survey**

March 9th, 2015-03-09

Econ.  
Luis Enrique Ponce  
School of Business Administration

Dear Enrique:

As the current Secretary-General of the UIDE, I hereby certify that in response to your request to the Honorable Superior Council of the International University of Ecuador, you are authorized to proceed with your survey about Academic Dishonesty and Cheating issues. It is also our understanding that this survey will be used as part of your dissertation requirements at the University of Miami in Florida.

We wish you the best in your professional goals and achievements.

Sincerely,



Dr. Edgar Velasco

Secretary-General

Universidad Internacional del Ecuador

**UIDE**  
UNIVERSIDAD INTERNACIONAL  
DEL ECUADOR  
**SECRETARIA GENERAL**

**UIDE**

Universidad Internacional del Ecuador

Campus Quito: Av. Jorge Fernández s/n, Teléfonos: (593-2) 298 5600 / 298 5601 / 298 5602  
Extensión Loja: Av. Manuel Agustín Aguirre y Mercadillo, Teléfono: (593-7) 258 4567 / 258 6804  
Extensión Guayaquil: Av. Juan Tanco Marengo Km 2.5 y Las Aguas, Teléfonos: (593-4) 288 7200 Ext. 170  
Extensión Galápagos: Puerto Ayora: Enrique Fuentes entre Av. Baltra y Bolívar Náveda, Teléfono: (593-9) 9394 8900  
Centro de Apoyo Eloy Alfaro (Sistema de Educación a Distancia): Av. Eloy Alfaro N52-85 y José Félix Barreiro, Teléfonos: (593-2) 298 5621-24