

Understanding Academic Dishonesty as Social Process:

The case of cheating in Vietnamese High Schools

Linh Nguyet Doan

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Abstract

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Research has consistently shown that academic dishonesty has a detrimental impact on the learning process. Nevertheless, very little research explores "cheating" behaviors from students' perspectives or the role that peer groups play in the proliferation or reduction of cheating cultures. Academic dishonesty has always been an important subject to study. Still, it is even more crucial today to explore this issue in Western contexts and Eastern countries such as Vietnam.

This study seeks to fill the knowledge gap using a quantitative approach that draws on a sample of approximately 1,000 high school students in five provinces of Vietnam. I seek to understand three research questions: (1) How do Vietnamese high school students define "academic dishonesty"? (2) To what extent do personal and contextual factors influence the students' attitudes toward cheating; and (3) How does the difference between the definition of cheating and students' attitudes affect students' decisions to engage in cheating.

The result of the Latent Class Analysis shows that Vietnamese students have very different perspectives on what is regarded as cheating in school. , In general, the definition of what it means as "cheating" is highly diverse. Student defined cheating differently depends on

where it happens and who is involved, not just on the action itself. In the second research question, using different type of regression analysis and factor analysis, this study further finds that the student's definition of cheating is the strongest among all the variables and is most likely to affect students' reactions and attitudes about cheating. Other significant factors found included parental highest education level, leadership position in class, overall classroom achievement, and diligence culture affect students' reactions. In the final research question, the study examines societal factors and finds that classroom climate also plays an essential role in explaining how students engage in cheating. Often, the class that values hard work over achievement has fewer students who confess to cheating, cheating frequently, and cheating in multiple subjects. In additionally, a competitive culture that focuses on achievement can also affect and pressure students to cheat. This finding highlights the importance of studying dishonestly through the lens of sociology which goes further than the student's values or "rebellious nature" that makes them cheat. While various research in the field has examined multiple factors related to student cheating, we need to understand the students' rationales for commit cheating to provide root-cause solutions and actionable steps to reduce cheating in schools. The dissertation concludes with recommendations for future research and policy recommendation at the national policy level and at the local school or classroom level.

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Dedication

To my family, who always believes in me and taught me everything that matters.

Chapter 1 : Introduction

1.1 Problem Statement

As Dewey (1997) has argued, formal education should equip students with knowledge and tools in their chosen fields and help them develop critical skills needed to be ethical human beings and effective citizens. Research has consistently demonstrated its frequency and detrimental impact on the learning process (Bernardi et al., 2004, McCabe et al., 2001). It is not only unfair to those honest students who work hard, but it also debases why students need to go to school. Academic dishonesty inhibits students' engagement in the learning experience and interferes with their development of positive values such as integrity and fairness (Boehm et al., 2009). More importantly, academically dishonest behaviors rarely occur only once. In fact, McCabe and Trevino (1997) argue that students often re-engage in unethical decisions in the future. Therefore, small acts of dishonesty, such as cheating on assignments, can escalate to more significant acts of dishonesty later on (Garrett et al., 2016). Additionally, in an era when high-stakes testing has become increasingly popular (Wang et al., 2020), it is crucial to examine the topic because dishonesty and cheating behaviors can challenge the inferences that those tests make about students' competence. If test scores, or the widely accepted indicator of achievement, are invalid, the purpose of standardized testing and the link between accountability and equity disappear.

Academic dishonesty is a crucial issue because cheating incidents have been prevalent among all schools worldwide. Bowers (1964) found that more than 50 percent of college students across 99 campuses in North America were engaged in some form of academic dishonesty. Fifty years later, McCabe et al. (2012) also found more than 79 percent of his sample

of more than 50,000 college students in the United States engaged in cheating. Academic dishonesty has been detected in different parts of the world as well. Ma et al. (2013) found that 90 percent of participants in their sample of students in China (N=1,097) engaged in at least one form of academic dishonesty. Küçüktepe (2014) and Yazici et al. (2011) indicated that academic cheating at school is a problem in Turkey. Lupton and Chaqman (2002) argued that the issues are also found in Russia and the United States. Grimes and Rezek (2005), in a comparative study of six countries, found that with the exceptions of Lithuania and Ukraine, students in other transitional economies such as Belarus, Croatia, and Kyrgyzstan had a higher probability of cheating relative to students in the USA.

While various research in the field has examined multiple factors related to student cheating, we need to understand the students' rationales for commit cheating. There is a wide range of predictors associated with academically unethical behaviors and intentions. For example, many studies have focused on students' demographic and background variables (e.g., Pabian, 2015; Yu et al., 2017). Even though, these findings are important to compare different groups of students, it offers little room for changes as these personal characteristic factors are often not changeable. h A growing literature has examined motivational correlations with academic dishonesty, such as students' self-efficacy (Finn & Frone, 2004; Murdock et al., 2001), goal orientation, and goal structure (Anderman & Midgley, 1997). From an economic point of view, individuals cheat when the benefit they gain by cheating (e.g., getting into college) is larger than the risk (or perceived "cost") of being caught (Nowell & Laufer, 1997). However, the relationship between other factors such as classrooms, the learning environment, and academic dishonesty remains unclear.

It is true that students make their own decisions to cheat. They decide to cheat even when they know it is morally wrong and even when they know about the future consequences of their actions. Nevertheless, I argue that the decision to cheat is, at its core, a decision to act in a deviant way that violates the stated norms. Using sociological deviance theories to guide my inquiry of cheating was helpful because it provided linkages between factors in a cheating decision and context with the attitude toward cheating. As such, this study adds to the body of research in theory-building about student academic cheating and deviance and provides helpful evidence regarding how students understand the concept of cheating and what can be done to prevent cheating behaviors. This study will provide insights into what students think about cheating and how students are influenced to cheat or not cheat by other contextual factors. It is essential to give students the chance to express their views just as much as teachers and school administrators must understand students' decisions and address the issues relevant to their students.

1.2 Research Questions

Much of the current literature on academic dishonesty can be found in the field of psychology and focuses on the characteristics of students who cheat. Despite their noticeably strong alignment within student-level factors such as gender and social-economic background as they are related to cheating, most of the current literature in psychology offers limited explanations for why such differences exist. Additionally, unlike student variables, the classroom variables such as school/classroom climate tend to be more malleable, providing opportunities for intervention. Thus, my research examines academic dishonesty in Vietnamese high schools as a social process. Through the lens of sociology, I want to explain the mechanisms through which some students often cheat more than others and why they only cheat in certain classes.

The first dimension of this research looks at how students define what counts as cheating and seeks to understand whether there are different "groups" of cheating behaviors, as defined by students. In the second dimension, I want to explore how different individuals and contextual characteristics can affect how students perceive, react and engage with cheating incidents in their classroom, especially controlling how they previously defined cheating differently in the previous research question.

To fill this gap, I used advanced statistical methods such as latent class analysis and a hierarchical linear model to explore different factors that can potentially contribute to how students define, interact, and engage with academic dishonesty. To that end, I aim to address the following research questions:

- (1) How do Vietnamese high school students define "academic dishonesty"?
- (2) To what extent do personal and contextual factors influence the students' attitudes toward cheating??
- (3) How do the differences between the definition of cheating and students' attitudes affect students' decisions to engage in cheating?

Figure 1.1 below shows the relationship between the three research questions of this study and the hypothesis as to how the three outcomes – definitions, perception, and engagement can relate to one another. Nevertheless, the direction and the significance of this process may not be accurate once we run all the statistical models.



Figure 1.1: Academic Dishonesty as a Social Process

1.3 Terminology

Adapting McCabe, Butterfield, and Trevino's (2012) definition, I operationalized academic dishonesty as student engagement in one or more of the following behaviors: (a) cheating related to examinations such as taking unauthorized material into an exam, receiving questions or answers of the examination in advance; (b) Cheating related to plagiarism, such as copying sentences of material without citing the reference; and (c) Cheating related to collaboration on an assignment such as collaborating with peers on an assignment without the teacher's permission. While McCabe et al.'s (2012) list of academically dishonest behaviors was chosen as a guideline because it provides a clear and concise set of behaviors commonly aligned with honor codes and research. Most of the, it potentially left out some behaviors that can be considered as cheating in Vietnam. Therefore, this study first let Vietnamese students define what cheating means to them as part of its research purpose. The study also added other cheating

behaviors specific to cheating in Vietnam, such as bribery, based on feedback from the preliminary study that I conducted in 2016.

One of the primary purposes of this study is to let students self-define what cheating means to them. As a result, the "official" definition of "cheating" is not given in this study; instead, it is reported as a part of the results. Moreover, rather than using more academic/technical terms such as "academic dishonesty" and "academic integrity," the term "cheating" was used throughout the survey since students may not be familiar with terminology. Translating "academic dishonesty" into Vietnamese often lead to students to confusion as if they are tested about a specific concept in civil education subject, which is not the intention of this study. Furthermore, when "cheating" is translated into Vietnamese, it has a broad definition and known term; it does not have the possible connotations that other terms may have. However, throughout the paper, the term "academic dishonesty" will be used interchangeably with "cheating" or "academic cheating," whereas "academic integrity" will be equivalent to "not-cheating" or honest behaviors.

1.4 Dissertation Overview

Academic dishonesty is a rampant and persistent issue in the educational sector and worth studying. In order to address the research questions stated above, I conducted in-depth field research on academic dishonesty in Vietnamese high school during the fall 2018 and spring 2019. This dissertation focuses on the analysis of the survey that I distributed to more than 1000 students in Vietnam and provides some insights as to what students define as cheating, what they would react when they witness cheating incidents and whether or not they engaged in cheating itself. This dissertation is divided into six chapters. The first chapter provides an overview of the dissertation, states the problems and the research questions. The second chapter, I provide some

overview of the Vietnamese education system and some overall statistics from the Vietnamese Education and Training Report. Chapter 3 reviews the past and current evidence included in this review on the prevalence of cheating portrays an increase in the frequency of cheating all over the world, the relevant literature on factors that affect cheating, and the review of three sociological deviance theories that can help explain the theories. Chapter 4 presents the research design, data collection procedure, and analysis techniques - how the studies in this dissertation were executed. This chapter includes information about participants recruitment procedure, the research site, the sampling method, and the methods that used to analyze the survey results. In chapter 5, I lay out the results that aligned with the three research questions. Overall, the pattern of the behaviors that may be considered cheating, Vietnamese students' attitudes and reactions towards cheating, how students engage in intellectual dishonesty and how their perceptions will vary between classrooms. Chapter 6 summarizes how different individual and contextual characteristics affect how students define, interact, and engage with cheating.

Chapter 2 : Background and Context

This chapter introduces a brief history and an overview of the Vietnamese education system and some overall statistics from the Vietnamese Education and Training Report. The chapter provides the uniqueness that the Vietnam education system offers, especially regarding academic dishonesty at the high school level.

2.1 Overview of Education System in Vietnam

From the 10th century until the 19th century, the Vietnamese education system was mainly reserved for the elite class, in which influential and wealthy families invited teachers to stay in their houses to teach their children and those from other elite families. The first university (Văn Miếu – Quốc Tử Giám) was built in 1070; it was reserved only for princes and sons of high-ranking officials. Though the first exam for civic administrators was conducted in 1075, it was not until 1253 that the university was opened for commoners. Nevertheless, the education system during this period was acknowledged as having an extremely high level of stratification. The purpose of education then was to maintain power and separate the upper class from the lower class because going to schools (having access to teachers and books and being literate) is the only way to access official leadership and administrative jobs. Additionally, not every school was built equally during those periods. Instead of having a standard curriculum, teachers had complete control of creating their curriculum. Thus, only students of the best teachers passed the university entrance exam.

From the 1900s until now, the Vietnamese education system has been highly centralized as more than 90 percent of schools (basic education, colleges) are public. It is somewhat expected that such a centralized system has some level of standardization. This standardization was made to ensure the quality of education and make education the engine of social mobility

(Ministry of Education and Training, 2005). There are national standards for teachers and reading, mathematics, and science standards for students at each grade in Vietnam. Every student and every teacher use the same textbooks under the same curriculum. Even the school schedule is almost identical across the whole country. School always starts on September 5th and ends in mid-May. On every Monday, schools would start with Flag Ceremony, and every Saturday, the week would end with a "homeroom period." Each class period is always exactly 45 minutes long. Each recess is precisely 30 minutes long. Even the schools' infrastructure and settings (like the type of trees in the yard, the classroom decoration, etc.) are almost identical to one another.

Nevertheless, we can still find the closest "trace" of the stratification aspect in the current education system in the existence of "gifted high schools." These gifted schools are all public; however, they usually have the best teachers, better school infrastructure, and more funding than other regular public schools in the capital or big cities. Students were selected to attend these "gifted" high schools purely based on merit. While enrolled, these students also have a heavier workload than regular secondary school students. They have to take separate tests and prepare for these high schools' entrance examinations from early middle school. Nevertheless, most gifted high schools have more than 90 percent of students who will successfully pass the national examination to colleges. Therefore, the slots that go to these schools are highly competitive and desirable.

There is a minimal number of private high schools in Vietnam. They are mostly located in big cities such as Hanoi or Ho Chi Minh City. While international schools are a relatively modern phenomenon - the oldest international school was established just 30 years ago, these international private schools are often reserved for students from upper-class families or for

students who have dual citizenship. In contrast, private schools in Vietnam are often regarded as "second-tier," in which students who did not qualify for public high schools are enrolled.

It is important to select and separate the type of schools into my research as it provides a unique lens to understand the school and classroom structures and the competitive nature of Vietnamese classrooms. Last but not least, Table 2.1 below provides some comparisons between public and private high schools in Vietnam during the 2018-2019 school year (Ministry of Education and Training, 2020) when this study was conducted.

Table 2.1: Comparing the private and public high schools in Vietnam

	Public High School	Private High School
Number of schools	2110	281
Number of students	2,290,929	186,246
Number of teachers	136,830	13,891
Student/Teacher Ratio	16.7	13.4
Student/School Ratio	1085.7	662.8

2.2 Advantages of Studying Academic Dishonesty in Vietnam

In the annual report by Transparency International, Vietnam ranked 107th of all 180 countries rated on the Corruption Perceptions Index, 30 places lower than China and 90 places lower than the United States (Transparency International, 2017). Schools have long been thought of as a "microcosm of society," where young children learn how to navigate and start forming habits before becoming a part of the "real" society. Therefore, it may not be surprising to find many sources of corruption and toxic academic culture in the Vietnamese education system. In February 2018, the Vietnamese Minister of Education, Dr. Phung Xuan Nha, was accused of multiple cases of plagiarism and falsification, even after he became a professor at the Vietnamese National University (BBC, 2017). Additionally, every year, the Vietnamese media

has reported several cases of students who brought documents, students who used phones and electronic devices in the examination room, etc. However, in July 2018, Vietnamese media was full of articles about "the biggest" cheating incident since establishing the national high school graduation/college entrance exam. More than 400 students' results were manipulated as much as 22/30 points all within one province. Many of those students were daughters and sons of political leaders and successful business owners. The nation was shocked. For the first time, the incident was called "systemic" (VNExpress, 2018). It involved the students and the parents, the proctors, and the graders. Although it was the first time such an incident was caught and reported, not many Vietnamese parents and students were surprised. Perhaps what surprised them the most was the fact that this news was reported nationwide. In February 2018, several articles about the Vietnamese Minister of Education were reported to plagiarize his colleagues and international author's previous work. Yet, other than BBC Vietnamese (BBC, 2018), none of the domestic media outlets reported such an incident.

Similar to the global phenomenon, high-stakes testing, and large-scale international assessments have also become more popular in Vietnam (Pizmony-Levy, 2014). Unfortunately, dishonesty and cheating behaviors can challenge the inferences that those tests attempt to make about students' competence. Once the test scores the indicator of achievement—is invalid, the purpose of standardized testing and the link between accountability and equity will disappear. In Vietnamese, academic dishonesty, translated as "cheating," is a significant problem worth studying because of its frequency and how it interferes with students' learning processes and the value that the education system holds. Furthermore, the indifference of the Vietnamese public regarding this cheating incident is, in fact, alarming. Behind this indifference lies the frustration and the powerlessness of students, parents, teachers who did not want to engage in dishonest

behaviors. As one student said to me during an interview: "To cheat is not to be cheated," many parents and students choose to engage in dishonest behaviors because of the frustration with the broken system and the belief that cheating is impossible to be eliminated. Indeed, many Vietnamese students have received punishments if they are caught cheating. In fact, many students in my voiced in our interview that they weighed the punishment and the possibility of being caught much lower than the consequences of failing an exam or a quiz. In many instances, these punishments may not be a sufficient deterrent because the same problem continuously exists and spreads through generations of students. It is evident that punishing dishonest behaviors is not always an effective policy approach to reduce the number of cheating incidents (Megehee & Spake, 2008). Therefore, empirical evidence on specific strategies to curb academic cheating in different cultural contexts is sorely needed.

In addition, Vietnamese high school classrooms provide a unique social context to study academic dishonesty. First, Vietnamese public schools by design create a power dynamic between students in the same classroom. In every classroom, some students hold leadership positions in class and, therefore, which can potentially lead to more influence on their classroom climate. Second, peer effects among students in Vietnamese high schools are expected to play a critical role. In the Vietnamese system, most students (other than those who attend international schools) stay in the same "homeroom" class for the entire period of high school education (i.e., three years). Instead of switching classes every period and selecting classes every semester, the students stay in the same classroom space, and the teachers are the ones who move and change locations after each class. Therefore, unlike classrooms in the United States, the Vietnamese classroom climate easier to be provides a unique opportunity to measure and examine student interactions and attitude, compared to other countries.

2.3 Chapter Summary

Vietnam's education system offers a unique and ideal environment for this study. The country's education system is highly centralized and strongly focuses on achievement, which creates even more pressure for students to break the rules and cheat. Vietnamese students can hold a leadership position in class which can directly affect the culture and power dynamics in the classroom. While previous research guided the first steppingstones to the importance of examining academic dishonesty as a socially constructed concept, in the next chapters, I will introduce how Vietnam case is compared to different compared to different education system in the world as well as the current literature on academic dishonesty over the world.

Chapter 3 : Literature Review

Academic dishonesty is a problem at all levels of education. This chapter reviews the past and current evidence included in this review on the prevalence of cheating and portrays an increase in the frequency of cheating all over the world, the relevant literature on factors that affect cheating, and the review of three sociological deviance theories that can help explain the phenomenon of cheating. This chapter begins with a discussion of the inconsistencies in defining cheating and of the importance of examining academic dishonesty as a socially constructed concept. The research findings connected to various factors related to cheating, especially at the high school level are synthesized. The theories from the sociology of deviance theories used to inform my study about cheating are also explained.

3.1 The "Socially-Constructed" Definition of Cheating

The lack of clarity of definition, misunderstanding of survey items, and the difference of opinions about what constitutes cheating may lead to discrepancies in reported levels of student cheating. Therefore, this range signals a problem in the existing literature: what counts as cheating is not consistently defined. By looking at cheating as a "socially constructed" concept, such inconsistency in the literature may be minimized. I argue in this section that academic dishonesty behaviors or cheating are a socially constructed term for two reasons. Firstly, students, faculty members, and researchers have varying definitions of cheating. Second, because cheating is a form of social deviance, the definition depends on the norms and the culture surrounding the behavior. Some behaviors which may not be considered cheating in some contexts can face severe punishment in others. Lastly, Thorpe et al. (1999) criticized the common practice of combining types of academic dishonesty as it ignores crucial interactions.

Students have their varying definitions and understandings/interpretations of cheating. Burrus et al.'s (2007) study on academic dishonesty found that only 9 percent of their sample consider comparing homework answers with classmates before class as cheating behaviors, while 20 percent believe that using a test from the previous semester to study is cheating. Similarly, Gulliver and Tyson's (2014) findings suggest that students are often unable to accurately define whether some behaviors were plagiarism or not, even after reading the Academic Misconduct Policy. One difference between plagiarism and cheating may be the unique motivational drivers for each type of academic dishonesty. For instance, students held more favorable attitudes towards sharing homework than plagiarizing, suggesting that sharing homework solutions is not perceived to be as serious as plagiarism (Cronan et al., 2018).

Furthermore, plagiarism mainly occurs with out-of-class assignments and writing tasks. In contrast, other cheating behaviors such as copying off a peer occur when completing in-class exams or more minor writing-intensive homework assignments. The perceived importance of the academic task may influence students' motivation or inclination to define academic dishonesty, and subsequently, how they engage with cheating. Students may associate exams with higher costs of getting caught compared to lower costs associated with low-stakes assignments. The definition of academic dishonesty also varies by gender of the "judge." For instance, Jones et al.'s (2015) study suggested that girls judged various ethically questionable actions as less justifiable than how boys judged the same actions. For example, girls often judged "taking credit for someone else's accomplishments" as less justifiable than boys would.

Even faculty members who are directly in charge of detecting cheating and giving appropriate punishments to students disagree on what counts as cheating. Pincus and Schmelkin (2003), in a study of 212 faculty members in the U.S., found that faculty members viewed

"academic dishonesty on a continuum of severity" (p. 206) and that they had varying opinions about how severe some behaviors were, such as using materials from test files. Similarly, faculty members in Higbee and Thomas' (2002) study could not clarify what counts as cheating but instead stated that cheating depends on whatever an instructor tells students.

In addition, while most of the research on cheating assumes that students define cheating as the researchers and institutions do, recent studies reveal the opposite (Burrus et al., 2007, Higbee & Thomas, 2002). As compared to faculty members or professors, students consider fewer behaviors to be cheating. For example, behaviors such as copying a few sentences from a source or the Internet without citing, turning in the same work for different classes, asking other students about the contents of a test, collaborating with students on homework, discussing papers with peers, studying from previously administered tests, and protecting students from getting caught cheating are considered trivial to students. McCabe et al. (1999) found that students justified cheating behavior because of unclear rules and "grey areas" in definitions of cheating (p. 224).

Previous research showed varying definitions of what defines academic dishonesty. Whitley and Keith-Spiegel (2002) once acknowledged that "academic dishonesty appears to be one of those phenomena that few people can define exactly, but that everyone can recognize when they see it" (p.16). In their two most extensive studies, McCabe and Treviño (2001) noted that as time passed participants' perceptions of what academic dishonesty was changed, leaving room for error. Therefore, what learners would have considered plagiarism in 1963 and what they considered plagiarism in 1993 could be drastically different. Not having a standard definition allows room for error when exploring previous research trends in the frequency and growth of academic dishonesty. It is no surprise that in reviewing the literature, I

found that the definitions of cheating used by researchers are different and, at times, relatively imprecise and do not include issues that are found to be common in Asia. For example, according to Pavela (1978), there are four types of academic dishonesty: (1) "cheating" (2) "fabrication of information," (3) "facilitating academic dishonesty," and (4) "plagiarism" (p. 72-73). Note that Pavela uses the term cheating only as a subset of academic dishonesty behaviors. Cheating here is considered only as "unauthorized materials, information, or study aids in any academic exercise" (p.75), whereas many other researchers have used the term "cheating" and "academic dishonesty" interchangeably.

These terms are broadly defined, but these categories also fail to capture some of the cheating behaviors found in other contexts, such as bribing or getting illegal access to exam questions. For example, studies on academic integrity and academic honesty studies in Russia and other countries in the former Soviet Union have found bribing and favoritism to be effective forms of academic dishonesty (Kliucharev & Muckle, 2005). We can claim that academic dishonesty is relative, i.e., what is considered cheating may vary and depend on different contexts. For instance, while plagiarism is taken very seriously in the United States and many Western countries, it has not been treated as seriously in Asian countries (Kwong et al., 2010).

3.2 Students' Characteristics and Cheating in School

Much of the current literature on academic dishonesty can be found in psychology and focuses on the characteristics of students who cheat. This chapter summarizes what current research has found between students' characteristics and cheating in school.

Gender

Many studies have focused on the relationship between gender and academic dishonesty in high school. In particular, it has been well documented that females tend to commit less

academic cheating in schools. Bowers (1964), who conducted one of the first studies in academic cheating, indicates that in his sample of more than two thousand students, 53% of male students admitted to cheating compared to 43% of female students. Furthermore, the author found that the cheating rates were positively correlated to such attitudes. Similarly, Lin and Wen (2007) replicated the same results with Whitley in the Taiwanese higher education context. Whitley et al.'s (1999) and Kish-Gephart et al.'s (2010) meta-analysis of gender differences in cheating attitudes also supported that men are much more likely to engage in unethical behaviors in schools.

Despite their noticeably strong alignment, most of the current literature offers little explanation as to why such a difference exists (Kobayashi & Fukushima, 2012). Mateju and Smith (2015) argued that because boys are less obedient than girls, they are more likely to break the rules. This tendency can be attributed to how women endorsed higher idealism (adherence to ethical values regardless of the situation) than men (Saulsbury et al., 2011). Krou et al. (2019) also argued that the psychological cost regarding cheating was more salient for women's motivation to perform academic dishonesty, whereas men were more concerned with attainment value. Given that men and women may differ in their propensity and motivation to cheat, I wanted to explore if sex may moderate the relationship between motivation and academic dishonesty.

Social Class

Previous research has found that social class (as measured by various variables such as family income, parents' education, and occupation, or students' household income) has no significant effects on cheating behaviors (Bowers, 1964; Michaels & Miethe, 1989)., McCabe and Trevino (1997) believe that children from higher socioeconomic backgrounds have more

time and are better prepared for school. Therefore, they have a better supportive environment for academic achievement, making them less likely to cheat.

Previous Academic Ability

Academic performance (measured by grade point average (GPA) or standardized test scores) has been consistently reported in previous studies to be one of the most accurate predictors of cheating behaviors. Mainly, students with higher GPAs report cheating less than students with lower GPAs (Bonjean & McGee, 1965; Bowers, 1964; Davy et al., 2007; Klein et al., 2007; Lipson & McGavern, 1993; McCabe & Trevino, 1997). High-achieving students also feel guilty of academic dishonesty. However, different from low achieving students, they were found to engage in various types of academic dishonesty such as plagiarism, fabrication, or bribery (Ashworth et al., 1997; Lin & Wen, 2007). For instance, McCabe et al. (2012) demonstrated a "U-shaped" relationship between GPAs and self-reported cheating in their most current study. Their research suggests students at the very top also self-reported high frequency of cheating, not much different from low-achieving students. The study argues that these high-achieving students cheat to thrive while those with lower GPAs cheated to survive. The authors conclude that when a student decides he or she needs a particular grade to fulfill the requirements for graduation, situational ethics seem to be more crucial to the student's decision-making process. They demonstrate that engineering students often justify cheating behaviors by taking shortcuts or copying homework for language and social science courses. They only need those courses to fulfill the school requirement, or they would not have taken that course.

Extracurricular Activities and Clubs Affiliation

Many studies found religiously active students to cheat less than students who are not engaged or only moderately active in religion (Rettinger & Jordan, 2005; Turnley & Mudrack,

2008). However, inconsistent with previous studies on religious group affiliation, several research studies have found the adverse impact of participation in sororities and fraternities on frequencies of academic cheating while others demonstrated no correlation between the two (Bonjean & McGee, 1965; Storch & Storch, 2002). Likewise, McCabe et al. (2012) also observed that many students who participate in intercollegiate athletics also self-reported to be engaged in more frequent cheating incidents.

Academic Majors

Although not applicable for high school contexts, a student's major also affects the student's frequency of cheating. Students majoring in science, technology, engineering, math (STEM), or business performed the majority of cheating behaviors on campuses (e.g., Marsden et al., 2005; Williams et al., 2010). Because these majors historically are focused on irrelevant results and are highly competitive, students within these majors may exude a performance-approach orientation and foster a cheating culture. This notion is supported by the tendency for business students to perceive unethical behaviors and academic dishonesty as more socially acceptable than students not majoring in business (Klein et al., 2007).

Additionally, numerous studies have investigated the relationship between self-efficacy and academic dishonesty (Finn & Frone, 2004; Murdock et al., 2001; Tas & Tekkaya, 2010). In STEM (science, technology, engineering, and mathematics) subjects, students who had high self-efficacy were less likely to engage in cheating behaviors (Tas & Tekkaya, 2010). Additionally, in a sample of business students in the U.S., self-efficacy was positively related to perceptions of academic dishonesty as unethical both within and outside the classroom (Elias, 2009).

Other Personality Traits

Other psychological studies have found the link between academic dishonesty and several personality traits. For example, Nathanson et al. (2006) posited that students with personality traits such as Machiavellianism (focus on self-interest, manipulation), narcissism (egotistic and lacks empathy), and psychopathy (remorselessness and other antisocial behaviors) may cheat more often than those who do not have such traits. Additionally, psychological traits such as risk-taking (e.g., De Bruin & Rudnick, 2007; Mustaine & Tewksbury, 2005), impression management (e.g., Zimny et al., 2008), low self-control (e.g., Bichler & Tibbetts, 2003) are significant predictors of academic dishonesty at school.

3.3 Social Contexts and Cheating in School

While it is necessary to understand how different personality traits can affect one's decision to engage in cheating, the approach over-emphasizes "bad apples" and offers only limited solutions for teachers and school administrators to reduce the cheating frequency in their classrooms. However, it is essential to note that individual behaviors do not occur in a vacuum and that the social context in which cheating behavior occurs matters.

Outside of the education field, there is much literature that focuses on organizational fraud and misconduct. They draw attention to two different aspects: 1) the formal structure and processes in an organizational setting; and 2) the environment or climate of the environment as it influences and reproduces the organizational setting. The first set of studies look at formal organization characteristics like structure, processes, and transactions and how these characteristics provide or prohibit opportunities for individuals to violate (Andreoli & Lefkowitz, 2009; Coleman & Ramos, 1998; Vaughan, 1999). For example, Andreoli and Lefkowitz's (2009) study examined how organizational ethical compliance practices (such as having a written code of conduct, ethical training) significantly impact the frequency of observed organization

misconduct even when controlled for the individual demographic characteristics. For instance, the authors suggested that deviance clarifies social norms and increases conformity. This happens because the discovery and punishment of deviance remind people of the norms and reinforces the consequences of violating them. At the same time, deviance always strengthens social bonds among the people reacting to the deviant.

The second set of the organizational fraud literature looks at the organizational environment (climate)—how competitive, regulatory, transparent, or supportive the organization is, in relation to how it would affect an organization's misbehaviors (Andreoli & Lefkowitz, 2009; Appelbaum et al., 2007; Bulutlar & Öz, 2009; Kaptein, 2011; Vardi, 2001). For example, in addition to the previous argument about the importance of formal structure, Andreoli and Lefkowitz (2009) found that the informal organizational climate is also a significant predictor and most effectively reduces organizational misconduct when it comes to tenured employees. In a different argument, one of Vaughan's (1996) conclusions examine the tragic decision to launch the space shuttle Challenger. In particular, macro-level pressures from external parties, including Congress and the White House, which encouraged good signals encouraged the launch even though clear danger signals were presented. Thus, the unclear structure of NASA and its culture of top-down and one-way communication within the organization ultimately led to a tragic event.

Coming from a different sociological approach yet with a similar argument, Ackroyd and Thompson (1999) criticize how the mainstream organizational behavior approaches emphasize too much the individualistic understanding of rationality. They want to see misbehaviors beyond deviation from a norm. They argue that organizational misbehaviors or organizational non-compliance tie closely with organizational politics, which is ultimately the consequence of the conflict of collectively shared and opposed interests that arise out of "structural sources of

unequal power and resources" (Ackroyd & Thompson, 1999, p.20). They specified that resistance practices take many forms, and some of them were classified as misconduct behaviors. Furthermore, as one of many examples, Goh et al.'s (2012) findings suggested that in a strongly production-led culture, dominant values from the top can be used to suppress the warning and safety signs that ultimately lead to organizational accidents. Linstead et al. (2014) also emphasized that "the dark side"—referring to dysfunctional behaviors that may be found within organizations, is very much what is hidden by the light of competitiveness culture and that it is "an indelible feature of capitalism" (Linstead et al., 2014, p.173).

The research from neo-institutionalism has always valued the concept of "legitimacy." This notion also applied to the organizational misconduct literature as Deetz (1996) points out: organizational misconducts often used to make the illegitimate appear legitimate. In particular, existing research acknowledges that employees may conduct unethical behaviors on behalf of the organization (Ashforth & Anand, 2003; Trevino et al., 2014; Umphress & Bingham, 2011; Weick & Sutcliffe, 2003). This links to the concept of neutralization or normalization of deviance by Vaughan (2006), which indicates that to benefit the organization, the individuals may consciously rationalize behavior, allowing for unethical acts to be defined as legitimate or appropriate. research studies have also suggested that socialization practices allow corporations to tolerate unethical activities (Anand et al., 2005).

While many has analyzed academic dishonesty as a psychological problem, little research has looked at academic dishonesty through the lens of sociology until now. Nevertheless, in the following part of this section, I summarize all the literature regarding school/classroom contexts and students' engagement and perceptions of cheating.

Punishment

As expected, most researchers have found that high levels of the perceived risk of being caught or punished negatively correlated with cheating (Burrus et al., 2007; Davy et al., 2007; McCabe & Treviño, 1995, 1997; McCabe, Treviño, & Butterfield, 2002; Vandehey et al., 2007). Burrus et al. (2007) also found that if students perceived the strength of punishments to be high, cheating decreased. Tittle and Rowe (1973) found that in class self-grading situations when the professor told a student that random checks of self-grades would be done because cheating had been detected, levels of cheating decreased significantly. Also, students indicated that in-class deterrents such as carefully watching students would deter cheating (Davis et al., 2011). In contrast, Smith et al. (2004) found that in-class deterrents such as encouraging students to report cheating, telling students not to cheat, or carefully watching students as they take exams, were not significantly related to the reported likelihood of cheating. Davy et al. (2007) found that for business students, the number and strength of in-class deterrents negatively correlated with the likelihood of cheating.

Social Norms

Much research, particularly in social psychology, focuses on how peers can positively affect one's attitudes, norms, beliefs, and behaviors. Several empirical studies have investigated the relations of peer-related variables to academic dishonesty among college students (e.g., Bowers, 1964; McCabe & Trevino, 1997; McCabe, Trevino, & Butterfield, 2001). For instance, McCabe et al. (2002) discovered that academic dishonesty is negatively correlated with the possibility of being reported and receiving severe punishments at the college level. They instead suggest that punishment may work well in a lower level of education but instead indicate that peer disapproval has a more substantial effect on college students.

Additionally, the author also argues that students learn techniques, rationalizations, motives, and attitudes favorable to cheating through close association and interactions with peers. The perception of peers' behavior has proven to be one of the most significant explanatory contextual variables, with perceptions of higher levels of academic dishonesty among one's peers associated with higher levels of self-reported academic dishonesty. McCabe and Trevino (1993) and McCabe et al. (2002) suggested that social learning theory can explain this cheating:

"The strong influence of peers' behavior may suggest that academic dishonesty not only is learned from observing the behavior of peers but that peers' behavior provides a kind of normative support for cheating... Thus, cheating may come to be viewed as an acceptable way of getting and staying ahead." (McCabe and Trevino 1993, p. 533)

Knowing that other students cheated or are cheating also makes students feel left out, falling behind, and in a disadvantaged position. Many students reported that it is not fair that their grade suffers because other students cheat while they do not. They also suggested that many students feel they have no choice but to cheat or to keep cheating to stay in the competition and that the student who chooses not to cheat may feel left at a disadvantage. Suppose there is a high percentage of students engaged in academic dishonesty. In that case, the student who chose not to engage in such behavior could be seen as an outsider to the community. This may, in turn, lead to a culture whereby students feel they must engage in academic dishonesty to get and stay ahead. However, on a more optimistic side, the authors also hypothesize that a positive culture of academic integrity on campus with solid disapproval of cheating can successfully prevent academic dishonesty, even better than having intense punishment.

Classroom climate/culture

There is limited research that looks at classroom climate as it is connected to academic dishonesty. Research by Murdock et al. (2001) found that middle school students' perceptions of

their teachers as competent, fair, and caring were powerful (negative) predictors of their self-reported cheating. Additionally, Zito and McQuilan (2010) found that when the classroom environment focuses more on performance, a culture can develop where achieving grades become more important than learning. Additionally, if grades are the primary reason students complete assignments, they will cheat to succeed. When only given grade feedback rather than feedback using critique, students never see how their effort relates to learning and achieving higher mastery and higher grades (Zito & McQuillan, 2010). Their result does not suggest the direct relationship between classroom climate and cheating behavior. Nevertheless, time pressure, competition for grades, and fear of failure are among the primary reasons students cite to explain their cheating (Finn & Frone, 2004; McCabe et al., 2012). Therefore, we would expect classrooms that focus more on grades and competition would have more students who cheat.

Besides, previous research has proposed that academic dishonesty is lower in a "code-environment" – where schools have a system of honor code implemented (Bowers, 1964; Engler et al., 2008). According to McCabe and Trevino in *Honesty and Honor Codes* (2002), traditional honor codes typically use open-note exams along with a judicial process that students implement, written pledges, and an obligation to report incidents of cheating. Modified honor codes focus on two primary strategies. First, the school "must communicate to its students that academic integrity is a major institutional priority" (2002, p. 38). Second, students must play an essential role in the enforcement and education of the code. Typically, on both traditional and modified honor code campuses, the impact is surprisingly strong, according to McCabe and Trevino (2002). In their 1999 study, schools volunteered to participate in the study. They included eight institutions with 23 traditional honor codes, four institutions with modified honor codes, and nine schools without an honor code. The researchers contacted a random sample of sophomores,

juniors, and seniors on all 21 campuses and distributed a questionnaire about students' perceptions of academic integrity. A regression analysis of all five independent variables showed relatively strong support for the relationship between academic dishonesty and perceptions of peer behavior, which validated earlier studies involving traditional honor code and non-honor code institutions.

However, when it comes to academic dishonesty, the presence of an honor code system itself does not always guarantee fewer cheating behaviors. McCabe et al. (2005) could not conclude from self-report data if cheating incidents increase or decrease in schools that implement honor codes. The reason is that the traditional honor code system relies on the premise that students would be less likely to cheat because they are at higher risks of detection since other students can report their deviant behavior. However, knowing about the honor code is different from genuinely understanding the universities and students following such order.

Second, not all honor codes are equal regarding results. The simple existence of an honor code often does not significantly influence students' ethical choices. Riskey et al. (2013) suggested that students who self-reported plagiarism were often aware of honor codes. They suggest that higher education institutions should not merely rely on providing statements and definitions of academic dishonesty behaviors alone. Similarly, Vanderhey et al. (2007) concluded that students often reported having an agreement on an honor code but still cheat. Additionally, McCabe et al. (2005) also observed that students in both non-code and code environments reported a minimal chance that they would report academic dishonesty incidents if they witnessed one. Not only do teachers overlook cheating incidents by students when there is an honor code and procedure in place (McCabe et al., 2003), in extreme cases, researchers have

also shown that teachers and schools administrators also cheat to keep the legitimacy and to gain the benefit for the institutions.

3.4 Conceptual Framework

Drawing from the current literature on academic dishonesty, I created a conceptual framework for this study, which focuses on individual and classroom levels. Figure 3.1 below summarizes how different students' characteristics and other social contexts can influence the the outcomes of this study.

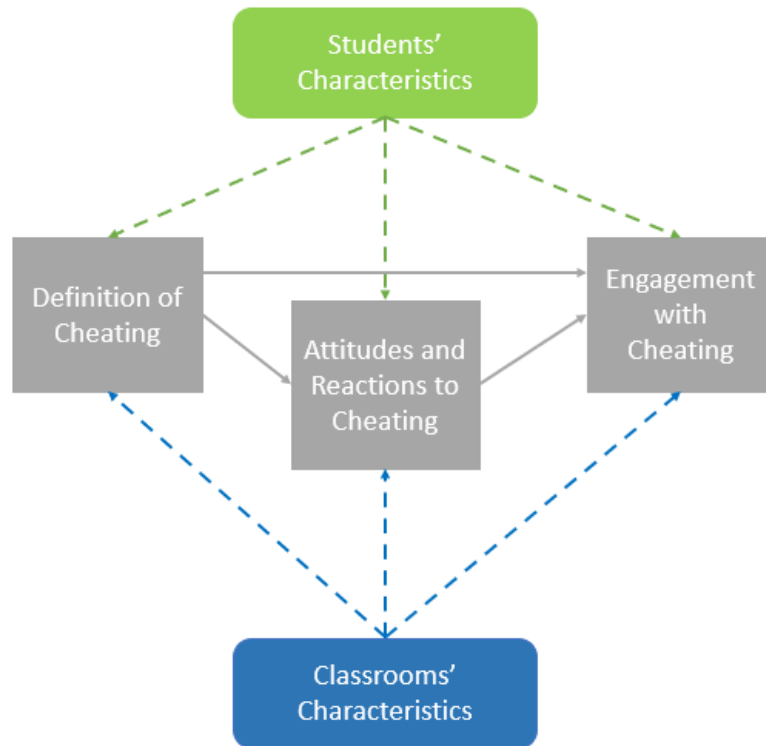


Figure 3.1: Conceptual Framework

In the middle, the three rectangles and the lines between them represent how our three research outcomes are related to one another. The individual-level variables (in green) include gender, number of books at home, and highest parental education level (as proxies for social-economic status), and previous academic achievement. The classroom-level (in blue) includes

the classroom's location, classroom climate (such as the classroom that values diligence or . the classroom with a highly competitive climate between students in the same classroom). Last but not least, the dotted arrows represent the potential relationships between the variables and the three outcomes.

3.5 Sociology of Deviance

In addition to the current literature on academic dishonesty, there are three theories in the sociology of deviance that I believe are most useful for this dissertation. They are (1) Strain Theory, (2) Social Control Theory, and (3) Differential Association Theory. These theories are critical for two reasons. First, despite their noticeably strong alignment regarding student-level factors and cheating, the majority of the current literature in psychology offers limited explanations for why such differences between those factors exist. Through the lens of sociology, we may explain the mechanisms through which such patterns persistently manifest in the larger context. Second, these theories also address the contextual nature of cheating (i.e., why students cheat in some classes but not others). These sociological deviance theories discussed in this section provided me with guidance for exploring my research questions derived from the literature review.

Strain Theory

Strain theory focuses on societal structures as a cause for deviance. Merton (1996a) centered his arguments around three societal constructs interacting to create conditions in which deviating from the norm is considered a viable option for behavior. The concepts are cultural goals and values, behavioral norms to achieve goals and opportunity structure.

Cultural goals are considered objects, purposes, statuses, and aspirations that all people within the culture may think of as a crucial part of their lives worth trying for. In Vietnam,

cultural goals, especially regarding education, are related to private goods such as wealth and obtaining a stable job (Bui & Nguyen, 2018). To be successful in the future, students must study hard to obtain good grades. Adopting these goals does not happen within days or years, but rather they are passed to the students from their parents' or grandparents' generations. Therefore, the more people assimilate themselves to these goals, the more likely they will take these goals for granted and strive to do whatever it takes to obtain these goals.

According to Merton (1996a), these cultural myths of success often offer a limited path to success, and failure to achieve these artistic goals is not acceptable. It creates a competitive culture between students and even parents as well. Merton's (1996b) second construct within the cultural structure is the normative means by which people should achieve cultural goals. He explained that members of society define the "acceptable modes" or "allowable procedures" for attaining cultural goals (p. 133). Furthermore, he argued that society is maintained when people strive to achieve goals by acceptable means and derive satisfaction from both achieving the goals and the processes of achieving goals. As previously stated, people compete to achieve success, and Merton posited that society would operate smoothly only if every position in society or outcome of the competition is rewarded.

Although achieving success is the ideal cultural goal, Merton (1996a) also recognized that opportunity for all to achieve success is not equal. In his words, opportunity structure "designates the scale and distribution of conditions that provide various probabilities for individuals and groups to achieve specifiable outcomes" (p. 153). Social class is a primary basis of a person's ability to access the means to success. Still, opportunity structure also has to do with demographic characteristics. A person is situated within a given time, with a natural ability, or associated with other people with whom one might contact.

All in all, Merton posited that in a society that stresses the achievement of culturally defined success and provides unequal access to normative means to achieve success, the strain would develop. In the education context, as one of the mechanisms against strain, students will cheat as they feel strained between the goals of achieving good grades and the means to attain those goals. For example, students in Vietnam have 11 subjects to master every year. Additionally, they are frequently tested based on memorization, which often does not offer much room for intellectual curiosity and motivation to learn. This societal emphasis on achieving good grades rather than enjoying learning and the structure and culture in the classroom to promote such goals are perhaps two/some of many reasons students cheat so often in Vietnamese classrooms.

Social Control Theory

Social Control (also known as Social Bond) theory is also helpful to understand why academic dishonesty was found less in certain groups. In particular, Hirschi (1969) argued that the human social bonds to conventional social institutions help to reduce the violation of social norms. According to him, four primary social bonds constrain humans' natural capacity to commit criminal acts -- attachment, commitment, involvement, and belief. Following Hirschi's type of bonds, we can argue that because the individuals remain loyal to their conventional institutions and care more about people's opinions in their communities (such as their parents, teachers, and peers), they are less likely to cheat (attachment bond). Commitment is closely aligned with "stakes in conformity" and covers the investment of personal resources in conventional activities. Students with a high level of commitment bond would also believe and accept society's norms and follow orders. Hence, they are also less likely to cheat. Similarly, students who feel isolated from their peers in the classroom might have weak attachment,

involvement, or commitment bonds to the school or an individual course, and thus they would tend to cheat more.

Second, belief represents the acceptance of the "moral validity" of conventional norms and laws. For example, religiously active students may value getting a good education as part of their conventional beliefs, and thus, they are less likely to cheat. This is supported by previous studies, which found religiously active students to cheat less than students who were not engaged or only moderately active in religion (Rettinger & Jordan, 2005; Turnley & Mudrack, 2008). Traditionally, in criminal justice, Hirschi's involvement bond refers to the amount of time spent in routine activities. He then argues that active participants in a social organization often have less time available for deviant conduct. However, involvement in conventional activities may increase deviant misconduct because such activities reduce the amount of time available for studying. Inconsistent with previous studies on group affiliation, several research studies have found the adverse impact of participation in religious groups or sorority and fraternity on frequencies academic cheating, while some demonstrated no correlation between the two (Bonjean & McGee, 1965; Storch & Storch, 2002). Aforementioned, McCabe et al. (2012) also observed that many students who participate in intercollegiate athletics also self-reported to be engaged in more frequent cheating incidents. The majority of these authors believe that the time commitment associated with non-academic activities reduces the number of hours available for schoolwork. Thus, the students perhaps have to cheat to catch up with their peers, and they will have more reasons to justify their behaviors as their peers also cheated previously (McCabe et al, 2012).

Differential Association Theory

Differential Association theory says that criminal behavior is learned by interacting with close friends and family members who think it is "normal" to commit deviance or engage in deviance themselves. This approach relies on the premise that human behavior is learned through the influence of people around them. Within the field of education, much research focuses on peer relationships, drug use and sex (e.g., Duncan et al., 2005); alcohol (e.g., Borsari & Carey, 2001); or achievement outcomes (e.g., Hanushek et al., 2003). Most research that comes from this sociological approach focuses on individual relationships instead of the individuals themselves.

Some researchers such as Sutherland and Cressey (1978, cited in Clinard & Meier, 2015) argue that in a situation where deviant behavior could occur within differential association theory, the person's past experiences and relationships are a primary factor in defining the situation as appropriate for a deviant act. Additionally, the authors argue that people are not born deviant nor inherit deviance; it is learned. Deviance, in their words, is a social process. It is learned from people with whom an individual has close and regular contact and communication, mainly intact groups of some kind. People learn how to be deviant and the attitude that deviance is acceptable or how to convince oneself or others that it is acceptable. The two authors also argue that a societal or significant group norm exists. However, within complex societies where multiple cultures exist, more small communities form, and many groups influence individuals. Within the various communities in a society, conflict occurs regarding norms and behavior. Behavior that is appropriate within a particular community might be considered deviant by other groups. Differing group norms may occur for some reasons – social structure, culture, or religion – but the influences of varying groups determine a person's likelihood to act according to one set of norms versus another set.

The social groups in which people associate shape their values and behaviors, explaining why different people behave in different manners. Thus, in the case of academic cheating, we can argue that peer groups matter: some students learn how to cheat, and this "neutralizes" cheating behaviors from close friends. Additionally, differential association theory focuses on the idea that individuals become deviant only when they are close with others who believe in deviant acts. For example, many Vietnamese students have the same goals of getting good grades. However, students who belong in a classroom with many cheaters may think that cheating is acceptable. On the other hand, students who belong to a classroom that academic integrity is valued would feel more negative towards cheating behaviors.

Figure 3.2: Three Research Questions and their Social Theories

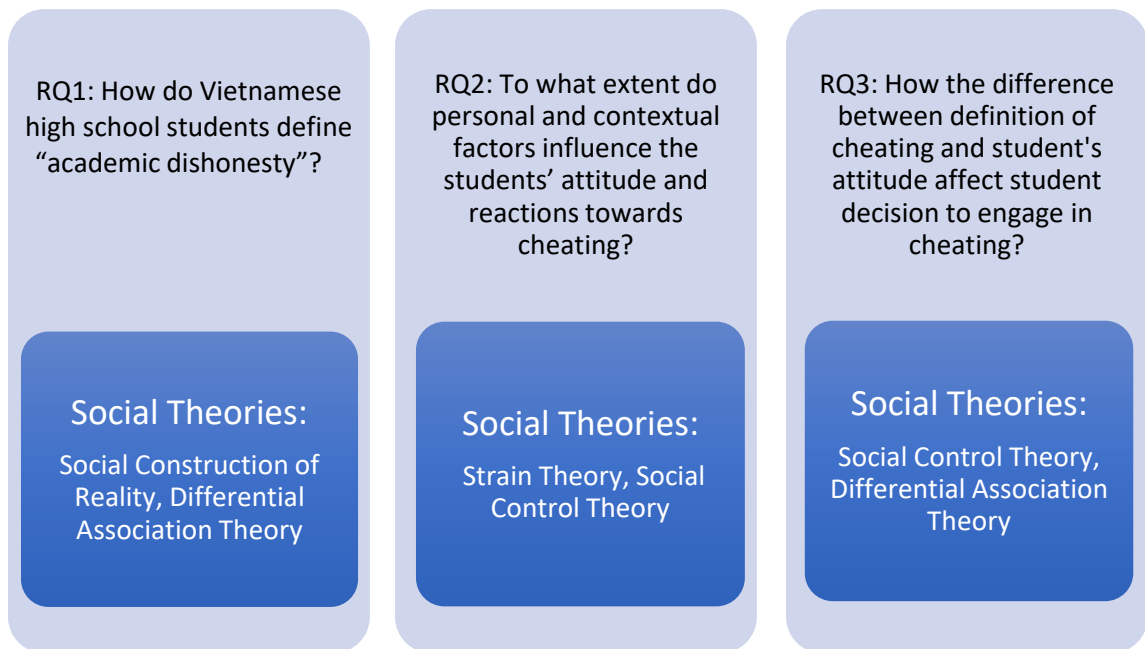


Figure 3.2 above illustrates and summarizes how each research question can be answered through different social theories. In the first research question, Social Construction of Reality theory guided how I proposed the question, while Differential Association Theory will explain the findings. Similarly, to explain how the classroom climate and structure can explain students'

attitudes and reactions toward cheating, Strain Theory and Social Control Theory would be helpful. To explain the engagement with cheating, I apply the Differential Association Theory and Social Control Theory to explain the differences between students in different classrooms.

3.5 Chapter Summary

This chapter reviews relevant literature on student cheating and three sociological deviance theories to explain the three research questions guiding this study. The chapter starts with discussing the inconsistencies in defining cheating in the literature, which helps explicitly restate the importance of examining academic dishonesty as a socially constructed concept in this study. I then synthesize the research findings connected to various factors related to cheating, especially at the high school level, which informs my conceptual framework. Last but not least, I review three social deviance theories that can explain findings from my analysis.

In Chapter 3: Methodology, I discuss how I designed and analyzed my study. Chapter 3 also discusses how my methodology will address some of the limitations of the literature examining cheating behaviors among Vietnamese high school students.

Chapter 4 : Data and Methods

This chapter presents the research design, data collection procedure, and analysis techniques (i.e. how the studies in this dissertation were executed). This chapter starts with the description of participants, the research site, the sampling method, and the confidentiality procedure. It continues with the construct and operationalization of each variable in the dataset and the methodology used in each chapter. The potential limitations of this study will also be discussed.

4.1 Research Design

I used three-phase sequential designs to conduct this study (Creswell & Creswell, 2017). Before implementing the actual survey, which was administered in Fall 2018 and Spring 2019, I collected qualitative data to help inform the development of the survey in the summer of 2016. As part of a pilot study in summer 2016, I conducted several interviews with high school students and teachers in Vietnam and administered a shorter version of the final survey. With the results, I incorporated additional items into the final survey related to cheating (such as adding two controlled scenarios that are not often counted as cheating and two additional items related to bribery). In the second phase, between Fall 2018 and Fall 2019, I administered the survey to my target population, 11th graders in Vietnam (See table below for detailed timeline). In the third phase, I analyzed the survey results to understand how my sample define, interact, and engage in cheating based on the data collected in the final survey.

Table 4.1: Overview of Research Design

Data Sources	Description of Data	Quantity	Location
Phase 1. Preliminary Research (Summer, 2016)	Survey Instrument Development and Testing	150 students survey 10 teacher- interviews	Hanoi- Amsterdam High school
Phase 2. Surveys (Fall 2018 – Fall 2019)	Student surveys focused on the demographic backgrounds of students and their perception, engagement with cheating. Teachers' interviews conducted as part of the recruitment process	1022 surveys 32 teacher- interviews 2 principal- interviews	11 high school sites in Northern Vietnam
Phase 3. Data Analysis (Spring 2020 – Spring 2021)	Clean up and analyzing the data.		United States

4.2 Survey Instruments

The questionnaire in this study included original items adapted from McCabe's (2001) Survey of Academic Integrity, TIMSS (Trends in International Mathematics and Science Study) 2015 students' background questionnaires, ICCS (The International Civic and Citizenship Education Study), and Tas and Tekkaya's (2010) title “ Personal and contextual factors associated with students’ cheating in science” study. Some questions were tailored to Vietnamese contexts and tested based on the pilot test done in Summer 2016. Where applicable, all measures along with Cronbach's alpha coefficients will be reported in the study.

All questions were translated into Vietnamese. The translation accuracy was ensured by two means: (1) discussing the items with professors from the Vietnamese National University of Humanities; and (2) including all of the questions in a pilot survey to make sure the translation would not make the results biased or misleading. Figure 4.1 below illustrates the relationship among all the questions in the student survey. Please refer to Appendix B for the complete list of all the questions, how they were asked and measured.

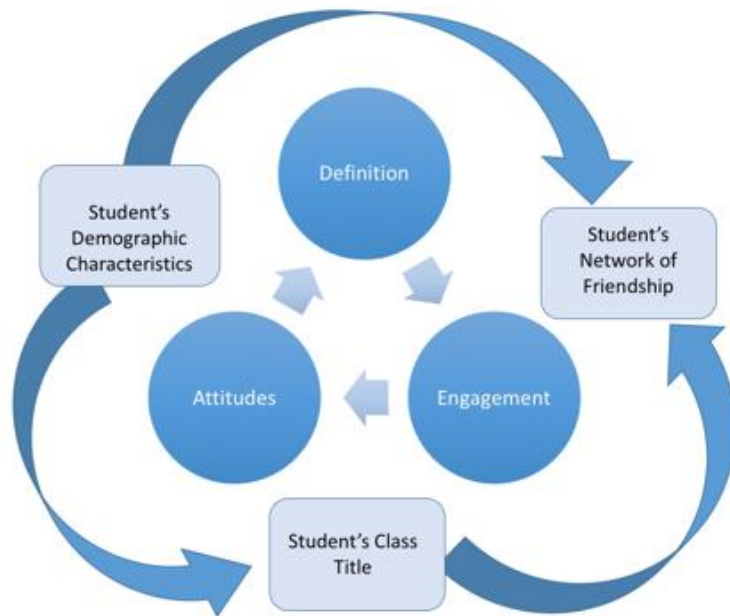


Figure 4.1: The Survey Instruments Overview

Cheating Definition Measures: Students were asked to respond to a set of 15 academic behaviors and indicate whether they consider that behavior cheating (1 = No, two = Yes). Data from these measures described different types of cheating, such as test-cheating, homework cheating, plagiarism, and other country-specific issues such as bribery or tutoring. Additionally, the students were asked if the behavior is cheating, what would be an appropriate level of punishment for such behaviors. The item ranged from "nothing" to "expulsion." The items from

this study were borrowed from McCabe's (2001) Survey of Academic Integrity. As learned in the pilot survey, I included behaviors related to private tutoring into my final survey.

Attitudes towards Cheating: After the first section, students were asked to imagine how they would feel and act if they witnessed some of their classmate's cheat. Options were remaining silent, reporting to teachers, reporting to classmate's parents, or talking directly to the students. Students also stated their attitudes towards cheating, such as feeling it is unfair or thinking that cheating is normal. The responses ranged from "Strongly Agree" to "Strongly Disagree."

Self-Report Cheating Engagement: Although the students could skip any questions they would like, this last section of the survey was also marked optional. Here, students could choose to report if they have previously engaged in cheating at school, how frequently they engaged in cheating behaviors, which subjects they cheated on, and in which grade level they engaged with cheating for the first time. To my surprise, the majority of students reported on this section, and they were actually less likely to skip this section than the background characteristics section of the survey.

Student Background Characteristics: The students' demographic characteristics such as their gender, ethnicity, age, languages spoken at home, number of books at home, presence of home resources (both used as proxies for social-economic background), the parental highest level of education, and the students' educational aspirations were collected in this survey. The questions for the student background were adapted from TIMSS 2015 student background survey.

Student Title/Position in classroom and school: In addition to students' background, I included in this survey two questions asking for the titles/positions that the students hold in their classroom and their school. These questions were tailored to the context of the Vietnam educational system and were tested via my pilot survey in Summer 2016. Different from the Western contexts, in

each Vietnamese classroom, students can hold unique leadership roles. There are classroom-management roles, roles related to academic subjects, and roles reserved explicitly for the Ho Chi Minh Youth Union (which similar to the student senate in other countries but also included political lens of Vietnamese communist party). These titles are not classroom-specific but relatively standardized across classrooms in Vietnam, especially within the public school system. One student can hold several positions; however, many students do not hold any position. In my survey, students could check all the positions applicable to them as they are not mutually exclusive. For the international high school, these titles may be different. Thus, the international high school students will be given the option of "Other" to specify their position/title within their class.

Student Academic Achievement: GPA in Vietnam is measured on a scale between 0 to 10, with "excellent mark" from 9.0 and above, "good mark" from 8.0 to 9.0, "average mark" from 6.5 to 8.0, "under average mark" from 5.0 to 6.5. Students are asked to repeat the same grade if their GPA is under 5.0, which is considered "fail." In most cases, students' achievements in their previous academic year were given to me via classroom rosters, except for a few classrooms. Given that in Vietnam, the students achievement is always set as a public record – meaning everyone at school/classroom can have access to all of them, the record are part of the roster that I received, not by requesting. However, in this study, students also self-reported their previous GPA achievement in the survey. There was no significant difference between these two ways of collecting GPAs results (See Appendix).

Students Club Affiliation: By consulting with Vietnamese teachers and students in my pilot survey, I gathered the list of the most popular clubs in Vietnamese high schools. Not all high schools in Vietnam offered all the student clubs that were listed in this question. In fact, for the

majority of public high schools, the number of clubs was minimal. I also included the "Other" option in this survey. There is very little information as 92.9% of the student left this question blank. Because of this limitation, student club affiliation was not included as part of the analysis.

Classroom Climate: Several classroom climate statements were included in this survey. Students could indicate the extent to which they agree or disagree with statements regarding their classroom goals such as "mastery goal," "performance-approach goal," or "performance-avoid goal," as well as another classroom climate statement regarding openness, fairness, and sense of belonging. These questions were adapted from Tas and Tekkaya's (2010) study.

Social/Friendship Network: Students were also asked whom they consider "friends" in their classroom. The students were given a roster list with all of their classmates' names, and then they would mark on the list who they consider a friend. Additionally, students who go to the same clubs were given a different type of connection in the network. This information was used for the third part of this study regarding the "spread" of academic dishonesty. Although it was not used as part of this dissertation due to time constraint, this question provides many interesting future research opportunities.

In addition to the students, the teachers of the schools/classrooms recruited to participate in this survey were also asked to fill in a short survey. The survey provides basic information about the classroom, such as the total number of students, classroom schedule, the preferred date, and class period to participate in the study. In the survey, they were also asked if the school/classroom has a written honor code. When the teachers filled out the survey, he/she was also asked to give some personal demographics such as gender, years of experiences, years of teaching at the school, the highest level of education.

To help ensure validity, I invited the teachers/principals to review the survey at least one week before the survey was administered and provide feedback. In addition to the ownership of all data gathered in my survey (although anonymously), the school administration also had the option to include additional items that they saw fit with the school's specific characteristics or the school's interest. For instance, one school proposed to add another section of teacher's satisfaction as part of my survey so that they can further use the data for their own continuous improvement study. On their behalf, I collect these additional variables were collected and returned to the school, nevertheless, these additional information are not part of my dissertation focuses and therefore the results are not included in this study. . Even though all surveys were administered on paper, the web-based application Qualtrics was used for data entry and to maintain an online back-up for all surveys once the final survey was completed.

4.3 Recruitment Process

With the ambition of covering different social contexts, schools in this study were selected so that there were both public schools and private high schools, spread through 6 northern provinces in northern Vietnam. I selected three high-performing high schools (gifted high school) for public school, four regular public high schools, and four private schools (one international school and three private high schools that follow the regular Vietnamese curriculum). However, the size of each high school varies, with the smallest high school being a small public school in Bac Giang with almost one hundred students, and the largest school was in the capital, Hanoi, with more than two thousand students. I wanted to examine academic dishonesty with high-school students in Vietnam because only 63% of all Vietnamese high school students go to college or vocational training professional schools (Ministry of Education and Training, 2016). At the high school level, school was still free to attend. Therefore, I could

select students from various social-economic and academic backgrounds, not only those who made it to college.

As part of my fellowship with the Sylff Association from Japan, I established the partnership with the Vietnam National University of Art and Humanities for my data collection. Schools were contacted based on the recommendation of the Vietnam National University of Art and Humanities, the Vietnamese institution that served as my partner in this study. I was responsible for contacting the school principals and set up the dates of survey administration. Two paid research assistants from the National University of Art and Humanities received training by me and by an instructor from the university to administer the survey at the research site. While I trained them to get familiar with the IRB protocol and the survey itself, the instructor in Vietnam trained them about the logistics of gather data in Vietnam. The school facilitated the parental permission form. When each school accepted my application and allowed me to research their school, I would be served with a consultant role that helped them with their own continuous improvement study. The results were returned at the classroom and school at the form of aggregate reports, where no student's name or identification will be disclosed. When requested, I also provided some school the portion of the database from their schools, with no student ID/identification attached.

Each school in this study has its contact person, a school administrator, counselor, or teacher at the school. The data point person oversaw the distribution of passive consent forms to parents and legal guardians and returned signed forms when applicable. Other school variables such as student-teacher ratio, honor code, and school size were obtained from the designated data point personnel before the survey administration date. From each school, I asked three to four teachers about their availability and willingness to participate in the survey. If they agreed, I set

up an interview with her/him to get to know the teachers before visiting their classrooms. If the schools were located in different counties/provinces, or if the teachers, in some cases, refused to participate in the interviews, I asked the research assistants to visit the classrooms and make sure that we can go and visit the school as scheduled.

Furthermore, because my dissertation focuses on academic dishonesty at the high school level, students for this study were recruited from 11th grade, which is the penultimate year of secondary school in Vietnam. Eleventh graders were chosen because they have been in high school for one year and have had time to form a friendship network and become familiar with their high school environment. Nevertheless, 11th graders did not have as much academic pressure as the 12th graders and therefore had more time available for this study. If the school had more than three classrooms, I asked permission to randomly choose 3-4 classrooms from the total number of classrooms and then asked the classroom homeroom teachers to give me permission to distribute the survey to their students. If the school had fewer than three classrooms, I asked all the classroom homeroom teachers to join my research. I did not always successfully convince all the teachers to join my research mostly due to time conflict but sometimes due to personal preference of the teachers. However, I successfully obtained one classroom per school for each school.

In total, I distributed 1022 surveys to 30 classrooms from 11 high schools. From those, I received 960 responses, with 942 usable (non-blank) surveys. The number of participants in my research by classroom code are listed consecutively in the Appendix section below.

4.4 Researcher Positionality

My experiences, reflections, and motivations to research academic dishonesty in Vietnam were not about comparing Vietnamese students to other countries or to expose 1212 Vietnamese

students. This study aimed to understand how academic dishonesty has spread so widely in the system, why it has become a norm, and what factors beyond the student's characteristics can explain this phenomenon in Vietnam. Given the topic's sensitivity, I often reflected on my cultural introspection before, during, and after conducting this research.

I was born in Vietnam; however, I spent over a decade abroad and was educated mostly in the United States. While traveling to many of the research sites, I acknowledge that I can be recognized as an "outsider." However, I may look like and speak the same language as many of my participants. Additionally, I acknowledge my identity and limitation as a researcher who may not have been familiar with the participant's education context, especially in the classrooms in rural and remote locations. Nevertheless, using approaches from Milner (2007), I focused on researching the self, researching the self in relation to others, engaged reflection and representation, and shifting from the self to system, which helped me collect and analyze the data with an open-minded perspective. In collaboration and discussion with teachers from each site, I have tried my best to go beyond disclosing my role as a researcher and relating myself to the research and the research participants through active activities, conversations, and engagement. I wanted to make sure that each participant felt comfortable sharing their perspectives and stories through participation in my survey and that their voice and opinions were heard and included in my study without potential bias or judgment.

4.5 Confidentially Procedure

Given the sensitivity of this research, the confidentiality of the students, teachers, and the school was taken very seriously. Each school in this study has its contact person, a school administrator, counselor, or teacher at the school. The data point person (contact person) was responsible for overseeing the distribution of passive consent forms to parents and legal

guardians and returning signed forms when applicable. Other school variables such as student-teacher ratio, honor code and school size were also obtained from the designated data point person before the survey administration date. Three to four teachers were asked about their availability and willingness to participate in the survey from each school.

Moreover, before the actual administration of the survey, the researcher visited all the classrooms during a 15-min interactive session, where the purpose of the survey was explained to all the students in each classroom. They were informed that participation in the study was voluntary, and a student had the right to withdraw her/his consent or discontinue participation in the survey at any time. Students were then informed of the nature of the research, confidentiality procedures and encouraged not to participate if they felt they could not respond honestly. Under no circumstance were the students' answers about engagement with cheating to be reported to the teachers or school administrators. The researcher communicated clearly with the students that there was no risk for their classroom if they decided to participate or not in this study. The survey itself was anonymous, students were not asked for their name in any part of the survey.

Two research assistants from the National University of Teacher Education and Training were recruited to assist in data collection. They already received training at their university to administer the survey at the research site before hiring and were very familiar with survey distribution. The confidentiality of all information provided by student's school principals and teachers was ensured, as stated in the IRB protocol.

Before or on the day of the survey administration, the seating assignments for all classrooms were obtained along with the roster from the primary contact person in each school.

On the survey administration day, all the students were given the questionnaire during their 45-minute homeroom period or during the break (only if they asked for more time). While

students' names were not recorded, based on the classroom seating assignment obtained from the school, a Unique Identification Code (UIC) was assigned for each printed survey. A double-digit numerical code was assigned to each of the schools, and a six-digit numerical code was assigned to each student enrolled at the school. The six-digit student code had a double-digit number assigned to each school (e.g., if the code for School X is 21, students will be assigned six-digit codes such as 210001, 210002, etc.). To protect the student's identity, the students were not asked for their names throughout the survey. If the students were asked who their friends were in the class, they were instructed to mark themselves and make sure that their names would not be identifiable through this question.

Only the researcher, with the pre-assigned code, would identify and link students based on their UICs. Since there was no name on the actual survey, even the two research assistants could not identify the students' names. Besides, all of the seating maps and the Excel file with student names and any files with related identifiable information were stored in a secured, restricted, and password-protected USB, only accessible by the researcher.

All other responses from the survey were entered manually by the researcher and two research assistants via Qualtrics into the computer-based format. Upon completing the data entry process, all surveys that contained students' handwriting were blacked out to protect students' identities. Moreover, any related identifiable information in response to short-answer questions was deleted before the process of analysis. Data was then stored throughout the study in a secure computing environment with a protected password access code. Future reports, presentations or publications, and student-level data were only reported in the aggregated form given as examples under their UICs in this study. Schools and classrooms remained anonymous under pseudo-code names (e.g. Student #210044). During this process, all the participants were given pseudo names

so that no identifiable information about the school, the classroom, or the individual was collected and/or reported.

4.7 Transforming data and identifying a sample.

To conduct my analyses, I transformed my data and identified my sample. First, I cleaned my Excel output from Qualtrics. I eliminated data from the dataset that was not germane to answering my two research questions. For example, "Survey Start Date," "Survey End Date," "Duration of Survey," "Survey Location," and "User Language."

The data were then recoded to make sure they were in appropriate linear order and followed Likert scales such as that the higher the value is, the more likely they would agree on a statement (i.e., 1- Strongly disagree, 2- Disagree, 3- Neutral, 4- Agree, and 5- Strongly agree). All missing variables included in the main models were also substituted by the classroom's average and transformed with the group-mean centering method. The data were also calculated to account for skewness and kurtosis in SPSS to test for normality.

The recoded variable was also marked to test for randomness and ensured that the missing/recoded values would not affect the main analysis and significance of the study. The opened-ended answers were translated into English and grouped by theme and by question in Excel. All clean-up codes are included in the Appendix section below.

4.8 Analytical Methods

Both descriptive statistics and regression analysis were used to determine whether relationships existed between the academic expectations of the high schools and the frequency of incidences of academic dishonesty. Descriptive statistics such as frequencies, means, and standard deviations were used to describe the sample and identify correlations between and among the variables.

In the first chapter, the students were asked if a particular hypothetical situation would be labeled as cheating and which types of punishment they thought would be appropriate for such a situation. Using Latent Class Analysis, the students were classified using different categories based on whether or not they define several types of behaviors as academic dishonesty and how strongly they advocate for a different kind of punishment that needed to be associated with these different dishonest behaviors. Latent Class Analysis is a subset of structural equation modeling that is often used to identify unobservable (latent) subgroups within a population. All latent variables have to be discrete, and a class is characterized by a pattern of conditional probabilities that indicate the chance that variables take on certain values (Hagenaars & McCutcheon, 2002). Therefore, different from other classification techniques and structural equation modeling, this method was the most suitable for the questionnaire responses in this study. Latent Class Analysis has been used in various fields of social science and different education contexts (e.g., Nylund et al., 2007; Sutfin et al., 2009). However, research has not used this method to classify different types of cheaters or cheating incidents in academic settings. Suppose academic dishonesty is a social and culturally constructed concept. In that case, the students' answers are expected to vary based on their personal and contextual characteristics, and thus they could be classified based on their responses. This analysis was conducted using Stata 15 or Mplus as they are currently the most popular software that includes Latent Class Analysis as part of their package.

In the second and third research question, I examined how different factors can help predict whether students' engagement in academic dishonesty and how their perceptions varied within and between classrooms. To better understand the underlined constructs of my survey data, I conducted an Exploratory Factor Analysis (EFA), a helpful method to verify the extent to which survey items represent a theoretical structure. A key consideration when conducting a

factor analysis is the sample size. Research indicates that an absolute minimum sample size of 50 is required to conduct a factor analysis (Brown & Moore, 2012; Watkins, 2020). Given that the sample for this study had more than 900 students, the sample satisfied the minimum requirement. I used Stata 15 statistical software to conduct the EFA. The details of how I used this method are included in the second research question analysis of the Results section.

To guide the readers through my analysis, I used Analysis of Variance (ANOVA) as the estimation procedures used to analyze the differences among means of the groups that I obtained from the Latent Class Analysis. ANOVA provides a statistical test of whether two or more population means are equal. However, it cannot be used to control for different independent variables in my model. Therefore, following ANOVA, I used several regression analysis variations to estimate relationships between a dependent variable and multiple independent variables. When appropriate, I also used Hierarchical Linear Modelling, Hierarchical Logistics Regression Modelling, and Hierarchical Multinomial Logistics Regression in conducting my two-level analysis. Hierarchical Models are often used to avoid inaccurate conclusions from the regular OLS regression with unadjusted standard errors when analyzing nested data. HLM accounts for statistical dependency by assigning each level its statistical model, including intercept, regression coefficients, and error terms (O'Dwyer & Parker, 2014). The multilevel analysis is also becoming the standard approach for education research due to its applicability to consider the complexity of nested-data structures: students nested in classrooms within schools, schools nested in countries. In particular, this part of the dissertation looks at the effects of both students' characteristics and also the classroom' characteristics. Thus, an appropriate procedure for doing this analysis was the hierarchical linear model (Heck et al., 2013). Last but not least, to better understand the results of the quantitative portion of the study, I analyze the open-ended

question of the survey by coding responses into buckets of themes/topics that can help explain the quantitative results in different ways. I used the direct content analysis approach and began coding immediately with the predetermined codes (the results from the quantitative section) (Hsieh & Shannon, 2005). Nevertheless, more systematic way of analyzing this valuable source of information, matching them with the demographic characteristics of the student themselves (such as summative content analysis or mixed methods approach) would be useful for future research.

Table 4.2 below provides an overview of all analyses used in this study.

Table 4.2: Overview of Research Analysis

Research Questions	Survey Questions	Procedure	Software Packages
(1) How do Vietnamese high school students define "academic dishonesty"?	Dependent Variable: Q17 Independent Variables: Q1,Q5,Q6,Q9, Q10,Q11,Q13,Q14	Descriptive Statistics Analysis Latent Class Analysis ANOVA Hierarchical Multinomial Logistics	Mplus 8.4 Stata 15 SPSS 27
(2) To what extent do personal and contextual factors influence the students' attitude toward cheating?	Dependent Variable: Q19 Independent Variables: Q1,Q5,Q6,Q9, Q10,Q11,Q13,Q14	Exploratory Factor Analysis ANOVA Linear Regression (OLS)	Stata 15
(3) How the difference between the definition of cheating and the student's attitude affect the student's decision to engage in cheating?	Dependent Variables: Q20, Q22, Q23 Independent Variables: Q1,Q5,Q6,Q9, Q10,Q11,Q13,Q14	Descriptive Statistics Analysis Hierarchical Logistics Regression Linear Regression (OLS)	Stata 15

4.9 Limitations

There are several limitations to this study associated with survey development and administration. To reduce satisficing, I decided not to include an "NA" or "Not Applicable" option in my survey. Nevertheless, the students could choose to skip any questions that they would like. This study is also subjected to the ordinary limitation of self-report survey research, especially regarding measurement error. Measurement error accounts for the self-reported nature of survey data where respondents might potentially bias their own responses. For instance, students may make the more socially acceptable answer rather than the truthful one, or students may not assess themselves accurately. This potential measurement error and validity in measuring academic dishonesty are well documented. Given the possibility of social desirability bias, assessing true levels of cheating is particularly challenging to measure because students can have the desire to provide clear images of themselves to researchers (e.g., Bernardi & LaCross, 2004). Thus, findings reported within included studies may have relied on skewed, observed correlations. Even though several questions and items were added in the survey to access the measurement error issue, the potential skewness of the data is unavoidable.

This is also related to another limitation of the study: generalizability is given using survey research and the statistical methods used in this analysis. Because experimental research methodology within academic dishonesty literature was scarce, this research should be treated as exploratory, guiding investigations of future studies. It should not be used to draw causal conclusions. Future research is encouraged to evaluate these factors systematically to uncover their moderating influences on academic dishonesty.

4.10 Chapter Summary

This study relied on a three-step exploratory sequential mixed-method design consisting of collecting and analyzing quantitative data. After conducting a preliminary study in Vietnam, I then administered the revised and final survey to my target population in Vietnam, where I partnered with the Vietnamese school of Humanities and Social Studies to reach 1,000 respondents. In this chapter, I discussed my data collection process, how I maintained the confidentiality of the participants and the potential bias that I may have had during the study. I conducted four primary analyses to answer my research questions: descriptive statistics, EFA and LCA, and HLM. I discussed how each method aligned to answer my research questions and the limitations of my methodology. In Chapter 4: Results, I describe each of the five analyses and how I answered my three research questions.

Chapter 5 : Results

The purpose of this study was to examine the following three research questions: (1) How do Vietnamese high school students define “academic dishonesty”?; (2) To what extent do personal and contextual factors influence the students’ attitude toward cheating?; and (3) How does the difference between the definition of cheating and students’ attitudes affect their decision to engage in cheating?

This chapter first summarizes the descriptive statistics to provide an understanding of the demographic profile of the sample. The overall pattern of the behaviors that may be considered cheating was also analyzed. This research proceeded to answer the first research question, during which students were classified into different categories based on several behaviors that they define as academic dishonesty. The Vietnamese students’ attitudes and reactions towards cheating were analyzed using Exploratory Factor Analysis. This research also examined how other factors can help predict whether students engage in intellectual dishonesty and how their perceptions will vary between classrooms.

5.1 Characteristics of Students in the Sample

Table 5.1 reports the demographic profile of all the participants in my study. All the survey respondents who answered the survey were included. The sample consisted of a total of 960 students out of 1022 students in the roster, which is an overall response rate of 93.9%. However, since some students only partially responded to some survey questions, they may be excluded based on the list-wised deletion method. However, the total number of students who remained in the study represents more than 92% of the sample.

The majority of the sample for this study consists of females. Although there are no nationwide descriptive statistics for 11th graders, there are slightly more female students in the

sample than the overall high school statistics in Vietnam or the Red River Delta region (where most schools are located; Minister of Education and Training, 2018). In this study, 43.7% of students were male, and the rest were female. In the question about gender on the survey, there was an option for “Other,” but no students chose that option.

Table 5.1: Sample Characteristics (N = 960)

Demographics	<i>N</i>	%	% <i>Missing</i>
Gender			
Boys	416	43.3	1.1
Girls	534	55.6	
Other	0	0	
Region			
Hanoi	392	40.8	0
Nam Dinh	160	16.7	
Bac Ninh	121	12.6	
Ha Tinh	99	10.3	
Bac Giang	109	11.3	
Thanh Hoa	79	8.2	
Ethnicity			
Kinh	926	96.5	1.9
Others	16	1.7	
Highest Level of Education			
Less than high school	121	12.6	11.2
Some high school	119	12.4	
High school graduate	194	20.2	
Associate degree	129	13.5	
Bachelor’s degree	187	19.5	
Master’s degree or other professional degree	64	6.7	
Doctorate	37	3.9	
Books at Home			
Less than enough to fill one shelf (0-10 books)	268	27.9	2.9
Enough to fill one shelf (11–25 books)	312	32.5	
Enough to fill one bookcase (26–100 books)	237	24.7	
Enough to fill two bookcases (101–200 books)	64	6.7	
Enough to fill three or more bookcases (more than 200)	51	5.3	
Types of school			
Public	726	75.6	0
Private	234	24.4	

More students are in the capital (40.8%) while the rest are located in different provinces, with 16.7% from Nam Dinh, 12.6% from Bac Ninh, 10.3% from Ha Tinh, 11.3% from Bac Giang, and 8.23% from Thanh Hoa. Consistent with the overall statistics of the provinces, there were fewer students with ethnic minority backgrounds (<2%) as the majority of ethnic minority students were located in the Northern Mountains area of Vietnam, and the respondents were primarily from the Red River Delta region.

Almost one-third of the students in the survey answered that they have at least one parent who completed a bachelor's degree or higher. Given that only 25% of the population completed a bachelor's degree or higher, the sample students had a slightly higher family educational background than the average high school student in Vietnam. The result is expected as parents of high school students are more educated than the general population (ages 21-65) because: (i) high school students are from a younger, more recent cohort, and (ii) parents of junior high school completers are expected to be more educated than the parents of people with elementary education. Additionally, this skewness can also be explained by the fact that many students attend schools in the capital, where educational attainment is much higher than in other provinces. The majority of students have less than 100 books at home, while only 12% have more than 100 books. Many education studies in the West have used the number of books at home as a socio-economic indicator (e.g., Sieben & Lechner, 2019). However, in Vietnam, this variable is rarely recorded and used in social research. Little is known about the comparison between this sample and the population of Vietnamese high school students or Vietnamese citizens.

Finally, we have more than three-fourths of the students who studied at public schools while the rest were in private schools. This means that our sample has slightly more students

from private schools than the average high schools in Vietnam. Due to such over-representation of private schools, though it is not recorded in Table 5.1, since the sample included international schools, the average teacher-student ratio of all the schools in the sample (2.71) was also higher than the national average of 2.28 (Minister of Education and Training, 2018). Other descriptive statistics in the sample either did not have the equivalent comparison with the national statistics or were about the same.

5.2 Research Question 1

Which scenarios can be counted as cheating?

The definition of cheating in the literature is often taken for granted in many studies related to academic dishonesty or cheating in school. While doing a literature review for this dissertation, as discussed in chapter 2, I found that these definitions are often imprecise, even among academicians in many cases. Therefore, it is important to examine how Vietnamese students define cheating differently, directly linking how they feel and react (second research question) and how they engage with cheating (third research question).

To examine how Vietnamese students define cheating, the students were presented with descriptions of fifteen hypothetical situations described in the previous chapter. Students were to either mark “Yes, it’s cheating,” “No, it is not cheating,” or leave it blank. It is also worthy of note that the respondents did not have to identify who in the hypothetical scenario was at fault in some cases. For example, in scenario #12, students were given a scenario where student A’s parents gave the teachers the gifts, and the teachers told student A the examination question in return. The student could mark “Yes” in this scenario that this is cheating, but it is unknown if the students think that the student or the parent or teacher violated the rule. Figure 5.1 shows the percentage of students who viewed each scenario as a cheating behavior.

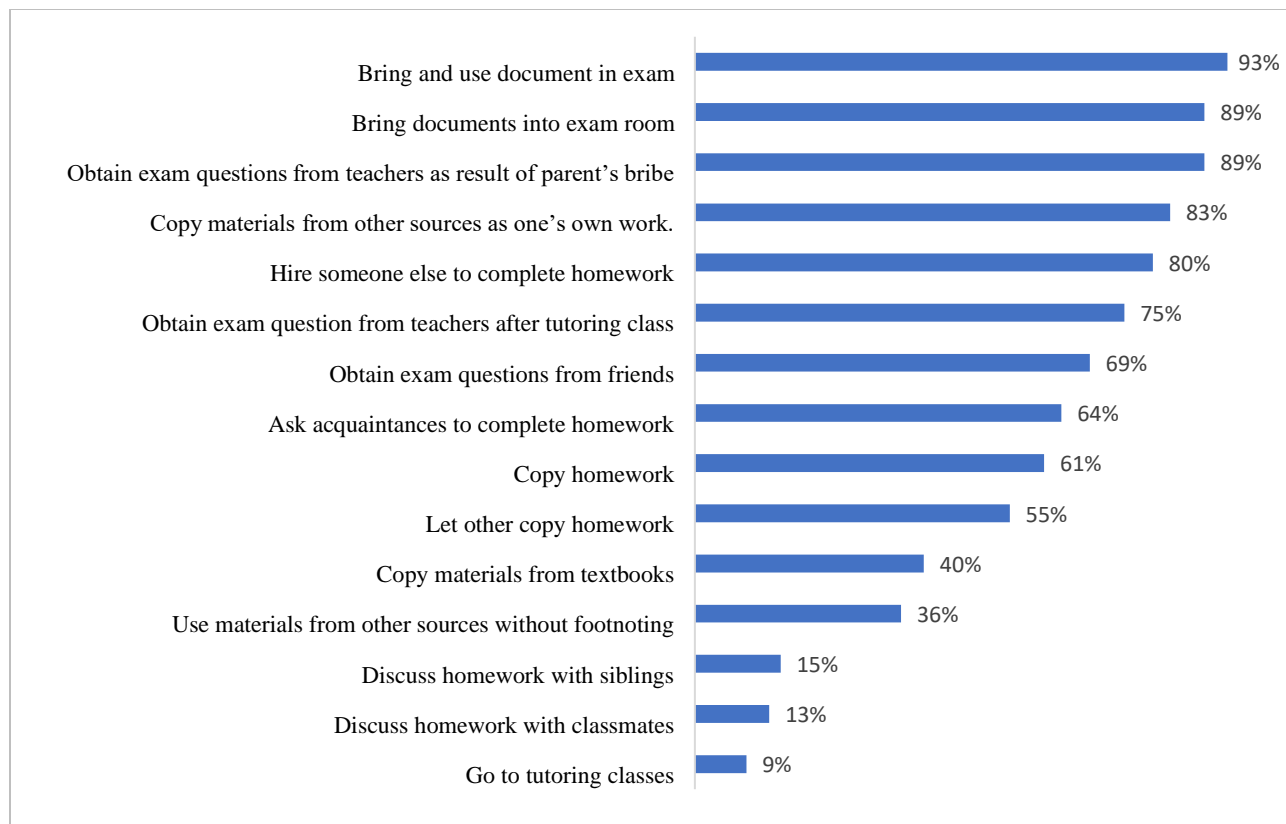


Figure 5.1: Descriptive Statistics for all the hypothetical scenarios in the survey (N = 960)

Cheating in Examinations

First, the most commonly selected scenarios concern examination. In particular, 93% of the students thought that bringing and using outside materials in the examination room is cheating, 89% believed that bringing external materials into the exam room, even if not using them, is considered cheating. There are also several questions related to obtaining exam questions in advance, and most students also marked them as cheating. However, the percentage of alignment varies between the scenarios: 89% of students think cheating is when parents bribe teachers to obtain examination questions in advance. Similarly, attending a tutorial class is often not counted as cheating. However, if one can get examination questions in advance because she/he attended tutorial classes, three out of four students regarded such a situation as a form of cheating. If the students obtain the exam questions by attending tutorial classes, then 70%

thought it was cheating. However, if the student can somehow get the examination questions from a friend, only 69% believed this was considered cheating.

Cheating in Homework

With regard to cheating scenarios related to homework, it is apparent that the students in Vietnam are more lenient about cheating on exams. The only item that was marked frequently as cheating was when the parents hired someone else to complete the homework for their children (80%). When students' older siblings or acquaintances do their assignments on their behalf, only 64% regarded it as cheating. Interestingly, about two-thirds of students believed that copying each other's homework and letting their classmates copy their homework is *not* cheating.

Finally, it is no surprise that most students (>80%) thought that discussing homework solutions with their classmates or older siblings was not cheating. This item was added as one of the validation items to prevent the students from not reading the questions carefully. It marked all the scenarios as cheating without giving it some thought. In many cases, based on interviews with teachers and principals in Vietnam, they do not think these behaviors are considered cheating and often encourage students to discuss homework and collaborate with classmates.

Plagiarism

The respondents did not have as much consensus regarding the definition of plagiarism compared to their agreement about the definition of cheating in exams or homework. This study found 83% of students agreed that copying almost word by word from a book, magazine, or other sources and claiming it as one's own work can be considered cheating. However, the percentage becomes as low as 40% when the source materials are textbooks or supplementary textbooks. Only 36% of students thought that copying a few sentences from outside sources without footnoting was cheating. This finding shows that my sample of high school students in

Vietnam does not have an explicit and shared understanding regarding what counts as plagiarism, and if plagiarism of various degrees is included in the definition of cheating. While rules and policies concerning plagiarism are standard in US institutions, none of the schools visited for this research have plagiarism policies. There are only five schools that have some documentation of what the school counts as cheating. Also, the cheating behaviors listed there were only related to cheating on examinations and copying other students' homework/work.

This section's findings can perhaps be explained with the previous research on education in Vietnam and in Asia, where high school education mostly focused on high-stakes exams (e.g., Hayden & Thiep, 2007). Admissions, promotions, or graduation of Vietnamese students are all dependent on tests. In other words, since test scores can determine and impact Vietnamese students' lives for decades to come, it is understandable why students hold strong opinions regarding a fair environment related to the examination. In the following sections, an in-depth examination of how the students differ regarding their definition of cheating and how the school and the student's characteristics can affect such definitions will be presented.

How students define "cheating" differently?

The previous section provided the first glance at the descriptive statistics of the results. However, to have a clear understanding of how the students differ in their opinions of what counts as cheating, the frequency to which Vietnamese students consider these situations as cheating will be assessed. In other words, "do students who think that bringing and using the material in examinations also believe that copying from outside materials is cheating?" Since there are fifteen situations with binary options, theoretically, there are more than 32,000 combinations of responses. Thus, by sorting the frequency of each scenario, I list below in table 5.2 the ten most frequently appearing varieties.

Table 5.2: Cross-classification of situations defined as cheating (N = 960)

	Percentage of Respondents	Bring and use document in exam	Obtain exam questions from teachers as result of parent' s bribe	Bring documents into exam room	Copy materials from other sources as one' s own work.	Hire someone else to complete homework	Obtain exam question from teachers as result of attending tutoring class	Obtain exam questions from friends	Ask acquaintances to complete homework	Copy homework	Let other copy homework	Copy materials from textbooks	Use materials from other sources without footnoting	Discuss homework with siblings	Discuss homework with classmates	Go to tutoring classes
1	6.60%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
2	5.20%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
3	3.80%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
4	2.40%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No
5	2.40%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	1.90%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	No	No	No
7	1.90%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No
8	1.60%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
9	1.30%	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No	No	No	No	No	No
10	1.30%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
11 to 335	71.80%															
Sum	100%	93%	89%	89%	83%	80%	75%	69%	64%	61%	55%	40%	36%	15%	13%	9%

Given the large universe of possible combinations, the most common combinations only accounted for over 28% of all responses. However, it offers some complexity in how students define cheating. For instance, all of the top 10 combinations agreed that using the previous examination material, copying word by word from a book and a magazine, bribery, and a parent hiring someone to complete students' examination are cheating. These situations are also most likely to be identified as cheating, as displayed in Figure 5.1 above. Even though students' opinions vary substantially, some patterns emerge from Table 5.2. The first three common combinations are pretty similar to each another, but they differ in plagiarism situations. The fourth popular combination aligns with the first three combinations related to examinations and bribery but more lenient with situations regarding copying homework solutions from other students. The fifth one is the strict students who defined every situation as cheating. However, since the combinations of responses are so scattered, it was difficult to illustrate a bigger picture and disentangle how and why students in Vietnam have such diverse opinions about the definitions of cheating.

Given that the first ten combinations only accounted for less than one-third of the responses, to further investigate and identify the commonalities of the above combinations without relying purely on observations, the Latent Class Analysis was used to collapse these responses into a smaller set of categories, integrating these combinations into groups (or classes) that can explain the students' various opinions about academic dishonesty. The formula below provides the mathematical equation behind the method:

$$P(X_{vi} = 1) = \sum_{g=1}^G \pi_g \pi_{ig}$$

Where $P(X_{vi} = 1)$ denotes the unconditional probability that a randomly selected individual v obtained a score of $X = 1$ on item i , ($i = 1, \dots, I$) and the parameter:

$$\pi_{ig} = P(X_{vi} = 1|G = g)$$

Is the conditional solution probability. Since the sum of the two conditional probabilities equals 1:

$$P(X_{vi} = 0|G = g) = 1 - \pi_{ig}.$$

The class size parameter π_g indicates the unconditional probability of belonging to latent class g , ($g = 1, \dots, G$), and the sum of all class-size parameters is 1, i.e.,

$$\sum_{g=1}^G \pi_g = 1.$$

The results for including 6,9,10 and 15 items in the model are not statistically different, therefore, I include the maximum number of items as recommended by the current literature on LCA (Wurpts & Geiser, 2014). Given there are 15 items, using Dizak, Lanza & Tan (2014) in order achieve target power 90% to reject the null hypothesis, we need at least 133 observations in our survey. However, we have more than 900 students that were included in the model, there for, we have enough sample size to produce this analysis. There is no consensus about the most preferred statistic to select the number of latent classes (Nylund et al., 2007). The decision typically rests on a combination of statistical, substantive, and theoretical considerations (O'Brien & Noy, 2015). Since there is a lack of research currently on this area, dividing students into different categories depends on how they define cheating. Following the practice of other research in mixture modeling literature, such as Nylund-Gibson & Masyn (2016), an iterative set of LCA models was tested between one and seven latent classes. To determine the best fitting

model, the Lo-Mendell-Rubin likelihood-ratio tests (LMR) and Schwarz’s Bayesian information criterion (BIC) were used, one of the most common measures of model fit in LCA (Nylund et al., 2007). A stepwise procedure was followed in choosing the best model. The goodness of fit results was obtained using Stata command `estat logof`, as shown in Table 5.3 below.

Table 5.3: Latent class analysis results and fit indices (N = 952)

Number of classes	p	BIC	% Deduction in BIC	-Log likelihood (-LL)	df	Entropy
1	<.001	11534.52	--	5716.89	6	
2	<.001	10452.14	-9.38%	5121.98	13	0.833
3	<.001	10306.47	-1.39%	5008.85	20	0.889
4	.876	10208.11	-0.95%	4895.88	62	0.805
5	.999	10146.93	-0.60%	4818.28	76	0.839
6	.999	10185.66	0.38%	4777.20	94	0.826
7	.999	10141.51	-0.43%	4708.13	108	0.857

Table 5.3 above shows that the best model fit is achieved when the number of classes is three. The BIC is the smallest with the model with three classes across the three models for which the Lo-Mendell-Rubin likelihood test is statistically significant at $p < 0.001$. When comparing the 3-class model to the 1- and 2-class models, the 3-class model shows a better fit, as its model also displays slightly lower BIC (10306.47) values than the 2-class model. When the number of classes increased to four, the Lo-Mendell-Rubin test’s p-value is too large, making the model no longer statistically significant. We need to run LCA models with more than three classes with the option `nonrtolerance` in Stata, because the model does not converge. Therefore, the 3-classes model was used as the final model for this latent class analysis. It is worth to note that, there are only a very small percent of student was misclassified (for each group, there are only around 5-6% of students who were misclassified), therefore the criticism about the classify

analyze approach by Nylund, Grimm and Masyn (2019) are not applicable for this study. In other words, there would not be significant difference between the membership of students by using the traditional classification method used here or the three steps BCH approach recommended by Nylund-Gibson et al (2018)

Figure 5.2 further displays how students were categorized into the three latent classes. In other words, this can indicate the situation which Vietnamese students define as cheating. The classes are:

- 1) The rebels (29.8% of the total sample): These students have lenient views towards cheating. Across all 15 scenarios, they are less likely than students in other groups to identify any scenario as cheating. Specifically, they are the only ones who do not think that letting other students copy others or their own homework or asking an acquaintance to complete their homework can be count as cheating behaviors.
- 2) The “moderates” (39.3% of the total sample): This is the largest group in the sample. Overall, these students are stricter than the “rebel” students but are more lenient than “rule-following” students. Notably, they are more likely to think that copying material from textbooks or a few sentences from a book or magazine without footnoting their homework are not cheating behaviors. In other words, they only focus on behaviors that are related to cheating behaviors in the examination.
- 3) The “rule-followers” (30.9% percent of the sample): These students strictly follow the rules and are most likely to identify all scenarios as cheating. These are students who most likely follow the common definitions of what may count as cheating in Western culture. They identified almost all scenarios in our survey as cheating behaviors.

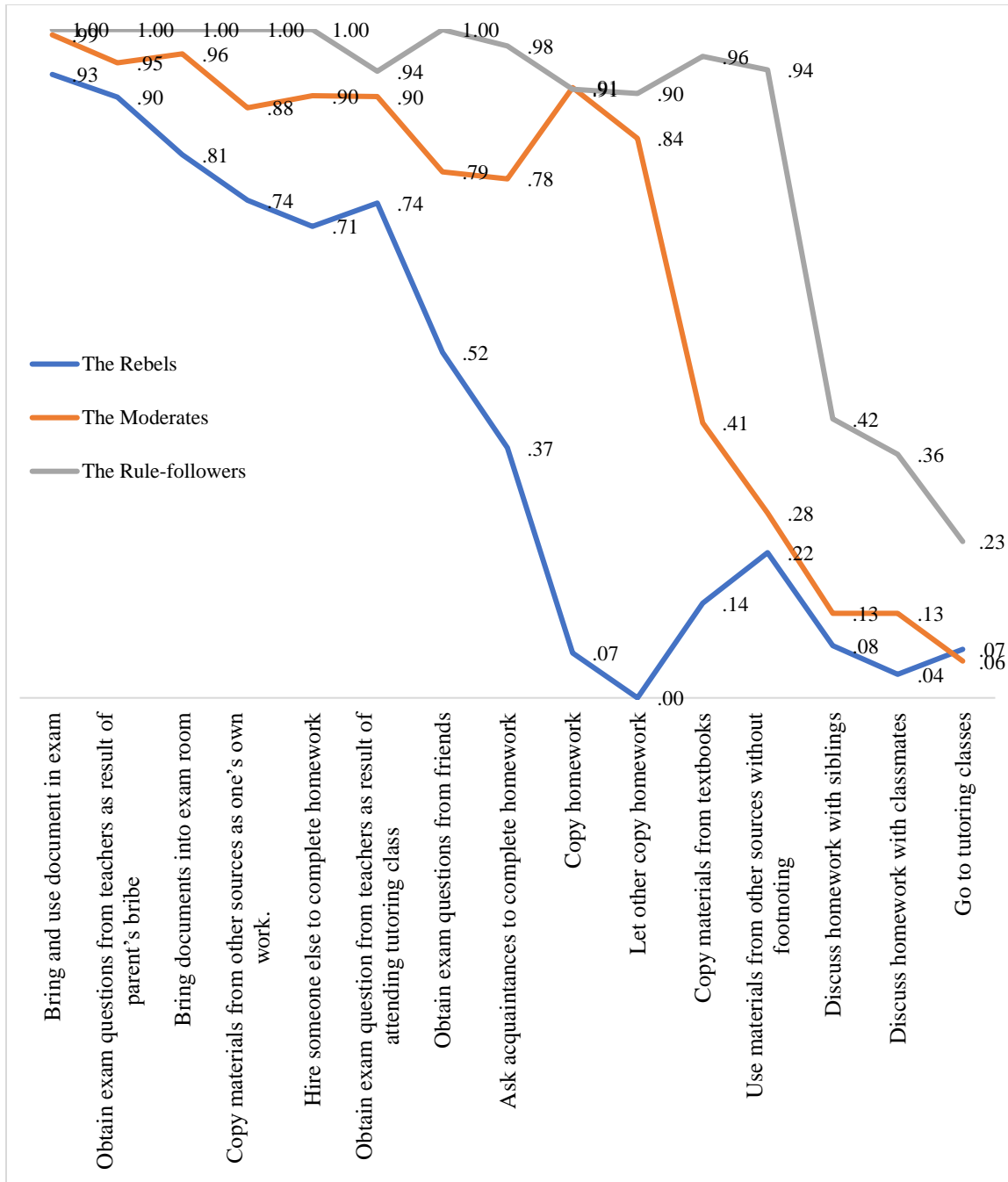


Figure 5.2: Three latent classes of cheating definition: conditional probability of item responses (N = 952)

Table 5.4 further summarizes the percentage of the number of students in each group who identified each scenario as cheating. Overall, except for a few cases, the overall percentage of students who identify any particular scenario as cheating is highest in group 3 (the rule-

followers) and is lowest in group 1 (the rebels). Table 5.4 also highlighted all the items that students in each group have more than 75% in common. Here, it can be observed that there are still several opinions that all groups have in common. For instance, bringing and using materials in the test, and bribing the teachers to get exam questions in advance are identified as cheating behaviors by all three groups. Items such as discussing homework with siblings and classmates and attending tutorial classes were added in the survey as “quality control” items. These are items that are not often counted as cheating in the literature, or the common understanding of what cheating means in Vietnamese schools. However, they were added to ensure that students are reading and answering the survey truthfully and carefully. As expected, although the rule-followers have the highest percentage among all students who think that these behaviors are cheating, the percentage of students who consider these items as cheating remained very low in all three groups.

From Table 5.4, it can also be seen that rebels are not so rebellious against items related to cheating examinations and bribery. They are more likely to “rebel” against items related to homework assignments, such as letting others copy their homework and copying homework from other students. Only 5% of students in the rebels group think that copying homework from other classmates is cheating. None of the rebel group students think that letting other students copy one’s homework should be counted as cheating.

Table 5.4: Percentage of students who define each scenario as cheating, separated based on latent class (N = 952)

	The rebels (N=284, 29.8%)	The moderates (N=374, 39.3%)	The rule- followers (N=294, 30.9%)
Bring and use document in exam	93%	96%	99%
Obtain exam questions from teachers as result of parent’s bribe	90%	95%	97%
Bring documents into exam room	81%	96%	96%
Copy materials from other sources as one’s own work.	75%	87%	96%
Hire someone else to complete homework	70%	90%	93%
Obtain exam question from teachers as result of attending tutoring class	74%	91%	92%
Obtain exam questions from friends	52%	77%	88%
Ask acquaintances to complete homework	37%	77%	86%
Copy homework	5%	84%	94%
Let other copy homework	0%	84%	81%
Copy materials from textbooks	14%	37%	77%
Use materials from other sources without footnoting	21%	22%	74%
Discuss homework with siblings	8%	13%	27%
Discuss homework with classmates	4%	13%	27%
Go to tutoring classes	7%	6%	16%

Notes: *There are 8 students who cannot be classified into the model because they did not answer all 15 scenarios. The percentage numbers are in was bold if there are more than 70% agreement.

Students in the “rebel” and “moderate” groups most differ from the rule-followers with regard to their views toward various degrees of plagiarism. While copying word-by-word from textbooks is not considered cheating either by the “rebels” or “moderates,” copying word-by-word from other sources is considered cheating. This means that the definition of plagiarism and

cheating depends on the actions (copying word-by-word vs only some phrases) and on the sources that they copy the materials from (textbooks vs magazines journal articles). Additionally, the definition of what counts as cheating also depends on the amount that the students borrow. Precisely, the rebels and moderates think that borrowing a few sentences from other sources without footnoting is not cheating behavior, but rather copying word-by-word and submitting it as their own work is cheating.

Socio-demographic Factors and Their Effects on Students Definition of Cheating

The omnibus test of model coefficients was used to explain further students’ group memberships in relation to the students’ background. The student and classroom variables were examined so that they could predict these group memberships and further distinguish between the types. First, a bivariate analysis was performed on all demographics and the results were summarized Table 5.5 below.

Table 5.5: Bivariate analysis results for three latent classes (N = 952)

Groups	The rebels (N=284)		The moderates (N=374)		The rule-followers (N=294)		F, sig
	Mean	SD	Mean	SD	Mean	SD	
Male	0.421	0.493	0.421	0.493	0.471	0.493	1.06 ***
Number of Books at Home	2.228	1.165	2.281	1.037	2.294	1.110	0.29
Parent Highest Level of Education	3.565	1.650	3.471	1.522	3.701	1.568	1.77
Having Leadership Position in Class	0.239	0.550	0.251	0.582	0.418	0.76	7.48***
Student Math GPA from Previous Yrs	8.107	0.811	7.990	0.778	8.011	0.863	1.78
Competitive Classroom climate	3.185	0.345	3.214	0.368	3.298	0.374	7.51**
Classroom Average Math GPA	8.135	0.629	8.045	0.539	7.911	0.628	10.43***

* p < 0.05, ** p < 0.01, *** p < 0.001

The effect of each was evaluated individually. The students are nested within classrooms and are also influenced by classroom characteristics. The ICC for the Hierarchical Multinomial Logistics (HML) model is calculated based on which results from 0.1103. This means that classroom variables can explain 11% of the total variance between class memberships. This result further confirms that the HML would be appropriate to analyze this nested model as students are nested within their classroom environment. Table 5.6 presents the HML model's results and shows that the students' characteristics and classroom characteristics can predict the class membership. Since group 2 (the moderates) has the most students (39.3%), it was used as the reference group. I then utilized the same model and changed the reference group to class 1 (the rebels). Table 5.6 presents odd ratio results from the Multinomial Logistics regression. Odd Ratio (OR) is a measure of the strength of association with an exposure and an outcome. Here, $OR > 1$ means greater Odd of association of the association with the outcome. $OR = 1$ means there is no association between exposure and outcome. $OR < 1$ means there is a lower odd of association between the exposure and outcome. In particular, in Table 5.6 the outcome is being either rebels or rule-followers instead of moderating and being rebels or rule-followers and the associations are the independent variables of interest. The log-likelihood coefficient table is also included in the Appendix section below.

Table 5.6: HML regression Odd Ratio for latent class analysis's membership

(N = 952)

	The rebels vs. The moderates	The rule-followers vs. The moderates	The rule-followers vs. The rebels
Male	1.035 (0.164)	1.201 (0.167)	0.862 (0.1789)
Number of Books at Home	1.138	0.983	0.893

	(0.086)	(0.088)	(0.094)
Parent Highest Level of Education	0.979 (0.065)	1.107 (0.067)	0.922 (0.071)
Having Leadership Position in Class	1.067 (0.145)	1.239* (0.130)	0.757* (0.144)
Student Math GPA from Previous Yrs	0.894 (0.152)	1.578*** (0.156)	0.708* (0.166)
Competitive Classroom climate	1.406 (0.285)	1.390 (0.279)	0.511* (0.294)
Classroom Average Math GPA	0.881 (0.225)	0.387*** (0.225)	2.936*** (0.240)
Public – Gifted High School	1.223 (0.120)	0.670 (0.311)	1.412 (0.348)
Classroom location - Nam Định	1.848*** (0.235)	0.276*** (0.275)	1.960* (0.295)
Classroom location – Bắc Ninh	1.140 (0.292)	0.619 (0.316)	1.416 (0.329)
Classroom location – Hà Tĩnh	1.865 (0.349)	0.847 (0.291)	0.633 (0.348)
Classroom location – Bắc Giang	0.816 (0.312)	0.337 (0.331)	3.633 (0.344)
Classroom location – Thanh Hóa	1.156 (0.317)	0.850 (0.302)	1.019 (0.323)
Constant	0.711* (1.832)	2.530* (1.769)	-3.241 (1.907)
R ²	0.053	0.053	0.053

Note: Standard errors in parentheses

* p < 0.05, ** p < 0.01, *** p < 0.001

Despite the suggestion of the literature on gender differences regarding students' definition of cheating (Jones et al., 2015), it was discovered that gender was not a statistically significant predictor in this study. Instead, the number of books at home, which is an indicator of socio-economic background, was an essential factor to distinguish between different groups. In

particular, students who have fewer books at home are more likely to be among those who often define the hypothetical situations as “not cheating”. In particular, at $p < 0.05$ level, students are less likely to belong to the rebel groups than the moderate group if they have fewer books at home. This finding means that students from the lower social class are much more likely to identify the situation regarding plagiarism and copying other’s homework as not “cheating.” Similarly, students are more likely to be in the rule-followers group than others if they have higher socio-economic backgrounds, as measured by the mothers’ highest level of education and number of resources at home.

The students are also much more likely to be in group 3 than any other group if they hold leadership positions in the classroom. In other words, students in a leadership position are much more likely to identify these situations as cheating. Firstly, these students are often truly “the rule-followers” as they are often the closest to the teachers and may be influenced by the teachers’ strict definitions of cheating. Many of them have daily tasks to reinforce their school/classroom’s institutional rules on behalf of the teachers. Second, the students with leadership roles are well-regarded as “role models” and were selected based on their high academic achievement and class manners. Thus, it is no surprise that these students hold the strictest definition of what cheating means.

Additionally, student achievement is also a major factor that explains the class membership among students when controlling for other factors. More precisely, students who had higher mathematic GPAs from the previous year, were more likely to be in the rule-followers group. The classroom average GPA also played a significant role in differentiating students concerning their definition of the classroom. Students are more likely to be rule-

followers in a high-performing classroom, even though a higher individual GPA means that students are more likely to be in the rebel groups.

The findings also suggest the significance of a classroom climate that values diligence. If the students value diligence, they are more likely to be included in group 3 (the rule followers) and the moderates than in the rebel group. This finding can be linked to previous research on the culture, where similar findings from studies of culture testing suggests that it can potentially promote obtaining the results (i.e., higher grades) without placing value on the process and the hard work that is required to obtain the achievements (e.g., Kirkpatrick & Zang, 2011; Yang et al., 2013). For instance, it was surprising that more than half of the students thought that copying materials from the textbooks or supplementary textbooks into their homework should not be counted as cheating, or how more than two out of five students thought that copying homework from classmates is not cheating either.

Additionally, if a classroom is more competitive, the students in such a classroom are more likely to be the rule-followers. Another interesting finding is that, regardless of the students' achievement, in a high-performing classroom, students are more likely to be in the "rule-followers" groups and have a much stricter definition of cheating. Since the students have to be more competitive, they are more likely to hold a stricter cheating definition.

Another interesting finding was that in public schools, students are much more likely to be in class three (the rule-followers) than in private schools. Perhaps, this is because public schools in Vietnam are often regarded as more competitive and, in general, more difficult to obtain admission into than private schools and that students in public schools usually have higher academic achievements. We also find significance in the location of the schools as well.

Compared to Hanoi students, students in Bac Giang and Nam Dinh are more likely to be in the rule followers and moderates than being in the rebels group.

Conclusion for Research Question 1

This section shows that Vietnamese students have very different perspectives on what is regarded as cheating in school. First, in general, the definition of cheating (context-specific), depends on where it happens and who is involved, not just on the action. Second, using HLM models found that cheating definitions vary based on their characteristics, especially in the classroom characteristics. In a classroom that values diligence and when the classroom is more competitive, students are observed to have a stricter cheating definition. Besides, along with the students' GPA, the classroom average GPA also played a significant role in differentiating students' classroom definition. Students are more likely to be rule-followers in the high-performing classroom, even though the higher individual GPA means that students are more likely to be in the rebel groups.

5.3 Research Question 2

In the previous question, students were split into three groups, based on their definition of cheating and examination of individual and classroom factors to explain such differences. The second question aims at explaining: to what extent do personal and contextual factors influence the students' attitude toward cheating, especially given how they define cheating in the previous chapter. First, I present factor analysis results that show the extent to which students react and feel about cheating. Here, items with loadings 0.50 or higher were considered the most representative within the factor.

To proceed, the OLS was used to explain how the student and classroom characteristics affect the dependent variables that were found through the factor analysis. The previous section

showed three different views among the surveyed Vietnamese high school students regarding what constitutes as cheating and individual and classroom factors that explain differences in views. This section presents findings for the second question that asks: to what extent do personal and contextual factors influence the students' *attitudes* toward cheating, especially in relation to how they define cheating in the previous section.

Factor Analysis Results

The questionnaire included a set of questions related to students' attitudes and reactions if they witnessed academic dishonesty in their classrooms. These questions concerned students' views on the fairness, morality, and permissiveness of cheating behaviors and whether they would take concrete actions such as reporting. The choices ranged from Strongly Agree to Disagree Strongly, but for the purpose of factor analysis, I assigned the value from -2 to 2 to these scales from (-2) as "Strongly Disagree" to (2) as "Strongly Agree" with the value 0 as "Neutral." Using factor analysis with Varimax Rotation, two dependent variables were constructed from the survey's seven items. Together, the two factors explained more than 84% of the scores' total variance (see Table 5.7).

The first factor, which was "Student's Reactions" toward cheating, had options; students could choose to remain silent or report to various personnel (teachers, parents of the students who cheat, the students who cheat themselves). The second factor, which was "Student's Attitude" towards cheating, includes the first three items: "I feel (cheating is) unfair for me and those who do not cheat," "I do not agree with their (my classmates) actions (cheating), but as long as I do not cheat, then cheating is okay," and "I think it is normal and completely alright that my classmates cheat." The internal reliability coefficient (Cronbach's alpha) was 0.69. The internal reliability coefficient for the second factor was slightly higher than the first factor and

reached 0.74. The correlation between the two scores was low (0.08) and not significant ($p > 0.05$).

The mathematical formula of the factor analysis is also listed as below: The factor analysis model is:

$$X = \mu + L F + e$$

where X is the vector of measurements (with dimension $p \times 1$), μ is the vector of means (same dimension with X) L is $p \times m$ matrix of loadings and F is a $m \times 1$ vector of common factors, and e is a $p \times 1$ vector of residuals (errors). Here, p represents the number of measurements on the item and m represents the number of common factors. We assume that F and e are independent of each other, the mean of F and e are 0, $Cov(F) = I$, the identity matrix, and $Cov(e) = \Psi$, a diagonal matrix.

Table 5.7: Descriptive statistics, factor loadings for items concerning student’s attitudes and reactions toward cheating (N = 907*)

Item	Mean	SD	Factor 1 Reactions toward Cheating	Factor 2 Attitudes toward Cheating
I feel (cheating is) unfair for me and those who do not cheat ^R	-0.45	1.05		0.89
I do not agree with their (my classmates) actions (cheating), but as long as I do not cheat, cheating is okay.	0.34	0.93		0.63
I think it is normal and completely alright that my classmates cheat.	0.40	1.03		0.52
I often remain silent when I saw my classmates cheat. ^R	-0.58	1.02	0.47	

I often report to my teachers when I saw my classmate cheat.	-0.36	1.04	0.83	
I often report to my classmates' parents when I saw my classmate cheat.	-0.78	0.86	0.69	
I often talk to my classmate directly when I saw my classmate cheat	-0.06	1.05	0.62	
Percentage of Variance Explained by the Factor			45.9%	38.5%
Reliability (alpha)			0.69	0.74

Note: N reduced 907 since some students skipped this question (% missing value <10%; therefore, listwise deletion is accepted)
R = item was recorded.

Figure 5.3 shows the average value of the three latent groups in relation to how students define cheating and the average means of factor 1 (Reactions towards cheating). Figure 5.4 shows the relationship between the latent groups and reaction towards cheating. On average, the rebel group has been more likely to think that cheating is normal (positive value for factor 2) and tends to remain silent instead of reporting the cheating in class (negative value for factor 2). On the opposite end, the rule-followers are more likely to think that cheating is unfair (negative for factor 2) and that they are more likely to report cheating (positive for factor 1).

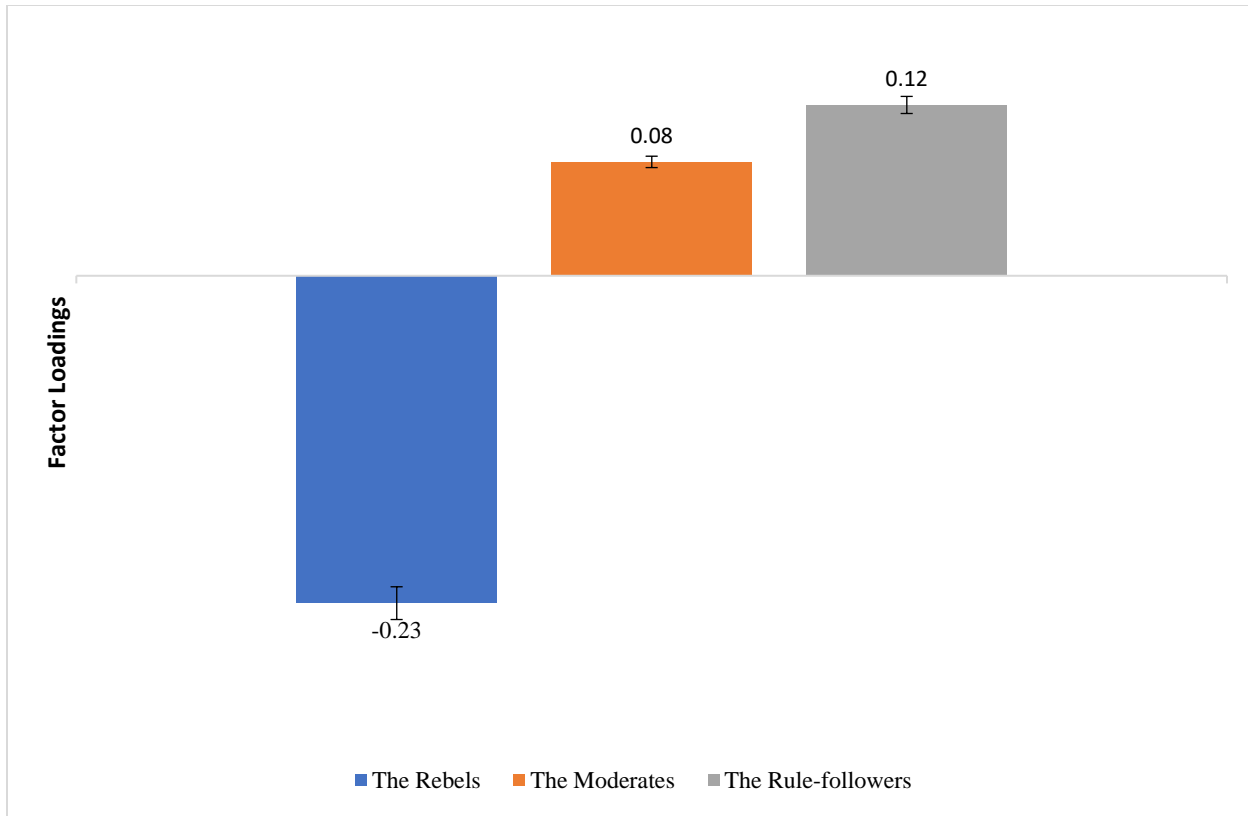


Figure 5.3: Definitions of cheating and student’s reaction towards cheating (factor 1)

Factor 1: Reactions to Cheating

The reaction to cheating factor is comprised of four items. The overall loadings range from 0.47 to 0.83, representing the highest loadings across all four factors. Reporting to teachers (0.83) and classmates’ parents (0.69) have the highest loadings within the factor. This was followed by reporting to the student (0.62) and remaining silent (0.47). This factor accounts for 45.9% of the total variance across all factors and has a reliability of .67, indicating a moderate and acceptable homogenous structure.

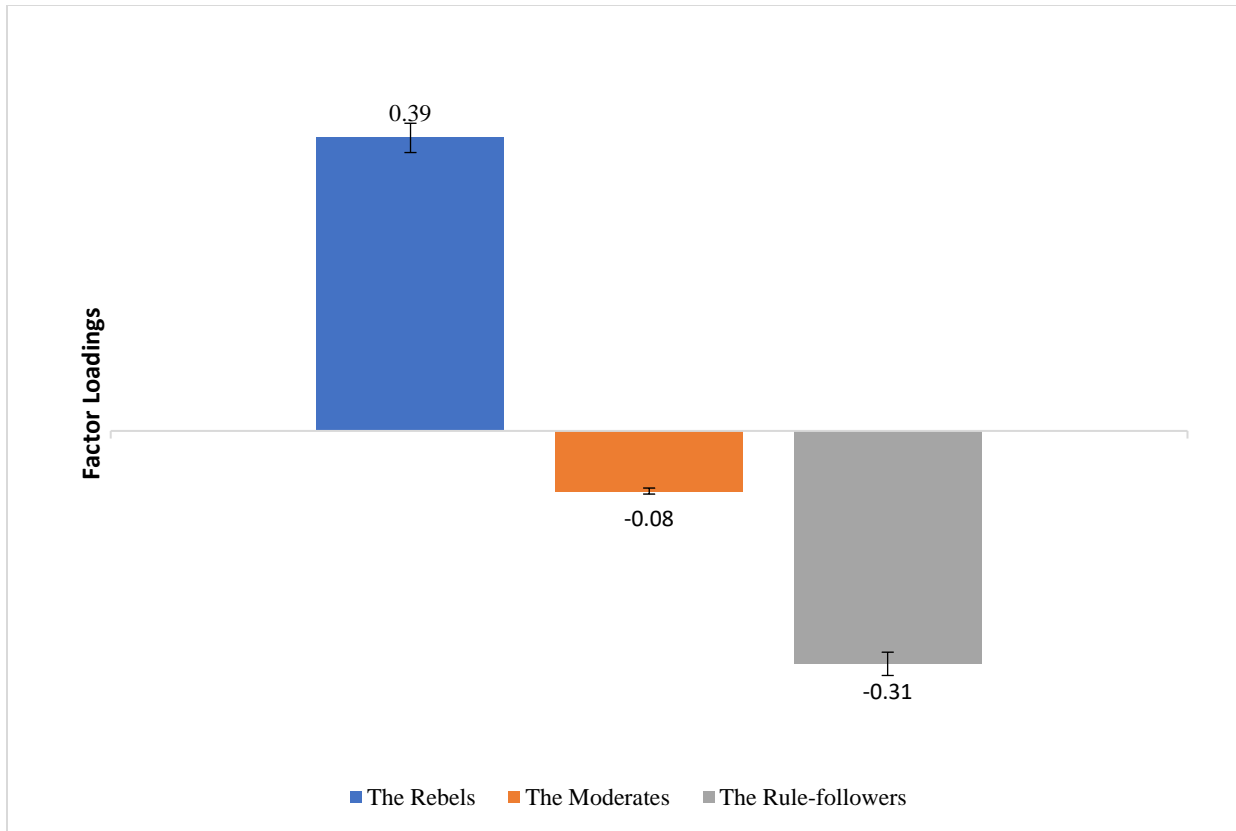


Figure 5.4: Definitions of cheating and student’s attitude towards cheating (factor 2)

Factor 2: Attitude/Feeling towards Cheating

The attitude towards cheating factor is comprised of three items (see Table 5.8). The individual loadings for each behavior range from 0.52 to 0.89. Thinking that cheating is unfair has the highest loadings (0.89) and is followed by disagreement with classmates’ action, but as long as it does not affect the overall ranking, then the action is okay (0.63). Lastly, thinking that cheating is normal has the lowest loadings of 0.52. This factor accounted for 38.5% of the total variance with a reliability of .74, indicating an appropriate homogeneous structure.

How students’ and classroom characteristics affect how students feel and react to cheating behaviors in their classroom?

Based on the Factor Analysis result, I constructed two new variables: reaction to cheating and attitude towards cheating. Using these as dependent variables, I performed bivariate

regression analysis to understand how students' group membership (i.e., the rebels, the moderates, and the rule-followers) can affect the reactions and attitudes toward cheating. Table 5.8 presents the bivariate analysis results for the two-dependent variable.

Table 5.8: Bivariate analysis results for three latent classes (N = 907)

Groups	The rebels (N=284)		The moderates (N=374)		The rule- followers (N=294)		F, sig
	Mean	SD	Mean	SD	Mean	SD	
Attitudes towards Cheating	0.391	1.134	-0.083	1.023	-0.312	0.890	34.1***
Reactions towards Cheating	-0.227	0.915	0.085	0.834	0.120	0.957	12.9***

From Table 5.8 above, we can see that it is statistically different between different groups and the attitude towards cheating ($F= 34.1$, $df= 2$, $p <0.001$). In particular, the rule-followers have the lowest and negative value (-0.32), which means that the rule-followers are more likely to think that cheating is unfair and less typical. The moderates have an average value of - 0.08, which means they are more likely to stay neutral in most options. The rebels have an average value of 0.39 which means that they are more likely to think that cheating is expected and less likely to feel unfair when witnessing other students cheat.

There are also differences between different groups regarding their reaction once they witness their classmates cheat ($F=12.9$, $df = 2$, $p <0.001$). First, the rebels are more likely to stay silent when their classmates cheat. They are also less likely to report the incidents to teachers, parents, or the students who cheat themselves. On the other hand, the moderates and the rule-followers are more likely to report. However, the rule-followers are more likely to report than the moderates. In the next section, we will further unpack how such differences between these groups can be explained by the students' characteristics and the classrooms' characteristics.

Explaining Student's Attitude towards Cheating

From Table 5.8, we can see the differences in the three groups and how such group membership related to their reactions and attitudes towards cheating. To further understand how the students define cheating and how they react and feel about cheating, I consider the students' individual and classroom characteristics, and incorporate these factors in my regression model. The null model was first executed to evaluate how much of the attitude and reaction variances between students can be explained by internal and external independent variables. The ICC for each model is lower than 10%, which means that the students' differences in attitude and reaction can only be explained by less than 10% of the classrooms' variances. Therefore, to better examine the effect of students' characteristics and schools' environment on attitude and reaction towards cheating, an OLS regression analysis was conducted (See Table 5.9).

In model 1, I estimated the effects of students' characteristics, and in model 2, I added the classroom's environment (in addition to students' characteristics). I also added the group membership interaction from the previous chapter with the students' gender and students' GPA. However, none of these interactions were statistically significant; therefore, they are not included in the final models.

Table 5.9: OLS regression coefficients in models explaining attitude towards cheating (N = 899*)

	Model 1	Model 2
LCA class 2 – Moderates (39.3%)	-0.461*** (0.082)	-0.439*** (0.082)
LCA class 3 - Rule Followers (30.9%)	-0.694*** (0.090)	-0.688*** (0.094)
Male	0.056 (0.069)	0.057 (0.070)
Number of Books at Home	0.028 (0.035)	0.008 (0.037)

Parent Highest Level of Education	-0.012 (0.025)	-0.014 (0.028)
Having Leadership Position in Class	-0.043 (0.054)	-0.024 (0.056)
Student Math GPA from Previous Yrs	0.110* (0.045)	0.063 (0.063)
Diligence Classroom climate		-0.022 (0.037)
Competitive Classroom climate		-0.074 (0.120)
Classroom Average Math GPA		0.088 (0.094)
Public		-0.201 (0.120)
Classroom location - Nam Định		-0.025 (0.113)
Classroom location – Bắc Ninh		0.153 (0.139)
Classroom location – Hà Tĩnh		-0.197 (0.150)
Classroom location – Bắc Giang		0.100 (0.152)
Classroom location – Thanh Hóa		0.025 (0.150)
Constant	-0.535* (0.351)	-0.362* (0.769)
R^2	0.079	0.095

Note: N = 899 since since some students skipped this question #19 and some did not have latent class.

The reference group for location is the capital Hanoi.

Standard errors in parentheses.

* p < 0.05, ** p < 0.01, *** p < 0.001

According to model 1 and model 2 of Table 5.9, when we compared students who have a rebel definition of cheating, students who defined cheating more strictly (latent group 2 and 3)

have a more negative attitude toward cheating, which means that they are more likely to see cheating activities as unfair and less likely to see it as usual. This pattern is significant as it controls for both students' characteristics and classrooms' characteristics. In model 1, it is apparent that student's achievement affects their attitude towards cheating. In particular, students who academically perform better are more likely to have a negative attitude toward cheating.

However, when controlling for the classroom factor, its magnitude declined (from $\beta = -0.11$ to $\beta = -0.06$). Other students' characteristics do not affect the student's attitude towards cheating. Once the latent class group is added to the model, no statistically significant variable can explain the difference in attitude for all classroom characteristics controlled. In model 3, it is apparent that both of the interaction terms that were tested for are not statistically different. It means that the students' definition of cheating has the strongest and subsequently most likely effect on students' opinions towards cheating.

Explaining Students' Reactions towards Cheating.

Several factors affect the students' reactions towards cheating. Table 5.10 below shows the relationship between group membership (i.e., the rebels, the moderates, and the rule-followers) with regard to the definition of cheating on students' reactions when they counter cheating behaviors in class. As compared to the rebel students, students in both the moderates and rule followers' groups are more likely to report cheating behaviors to either teacher, the parents of the students, and the students themselves, while the rebel groups are more likely to remain quiet. This pattern also remains significant while more classroom variables are added in Model 2 (although their power is slightly reduced as they went down from $\beta = 0.29$ to $\beta = 0.25$ for the moderates' students and from $\beta = 0.33$ to $\beta = 0.31$). We also see that students who have a higher level of parental education are also slightly more likely to remain quiet ($\beta = -0.09$ and $\beta =$

-0.05). Having a leadership position in the class is also more likely to increase students' likelihood of reporting cheating ($\beta = 0.13$ and $\beta = 0.10$).

Interestingly, one of the most striking observations that emerged from the data was the relationship between average classroom achievement and reaction to cheating. Students are more likely to remain quiet in a classroom with higher average achievement when they witness a cheating incident in their class. However, if the classroom climate values diligence over achievement, the students are more likely to report or speak to the students who cheat themselves. Locations of the school also matter in this analysis. As compared to the students in the capital, Hanoi, students from Nam Dinh, Ha Tinh, and Bac Giang are more likely to report.

Table 5.10: OLS regression coefficients in models explaining reaction towards cheating (N = 899)

	Model 1	Model 2
LCA class 2 – Moderates (39.3%)	0.293*** (0.070)	0.233*** (0.069)
LCA class 3 - Rule Followers (30.9%)	0.333*** (0.077)	0.297*** (0.079)
Male	-0.020 (0.060)	-0.031 (0.059)
Number of Books at Home	-0.017 (0.030)	0.018 (0.031)
Parent Highest Level of Education	-0.092*** (0.021)	-0.056* (0.024)
Having Leadership Position in Class	0.128** (0.047)	0.092* (0.047)
Student Math GPA from Previous Yrs	-0.069 (0.038)	0.044 (0.053)
Diligence Classroom climate		0.065* (0.032)

Competitive Classroom climate		0.151 (0.102)
Classroom Average Math GPA		-0.152 (0.080)
Public		-0.024 (0.101)
Classroom location - Nam Định		0.421*** (0.096)
Classroom location – Bắc Ninh		0.190 (0.118)
Classroom location – Hà Tĩnh		0.428*** (0.127)
Classroom location – Bắc Giang		0.260* (0.128)
Classroom location – Thanh Hóa		0.055 (0.126)
<hr/>		
Constant	0.231*	-0.314*
	(0.194)	(0.261)
R^2	0.124	0.181

Note: N = 899 since some students skipped this question #19 and some did not have latent class.

The reference group for location is the capital Hanoi.

Standard errors in parentheses.

* p < 0.05, ** p < 0.01, *** p < 0.001

Conclusion for Research Question 2

This section presented the findings for the second research question of this dissertation research. First, the students' opinions about cheating can be divided into two types: how they feel towards cheating and how they react when they witness cheating. In both studies, I can see that the group membership interaction with gender and gap achievement does not affect students' reactions or attitudes towards cheating. However, I found that the students' definition of cheating is the strongest, and subsequently, among all the variables included in this study, most likely to affect students' opinions about cheating. However, other factors can affect students' reactions, as

well. The schools' location also matters in this analysis, such as parental highest education level, holding a leadership position in class, and other classroom variables such as overall classroom achievement and diligence culture.

5.4 Research Question 3

This section examines students' actual engagement with cheating behaviors. First, I will examine whether the students self-reported their own previous cheating behaviors in school. Second, if any cheating is self-reported, I examine the frequency of such behavior. Finally, I also examine the number of subjects students self-reported as having cheated, as well as the subjects of classes they are most likely to cheat on as well.

Throughout the chapter students' and classroom characteristics were included in the models to control for various factors that explain variations in the dependent variables. The chapter also includes how the difference between how students' definition of cheating along with their perception with cheating can affect the relationship for how the students engage with cheating.

Do the students confess that they cheat?

When asked if they ever engaged in cheating behaviors in schools, more than 81% of students reported that they had previously cheated in class. Majority of the students (90.8%) in the "rebel" group, who have a lenient definition of cheating, admitted their prior cheating behaviors; the percentage was 84.5% for the moderates, and for the "rule-followers" who have the strictest definition of cheating, the percentage was a bit lower at 81.0%. However, the Chi-squared test confirmed that there is a difference between these three groups ($\chi^2 = 10.79$, $p < 0.05$). The percentage of students who admitted they have cheated was high across all three groups. This means that no matter how they defined cheating, many Vietnamese students across

different backgrounds and locations engaged in cheating behaviors and are not afraid to admit it. This finding supports the idea that cheating behaviors are normalized in Vietnam and worth examining.

To further explain the engagement in cheating, the intra-class correlation was first calculated from the null model, the residual variance for the logistics model $\left(\frac{15}{16}\right)^2 \left(\frac{\pi^2}{3}\right)$, gave the result of 0.239, which means that classroom factors explain 23.9% of the total variance in student engagement with cheating behavior. Therefore, the Hierarchical Logistics Regression model was used to examine the dependent variable – Engagement in cheating, which has a value of 1 if students admitted that they have cheated in the past and 0 if they have never done so. In the first model, the researcher included students’ attitudes towards cheating and variables that separate students into three groups based on their definition of cheating. In the second model, the variables that control student characteristics were added, and in the last model, more classroom-level variables were considered.

Table 5.11: Hierarchical logistics regression models, Odd Ratio explaining if student’s confession that they have cheated (n=899*)

	Model 1	Model 2	Model 3	Model 4
LCA class 2 – Moderates (39.3%)	0.558* (0.274)	0.705 (0.303)	0.714 (0.311)	0.729 (0.310)
LCA class 3 - Rule Followers (30.9%)	0.507* (0.293)	0.616 (0.329)	0.762 (0.344)	0.901 (0.352)
Reactions towards Cheating		1.499*** (0.112)	1.513*** (0.115)	1.484*** (0.114)
Attitudes towards Cheating		0.506*** (0.138)	0.519*** (0.142)	0.544*** (0.142)
Male			1.294 (0.231)	1.306 (0.230)

Number of Books at Home			1.006 (0.123)	0.988 (0.124)
Parent Highest Level of Education			0.845 (0.097)	0.822 (0.100)
Having Leadership Position in Class			0.698* (0.161)	0.799 (0.165)
Student Math GPA from Previous Yrs			0.710* (0.200)	0.553** (0.220)
Diligence Classroom climate				0.776 (0.141)
Competitive Classroom climate				5.830** (0.612)
Classroom Average Math GPA				1.713 (0.426)
Public				2.948 (0.601)
Classroom location - Nam Định				0.488 (0.678)
Classroom location – Bắc Ninh				0.544 (0.795)
Classroom location – Hà Tĩnh				0.552 (0.760)
Classroom location – Bắc Giang				0.239 (0.787)
Classroom location – Thanh Hóa				1.474 (0.760)
Constant	2.531*** (0.303)	2.583*** (0.334)	5.919*** (1.652)	10.006** (3.785)

<i>Pseudo R</i> ²	0.019	0.125	0.142	0.317
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Note: N = 899 since some students skipped this question #19 and some did not have latent class.

The reference group for location is the capital Hanoi.

Standard errors in parentheses.

The command `r2_mz` was used to calculate McKelvey & Zavoina's R^2

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5.11 shows that how the students define cheating was not a significant explanatory factor of students' engagement with cheating. However, the student's attitude and reaction towards cheating both affected their actual engagement with cheating, even after controlling for the student's individual and classroom characteristics. In particular, what is outstanding in the table is the general pattern that if students have negative attitudes towards cheating (e.g., think they are unfair), they are less likely to cheat. If students were to report cheating incidents, they were also less likely to admit that they have cheated before. As shown in Model 3 and Model 4, these patterns remained consistent even when students' and the classrooms' independent variables were included.

A closer examination of the table also shows parental education association with students' engagement in cheating. The higher the level of parental education, the less likely it is for students to admit that they cheated. Students with lower GPAs are also more likely to admit cheating in the past. Lastly, if the student also belongs in a classroom with a highly competitive culture within the classroom, they would be more likely to cheat.

When did the student start cheating?

If they admitted that they were previously cheated, they were also asked to provide when they first started cheating. Figure 5.5 below provides descriptive statistics of the overall distribution of the first time that the students started cheating. Some students (8.4%) started cheating in elementary school, while most of the students (80.8%) first engaged in academic dishonesty in middle school. The majority of students admit that they started cheating when they entered the 6th grade, which is the first year in secondary school. In the Vietnamese curriculum,

Physics and Chemistry start in the 8th grade, which coincides with the timing that many students reported that they had started cheating. Because the surveyed students responded in the first semester of the 11th grade, only 10.7% of students started cheating in high school.

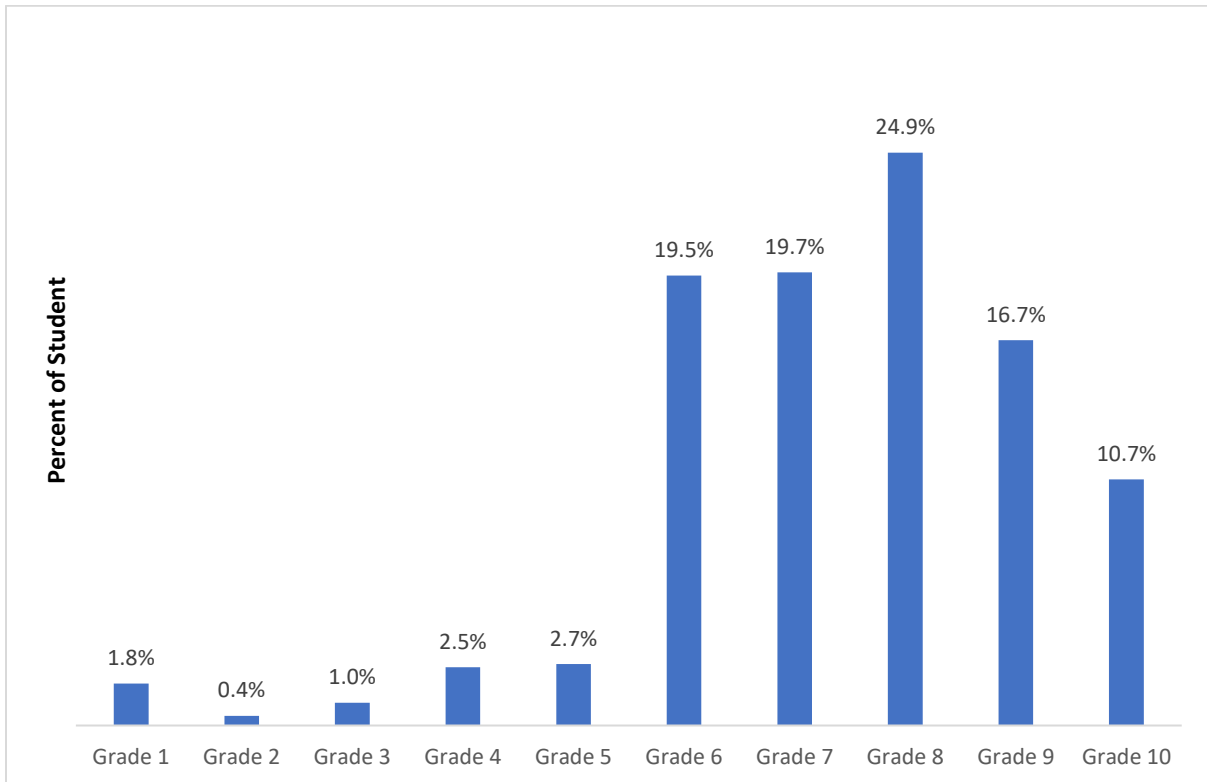


Figure 5.5: The distribution of when the students admit that they started cheating (N = 711)

How often did students cheat?

Next, I further measure whether they have cheated and the frequency they have engaged in cheating. Among all the students who admitted they have previously engaged in cheating, the majority said that they only committed cheating once or twice while the rest cheated more frequently. Overall, among 81.1% of the total sample that admitted they have previously cheated, 53% said they cheated but not so frequently, while the rest admitted that they cheat often.

To further explore how the group differs from one another in terms of students' frequency of cheating and examine how individual and classroom characteristics are associated

with the frequency of cheating, the questions were explored through several multilevel regression analyses. The intra-class correlation was first calculated by command `estat icc`, which gave the result of 0.105. This means that classroom level variables explain 10.5% of the total variance in the frequency of students' cheating behavior, given that the dependent variable has a meaningful zero (i.e., 0 means that the student has never cheated) and has a linear relationship (i.e., the higher number indicates the higher frequency of cheating).

Table 5.12 provides the details of each model. First, compared to the rebels, who have a lenient definition of what cheating means, students in the moderate group are much less likely to admit that they frequently cheat. However, for the rule-followers, while adding in other controlling variables at student-level and classroom-level, the group is no longer significant at $p < 0.05$. Across all models, this relationship remains valid for all additional controlled variables that were added throughout the process.

Students' attitudes and reactions continue to have an effect students' frequency of cheating strongly. In particular, students who have negative attitudes towards cheating (think they are unfair) are less likely to cheat than those who think that cheating is normal. On the other hand, if the student thinks that cheating is common, they are likely to admit to cheating in the past. Additionally, students who were inclined to report cheating incidents were also the ones who were less likely to admit that they have cheated before. These patterns remain valid even when the researcher included student's and the classroom's independent variables.

Table 5.12: OLS regression coefficients in models explaining the frequency of cheating (N = 899)

	Model 1	Model 2	Model 3	Model 4
LCA class 2 – Moderates (39.3%)	-0.602*** (0.161)	-0.368* (0.169)	-0.362* (0.172)	-0.310 (0.171)
LCA class 3 - Rule Followers (30.9%)	-0.357* (0.175)	-0.214 (0.195)	-0.106 (0.201)	-0.003 (0.202)
Reactions towards Cheating		0.302*** (0.068)	0.303*** (0.069)	0.297*** (0.069)
Attitudes towards Cheating		-0.537*** (0.082)	-0.546*** (0.084)	-0.502*** (0.084)
Male			0.336* (0.141)	0.366** (0.141)
Number of Books at Home			-0.087 (0.074)	-0.106 (0.074)
Parent Highest Level of Education			-0.142* (0.058)	-0.158** (0.058)
Having Leadership Position in Class			-0.319** (0.112)	-0.238* (0.114)
Student Math GPA from Previous Yrs			-0.216* (0.119)	-0.382** (0.128)
Diligence Classroom climate				-0.250** (0.076)
Competitive Classroom climate				1.228*** (0.351)
Classroom Average Math GPA				0.383 (0.239)
Public				0.602 (0.343)
Classroom location - Nam Định				-0.783* (0.344)

Classroom location – Bắc Ninh				-0.703 (0.407)
Classroom location – Hà Tĩnh				-0.733 (0.434)
Classroom location – Bắc Giang				-1.139* (0.470)
Classroom location – Thanh Hóa				0.048 (0.441)
Constant	0.399** (0.143)	0.414** (0.155)	0.730** (0.255)	0.161** (0.098)
R^2	0.018	0.103	0.148	0.247

Note: N = 899 since some students skipped this question #19 and some did not have latent class.

The reference group for location is the capital Hanoi.

Standard errors in parentheses.

The command fit_meologit_2lev was used to calculate McKelvey & Zavoina's R^2

* p < 0.05, ** p < 0.01, *** p < 0.001

At the classroom level, similar to the previous section's results, model 4 suggests that if the classroom is more competitive, the student would be more likely to admit that they have cheated in the past more frequently. In contrast, if the classroom climate values diligence, then the students in such classrooms are more likely to cheat less frequently. There are also location differences found in model 4. In particular, Bac Giang and Nam Dinh's students also cheated less frequently than students from the capital Hanoi. There is no statistical difference between students from public vs. students in private school as regard to their frequency of cheating.

In what subjects have students cheated?

In the last section, the frequency of cheating among students was analyzed; the intensity and severity of cheating relate to how frequently the students cheat in many classes. When asked to check which subjects they had previously cheated on, they marked all the previously cheated subjects. Although we do not know each subject's frequency and how often the students cheated in each subject, this section highlights the total number of subjects the students admitted that

they cheated in. The students offered ten subjects in high schools (the survey grouped all-natural sciences into one category and all social sciences into another category). If the student cheated in ten subjects, the value would be ten, and if the students answered that they never cheated, the answer would be 0. There were 24 cases where the students admitted they cheated but did not answer this question in the survey. I recoded so that they cheated only on one subject to avoid overestimating the model. If these students were deleted with a list-wise method, the model does not change as it also makes up about 3% of the total sample size. The ICC level for this model is greater than 10%. Therefore, a Hierarchical Linear Model was used to analyze the data, which accounts for the fact that students are nested within the classroom.

Table 5.13: OLS Regression coefficients in models explaining the numbers of subjects that students cheat (N = 899)

	Model 1	Model 2	Model 3	Model 4
LCA class 2 – Moderates (39.3%)	-0.532*** (0.154)	-0.380* (0.155)	-0.372* (0.152)	-0.309* (0.150)
LCA class 3 - Rule Followers (30.9%)	-0.323 (0.175)	-0.153 (0.181)	-0.062 (0.179)	-0.075 (0.177)
Reactions towards Cheating		0.185** (0.062)	0.176** (0.061)	0.165** (0.060)
Attitudes towards Cheating		-0.377*** (0.074)	-0.359*** (0.073)	-0.317*** (0.072)
Male			0.250* (0.125)	0.254* (0.123)
Number of Books at Home			-0.059 (0.065)	-0.072 (0.065)
Parent Highest Level of Education			-0.102* (0.050)	-0.101* (0.051)
Having Leadership Position in Class			-0.316** (0.100)	-0.274** (0.099)

Student Math GPA from Previous Yrs			-0.250*	-0.300**
			(0.104)	(0.110)
Diligence Classroom climate				-0.337***
				(0.066)
Competitive Classroom climate				0.311*
				(0.442)
Classroom Average Math GPA				0.328
				(0.286)
Public				0.101
				(0.442)
Classroom location - Nam Định				-0.848
				(0.455)
Classroom location – Bắc Ninh				-1.155*
				(0.529)
Classroom location – Hà Tĩnh				0.190
				(0.566)
Classroom location – Bắc Giang				-1.438*
				(0.611)
Classroom location – Thanh Hóa				-0.292
				(0.580)
Constant	2.476***	2.392***	4.857***	3.287**
	(0.181)	(0.191)	(0.848)	(2.746)
R^2	0.010	0.035	0.094	0.122

Note: N = 899 since some students skipped this question #19 and some did not have latent class.

The reference group for location is the capital Hanoi.

Standard errors in parentheses.

The command `fit_melogit_2lev` was used to calculate McKelvey & Zavoina's R^2

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

First, compared to the rebels, who have a lenient definition of what cheating means, students in the moderate and rule-followers' groups are much more likely to confess that they cheated in more "minor" subjects (which referred to subjects that would not be tested in national college entrance exam). However, this is not significant at $p < 0.05$. Across all models, this

relationship remains valid for all additional controlled variables that I added throughout the process.

How students define cheating does not affect the number of subjects in which the students cheated on, but students' and classrooms' characteristics have much more potent effects. Similar to how students' attitudes and reactions continue to affect students' frequency of cheating, they also affect how many subjects they confess they engage in. In particular, students who are negative towards cheating (think they are unfair) are less likely to cheat in multiple subjects than those who think cheating is normal. Additionally, if students were to report cheating incidents, they were also less likely to admit that they have cheated in multiple subjects. These patterns remained valid even when students and the classroom's independent variables were included. In the previous section, we can also learn that male students are more likely to admit that they cheat more frequently than female students. In this analysis, we also learned that they cheat in more subjects as well. Model 2 and 3 from Table 5.14 also show that the higher the parental education, the less likely their children were to admit they cheated in many subjects. Similarly, students that hold a leadership position in the school were much more likely to admit that they cheated less.

Student achievement is also a statistically significant predictor of outcome in this model. Here, we find that students who have higher GPAs are less likely to cheat. Although average classroom achievement is not significant in this analysis, a classroom climate that values diligence is. In particular, students in classrooms that value diligence over achievement are much less likely to cheat in multiple subjects. Finally, we also learned that Hanoi students confessed that they cheat more frequently and cheated in more subjects than students in Nam Dinh, Bac

Ninh, and Bac Giang. There is no statistical difference between students from public vs. private schools as regards to the number of subjects that they previously cheated.

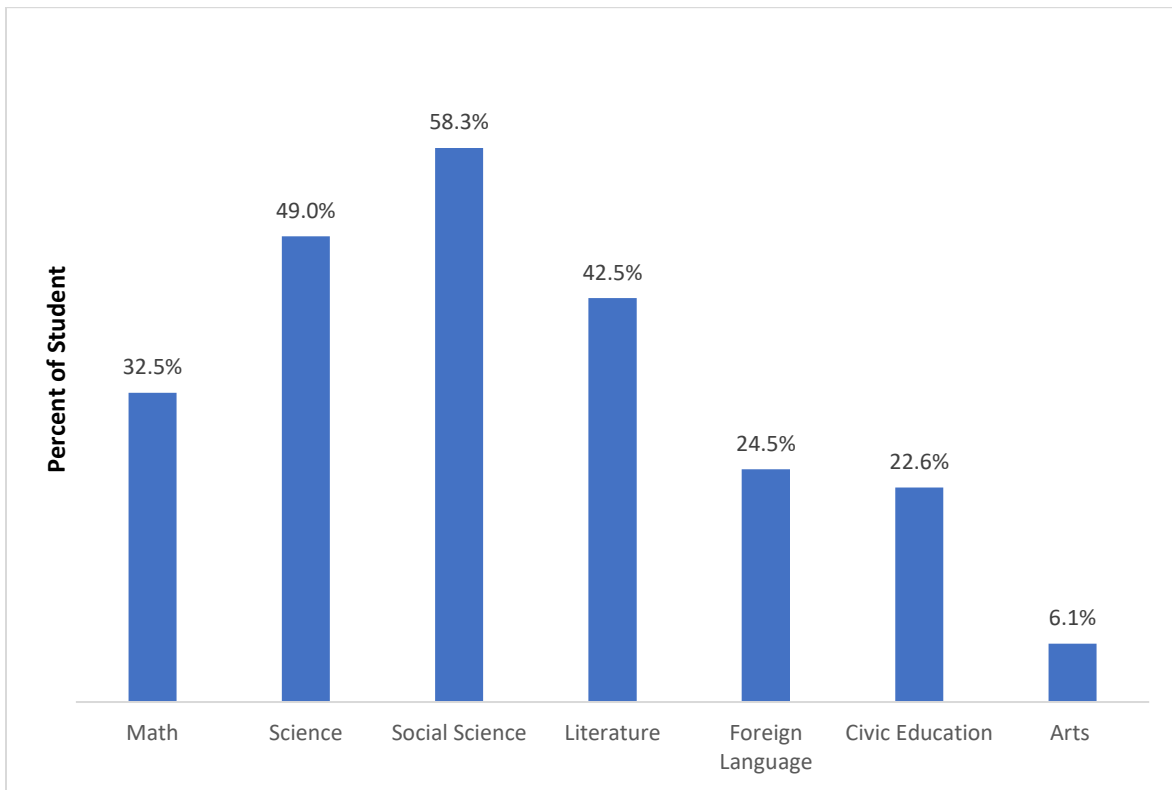


Figure 5.6: Frequency of students who admit engagement in cheating, per subject

Students were also asked to report on all the subjects that they have been engaged in cheating previously. Figure 5.6 also provides more in-depth information into understanding how each subject were cheated frequency per subject. The total number of students in this figure is only 784 because I only counted the students who previously admitted that they have cheated before. The percentage did not add up to 100% as the students could choose multiple subjects if they cheated before. Nevertheless, we do not know the frequency that they cheat in each individual subject.

Students admitted that they were cheating more in Social Science, followed by Science, Literature and Math. Additionally, they were less likely to cheat in Arts than anything else. One

of the reason/limitations of the study is that I grouped all science subjects and social sciences subjects into one category. Therefore, the odds of them cheating in one of the subjects in science/social science is always greater than the odd of them cheating in other individual subjects. However, this figure also illustrates that, the “importance” of the subjects may be related to the decision that the students cheat on that subject or not. In Vietnam, Mathematics and Literature are the two most important subjects because they constantly were used as the measure for “all-rounded” success of the student as the regulation for assessment of high school students by Vietnamese Ministry of Education and Training. To qualify as good students and receive good marks in their transcripts, students need to have the average GPA above 8.0/10.0. The second requirement is also to have either Mathematics/Literature score above 8.0 or both subjects should not be below 6.5. The second requirement means that, even if there is a student who excels in all subjects, achieve the average GPA above 9.0, if he/she scored below 6.5 in either Mathematics or Literature, he or she would no longer be classified as a “good” student in the transcript.

To better understand the subjects that each student engages in cheating, Table 5.15 included additional students’ characteristics and classrooms’ characteristics into the model. The results from this chapter suggested that how different factors affect the decision for the students to cheat in, varies between different subjects.

For instance, how students define cheating did not significantly influence if the students cheated in Math or Science but influenced how students engaged in cheating in Literature and Foreign Language. In particular, the students who defined cheating more strictly were likely to cheat less in Foreign Language and Literature than the rebellious students. It is also interesting to note that the differences in class 2 – the moderates’ students who considered plagiarism less

seriously than other cheating behaviors on exams and class 3 – the model students who hold strict definitions of cheating was not significant when we look at cheating in literature, but the gap is significant when we look at cheating in Foreign Language.

On the other hand, the relationships between reaction, attitude, and engagement in cheating is significant when we look at cheating in Mathematics and Sciences. At the same time, the definition of cheating here does not influence whether the student cheats in these two subjects. In particular, students who are negative towards cheating (think it is unfair) are less likely to cheat in Mathematics and Science than those who think cheating is normal in their classroom. Additionally, if students were to report cheating incidents, they were also less likely to admit that they have cheated in these two subjects.

As for students' characteristics, parental education affects students' decisions to cheat in Foreign Language and Literature but has no significant effect on cheating in Mathematics and Science. Having higher GPA in the subject in the previous year also showed a negative significant effect, the students who had a higher GPA were less likely to admit that they cheated in the subjects before.

When we look at the classrooms' characteristics. The classroom average GPA has an impact in all four models. However, in contrast with students' individual GPA, the classroom GPA has a positive relationship with Odd of cheating in this subject. This potentially means that if the classroom, on average, has higher achievements in the subject, there is pressure for having such high achieving students who fall behind, to cheat more. Classroom climate that values diligence also has an effect on the Odd that students engage in cheating in Foreign Language and Literature, however such affect is not significant for Mathematics and Science.

Table 5.14: Hierarchical Logistics Regression models with Odd Ratio explaining the subjects that students cheat (N = 899)

	Model 1 Mathematics	Model 2 Science	Model 3 Foreign Language	Model 4 Literature
LCA class 2 – Moderates (39.3%)	0.805 (0.211)	0.793 (0.193)	0.935* (0.233)	0.647* (0.192)
LCA class 3 - Rule Followers (30.9%)	0.577 (0.244)	0.680 (0.229)	0.752* (0.269)	0.622* (0.229)
Reactions towards Cheating	0.674*** (0.100)	0.655*** (0.096)	0.856 (0.111)	0.846 (0.093)
Attitudes towards Cheating	1.330** (0.088)	1.230** (0.080)	1.151 (0.094)	1.076 (0.077)
Male	1.149 (0.172)	0.992 (0.161)	1.186 (0.188)	1.027 (0.160)
Number of Books at Home	0.999 (0.092)	0.955 (0.085)	0.880 (0.104)	1.076 (0.083)
Parent Highest Level of Education	0.963 (0.072)	1.013 (0.066)	0.821 (0.080)	0.873* (0.065)
Having Leadership Position in Class	0.738* (0.154)	0.808 (0.129)	0.935 (0.161)	0.791 (0.139)
Student GPA of the subject from Previous Yrs	0.588*** (0.156)	0.676** (0.125)	0.696* (0.154)	0.540*** (0.154)
Diligence Classroom climate	0.797* (0.089)	0.875 (0.085)	0.788* (0.099)	0.836* (0.085)
Competitive Classroom climate	1.565 (0.385)	2.162 (0.454)	1.480 (0.569)	0.884 (0.443)
Classroom Average GPA of the subject	1.018* (0.289)	1.416* (0.289)	1.245* (0.343)	1.559* (0.352)
Public	1.302	1.745	1.079	1.137

	(0.386)	(0.478)	(0.583)	(0.506)
Classroom location - Nam Định	0.185*** (0.450)	0.329* (0.465)	0.507 (0.622)	0.754 (0.436)
Classroom location – Bắc Ninh	0.204** (0.507)	0.187** (0.597)	0.461 (0.745)	0.755 (0.573)
Classroom location – Hà Tĩnh	0.740 (0.491)	1.605 (0.561)	1.629 (0.733)	2.654 (0.598)
Classroom location – Bắc Giang	0.283* (0.529)	0.480 (0.628)	0.324 (0.794)	0.407 (0.645)
Classroom location – Thanh Hóa	2.140 (0.479)	2.223 (0.581)	0.685 (0.728)	0.860 (0.577)
Constant	-0.824** (0.290)	-0.528* (0.229)	-0.288 (0.228)	-0.582* (0.246)
R^2	0.132	0.135	0.094	0.122

Note: N = 899 since some students skipped this question #19 and some did not have latent class.

The GPA for Physics were used as the proxy for science GPA

The reference group for location is the capital Hanoi.

Standard errors in parentheses.

The command `fit_meologit_2lev` was used to calculate McKelvey & Zavoina's R^2

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Conclusion of Research Question 3

This section showed how students' definitions of their reaction to, and attitudes toward cheating could affect their engagement with cheating through three analyses: students' with any prior engagement with cheating, the number of times committing cheating, and the number of subjects in which they cheated.

First, I found gender differences associated with frequency of cheating: boys' cheat more frequently and are much more likely to cheat in multiple subjects. Second, students who have parents with higher education attainment self-reported their own cheating behaviors less frequently and in fewer subjects than students with parents with lower education attainment. Third, classroom climate also plays an essential role in explaining how students engage in cheating: the classes that value hard work over achievement, on average, hold fewer students

who committed cheating, cheated frequently, and cheated in multiple subjects. These findings highlight the importance of studying dishonesty through the lens of sociology, which examines students' values or "rebellious nature" that make them cheat, but the competitive culture that focuses on achievement can also affect and pressure students to engage in cheating as well. The results from this chapter suggested that the extent that different factors affect the decision for the students to cheat varies between different subjects. For example, a classroom climate that values diligence also has an effect on the odd that students engage in cheating in Foreign Language and Literature, however such effects are not significant for Mathematics and Science.

5.5 The Reasons Behind Cheating: Vietnamese Students' Explanations

In the previous section, the quantitative analysis shows that many individual and contextual factors contribute to cheating engagement. In the survey, Vietnamese students also have an open-ended question in which they were also asked why they think some students engage in cheating. Among 960 students who filled out the survey, 514 students provided an answer to this open-ended question. This section highlights some of the quotes that align with the current literature and directly complement the quantitative analysis in sections 5.2, 5.3, and especially 5.4 above.

Several researchers claim that the number one most significant reason students cheat is to obtain good grades in response to increasing competition and pressure to perform well (e.g., McCabe, 2001). Conforming the literature, most of the students who filled out the short answer (56%) mentioned academic pressures from parents and teachers as the major reason as to why students engage in cheating. Most students in the sample answer that they cheated in order to obtain a better grade and because of the pressure from their parents and teachers. They often

called this causal relationship between pressure to perform well and cheating engagement as the “achievement disease.” One female student explained:

In my opinion, students cheat because of the ridiculous pressure and unrealistic expectations of their parents, and because of the importance of achieving good grades in Vietnamese education today. Moreover, cheating is becoming more and more normal, and many students do not think much when cheating.

Many students state that cheating was necessary to avoid failure; students often voiced that they felt the pressure to perform well and perceived those poor grades could affect their school, classroom, or even the “happiness” of their families. One male student emphasized that he engaged in cheating in the past because of the pressure from his family to succeed:

I think my biggest fear is disappointing parents and family. We all know about the importance of grades as they can potentially affect everyone’s future career. I am so intimidated and pressured to do so well that I have to use improper methods to achieve it. I can’t handle my mom’s anger if I fail to get into an FTU (Foreign Trade University – a popular and high-ranking university in Vietnam) next year.

Another student also told us that her achievement could affect her classroom and her school. Furthermore, she also implied coursework overload as one of the reasons why students engaged in cheating:

I think we have to cheat because bad grades will affect not only us but also our parents, our classroom, and our school (achievement sickness). No one can learn all the Ministry of Education required in their curriculum, including the teachers. Why one teacher only has to teach one subject, but one student has to learn all twelve of them [subjects]?

Many students mentioned the coursework overloads—how they have to be all-rounded students but cannot perform well in all subjects. In fact, the “outside materials” or “cheat sheet” in the western context are often referred in their answer as “phao” – directly translated as “float.” The word is commonly used among Vietnamese students because those “cheat sheets” help students survive and save them from drowning in the “sea of knowledge”. As evident by their open-ended responses, many of the students confess that they choose to cheat on the subjects they are not good at and say they cheat because they are too complex.

Some students (mainly from Hanoi) also state that they need to perform well to maintain an excellent transcript to study abroad. For example, one student explains:

“There are many reasons why we cheat. But I think the main reason is that the knowledge we study in school is too abstract, difficult but has no implication in real life. Many wealthy people in Vietnam and around the world have not graduated from universities. I want to go to college for my parents’ happiness, and I think I intend to go abroad to study abroad next year; therefore, I need a good transcript.”

About one-third of the responses (37%) state that the reasons behind cheating are because the students are “lazy.” Some even explain that laziness is also related to boredom and lack of the motivation to study, especially studying the subjects they do not find to be practical and have no real-life applications. One student said:

“[Students cheat] because the examination questions are based mostly on the student’s memorization. These students find it not important or have no interest in learning. Moreover, the students memorize just for testing purposes then forget it. They feel bored and become lazy. The reasons for such boredom sometimes are because of how the

teacher teaches and the subject itself (boring, difficult to understand, difficult, impractical).”

Another group of students (15.2%) think that cheating is expected in their classroom. They are indifferent and have no interest in why some students may cheat because cheating has become typical. Some students even went further and expressed that “cheating without getting caught is one of the most difficult skills that one must master while in school.” Many students expressed sympathy with their classmates as to why some must engage in cheating. For instance, one student said:

“I honestly don’t care if my classmates cheat or not. My whole class is very united, and I will never tell my teacher if I see my friend copying materials or cheat during the exams. After graduating from high school, I also want to go to a vocational college, so my grade doesn’t need to be too high. I don’t feel unfair because I don’t care. I understand that some of my friends are not planning to take college entrance exams, so they need to get a passing grade and get the diploma.”

Although many students cite the pressure of society, the heavy course loads and the impractical curriculum, most of the students’ answers indicate that it is ultimately the student’s fault since they cannot handle the pressure or the boredom at school; only a small number of students blame the social factors and other cultural factors as they influence cheating. Among those rare cases, they often cite the classroom’s environment that normalizes cheating or the frequency of cheating behavior in their classroom. There are a few answers, such as “because all my classmates cheat, therefore I cheat.” However, there is one student who gives the direct answer in which she disagrees with how the current education system is focusing on the goals and ignoring the process to get there:

“I think there is a decline in student consciousness and moral values. Many of my classmates always want high scores without putting in their effort. I think it is not entirely their fault but partly because our society only looks at performance without considering the process, judging a person only through a degree they get and not getting that degree. This leads to cheating to bring in higher scores and make education in school less meaningful.”

These findings supported the quantitative results that average classroom achievement, and several classroom factors can affect how students cheat. While the students mainly state the reason for cheating as individual characteristics, their statements align with how schools and classroom climate affect their engagement with cheating. If students had less pressure to achieve good grades and a classroom climate that provides the learning process, then many of the students would not have chosen to cheat.

5.6 Chapter Summary

This chapter first summarizes the descriptive statistics to provide an understanding of the demographic background of all students. After providing quantitative results for three proposed research questions, the chapter closes with how the findings can be explained through the students’ voices. While the students mainly state the reason for cheating as individual characteristics, their state can align with the fact that schools and classroom climate that focus on success and achievement also influence students’ motivation to cheat.

In the next chapter, I summarize and discuss how the findings of these three research questions connect, additionally, how the findings can be explained from sociological perspectives along with an updated version of how we can view academic dishonesty in Vietnam as a social process.

Chapter 6 : Discussion

This chapter begins with a summary of all research questions. I then summarize how different individual and contextual characteristics affect how students define, interact, and engage with cheating. I then revisit the illustration of academic dishonesty as a social process and further discuss why it is important to study this topic from the sociological perspectives.

6.1 Summary of Findings

The first research question shows that Vietnamese students have very different perspectives on what is regarded as cheating in school. First, in general, the definition of cheating is highly diverse. It depends a lot on where it happens and who is involved, not just on the action. In this study, I propose that academic dishonesty is a social construct that varies between different contexts. These definitions are often the institution's norms, which the teachers and the students agree on. The current study analyzes the effect of norm/peer influence, that is, whether or not being in a particular type of classrooms make one less likely to cheat or not. However, as the Differential Association Theory suggested, students from the classroom who value diligence over achievement are less likely to cheat.

In the second research question, the students' opinions about cheating are first divided into two categories: how they feel towards cheating and how they react when they witness cheating. In both incidents, we can see that the interaction between group membership and gender as well as the achievement gap do not affect students' reactions or attitudes towards cheating. However, this study found that students' definitions of cheating are the strongest among all the variables included in this study and are most likely to affect students' opinions about cheating. However, other factors such as parental highest education level, leadership

position in class, overall classroom achievement, and classroom climate focuses on diligence affect students' reactions as well.

In the third research question, I examined how students' definitions of cheating, their reactions, and feelings about cheating could affect the students' engagement. The outcomes of this study are based on several sub-analyses concerning three questions: (1) If they admit that they cheated, how often did they cheat?; (2) How many subjects did they cheated in?; and (3) Which subjects did they acknowledge that they had cheated before? Classroom climates play an essential role in explaining how students engage in cheating as well. Often, the class that values hard work over achievement has fewer students who confessed that they cheat, cheat frequently, and cheat in multiple subjects. This finding highlights the importance of studying dishonesty through the lens of sociology, which examines how students' values or "rebellious nature" that influence their decision to cheat make . However, a competitive classroom climate that focuses on achievement can also affect and pressure students to cheat.

6.2 Students' Characteristics and Academic Dishonesty

Several types of regression models found that students' definitions of cheating and their reactions and engagement can vary based on the students' characteristics and the classroom characteristics.

Gender

Many studies focused on the relationship between gender and academic dishonesty in high school. In particular, it has been well documented that female tend to cheat less in schools. In this finding, among all the dependent variables, the only time that gender affected the frequency that the students cheat was when we look at the frequency of cheating. This finding aligns with Whitley et al.'s (1999) and Kish-Gephart et al.'s (2010) meta-analysis study of

gender differences in cheating attitudes and supports the fact that men are much more likely to engage in unethical behaviors in schools. For other dependent variables, female and male students do not significantly differ in how they define, react, and feel about cheating.

Social Economic Class

Previous research found that social class (as measured by various variables such as family income, parents' education, number of books at home, occupation, or students' household income) has no significant effects on cheating behaviors (Bowers, 1964; Michaels & Miethe, 1989). The higher the level of parental education, the more likely it is that students would remain quiet. They are also less likely to admit that they cheated frequently or cheated in multiple subjects. One explanation to for this finding can be explained by the Social Bond Theory, which suggested that the students' bonds have made them more likely to accept society's norms and follow orders. Although they may not agree with cheating, nor do they engage in cheating, they are more likely to be the bystanders who witness cheating but choose to remain silent.

Nevertheless, in this study, the two independent variables, "books at home" and "parent's highest level of education," do not affect how students define cheating. In this study, the number of books at home may not be an accurate proxy to measure social, economic class in Vietnam. Even though the variable has a normal distribution, it does not help explain any outcomes throughout all three research questions.

Previous Academic Ability

Academic performance (measured by grade point average (GPA) or standardized test scores) has been consistently reported in previous studies to be one of the most accurate predictors of cheating behaviors. Mainly, students with higher GPAs report cheating less than students with lower GPAs (e.g., Bonjean & McGee, 1965; Bowers, 1964; Davy et al., 2007;

Klein et al., 2007; Lipson & McGavern, 1993). In this study, a student's previous achievement has several layers of effect on academic dishonesty. First, students are more likely to have a strict definition of cheating if they are high-achieving students. Second, students with higher GPAs in the previous year are less likely to admit that they cheat, less likely to admit that they often cheat and multiple objects. Nevertheless, a student's GPA does not affect how the student reacts or feels about cheating.

Holding Leadership Positions in the Classroom

Since this variable is specific to Vietnam, there are no existing studies that can help to support this analysis. Nevertheless, similar to how we can explain the differences of students from higher social classes who engage in cheating, Social Bond Theory can help us to explain that students in a leadership role are more likely to accept society's norms and follow orders. Nevertheless, because Bourdieu's (1984) social concepts of "social field" and "power" can also play an essential and significant value in explaining this variable's relationship. In particular, in this study, "social field" refers to the classroom where the competition between students exists, and "power" refers to the advantages that students in leadership roles often hold. The "agents" in this field are the students. However, as Bourdieu described, this social field is very "hierarchical" in which the agent with power often produces and reproduces the habitus that helps them maintain their power.

Further translating the theories into context, while examining Vietnamese students and academic dishonesty, this study shows that students who hold at least one leadership position in the classroom are more likely to be the "rule-followers," the group of students who have the strictest definition of cheating. Second, they are more likely to report when they witness that

their classmates cheat. Lastly, they are less likely to admit that they have previously cheated before as well.

6.3 Classrooms' Characteristics and Academic Dishonesty

Hierarchical Structure

Related to how students with leadership roles can relate to students, I would argue that the hierarchical classroom structure in Vietnam is related to the frequency of engagement in cheating that we previously saw in section 6.2. For many students, cheating is a form of challenging the status quo, unfortunately, with the cause of sacrifice their moral values. Evidence from the findings suggests that students without leadership roles are more likely to hold a rebellious definition of cheating. Still, even when the students hold moderate or strict definitions, students are more likely to cheat than students who hold leadership roles in the classrooms. Their open-ended answers also pointed out that students who do not have leadership roles often express their frustration with the mismatching between their personal goals of education and what the current Vietnamese system provides. Nevertheless, because all schools and classrooms in this study have this hierarchical structure, unfortunately, no comparison group/variable in this study can help examine the effect of this structure on academic dishonesty. Therefore, a comparative study comparing classrooms in Vietnam and other countries would be crucial to explore this relationship more comprehensively in the future.

Classroom Climate

Classroom climate also plays an essential role in explaining how students engage in cheating. Often, the class that values hard work over achievement has fewer students who confessed they cheat, cheated frequently, and cheated in multiple subjects. This finding highlights the importance of studying dishonesty through the lens of sociology, which examines

more than the individual's "rebellious nature" that makes them cheat. This study finds that the competitive culture that focuses on achievement can also affect and pressure students to cheat. The results suggest that the effect of classroom climate on students' decisions to cheat varies between different subjects. For example, a classroom climate that values diligence also affects how the students engage in cheating in Foreign Language and Literature. However, such an effect is not significant for Mathematics and Science.

Findings from all research questions restate the significance of a classroom climate that values diligence for mitigating cheating. It reconfirmed the potential consequence of the classroom climate that promotes obtaining the results (i.e., higher grades) without placing value on the process and the hard work required to obtain the achievements (e.g., Kirkpatrick & Zang, 2011, Yang et al., 2013). I also found that if a classroom is more competitive and high-performing, the students are more likely to be the "rule-followers" with a stricter definition of cheating. Subsequently, these students are also more likely to report classmates, and have a negative attitude towards cheating. However, students from a competitive classroom environment are more likely to cheat. They are more likely to cheat more frequently and in more subjects.

Along with the students' voices reported in Section 5.7 above, social strain theory developed by Merton (1996b) explains why classroom climate and academic dishonesty are an important relationship to study. Students will cheat as they feel strained between achieving good grades and the means to attain those goals. As the Vietnamese students explained in their open-ended questions, many of them actually feel negative towards cheating. However, even though they think negatively and have a strict definition of cheating, the pressures to achieve good grades make them cheat often, cheat early (starting since 6th grade), and cheat in multiple

subjects. The “strain” here can also be interpreted as the morality or moral dispositions of the students (self-identifying and acknowledging that some behavior is unethical) and the desire to achieve institutional/societal goals, which put high emphasis on achievement in standardized tests and obtaining good transcripts.

Types of school

There are two main types of schools included in this study. There are 11 schools in this study, of which 4 are private schools, and 7 are public schools, in which 3 are specialized/gifted high schools and 4 are regular high schools. However, after controlling for other variables, especially classroom average achievement and a social-economic class of the students, the effect of the type of school is no longer significant in this study. The study also runs several models where schools were broken into more types: international private school, a private school that teaches Vietnamese curriculum, public school, and gifted public high school. Nevertheless, the effect for this variable remains insignificant. Perhaps, the problem of cheating in school was so ubiquitous that there is no or minimal variance between the type of schools. In other words, the insignificant of this variable can be explained by the fact that no matter what types of school, cheating occurs frequently in all types. However, in future research, adding more schools, subsequently having more classrooms in the sample would allow us to shed more light on how different schools correlated with academic dishonesty.

Presence of Honor Codes

Previous research proposed that academic dishonesty is lower in a “code-environment” – where schools have a system of honor code implemented (e.g., Bowers, 1964; Engler et al., 2008; McCabe et al, 1999). Generally, an honor code environment allows students to play an active role on the campus judicial system. Students are expected to hold each other accountable

for the norms and policy (Trevino & McCabe, 1994). Nevertheless, McCabe et al. (2005) also observed that students in both non-code and code environments showed a minimal chance that they would report academic dishonesty incidents if they witnessed one. Since no school in the sample had a written honor code, the variable was not included as there are no differences between the school. Nevertheless, the presence of honor codes should be carefully studied in future research.

6.4 Academic Dishonesty as a Social Process

In this section, based on the findings in chapter 5, I first revisit the illustration of academic dishonesty as a social process and further discuss why it is important to study this topic from the sociological perspective. Last but not least, the concept of “collective consciousness” by Durkheim and Lukes (2014) is discussed regarding the connection between the findings of all three research questions.

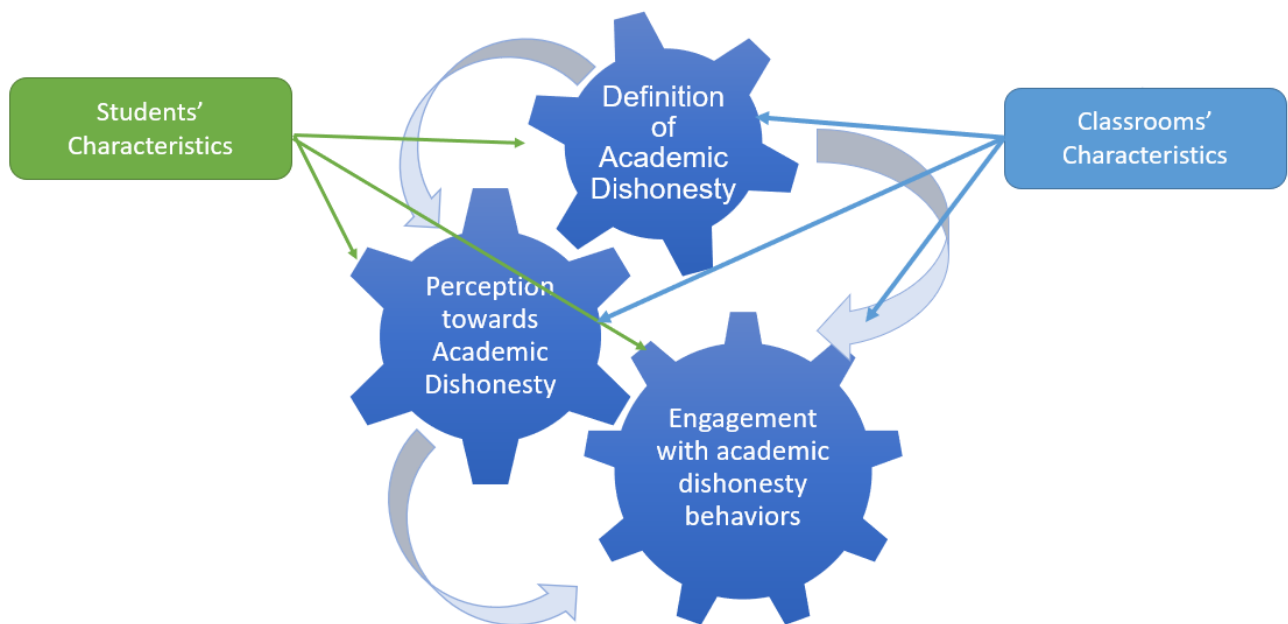


Figure 6.1: Academic Dishonesty as a Social Process

I revisit Figure 1.1 and further examine my findings based on how different factors contributed to the process. The updated process is listed in Figure 6.1 above. First, as previously mentioned in sections 6.2 and 6.3 above, I added that the process is influenced by students' and classroom characteristics; I updated the figure by adding how student's characteristics and classroom characteristics directly influence each step of the process. Second, I updated the relationship of the three outcomes from our three research questions. In particular, from the second research question results, how students define cheating can help explain their attitudes toward cheating and how they react when they witness cheating in their classrooms. There is no doubt that a group of students often cheated because of their lenient definitions of cheating (direct effect). However, the relationship is a bit more complicated when I add more steps into the process. The second research question results show that how students define cheating affects how students feel and react to cheating. These perceptions later affected their decisions to engage in cheating. Therefore, in figure 6.1 below, I reflect how students' definition of cheating also has an indirect effect on student engagement because cheating can affect students' perceptions.

In this section, using Durkheim and Lukes's (2014) concepts of "collective consciousness," I also want to explain further how this process is applicable in the overall education system in Vietnam. According to Durkheim, social cohesion naturally includes sharing a collective consciousness by agreeing with certain norms, beliefs, or behaviors. Collective consciousness, in turn, binds individuals together and creates social integration. For Durkheim and Lukes, the collective consciousness was crucial in explaining the existence of society as it produces the society and holds it together. As previously mentioned in chapter 2, unlike schools in the US, Vietnam students stay in the same classroom all day, attend the same class with the same teachers, read the same textbooks, and do the same assignment. Durkheim and Lukes

(2014) suggests, in such environment, students tend to develop and express values and norms that tend to reinforce one another: “The solidarity that derives from similarities is at its maximum when the collective consciousness completely envelops our total consciousness, coinciding with it at every point.” (p.84)

There are two reasons for the crucial value of “collective consciousness” in understanding cheating as the social process. The first is directly related to the macro-level of collective consciousness. Society as a whole agrees upon certain purposes of education, creates ways to measure learning outcomes, and comes up with the definition of “cheating” in school. As Durkheim and Lukes (2014) once said: “An act is criminal when it offends strong and defined states of the collective consciousness. We must not say that an action shocks the common consciousness because it is criminal, but rather that it is criminal because it shocks the common consciousness. We do not reprove it because it is a crime. Still, it is a crime because we reprove it” (p.81). Applying their concept to this study, if the Vietnamese education system measures learning by one’s ability to memorize knowledge, then certainly one would feel “shocked” when students are allowed to open textbooks during the exam. This might offer insights into findings from the first research question in terms of (1) why students “bring outside materials in the exam” is counted as cheating in some contexts and not others, (2) why collaborating with your classmates is encouraged in one and prohibited in another context, and (3) why “copying” pieces and pieces of others’ work without citing it properly can get some students expelled in the United States but is not usually recognized as a “cheating” act in Vietnam.

Second, the concept of collective consciousness is helpful to explain the results from the second research question. Collective consciousness is produced through one’s actions and interactions in society. Therefore, it was reasonable that many Vietnamese students remained

silent because they wanted to feel they belonged to their classroom environment. Even though they might not have cheated themselves, however, remaining silent can unintentionally generate the consensus in class that “cheating” might not be a problem after all. As a result, cheating becomes the “norm.” Therefore, even if the definition of cheating is created by teachers and administrators or education policymakers at the macro-level, I would argue that the definition of what may count as cheating is ultimately in the students’ hands. Their decision to cheat depends on how they define cheating, but also, when students witness their classmates cheat, their decision to report a cheating incident or remain silent depends a lot on what they perceive as the “norm.” As my results suggest, even though the students all know what cheating is and the consequences of doing so, almost half of the students decided to keep silent and “protect” one another from getting caught by teachers.

6.5 Chapter Summary

In this chapter, the findings of the three research questions were first integrated, and the way they relate to one another as illustrated. The effects of the independent variables on the three outcomes are also summarized. The chapter then follows with how the social theories of deviance can explain the findings. For instance, the Differential Association Theory suggested that students from the classroom who value diligence over achievement are more likely to cheat. The Social Strain Theory developed by Merton (1996b) explained that in the education context, as one of the mechanisms against strain, students will cheat as they feel strained between achieving good grades and the means to attain those goals. Last but not least, the chapter closes with the updated version of how we can view academic dishonesty in Vietnam as a social process.

Chapter 7: Conclusion

In this last chapter, I discuss the study's limitations are discussed, make recommendations for further research, and propose policy recommendations that can help the schools reduce the cheating frequency in the classroom. I conclude the chapter with a summary of the dissertation.

7.1 Limitations of the Study

Given the use of survey research and the statistical methods used in this analysis, one of the most significant limitations of the study is generalizability. Since experimental research on academic dishonesty, especially in countries such as Vietnam, was scarce, this research should be treated as exploratory, guiding investigations of future studies. It should not be used to draw causal conclusions. As discussed in the Method and the Result Section, another limitation for the first research question is that it did not use the most current LCA practice – the 3-step BCH. Nevertheless, given that the percentages of misclassification cases are less than 5% for all groups, this classify-analyze approach would not be different from the 3-step BCH approach. Another limitation is potential measurement error and validity in measuring academic dishonesty. Given the possibility of social desirability bias, assessing actual levels of cheating is particularly challenging to measure because participants often provide unclear images of themselves to researchers (e.g., Bernardi & LaCross, 2004). Last but not least, although the study results provided great insight into the practice of academic dishonesty among many high schools in Vietnam, it can be improved if it were conducted over a more extended period and more geographically diverse.

7.2 Recommendations for Further Research

There is limited research on academic dishonesty conducted in developing countries and in K-12 educational settings. The following are recommendations for further research:

1. Research that examines the interactions between the subjects and types of assignments through which learners are engaged in academic dishonesty would be beneficial to understand the result of this research and figure out what triggers the behavior. In this study, I did not have the data on the frequency that the students cheated in each subject. However, if the data were available, further examination of academic dishonesty on the individual majors/courses/subjects would be beneficial. A follow-up qualitative study would also provide a new perspective on why the students only decide to cheat on specific subjects and not others.

2. Academic dishonesty is a broad topic and encompasses many factors. Although technology has not been widely adopted in Vietnam since COVID-19, there is a push for integrating collaborating computer-based lessons into the curriculum. It would be interesting to conduct the same study this year to see how the frequency of cheating may have changed with the new adaptation of technology and virtual/online-test. The new learning model also may have a potential effect on the classroom climate and structure, which from the result found in this study can significantly affect cheating behaviors as well. With the increased emphasis on distance learning and online classes, the role of academic dishonesty in this new learning environment is an area for further research, not only in Vietnam but worldwide as well.

3. The role of a school honor code is another topic for consideration. Because written documented honor codes were not available in any of the schools in this sample, it was not included in any statistical models. Nevertheless, the adoption of effective honor codes previously used may effectively respond to academic dishonesty (McCabe et al., 2012). Moreover, align to

the new mode of instruction and testing since COVID-19, the “honor code” would potentially be included in certain schools/classrooms. Therefore, a follow-up study on the creation, implementation and enforcement of honor codes at the high school level in Vietnam may add insight into how to deter cheating.

4. Research that examines teachers’ involvement with academic dishonesty would greatly benefit the educational community and the population. In this study, there are many interesting findings in the teacher’s interviews. For example, some teachers voiced out their opinions on their own pressure to cover cheating incidents in their class, or many teachers expressed sympathy with their students and the pressure that they had to bear. Interestingly enough, the subject that the teachers taught also seems to influence their response and reaction to cheating incidents in their class as well. Teachers who taught math and science seem to have more concern with cheating incidents; however, teachers who taught social science and literature expressed more sympathy with the students in the short interview. Nevertheless, these findings are not merged and included in this research. In the future, perhaps it would be interesting to include teachers’ variables and examine how they affect classroom climate and classroom climate, as well as their attitudes towards cheating.

5. As previously mentioned in the discussion section, another way to further extend this research is to conduct a better systematic study when we examine: how their definition of cheating changes if the student admits that they once engaged in cheating. This study would result in a close-loop analysis, thus, would lead us to understand academic dishonesty as a process more comprehensively.

6. Last but not least, further exploration of the open-ended questions, as well as additional interviews and qualitative research, would provide a deeper and more comprehensive

understanding of why students cheat in the first place, why they often cheat, and why they only select to cheat in certain subjects. The results of the quantitative analysis included in this study would be a steppingstone to enhance the findings of the qualitative analysis in the future.

It is worth noting that: these recommendations are just some of the areas for consideration for further research in this field. There is a tremendous need for further research to assist school administrators in understanding academic dishonesty at all levels of education

7.3 Policy Recommendation

There are two main lines of policy recommendation that I would like to bring up: one at the national policy level and the other lines in the local school or classroom level. Vietnam has achieved high achievement and ranking in all subjects in PISA 2012 and PISA 2015 (Glewwe et al, 2017). In the latest round of PISA in 2018, the country results are not included in the overall ranking because “the international comparability of Viet Nam’s performance in reading, mathematics, and science could not be fully ensured” (OECD, 2019), the achievement in all three subjects remained very high. Nevertheless, at the national level, the result of this study calls for a better policy and procedure that can measure success that goes beyond taking tests and comparing achievement scores. As expressed by many students, the alarming frequency and the normalization of cheating incidents that happened in Vietnamese high school is the unintended consequence of the constant pressure of success. From PISA 2018 student survey, 67% agreed or strongly agreed that they worry about what others think of them when they fail (compared to the OECD average: 56% of students). In addition, girls expressed greater fear of failure than boys, and this gender gap was wider amongst top-performing students (OECD, 2019). The results of cheating frequency in different subjects also aligned on Yong Zhao (2018)’s book “What Works

May Hurt,” where she described how students in China and other East Asian countries only spend more time studying to pass exams on the subjects that “matter”:

They don’t waste time on other subjects if they are not counted as part of admission to college. Because it is passing the exams that ultimately matters, they don’t even care about the content and skills in specific subjects if they are not assessed on the exams... They do not bother with actual understanding of the materials as long as they can give back the correct answers. (p.66)

Similar to China, it would be a surprise that Vietnam does not rank high in PISA, where OECD only tested students on math, science, and reading. While the country celebrates its high achievement and recognition internationally on PISA, it reinforces and approves the testing culture and focuses on achievement. Nevertheless, this high ranking may come with many sides effect. In addition to the loss of students’ confidence and interest on learning, the loss of creativity, the student’s mental health (Zhao, 2018), perhaps another side effect of the testing culture in Vietnam and other East Asian countries would be the normalization of cheating among of students. Thus, policymakers at the national level need to consider whether the achievements on this international assessment would outweigh these side effects.

At the local administrative level, given the lack of written honor codes in Vietnam, the first suggestion is to implement and enforce an honor code in Vietnamese High Schools and have more conversations about academic dishonesty within schools. Defining what is and is not academic dishonesty and clearly defining the consequences for violations are steps in addressing academic dishonesty at the school level. Forming an academic integrity policy or honor code committee to review current policies and procedures and monitoring implementation is a possible strategy to address issues. Additionally, at the classroom level, teachers should also

educate students about what constitutes cheating and why it would help students to eliminate the most common forms of cheating. Specifically, establishing classroom guidelines on when collaboration is permitted on assignments and avoiding plagiarism could be helpful strategies (McCabe et al., 2012).

There are several strategies to encourage a classroom's goal to focus on more than achievements and grade evaluations. For example, schools should minimize the publicized grade (which, to my surprise, is a common practice in Vietnam). Keeping the students' grades private can help reduce unnecessary comparisons and competitiveness between students and promote a more collaborative environment... In this study, we also found that promoting a classroom climate that values diligence can help reduce cheating frequency. Besides, practices, programs, orientations, and interventions can focus on modifying achievement motivation to decrease academic dishonesty. Schools can also identify what preventive measures can be taken within the classroom to deter cheating, such as using technology to verify the authenticity of students' work. For instance, new student orientations can help students gain more profound content knowledge and effective learning strategies, thereby increasing self-efficacy, which may decrease academic dishonesty (Pintrich & De Groot, 1990).

7.4 Dissertation Summary

Academic dishonesty is associated with negative consequences, namely, restricting the goals of educational institutions to cultivate students' intellectual, emotional, and civic development. It obstructs students' engagement in the learning experience and impedes their development of positive values such as integrity and fairness (Boehm et al., 2009). There are also institutional and societal implications as students receive credentials illegitimately (Gulli et al., 2007). Furthermore, a small act of dishonesty, such as cheating on assignments, can

escalate to more significant acts of dishonesty later on (Garret et al., 2016). Ariely (2012) argued that dishonest behaviors could lead to much more significant societal damage.

Research on academic dishonesty has consistently been proven to harm the learning process and the student's long-term development. Nevertheless, there is very little research that explores "cheating" from students' perspectives or the role of peer groups in the proliferation or reduction of cheating cultures. Academic dishonesty has always been an essential subject to study. Still, it is even more crucial today to explore this issue in Western contexts and Eastern countries such as Vietnam. This study investigated academic dishonesty at the high school level to better understand this critical issue. The research literature is clear that cheating is a common occurrence in our nation's schools and that it starts, for most students, at the high school level or earlier (Bowers, 1964; McCabe et al., 2012). Therefore, this research focuses on Vietnamese students in 11th grade and how they define, react, and engage with academic dishonesty. This study seeks to fill the gap using a quantitative research design that draws on a sample of 1000 high school students in five provinces of Vietnam to understand: (1) How do Vietnamese high school students define "academic dishonesty"? (2) To what extent do personal and contextual factors influence the students' attitude toward cheating? and (3) How the difference between the definition of cheating and student's attitude affects student decision to engage in cheating?

The first research question shows that Vietnamese students have very different perspectives on what is regarded as cheating in school. First, in general, the definition of cheating is highly diverse. It depends a lot on where it happens and who is involved, not just on the action. In the second research question, the students' opinions about cheating are first divided into two categories: how they feel towards cheating and how they react when they witness cheating. In both incidents, we can see that the interaction between group membership and

gender and the achievement gap do not affect students' reactions or attitudes towards cheating. However, this study found that students' definitions of cheating are the strongest among all the variables included in this study and are most likely to affect students' opinions about cheating. Other factors such as parental highest education level, leadership position in class, overall classroom achievement, and classroom climate focus on diligence affect students' reactions. In the third research question, I examined how students' cheating definitions, reactions, and feelings about cheating could affect their engagement. Often, the class that values hard work over achievement has fewer students who confess that they cheat, cheat frequently, and cheat in multiple subjects. This finding highlights the importance of studying dishonesty through the lens of sociology. While many types of research have examined various factors related to student cheating, it is essential to understand the students' rationale behind their decisions to decrease the incidence of cheating. This study provided insights into what students think about cheating and how students are influenced to cheat. It is essential to give students the chance to express their views.

References

- Ackroyd, S., & Thompson, P. (1999). *Organizational misbehavior*. London: Routledge
- Anand, V, Ashforth, B. E., & Joshi, M. (2005). Business as usual: The acceptance and perpetuation of corruption in organizations. *Academy of Management Executive*, 19, 9–23.
- Anderman, E. M., & Midgley, C. (1997). Changes in achievement goal orientations, perceived academic competence, and grades across the transition to middle-level schools. *Contemporary Educational Psychology*, 22, 269-298.
- Andreoli, N., & Lefkowitz, J. (2009). Individual and organizational antecedents of misconduct in organizations. *Journal of Business Ethics*, 85(3), 309-332.
- Ashforth, B. E., & Anand, V. (2003). The normalization of corruption in organizations. *Research in organizational behavior*, 25, 1-52.
- Ashworth, P., Bannister, P., Thorne, P. (1997). Guilty in whose eyes? university students' perceptions of cheating and plagiarism in academic work and assessment. *Studies in Higher Education*, 22(2), 187-203. doi:10.1080/03075079712331381034
- Appelbaum, S. H., Iaconi, G. D., & Matousek, A. (2007). Positive and negative deviant workplace behaviors: causes, impacts, and solutions. *Corporate Governance: The international journal of business in society*, 7(5), 586-598.
- Ariely, D. (2012). *The honest truth about dishonesty: How we lie to everyone—especially ourselves*. New York: Harper.
- BBC- Về vụ Bộ trưởng Nhạ bị tố cáo 'đạo văn'. (2018, March 01). Retrieved from <http://www.bbc.com/vietnamese/vietnam-43193993>
- Bernardi, R. A., & LaCross, C. C. (2004). Data contamination by social desirability response bias in research on students cheating behavior. *Journal of College Teaching & Learning (TLC)*, 1(8).
- Bernardi, R. A., Metzger, R. L., Bruno, R. G. S., Hoogkamp, M. A. W., Reyes, L. E., & Barnaby, G. H. (2014). Examining the decision process of students' cheating behavior: An empirical study. *Journal of Business Ethics*, 50(4), 397-414.
- Bichler, G., & Tibbetts, S. G. (2003). Conditional covariation of binge drinking with predictors of college students' cheating. *Psychological Reports*, 93(3), 735-749.
- Bonjean, C. M., & McGee, R. (1965). Scholastic Dishonesty Among Undergraduates in differing Systems of Social Control. *Sociology of Education*, 38(2), 127-137.

- Borsari, B., & Carey, K. B. (2001). Peer influences on college drinking: A review of the research. *Journal of substance abuse, 13*(4), 391-424.
- Brown, T. A., & Moore, M. T. (2012). Confirmatory factor analysis. *Handbook of structural equation modeling, 361-379*.
- Bourdieu, Pierre (1984). *Distinction: a social critique of the judgement of taste*. London: Routledge.
- Bowers, W. J., & United States. Office of Education. (1964). Student dishonesty and its control in college. New York: Bureau of Applied Social Research, Columbia University.
- Boehm, P., Justice, M., & Weeks, S. (2009). Promoting academic integrity in higher education. *Community College Enterprise, 15* (1), 45-61.
- Bui, T., Nguyen, T. T. T., & Nguyen, A. D. (2018). Vietnamese higher education language planning and university students' career development. *English Tertiary Education in Vietnam* (pp. 54-67). Routledge.
- Burrus, R. T., McGoldrick, K., & Schuhmann, P. W. (2007). Self-reports of student cheating: Does a definition of cheating matter? *The Journal of Economic Education, 38*(1), 3-16.
- Bulutlar, F., & Öz, E. Ü. (2009). The effects of ethical climates on bullying behavior in the workplace. *Journal of Business ethics, 86*(3), 273-295.
- Clinard, M. B., & Meier, R. F. (2015). *Sociology of deviant behavior*. Cengage Learning.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Coleman, J. W., & Ramos, L. L. (1998). Subcultures and deviant behavior in the organizational context. *Research in the Sociology of Organizations, 15*, 3-34.
- Cronan, T. P., Mullins, J. K., & Douglas, D. E. (2018). Further understanding factors that explain freshman business students' academic integrity intention and behavior: Plagiarism and sharing homework. *Journal of Business Ethics, 147*(1), 197-220.
- Davis, S. F., Drinan, P. F., & Gallant, T. B. (2011). *Cheating in school: What we know and what we can do*. John Wiley & Sons.
- Davy, J. A., Kincaid, J. F., Smith, K. J., & Trawick, M. A. (2007). An examination of the role of attitudinal characteristics and motivation on the cheating behavior of business students. *Ethics & Behavior, 17*(3), 281-302.
- Deetz, S. (1996). Describing differences in approaches to organizational science: Rethinking Burrell and Morgan and their legacy. *Organization Science, 7*, 191-207.

- De Bruin, G. P., & Rudnick, H. (2007). Examining the cheats: The role of conscientiousness and excitement seeking in academic dishonesty. *South African Journal of Psychology*, 37(1), 153-164.
- Dewey, J. (1997). *How we think*. Courier Corporation.
- Duncan, G. J., Boisjoly, J., Kremer, M., Levy, D. M., & Eccles, J. (2005). Peer effects in drug use and sex among college students. *Journal of abnormal child psychology*, 33(3), 375-385.
- Durkheim, E., & Lukes, S. (2014). *The Division of Labor in Society*. Amsterdam University Press
- Dziak, J. J., Lanza, S. T., & Tan, X. (2014). Effect size, statistical power, and sample size requirements for the bootstrap likelihood ratio test in latent class analysis. *Structural equation modeling: a multidisciplinary journal*, 21(4), 534-552.
- Elias, R. Z. (2009). The impact of anti-intellectualism attitudes and academic self-efficacy on business students' perceptions of cheating. *Journal of Business Ethics*, 86, 199-209.
- Engler, J. N., Landau, J. D., & Epstein, M. (2008). Keeping up with the Joneses: Students' perceptions of academically dishonest behavior. *Teaching of Psychology*, 35(2), 99-102.
- Finn, K. V., & Frone, M. R. (2004). Academic performance and cheating: Moderating role of school identification and self-efficacy. *The journal of educational research*, 97(3), 115-121.
- Garrett, N., Lazzaro, S. C., Sharot, T., & Ariely, D. (2016). The brain adapts to dishonesty. *Nature Neuroscience*, 19 (12), 1727-1732.
- Goh, Y. M., Love, P.E.D, Brown, H., & Spickett, J. (2012). Organizational accidents: A systemic model of production versus protection. *Journal of Management Studies*, 49, 52-76.
- Glewwe, P., Lee, J., Vu, K., & Dang, H. A. (2017). What explains Vietnam's exceptional performance in education relative to other countries? Analysis of the 2012 PISA data. In RISE annual conference, center for global development, Washington, DC, June (p. 15-16).
- Grimes, P. W., & Rezek, J. P. (2005). The determinants of cheating by high school economics students: a comparative study of academic dishonesty in the transitional economies. *International Review of Economics Education*, 4(2), 23-45.
- Gulli, C., Kohler, N., & Patriquin, M. (2007). The great university cheating scandal. *Maclean's*, 120 (5), 32-36.

- Gullifer, J. M., & Tyson, G. A. (2014). Who has read the policy on plagiarism? Unpacking students' understanding of plagiarism. *Studies in Higher Education, 39*(7), 1202-1218.
- Hagenaars, J. A., & McCutcheon, A. L. (Eds.). (2002). *Applied latent class analysis*. Cambridge University Press.
- Hanushek, E. A., Kain, J. F., Markman, J. M., & Rivkin, S. G. (2003). Does peer ability affect student achievement?. *Journal of applied econometrics, 18*(5), 527-544.
- Heck, R. H., Thomas, S. L., & Tabata, L. N. (2013). *Multilevel and longitudinal modeling with IBM SPSS*. Routledge.
- Hayden, M., & Thiep, L. Q. (2007). Institutional autonomy for higher education in Vietnam. *Higher Education Research & Development, 26*(1), 73-85.
- Heck, R. H., Thomas, S. L., & Tabata, L. N. (2013). *Multilevel and longitudinal modeling with IBM SPSS*. Routledge.
- Higbee, J. L., & Thomas, P. V. (2002). Student and faculty perceptions of behaviors that constitute cheating. *NASPA journal, 40*(1), 39-52.
- Hirschi, T. (1969). *Causes of delinquency*. Berkeley: University of California Press.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research, 15*(9), 1277-1288.
- Jones, E. I., Afkhami, M. E., Akçay, E., Bronstein, J. L., Bshary, R., Frederickson, M. E., ... & Porter, S. S. (2015). Cheaters must prosper: reconciling theoretical and empirical perspectives on cheating in mutualism. *Ecology letters, 18*(11), 1270-1284.
- Kaptein, M. (2011). Understanding unethical behavior by unraveling ethical culture. *Human relations, 64*(6), 843-869.
- Klein, H. A., Levenburg, N. M., McKendall, M., & Mothersell, W. (2007). Cheating during the college years: How do business school students compare? *Journal of Business Ethics, 72*(2), 197-206.
- Kish-Gephart, J. J., Harrison, D. A., & Treviño, L. K. (2010). Bad apples, bad cases, and bad barrels: meta-analytic evidence about sources of unethical decisions at work.
- Kirkpatrick, R., & Zang, Y. (2011). The negative influences of exam-oriented education on Chinese high school students: Backwash from classroom to child. *Language testing in Asia, 1*(3), 1-10.
- Kliucharev, G., & Muckle, J. (2005). Ethical values in Russian education today: A moral maze. *Journal of Moral Education, 34*(4), 465-477.

- Kobayashi, E., & Fukushima, M. (2012). Gender, social bond, and academic cheating in Japan. *Sociological Inquiry*, 82(2), 282-304.
- Krou, M. R., Acee, T. W., Pino, N. W., & Hoff, M. A. (2019). Rationalizing the decision to cheat: An empirical analysis to determine whether social rational orientation can predict academic dishonesty. *Journal of College and Character*, 20(1), 9-24.
- Küçüktepe, S. E. (2014). College Students Cheating Behaviors. *Social Behavior and Personality*, 42, 101-111.
- Kwong, T., Ng, H. M., Mark, K. P., & Wong, E. (2010). Students' and faculty's perception of academic integrity in Hong Kong. *Campus-Wide Information Systems*, 27(5), 341-355.
- Lin, C. S., & Wen, L. M. (2007). Academic dishonesty in higher education: A nationwide study in taiwan. *Higher Education*, 54(1), 85-97. doi:10.1007/s10734-006-9047-z
- Linstead, S., Maréchal, G., & Griffin, R. W. (2014). Theorizing and researching the dark side of organization. *Organization Studies*, 35(2), 165-188.
- Lipson, A., & McGavern, N. (1993). Undergraduate Academic Dishonesty at MIT. Results of a Study of Attitudes and Behavior of Undergraduates, Faculty, and Graduate Teaching Assistants.
- Lupton, R. A., & Chaqman, K. J. (2002). Russian and American college students' attitudes, perceptions and tendencies towards cheating. *Educational Research*, 44(1), 17-27.
- Ma, Y., McCabe, D. L., & Liu, R. (2013). Students' Academic cheating in Chinese universities: prevalence, influencing factors, and proposed action. *Journal of Academic Ethics*, 11(3), 169-184.
- Marsden, H., Carroll, M., & Neill, J. T. (2005). Who cheats at university? A self-report study of dishonest academic behaviours in a sample of Australian university students. *Australian Journal of Psychology*, 57(1), 1-10.
- Mateju, P., & Smith, M. L. (2015). Are boys that bad? Gender gaps in measured skills, grades and aspirations in Czech elementary schools. *British Journal of Sociology of Education*, 36(6), 871-895.
- McCabe, D. L., & Trevino, L. K. (1993). Academic dishonesty: Honor codes and other contextual influences. *The journal of higher education*, 64(5), 522-538.
- McCabe, D. L., & Trevino, L. K. (1995). Cheating among business students: A challenge for business leaders and educators. *Journal of Management Education*, 19(2), 205-218.
- McCabe, D., & Trevino, L. (1997). Individual and contextual influences on academic dishonesty: A multicampus investigation. *Research in Higher Education*, 38 (3), 379-396.

- McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (1999). Academic integrity in honor code and non-honor code environments: A qualitative investigation. *The Journal of Higher Education*, 70(2), 211-234.
- McCabe, D. L., Treviño, L. K., & Butterfield, K. D. (2001). Cheating in academic institutions: A decade of research. *Ethics & Behavior*, 11(3), 219-232.
- McCabe, D., & Trevino, L. K. (2002). Honesty and honor codes. *Academe*, 88(1), 37.
- McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (2002). Honor codes and other contextual influences on academic integrity: A replication and extension to modified honor code settings. *Research in higher Education*, 43(3), 357-378.
- McCabe, D. L., Butterfield, K. D., & Trevino, L. K. (2003). Faculty and academic integrity: The influence of current honor codes and past honor code experiences. *Research in Higher Education*, 44(3), 367-385.
- McCabe, D. L., Butterfield, K. D., & Trevino, L. K. (2005). Academic dishonesty in graduate business programs: Prevalence, causes, and proposed action. *Academy of Management Learning & Education*, 5(3), 294-305.
- McCabe, D. L., Treviño, L. K., Butterfield, K. D., & ProQuest (Firm). (2012). *Cheating in college: Why students do it and what educators can do about it*. Baltimore: Johns Hopkins University Press.
- Michaels, J. W., & Miethe, T. (1989). Applying theories of deviance to academic cheating. *Social Science Quarterly*, 70(4), 870.
- Milner IV, H. R. (2007). Race, culture, and researcher positionality: Working through dangers seen, unseen, and unforeseen. *Educational researcher*, 36(7), 388-400.
- Ministry of Education and Training. (2005). *Functions and Task*. <https://en.moet.gov.vn/reports-and-statistics/Pages/Sectoral-staticstics.aspx?ItemID=3923>
- Ministry of Education and Training. (2016). *So lieu thong ke giao duc*. Moet.vn. Retrieved from <https://moet.gov.vn/thong-ke/Pages/Thong-ke-giao-duc-trung-hoc.aspx>
- Ministry of Education and Training. (2020). *Statistics of Vietnam Education and Training 2018*. <https://en.moet.gov.vn/reports-and-statistics/Pages/Sectoral-staticstics.aspx?ItemID=3923>
- Megehee, C. M., & Spake, D. F. (2008). The impact of perceived peer behavior, probable detection and punishment severity on student cheating behavior. *Marketing Education Review*, 18(2), 5-19.
- Merton, R. K. (1996a). Opportunity structure. In P. Sztompka (Ed.), *Robert K. Merton: On social structure and science* (pp. 153-161). Chicago: The University of Chicago Press.

- Merton, R. K. (1996b). Social structure and anomie. In P. Sztompka (Ed.), *Robert K. Merton: On social structure and science* (pp. 132-152). Chicago: The University of Chicago Press.
- Murdock, T. B., Hale, N. M., & Weber, M. J. (2001). Predictors of cheating among early adolescents: Academic and social motivations. *Contemporary Educational Psychology, 26*, 96-115.
- Mustaine, E. E., & Tewksbury, R. (2005). Southern college students' cheating behaviors: An examination of problem behavior correlates. *Deviant Behavior, 26*(5), 439-461.
- Nathanson, C., Paulhus, D. L., & Williams, K. M. (2006). Predictors of a behavioral measure of scholastic cheating: Personality and competence but not demographics. *Contemporary Educational Psychology, 31*(1), 97-122.
- Nowell, C., & Laufer, D. (1997). Undergraduate student cheating in the fields of business and economics. *The Journal of Economic Education, 28*(1), 3-12.
- Nylund, K., Bellmore, A., Nishina, A., & Graham, S. (2007). Subtypes, severity, and structural stability of peer victimization: What does latent class analysis say?. *Child development, 78*(6), 1706-1722.
- Nylund-Gibson, K., & Choi, A. Y. (2018). Ten frequently asked questions about latent class analysis. *Translational Issues in Psychological Science, 4*(4), 440-461.
doi:10.1037/tps0000176
- Nylund-Gibson, K., Grimm, R. P., & Masyn, K. E. (2019). Prediction from Latent Classes: A Demonstration of Different Approaches to Include Distal Outcomes in Mixture Models. *Structural Equation Modeling: A Multidisciplinary Journal, 26*(6), 967-985.
doi:10.1080/10705511.2019.1590146
- Nylund-Gibson, K., & Masyn, K. E. (2016). Covariates and mixture modeling: Results of a simulation study exploring the impact of misspecified effects on class enumeration. *Structural Equation Modeling: A Multidisciplinary Journal, 23*(6), 782-797.
- O'Brien, T. L., & Noy, S. (2015). Traditional, modern, and post-secular perspectives on science and religion in the United States. *American Sociological Review, 80*(1), 92-115.
- O'Dwyer, L. M., & Parker, C. E. (2014). A Primer for Analyzing Nested Data: Multilevel Modeling in SPSS Using an Example from a REL Study. REL 2015-046. *Regional Educational Laboratory Northeast & Islands*.
- OECD (2019). Programme for International Student Assessment (PISA) Result from PISA 2018- Country Note (Vietnam). Retrieved from https://www.oecd.org/pisa/publications/PISA2018_CN_VNM.pdf.

- Pavela, G. (1978). Judicial Review of Academic Decisionmaking After Horowitz. *NOLPE School Law Journal*, 8(1), 55-75.
- Pabian, P. (2015). Why 'cheating' research is wrong: New departures for the study of student copying in higher education. *Higher Education*, 69 (5), 809-821.
- Pincus, H. S., & Schmelkin, L. P. (2003). Faculty perceptions of academic dishonesty: A multidimensional scaling analysis. *The Journal of Higher Education*, 74(2), 196-209.
- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of educational psychology*, 82(1), 33.
- Pizmony-Levy, O. (2014). Back to the future on international assessments. *Quality Assurance in Education*, 22(4), 321-322.
- Rettinger, D. A., & Jordan, A. E. (2005). The relations among religion, motivation, and college cheating: A natural experiment. *Ethics & Behavior*, 15(2), 107-129.
- Risquez, A., O'Dwyer, M., & Ledwith, A. (2013). 'Thou shalt not plagiarise': from self-reported views to recognition and avoidance of plagiarism. *Assessment & Evaluation in Higher Education*, 38(1), 34-43.
- Saulsbury, M. D., Brown, U. J., Heyliger, S. O., & Beale, R. L. (2011). Effect of dispositional traits on pharmacy students' attitude toward cheating. *American Journal of Pharmaceutical Education*, 75(4).
- Sieben, S., & Lechner, C. M. (2019). Measuring cultural capital through the number of books in the household. *Measurement Instruments for the Social Sciences*, 1(1), 1-6.
- Smith, K. J., Davy, J. A., & Easterling, D. (2004). An examination of cheating and its antecedents among marketing and management majors. *Journal of Business Ethics*, 50(1), 63-80.
- Storch, E. A., & Storch, J. B. (2002). Fraternities, sororities, and academic dishonesty. *College Student Journal*, 36(2), 247-253.
- Sutfin, E. L., Reboussin, B. A., McCoy, T. P., & Wolfson, M. (2009). Are college student smokers really a homogeneous group? A latent class analysis of college student smokers. *Nicotine & Tobacco Research*.
- Tas, Y., & Tekkaya, C. (2010). Personal and contextual factors associated with students' cheating in science. *The journal of experimental education*, 78(4), 440-463.11(4), 444-454.

- Thorpe, M. F., Pittenger, D. J., & Reed, B. D. (1999). Cheating the researcher: A study of the relation between personality measures and self-reported cheating. *College Student Journal*, 33(1), 49-49.
- Tittle, C. R., & Rowe, A. R. (1973). Moral appeal, sanction threat, and deviance: An experimental test. *Social Problems*, 20(4), 488-498.
- Trevino, L. K., & McCabe, D. (1994). Meta-learning about business ethics: Building honorable business school communities. *Journal of Business Ethics*, 13(6), 405-416.
- Turnley, W. H., & Mudrack, P. (2008). The influence of ethics instruction, religiosity, and intelligence on cheating behavior. *Journal of Business Ethics*, 82(3), 557-571.
- Umphress, E. E., & Bingham, J. B. (2011). When employees do bad things for good reasons: Examining unethical pro-organizational behaviors. *Organization Science*, 22(3), 621-640.
- Vandehey, M., Diekhoff, G., & LaBeff, E. (2007). College cheating: A twenty-year follow-up and the addition of an honor code. *Journal of College Student Development*, 48(4), 468-480.
- Vardi, Y. (2001). The effects of organizational and ethical climates on misconduct at work. *Journal of Business ethics*, 29(4), 325-337.
- Vaughan, D. (1996). The Challenger launch decision: Risky culture, technology, and deviance at NASA.
- Vaughan, D. (1999). The dark side of organizations: Mistake, misconduct, and disaster. *Annual review of sociology*, 25(1), 271-305.
- Vaughan, D. (2006). NASA revisited: Theory, analogy, and public sociology. *American Journal of Sociology*, 112(2), 353-393.
- Wang, J., Li, Q., & Luo, Y. (2020). Physics Identity of Chinese Students Before and After Gaokao: the Effect of High-Stake Testing. *Research in Science Education*, 1-15.
- Watkins, M. W. (2020). *A step-by-step guide to exploratory factor analysis with R and RStudio*. Routledge.
- Weick, K. E., & Sutcliffe, K. M. (2003). Hospitals as cultures of entrapment: a re-analysis of the Bristol Royal Infirmary. *California Management Review*, 45(2), 73-84.
- Williams, K., Nathanson, C., & Paulhus, D. (2010). Identifying and profiling scholastic cheaters: their personality, cognitive ability, and motivation. *Journal of Experimental Psychology*, 16, 293-307.
- Whitley, B. E. (2001). Gender differences in affective responses to having cheated: The

- mediating role of attitudes. *Ethics & Behavior*, 11(3), 249-259. Williams, A. E., & Janosik, S. M. (2007). An examination of academic dishonesty among sorority and nonsorority women. *Journal of College Student Development*, 48(6), 706-714.
- Whitley, B. E., Nelson, A. B., & Jones, C. J. (1999). Gender differences in cheating attitudes and classroom cheating behavior: A meta-analysis. *Sex Roles*, 41(9), 657-680.
- Whitley, B. E., & Keith-Spiegel, P. (2002). *Academic dishonesty: An educator's guide*. Mahwah, NJ, US: Lawrence Erlbaum Associates, Publishers.
- Wurpts, I. C., & Geiser, C. (2014). Is adding more indicators to a latent class analysis beneficial or detrimental? Results of a Monte-Carlo study. *Frontiers in psychology*, 5, 920.
- Yang, S. C., Huang, C-L., & Chen, A-S. (2013). An investigation of college students' perceptions of academic dishonesty, reasons for dishonesty, achievement goals, and willingness to report dishonest behavior. *Ethics & Behavior*, 23 (6), 501-522.
- Yazici, A., Yazici, S., & Erdem, M. S. (2011). Faculty and student perceptions on college cheating: Evidence from Turkey. *Educational Studies*, 37(2), 221-231.
- Yu, H., Glanzer, P. L., Sriram, R., Johnson, B. R., & Moore, B. (2017). What contributes to college students' cheating? A study of individual factors. *Ethics & Behavior*, 27 (5), 401-422.
- Zimny, S. T., Robertson, D. U., & Bartoszek, T. (2008). Academic and Personal Dishonesty in College Students. *North American journal of psychology*, 10(2).
- Zito, N. A., & McQuillan, P. J. (2010). "It's Not My Fault": Using Neutralization Theory to Understand Cheating by Middle School Students. *Current Issues in Education*, 13(3).
- Zhao, Y. (2018). *What works may hurt—Side effects in education*. Teachers College Press.

Appendix A – List of variables and information provided by the School

Principal/Teachers

1. Name of the school _____
2. Location of the school (District, City) _____
3. Total number of students: _____
4. Total number of 11th graders: _____
5. Is your school a Public or Private school? _____
6. Year of establishment: _____
7. Please indicate period that I can come and conduct the studies:

8. Additional requirements: _____

Appendix B – Assent Form for Minors

Teachers College, Columbia University
525 West 120th Street
New York NY 10027
212 678 3000

Assent Form for Minors

Protocol Title: Understanding Academic Dishonesty as Social Process

Principal Investigator: Linh Doan, Teachers College Columbia University –
doan@tc.columbia.edu

This study will focus on cheating in your school and your classroom. Your name will not be collected or reported under any circumstances. You can skip any question if you would like and if you have a question, you can ask the survey admin at any point.

I _____ (child’s name) agree to be in this study, titled _____.
What I am being asked to do has been explained to me by _____.
I understand what I am being asked to do and I know that if I have any questions, I can ask _____ at any time. I know that I can quit this study whenever I want to and it is perfectly OK to do so. It won’t be a problem for anyone if I decide to quit.

Name: _____

Signature: _____

Witness: _____ Date: _____

Investigator’s Verification of Explanation

I certify that I have carefully explained the purpose and nature of this research to _____ in age-appropriate language. He/she has the opportunity to discuss it with me and knows that they can stop participating at any time. I have answered all of their questions and this minor child has provided the affirmative agreement (assent) to participate in this research study.

Investigator’s Signature _____

Date _____

Appendix C- Parental Consent Form

Teachers College, Columbia University
525 West 120th Street
New York NY 10027
212 678 3000

PARENTAL PERMISSION FORM

Protocol Title: Understanding Academic Dishonesty as Social Process.

Principal Investigator: Linh Doan, PhD Candidate
Teachers College, Columbia University – New York, US
206-501-0310 doan@tc.columbia.edu

INTRODUCTION

Your child is being invited to participate in this research study called Understanding Academic Dishonesty as Social Process. Your child may qualify to take part in this research study because they are 11th graders at _____ High School.

Approximately 800 children will participate in this study and it will take approximately 1 hour of your child's time to complete.

WHY IS THIS STUDY BEING DONE?

This study is being done to understand high school students' definition of what counts as academic cheating in Vietnamese High School.

WHAT WILL MY CHILD BE ASKED TO DO IF I AGREE THAT MY CHILD CAN TAKE PART IN THIS STUDY?

If you decide to allow your child to take part in this study, your child will be asked to fill out a questionnaire about academic dishonesty in their classroom. Your child will also be asked to complete a survey where they will be asked to respond to questions about their home life and home learning.

The survey will be de-identified and will take about 1 hour to finish.

WHAT POSSIBLE RISKS OR DISCOMFORTS CAN MY CHILD EXPECT FROM TAKING PART IN THIS STUDY?

This is a minimal risk study, which means the harms or discomforts that your child may experience are not greater than your child would ordinarily encounter in daily life while taking routine physical or psychological examinations or tests. Your child might feel embarrassed to discuss problems about cheating or when asked about friendships. However, your child does not have to answer any questions or divulge anything they don't want to talk about. Your child can stop participating in the study at any time without penalty. You might feel concerned that things your child might say might get back to their teacher. The principal investigator is taking precautions to keep your child's information confidential and prevent anyone from discovering what they say or their identity, such as using a pseudonym instead of their name and keeping all information on a password protected computer and locked in a file drawer.

WHAT POSSIBLE BENEFITS CAN MY CHILD EXPECT FROM TAKING PART IN THIS STUDY?

There no direct benefit to your child for participating in this study.

WILL MY CHILD BE PAID FOR BEING IN THIS STUDY?

Your child will not be paid to participate. There are no costs to you for your child’s taking part in this study.

WHEN IS THE STUDY OVER? CAN MY CHILD LEAVE THE STUDY BEFORE IT ENDS?

The study is over when your child has filled out the questionnaire. However, your child can leave the study at any time even if they haven’t finished. If he or she wished to be included in a short list of follow-up interview, she or he will be contacted separately 2 weeks after the survey is done.

PROTECTION OF YOUR CHILD’S CONFIDENTIALITY

The investigator will keep all written materials locked in a desk drawer in a locked office. Any electronic or digital information will be stored on a computer that is password protected.

For quality assurance, the study team, the study sponsor (grant agency), and/or members of the Teachers College Institutional Review Board (IRB) may review the data collected from you as part of this study. Otherwise, all information obtained from your participation in this study will be held strictly confidential and will be disclosed only with your permission or as required by U.S. or State law.

HOW WILL THE RESULTS BE USED?

The results of this study will be published in journals and presented at academic conferences. Your child’s name or any identifying information about your child will not be published. This study is being conducted as part of the dissertation of the principal investigator.

WHO MAY VIEW MY CHILD’S PARTICIPATION IN THIS STUDY

I consent to allow written materials viewed at an educational setting or at a conference outside of Teachers College _____

Signature

I **do not** consent to allow written materials viewed outside of Teachers College Columbia University _____

Signature

WHO CAN ANSWER MY QUESTIONS ABOUT THIS STUDY?

If you have any questions about the study or your child’s taking part in this research study, you should contact the principal investigator, Linh Doan at doan@tc.columbia.edu

If you have questions or concerns about your child’s rights as a research subject, you should contact the **Institutional Review Board (IRB)** at 212-678-4105 or email IRB@tc.edu. Or you can write to the IRB at Teachers College, Columbia University, 525 W. 120th Street, New York, NY 10027, box 151. The IRB is the committee that oversees human research protection at Teachers College, Columbia University.

PARTICIPANT’S RIGHTS

- I have read and discussed the informed consent with the investigator. I have had ample opportunity to ask questions about the purposes, procedures, risks and benefits regarding this research study.
- I understand that my child’s participation is voluntary. I may refuse to allow my child to participate or withdraw participation at any time without penalty to future employment; student status or grades; services that my child would otherwise receive. I understand that my child may refuse to participate without penalty.
- The investigator may withdraw my child from the research if my child show any discomfort during the survey administration process.
- If, during the course of the study, significant new information that has been developed becomes available which may relate to my willingness to allow my child to continue participation, the investigator will provide this information to me.
- Any information derived from the research study that personally identifies my child will not be voluntarily released or disclosed without my separate consent, except as specifically required by law.
- Identifiers may be removed from the data. De-identifiable data may be used for future research studies, or distributed to another investigator for future research without additional informed consent from the subject or the representative.
- I should receive a copy of the Informed Consent document.

My signature means that I agree to allow my child participate in this study

Child’s name: _____

Print Parent or guardian’s name: _____

Parent or guardian’s signature: _____

Appendix D – Email Recruitment Draft

Email to school principal

Thank you for letting me complete my research at your school.

This research program has been licensed a XXXX (IRB Approval Number) number at Teachers College, Columbia University. The main purpose of the program is about cheating in Vietnamese high schools. However, I want to emphasize that the school's name as well as the names of the students, homeroom teachers that participate will be modified and keep anonymously throughout the analysis process even when the results are presented in any publication.

Based on the school's calendar, I would like to be allowed to go to school on two (date) ____ to introduce my research and (date) _____ to conduct research.

If there is any change please contact me via this email. I look forward to seeing you and the students of _____ (school name) soon.

Sincerely,

Doan Nguyet Linh

Doctoral Candidate (Ph.D.) | Comparative International Education
Research Assistant | NCREST
Address: 475 Riverside Drive, New York, NY 10115
Email: doan@tc.columbia.edu | Tel: (646)-745-8234

Emails to the teachers (after the first school visit)

Dear teacher / teacher _____

I'm so glad to be able to visit your classroom today. Please let your child know by (date) ____ about your parent's / teacher's consent form. Thank you (teachers / teachers name) very much.

If there is any change please contact me via this email.

Sincerely,

Doan Nguyet Linh

Doctoral Candidate (Ph.D.) | Comparative International Education
Research Assistant | NCREST
Address: 475 Riverside Drive, New York, NY 10115
Email: doan@tc.columbia.edu | Tel: (646)-745-8234

Academic Dishonesty as Social Process

Start of Block: Introduction

Introduction Thank you for your agreement to participate in the survey on students' perception towards academic dishonesty. Results from this survey will be anonymous and will be used only for research purpose. Be assured that all answers you provide will be kept in the strictest confidentiality. Please do not write your name in any part of the survey. This survey will take approximately 20 minutes to complete. **There are no right or wrong answers, simply select the answers that you think are best to reflect your own opinion.** Please raise your hand at any point to clarify any questions while answering this survey, a proctor in classroom would come by and answer your questions privately. If you would like to explain any of your answers or give other comments, there will be an opportunity to do so at the end of the survey. Thank you again for your time participating in the survey. Your time and your opinions are truly appreciated.

End of Block: Introduction

Start of Block: School Block

S1 Please enter the city where the school located

- 1) Hanoi (1)
 - 2) Nam Dinh (2)
 - 3) Bac Ninh (3)
 - 4) Ha Tinh (4)
 - 5) Bac Giang (5)
 - 6) Thanh Hoa (6)
-

S2_school Please enter the school identification number

7) School 1 (1)

8) School 2 (2)

9) School 3 (3)

10) School 4 (4)

11) School 5 (5)

S2_classroom Please enter the classroom identification number

12) Classroom 1 (1)

13) Classroom 2 (2)

14) Classroom 3 (3)

15) Classroom 4 (4)

16) Classroom 5 (5)

S3 Is this school a public or private school?

17) Public (1)

18) Private (2)

S4 Insert the respondent ID here

End of Block: School Block

Start of Block: Block 1

Q1 Are you a girl or a boy?

19) Boy (1)

20) Girl (2)

Q2 What is your ethnicity?

21) Kinh (3)

22) Other, please specify: (4) _____

Q3 When were you born?

23) Month (1) _____

24) Year (2) _____

Q4 Which language(s) do you speak at home, other than “standard” Vietnamese?

Q5 How many books do you have at home?

25) Less than enough to fill one shelf (0-10 books) (1)

26) Enough to fill one shelf (11–25 books) (2)

27) Enough to fill one bookcase (26–100 books) (3)

28) Enough to fill two bookcases (101–200 books) (4)

29) Enough to fill three or more bookcases (more than 200) (5)

Q6 What is the highest level of education completed by your mother (or stepmother or female legal guardian)?

- 30) Less than high school (1)
- 31) Some high school (2)
- 32) High school graduate (3)
- 33) Associate's degree (2-year college program) (4)
- 34) Bachelor's degree (4-year college program) (5)
- 35) Master's degree or professional degree (6)
- 36) Doctorate (7)
- 37) I don't know (8)

Q7 What is the highest level of education completed by your father (or stepfather or male legal guardian)?

- 38) Less than high school (1)
 - 39) Some high school (2)
 - 40) High school graduate (3)
 - 41) Associate's degree (2-year college program) (4)
 - 42) Bachelor's degree (4-year college program) (5)
 - 43) Master's degree or professional degree (6)
 - 44) Doctorate (7)
 - 45) I don't know (8)
-

Q8 Do you have any of the following devices at home? Check all that apply.

- Washing Machine (1)
- TV (2)
- Air Conditioner (3)
- Microwave (4)
- Tablet (e.g. Ipad) (5)
- Desktop/ Laptop (6)
- Car (7)
- Dish Washer (8)
- Oven (9)

End of Block: Block 1

Start of Block: Block 2

Q9 Approximately, what was your GPA for the following subject in the previous school year?

46) Math: (1) _____

47) Vietnamese Literature: (2) _____

48) Foreign Language: (3) _____

49) Physics: (4) _____

Q10 In this school year, are you currently holding any special position within your class, if so please check all the position you hold. Check all that apply.

- Class monitor (1)
 - Vice-class monitor in charge of academics (2)
 - Vice-class monitor in charge of disciplines (3)
 - Vice-class monitor in charge of social events (4)
 - Subject specialist (5)
 - Secretary of Ho Chi Minh Communist Youth Union [classroom level] (6)
 - Deputy Secretary of Ho Chi Minh Communist Youth Union [classroom level] (7)
 - Group leader (8)
 - Vice group leader (9)
 - Other, please specify: (10) _____
-

Q11 In this school year, are you currently holding any special position at the school level, if so please check all the position you hold. Check all that apply.

- Secretary of Ho Chi Minh Communist Youth Union [school level] (1)
 - Deputy Secretary of Ho Chi Minh Communist Youth Union [school level] (2)
 - Member of the Executive Committee of Ho Chi Minh Communist Youth Union (3)
 - Head of a Club (4)
 - Other, please specify: (5) _____
-

Q12 Have you ever participated in any of the following clubs. Check all that apply.

- Sport Club, please specify: (1) _____
 - Cheer-leader (2)
 - Choir (3)
 - Drama (4)
 - Environmental/Sustainability (5)
 - Journalism (6)
 - Chess (7)
 - Language club (8)
 - Dance (9)
 - Public Speaking / PR Club (10)
 - Model United Nation Club (11)
 - AIESEC (Leaders of the World) (12)
 - Community Services club (13)
 - Entrepreneurship/ Economics related club (14)
 - Anime club/Art clubs (15)
 - Other, please specify: (16) _____
-

Q13 What is the highest level of education you are planning to obtain?

50) High school graduate (1)

51) Associate's degree (2-year college program) (2)

52) Bachelor's degree (4-year college program) (3)

53) Master's degree or professional degree (4)

54) Doctorate (5)

55) I don't know (6)

End of Block: Block 2

Start of Block: Block 3

Q14 In the next section, please indicate to what extent does you agree or disagree with the following statement. Please check one box that reflects your opinion most accurately.

	Strongly agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
In my classroom, there is at least one teacher who cares about me (1)	56)	57)	58)	59)	60)
My teachers encourage me to discuss the issues with people having different opinions (2)	61)	62)	63)	64)	65)
My teachers treat all students fairly and respectfully (3)	66)	67)	68)	69)	70)
In our classroom, working hard and being diligent are very important. (4)	71)	72)	73)	74)	75)
In our classroom, getting the right answer is very important. (5)	76)	77)	78)	79)	80)

In our classroom, it is important not to do worse than other students in other classes. (6)

81)

82)

83)

84)

85)

It is important to me not to do worse than others student in my class. (7)

86)

87)

88)

89)

90)

It is important to me to do study well and make our family proud. (8)

91)

92)

93)

94)

95)

It is important to me to be happy and get along with other students in my class. (9)

96)

97)

98)

99)

100)

It is important for me to do well at school to get to do what I love in the future. (10)

101)

102)

103)

104)

105)

Q15 In the next section, please indicate how often these events have occurred in your classroom?

Never/ Almost Never (5)	Rarely (6)	Sometimes (7)	Often (8)
-------------------------	------------	---------------	-----------

Classmates bring notes and material into a close-book exam. (455)

106)	107)	108)	109)
------	------	------	------

Classmates use notes and material during a close-book exam. (456)

110)	111)	112)	113)
------	------	------	------

Classmates copy textbooks or other online sources in homework without citing the sources. (457)

114)	115)	116)	117)
------	------	------	------

Classmates copy other classmates' homework. (458)

118)	119)	120)	121)
------	------	------	------

Classmates allow other classmates to copy their answers in exam. (459)

122)	123)	124)	125)
------	------	------	------

Classmates
already knew the
questions in
exam in
advance. (460)

126)	127)	128)	129)
------	------	------	------

Classmates had
other's people
completed
homework on
their behalf.
(461)

130)	131)	132)	133)
------	------	------	------

Q17 People have different definitions of what count as cheating. In the following section, please select if these situations can be labeled as cheating. There are no right or wrong answers, your answer can be different from what you have previously been told by your teachers or school officials. In the last column, if you think the situation is cheating, please indicate the punishment that student A should receive.

	Yes (1)	No (2)	Nothing (3)	Given warning in front of the class (4)	Write "Apology Letter" (5)	Get Detention for a few days (6)	Get kick out of school (7)
Student A brings in outside documents in the exam room. (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student A brings in outside documents in the exam room and uses them during the exam. (2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student A discussed his/her homework with his older siblings who had similar homework before. (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student A talked to his/her classmates about the homework and discussed the solutions with each other. (4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Before the class starts, student A copies homework from student B. (5)

Before the class starts, student A lets student B copy her/his homework. (6)

Student A copies material from the textbooks or supplementary textbooks into her/his homework. (7)

Student A Copied a few sentences from a book, magazine, etc. without footnoting them in a paper or assignment. (8)

Student A copied almost word for word from a book, magazine or other source and turned it in as his own work. (9)

Student A goes to tutoring classes outside of classroom. (10)

Student A obtains the questions before the tests from her/his friends who took the same test in an earlier class period. (11)

Parents of student A give the teachers gifts and teachers tell student A exam questions in return. (12)

Student A asks her/his acquaintances to complete her/his homework on her/his behalf. (13)

Parents of student A hire someone to complete student A exam on her/his behalf. (14)

The teachers give A exam questions in advance because s/he attends their tutoring classes. (15)

End of Block: Block 5

Start of Block: Block 6

Q18 Is cheating in school to achieve better grade morally wrong or not?

134) Yes (1)

135) No (2)

Q19 In the next section, imagine if you witness some of your classmates cheated how would you feel and act? Please indicate to what extent do you agree or disagree with the following statement. Please check one box that reflects your opinion most accurately.

I feel unfair for me and those who do not cheat. (1)

Strongly agree (1) Agree (2) Neutral (3) Disagree (4) Strongly Disagree (5)

136) 137) 138) 139) 140)

I do not agree with their actions but as long as I do not cheat then it's ok. (2)

141) 142) 143) 144) 145)

I think it is normal and completely ok that my classmates cheat (3)

146) 147) 148) 149) 150)

I often remain silent when I saw my classmates cheat (4)	151)	152)	153)	154)	155)
I often report to my teachers when I saw my classmate cheat (5)	156)	157)	158)	159)	160)
I often report to my classmates' parent when I saw my classmate cheat (6)	161)	162)	163)	164)	165)
I often talk to my classmate directly when I saw my classmate cheat (7)	166)	167)	168)	169)	170)

Q20 In your opinion, why do you think students cheat?

Q21 Have you ever engaged in any cheating behaviors?

171) Yes (1)

172) No (2)

Display This Question:

If Have you ever engaged in any cheating behaviors? = Yes

Q22 If yes, how frequently do you engage in such behaviors?

173) Only on one or two occasions (1)

174) More than two occasions but rarely (2)

175) Often but not in any pattern (3)

176) Frequently (4)

Display This Question:

If Have you ever engaged in any cheating behaviors? = Yes

Q23 If yes, what subjects do you engage in academic dishonesty. Check all that apply.

- Math (1)
 - Science (Physics, Chemistry, Biology) (2)
 - Social Science (History, Geography) (3)
 - Literature (4)
 - Foreign Languages (5)
 - Civic Education (6)
 - Arts (7)
 - Music (8)
 - Physical Education (9)
 - Other electives, please specify: (10)
-

Display This Question:

If Have you ever engaged in any cheating behaviors? = Yes

Q24 If yes, what were your grade level when you first engaged in cheating?

▼ 1 (1) ... 10 (10)

End of Block: Block 7

Start of Block: Block 8

Q30 Do you have any other comments that you would like to share with us?

End of Block: Block 8

Appendix F – Clean Up Procedure (Stata Code)

```
cd "D:\Phoebe Dissertation\Data\"
**Open File
use "Academic Dishonesty as Social Process_Jan31_fromSPSS.dta", clear
**
save "Academic Dishonesty as Social Process_Cleanup.dta", replace
log using "Clean-Up-Log", replace
gsort S1 S2_school S2_classroom S4
*Clean Up Q2
recode Q2 (3=0) (4=1)
label define Q2 0 "Kinh" 1 "Others",add
*Clean Up Q17
recode Q17_1_2 (1=.) if Q17_1_1==1 // make sure(No != Yes)
recode Q17_1_3 Q17_1_4 Q17_1_5 Q17_1_6 Q17_1_7 (1=.) if Q17_1_2==1 // If the scenerio
is not cheating => No punishment
recode Q17_1_1 (.=0) if Q17_1_2==1 // Change Value so that 0 = No 1 = Yes . = missing
label define Q17_1_1 0 "No",add
*at this point we can drop Q17_x_2 already but let's keep it for comparision/double
check.
*REPEAT for all 15 scenarios
recode Q17_2_2 (1=.) if Q17_2_1==1 // make sure(No != Yes)
recode Q17_2_3 Q17_2_4 Q17_2_5 Q17_2_6 Q17_2_7 (1=.) if Q17_2_2==1 // If the scenerio
is not cheating => No punishment
recode Q17_2_1 (.=0) if Q17_2_2==1 // Change Value so that 0 = No 1 = Yes . = missing
label define Q17_2_1 0 "No",add
recode Q17_3_2 (1=.) if Q17_3_1==1 // make sure(No != Yes)
recode Q17_3_3 Q17_3_4 Q17_3_5 Q17_3_6 Q17_3_7 (1=.) if Q17_3_2==1 // If the scenerio
is not cheating => No punishment
recode Q17_3_1 (.=0) if Q17_3_2==1 // Change Value so that 0 = No 1 = Yes . = missing
label define Q17_3_1 0 "No",add
recode Q17_4_2 (1=.) if Q17_4_1==1 // make sure(No != Yes)
recode Q17_4_3 Q17_4_4 Q17_4_5 Q17_4_6 Q17_4_7 (1=.) if Q17_4_2==1 // If the scenerio
is not cheating => No punishment
recode Q17_4_1 (.=0) if Q17_4_2==1 // Change Value so that 0 = No 1 = Yes . = missing
```

```

label define Q17_4_1 0 "No",add

recode Q17_5_2 (1=.) if Q17_5_1==1 // make sure(No != Yes)

recode Q17_5_3 Q17_5_4 Q17_5_5 Q17_5_6 Q17_5_7 (1=.) if Q17_5_2==1 // If the scenerio
is not cheating => No punishment

recode Q17_5_1 (.=0) if Q17_5_2==1 // Change Value so that 0 = No 1 = Yes . = missing

label define Q17_5_1 0 "No",add

recode Q17_6_2 (1=.) if Q17_6_1==1 // make sure(No != Yes)

recode Q17_6_3 Q17_6_4 Q17_6_5 Q17_6_6 Q17_6_7 (1=.) if Q17_6_2==1 // If the scenerio
is not cheating => No punishment

recode Q17_6_1 (.=0) if Q17_6_2==1 // Change Value so that 0 = No 1 = Yes . = missing

label define Q17_6_1 0 "No",add

recode Q17_7_2 (1=.) if Q17_7_1==1 // make sure(No != Yes)

recode Q17_7_3 Q17_7_4 Q17_7_5 Q17_7_6 Q17_7_7 (1=.) if Q17_7_2==1 // If the scenerio
is not cheating => No punishment

recode Q17_7_1 (.=0) if Q17_7_2==1 // Change Value so that 0 = No 1 = Yes . = missing

label define Q17_7_1 0 "No",add

recode Q17_8_2 (1=.) if Q17_8_1==1 // make sure(No != Yes)

recode Q17_8_3 Q17_8_4 Q17_8_5 Q17_8_6 Q17_8_7 (1=.) if Q17_8_2==1 // If the scenerio
is not cheating => No punishment

recode Q17_8_1 (.=0) if Q17_8_2==1 // Change Value so that 0 = No 1 = Yes . = missing

label define Q17_8_1 0 "No",add

recode Q17_9_2 (1=.) if Q17_9_1==1 // make sure(No != Yes)

recode Q17_9_3 Q17_9_4 Q17_9_5 Q17_9_6 Q17_9_7 (1=.) if Q17_9_2==1 // If the scenerio
is not cheating => No punishment

recode Q17_9_1 (.=0) if Q17_9_2==1 // Change Value so that 0 = No 1 = Yes . = missing

label define Q17_9_1 0 "No",add

recode Q17_10_2 (1=.) if Q17_10_1==1 // make sure(No != Yes)

recode Q17_10_3 Q17_10_4 Q17_10_5 Q17_10_6 Q17_10_7 (1=.) if Q17_10_2==1 // If the
scenerio is not cheating => No punishment

recode Q17_10_1 (.=0) if Q17_10_2==1 // Change Value so that 0 = No 1 = Yes . =
missing

label define Q17_10_1 0 "No",add

```



```

recode Q17_11_2 (1=.) if Q17_11_1==1 // make sure(No != Yes)

recode Q17_11_3 Q17_11_4 Q17_11_5 Q17_11_6 Q17_11_7 (1=.) if Q17_11_2==1 // If the
scenerio is not cheating => No punishment

recode Q17_11_1 (.=0) if Q17_11_2==1 // Change Value so that 0 = No 1 = Yes . =
missing

label define Q17_11_1 0 "No",add

recode Q17_12_2 (1=.) if Q17_12_1==1 // make sure(No != Yes)

recode Q17_12_3 Q17_12_4 Q17_12_5 Q17_12_6 Q17_12_7 (1=.) if Q17_12_2==1 // If the
scenerio is not cheating => No punishment

recode Q17_12_1 (.=0) if Q17_12_2==1 // Change Value so that 0 = No 1 = Yes . =
missing

label define Q17_12_1 0 "No",add

recode Q17_13_2 (1=.) if Q17_13_1==1 // make sure(No != Yes)

recode Q17_13_3 Q17_13_4 Q17_13_5 Q17_13_6 Q17_13_7 (1=.) if Q17_13_2==1 // If the
scenerio is not cheating => No punishment

recode Q17_13_1 (.=0) if Q17_13_2==1 // Change Value so that 0 = No 1 = Yes . =
missing

label define Q17_13_1 0 "No",add

recode Q17_14_2 (1=.) if Q17_14_1==1 // make sure(No != Yes)

recode Q17_14_3 Q17_14_4 Q17_14_5 Q17_14_6 Q17_14_7 (1=.) if Q17_14_2==1 // If the
scenerio is not cheating => No punishment

recode Q17_14_1 (.=0) if Q17_14_2==1 // Change Value so that 0 = No 1 = Yes . =
missing

label define Q17_14_1 0 "No",add

recode Q17_15_2 (1=.) if Q17_15_1==1 // make sure(No != Yes)

recode Q17_15_3 Q17_15_4 Q17_15_5 Q17_15_6 Q17_15_7 (1=.) if Q17_15_2==1 // If the
scenerio is not cheating => No punishment

recode Q17_15_1 (.=0) if Q17_15_2==1 // Change Value so that 0 = No 1 = Yes . =
missing

label define Q17_15_1 0 "No",add

*Substitute means for each missing GPA value

sum Q9_1_n Q9_2_n Q9_3_n Q9_4_n

bys classroom_code: egen mean_gpa_math=mean(Q9_1_n)

bys classroom_code: egen mean_gpa_literature=mean(Q9_2_n)

bys classroom_code: egen mean_gpa_foreignlang=mean(Q9_3_n)

bys classroom_code: egen mean_gpa_physics=mean(Q9_4_n)

```

```

clonevar math_no_missing= Q9_1_n
clonevar literature_no_missing= Q9_2_n
clonevar foreignlang_no_missing= Q9_3_n
clonevar physics_no_missing= Q9_4_n

replace math_no_missing = mean_gpa_math if Q9_1_n ==.
replace literature_no_missing = mean_gpa_literature if Q9_2_n ==.
replace foreignlang_no_missing = mean_gpa_foreignlang if Q9_3_n ==.
replace physics_no_missing = mean_gpa_physics if Q9_4_n ==.

* Other
egen parent_highest = rowmax(fatheredu motheredu)
tab parent_highest, m
sum parent_highest
gen parent_highest_cohen = 1 if parent_highest ==.
recode parent_highest_cohen (.=0)
replace parent_highest=3.566 if parent_highest_cohen==1

clonevar Q22_rc = Q22
recode Q22_rc (15 16 = 2) (13 14=1)
recode Q22_rc (.=0) if Q21 == 2

clonevar competitive_within_new = competitive_w
recode competitive_within_new (5=1) (4=2) (2=4) (1=5)
gen competitive_cohen=1 if competitive_within_new==.
recode competitive_cohen (.=0)
sum competitive_within_new
replace competitive_within_new = 3.235231 if competitive_cohen==1
bys classroom_code: egen competitive_culture=mean(competitive_within_new)

save "Academic Dishonesty as Social Process_Cleanup.dta", replace

```

Appendix G – Comparing two measures of GPA

	Math GPA in survey	Foreign Language GPA in survey	Literature GPA in survey	Physics GPA in survey
Math GPA in roster	0.8838 ***	0.4765***	0.4412***	0.6429***
Foreign Language GPA in roster	0.5484 ***	0.7863***	0.5512***	0.5356***
Literature GPA in roster	0.4955 ***	0.4765***	0.7573***	0.4640***
Physics GPA in roster	0.5643 ***	0.4556***	0.4247***	0.8039***

Appendix H – Logistics Regression Result Tables with log-likelihood coefficients

Table 5.6: HML regression log likelihood coefficient that for latent class analysis's membership (N = 952)

	The rebels vs. The moderates	The rule-followers vs. The moderates	The rule-followers vs. The rebels
Male	0.034 (0.164)	0.183 (0.167)	-0.148 (0.1789)
Number of Books at Home	0.129 (0.086)	-0.017 (0.088)	-0.113 (0.094)
Parent Highest Level of Education	-0.021 (0.065)	0.102 (0.067)	-0.081 (0.071)
Having Leadership Position in Class	0.065 (0.145)	0.214* (0.130)	-0.279* (0.144)
Student Math GPA from Previous Yrs	-0.112 (0.152)	0.456*** (0.156)	-0.345* (0.166)
Competitive Classroom climate	0.341 (0.285)	0.329 (0.279)	-0.671* (0.294)
Classroom Average Math GPA	-0.127 (0.225)	-0.950*** (0.225)	1.077*** (0.240)
Public – Gifted High School	0.201	-0.401	0.345

	(0.120)	(0.311)	(0.348)
Classroom location - Nam Định	0.614*** (0.235)	-1.286*** (0.275)	0.673* (0.295)
Classroom location – Bắc Ninh	0.131 (0.292)	-0.479 (0.316)	0.348 (0.329)
Classroom location – Hà Tĩnh	0.623 (0.349)	-0.166 (0.291)	-0.457 (0.348)
Classroom location – Bắc Giang	-0.203* (0.312)	-1.087*** (0.331)	1.290*** (0.344)
Classroom location – Thanh Hóa	0.145 (0.317)	-0.163 (0.302)	0.019 (0.323)
Constant	0.711* (1.832)	2.530* (1.769)	-3.241 (1.907)
R ²	0.053	0.053	0.053

Note: Standard errors in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001

Table 5.11: Hierarchical logistics regression log-likelihood coefficients in models explaining if student's confession that they have cheated (N= 899*).

	Model 1	Model 2	Model 3	Model 4
LCA class 2 - Moderates	-0.584* (0.274)	-0.349 (0.303)	-0.337 (0.311)	-0.316 (0.310)
LCA class 3 - Rule Followers	-0.679* (0.293)	-0.485 (0.329)	-0.272 (0.344)	-0.104 (0.352)
Reactions towards Cheating		0.405*** (0.112)	0.414*** (0.115)	0.395*** (0.114)
Attitudes towards Cheating		-0.681*** (0.138)	-0.655*** (0.142)	-0.609*** (0.142)
Male			0.258 (0.231)	0.267 (0.230)
Number of Books at Home			0.006 (0.123)	-0.012 (0.124)
Parent Highest Level of Education			-0.168 (0.097)	-0.196 (0.100)
Having Leadership Position in Class			-0.360* (0.161)	-0.224 (0.165)
Student Math GPA from Previous Yrs			-0.343* (0.200)	-0.592** (0.220)
Diligence Classroom climate				-0.253 (0.141)
Competitive Classroom climate				1.763** (0.612)
Classroom Average Math GPA				0.538 (0.426)
Public				1.081 (0.601)
Classroom location - Nam Định				-0.718 (0.678)

Classroom location – Bắc Ninh				-0.609 (0.795)
Classroom location – Hà Tĩnh				-0.595 (0.760)
Classroom location – Bắc Giang				-1.432 (0.787)
Classroom location – Thanh Hóa				0.388 (0.760)
<hr/>				
Constant	2.531*** (0.303)	2.583*** (0.334)	5.919*** (1.652)	10.006** (3.785)
R^2	0.019	0.125	0.142	0.317

Note: N = 899 since some students skipped this question #19 and some did not have latent class.

The reference group for location is the capital Hanoi.

Standard errors in parentheses.

The command `r2_mz` was used to calculate McKelvey & Zavoina's R^2

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5.15: Hierarchical Logistics Regression log-likelihood coefficients in models explaining the subjects that students cheat (n=899*).

	Model 1 Mathematics	Model 2 Science	Model 3 Foreign Language	Model 4 Literature
LCA class 2 - Moderates	-0.217 (0.211)	-0.232 (0.193)	-0.067* (0.233)	-0.436* (0.192)
LCA class 3 - Rule Followers	-0.550 (0.244)	-0.385 (0.229)	-0.285* (0.269)	-0.475* (0.229)
Reactions towards Cheating	-0.394*** (0.100)	-0.423*** (0.096)	-0.155 (0.111)	-0.167 (0.093)
Attitudes towards Cheating	0.285** (0.088)	0.207** (0.080)	0.141 (0.094)	0.073 (0.077)
Male	0.139 (0.172)	-0.008 (0.161)	0.171 (0.188)	0.027 (0.160)
Number of Books at Home	-0.001 (0.092)	-0.046 (0.085)	-0.128 (0.104)	0.073 (0.083)
Parent Highest Level of Education	-0.038 (0.072)	0.013 (0.066)	-0.197* (0.080)	-0.136* (0.065)
Having Leadership Position in Class	-0.304* (0.154)	-0.213 (0.129)	-0.067 (0.161)	-0.234 (0.139)
Student GPA of the subject from Previous Yrs	-0.531*** (0.156)	-0.392** (0.125)	-0.362* (0.154)	-0.616*** (0.154)
Diligence Classroom climate	-0.227* (0.089)	-0.133 (0.085)	-0.238* (0.099)	-0.179* (0.085)
Competitive Classroom climate	0.448 (0.385)	0.771 (0.454)	0.392 (0.569)	-0.123 (0.443)
Classroom Average GPA of the subject	0.018* (0.289)	0.348* (0.289)	0.219* (0.343)	0.444* (0.352)
Public	0.264 (0.386)	0.557 (0.478)	0.076 (0.583)	0.128 (0.506)
Classroom location - Nam Định	-1.687***	-1.113*	-0.679	-0.282

	(0.450)	(0.465)	(0.622)	(0.436)
Classroom location – Bắc Ninh	-1.590** (0.507)	-1.679** (0.597)	-0.775 (0.745)	-0.281 (0.573)
Classroom location – Hà Tĩnh	-0.301 (0.491)	0.473 (0.561)	0.488 (0.733)	0.976 (0.598)
Classroom location – Bắc Giang	-1.264* (0.529)	-0.735 (0.628)	-1.126 (0.794)	-0.899 (0.645)
Classroom location – Thanh Hóa	0.761 (0.479)	0.799 (0.581)	-0.379 (0.728)	-0.151 (0.577)
Constant	-0.824** (0.290)	-0.528* (0.229)	-0.288 (0.228)	-0.582* (0.246)
R^2	0.132	0.135	0.094	0.122

Note: N = 899 since some students skipped this question #19 and some did not have latent class.

The GPA for Physics were used as the proxy for science GPA

The reference group for location is the capital Hanoi.

Standard errors in parentheses.

The command `fit_meologit_2lev` was used to calculate McKelvey & Zavoina's R^2

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

