

ACADEMIC DISHONESTY AMONG UNDERGRADUATE STUDENTS:
PREDICTING THE ROLE OF ACADEMIC MORAL DISENGAGEMENT AND
ACADEMIC MOTIVATION IN ACADEMIC DISHONESTY

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AND ACADEMIC MOTIVATION IN ACADEMIC DISHONESTY**

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ABSTRACT

ACADEMIC DISHONESTY AMONG UNDERGRADUATE STUDENTS: PREDICTING THE ROLE OF ACADEMIC MORAL DISENGAGEMENT AND ACADEMIC MOTIVATION IN ACADEMIC DISHONESTY

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The purpose of the study was to develop a thorough understanding of academic dishonesty in undergraduate students. Data were collected from 442 undergraduate students from a state university in Ankara with Academic Motivation Scale, Academic Moral Disengagement Scale, Academic Dishonesty Scale, and Academic Dishonesty Questionnaire. Two hierarchical regression analyses were conducted to examine effect of academic moral disengagement, academic motivation, awareness of academic dishonesty regulations, gender, and GPA on academic dishonesty. The model explained 33% of exam-related academic dishonesty and 43% of assignment-related academic dishonesty. The most powerful predictor was students as the origin of academic moral dishonesty, followed by amotivation, and professors/university as the origin of academic moral disengagement for exam-related academic dishonesty. For assignment-related academic dishonesty, they were students as the origin of academic

moral dishonesty, amotivation, gender, professors/university as the origin of academic moral disengagement, intrinsic motivation-to know, and extrinsic motivation-identified in order. Awareness of academic dishonesty regulations was not a predictor for both factors of academic dishonesty. Moreover, students reported that multiple-choice questions, knowledge-based questions, heavily weighted assignments, and assignments with a short time to complete was the most cheated in assessment types. Half of the students were not aware of their institutions' academic dishonesty regulations. The majority of students believed that there was an increase in academic dishonesty during the Covid-19 pandemic. Less than half reported they had observed contract cheating.

Keywords: Academic Dishonesty, Academic Moral Disengagement, Academic Motivation, Contract Cheating, Covid-19 Pandemic

ÖZ

LİSANS ÖĞRENCİLERİ ARASINDA AKADEMİK USULSÜZLÜK: AKADEMİK AHLAKİ GERİÇEKİLME VE AKADEMİK MOTİVASYONUN AKADEMİK USULSÜZLÜK ÜZERİNDEKİ ROLÜNÜN YORDANMASI

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Çalışmanın amacı lisans öğrencilerinin akademik usulsüzlük algılarına ilişkin kapsamlı bir anlayış geliştirmektir. Ankara’da bulunan bir devlet üniversitesine devam etmekte olan 442 lisans öğrencisine Akademik Motivasyon Ölçeği, Akademik Ahlaki Gerçekilme Ölçeği, Akademik Usulsüzlük Ölçeği ve Akademik Usulsüzlük Anketi uygulanmıştır. Akademik ahlaki gerçeğe, akademik motivasyon, akademik usulsüzlük yönergesi farkındalığı ve bireysel öğrenci özelliklerinin akademik usulsüzlük üzerinde etkisini görmek için iki hiyerarşik regresyon analizi uygulanmıştır. Bu model sınav odaklı akademik usulsüzlüğün %33’ünü ve ödev odaklı akademik usulsüzlüğün %43’ünü açıklamıştır. Sınav odaklı akademik usulsüzlük için en güçlü yordayıcı öğrenci temelli akademik ahlaki geri çekilme olmuştur ve onu amotivasyonla profesör/okul kaynaklı akademik ahlaki geri çekilme takip etmiştir. Ödev odaklı akademik usulsüzlüğü ise sırasıyla öğrenci temelli

akademik ahlaki geri çekilme, amotivasyon, cinsiyet, profesör/okul kaynaklı akademik ahlaki geri çekilme, bilmeye yönelik içsel motivasyonla içe yansıyan dışsal motivasyon yordamıştır. Akademik usulsüzlük yönergesi farkındalığı akademik usulsüzlüğün iki boyutunu da yordamamıştır. Bununla birlikte, öğrenciler çoktan seçmeli soruların, bilgi temelli soruların, ağırlığı yüksek olan ve yapılması için kısa bir süre verilen ödevlerin en sık kopya çekilen değerlendirme çeşidi olduklarını raporlamıştır. Öğrencilerin yarısı üniversitelerinin akademik usulsüzlük yönergeleri hakkında bilgilerinin olmadığını raporlamıştır. Öğrencilerin çoğunluğu Kovid-19 sırasında kopya çekme oranlarında bir artış olduğuna inanmaktadır. Öğrencilerin yarısından azı sözleşmeli kopyaya tanık olduğunu belirtmiştir.

Anahtar Kelimeler: Akademik Usulsüzlük, Akademik Ahlaki Geriçekilme, Akademik Motivasyon, Sözleşmeli Kopya, Kovid-19 Pandemisi

To all who are curious

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LIST OF ABBREVIATIONS

- ERT: Emergency Remote Teaching
- BYOD: Bring Your Own Device
- AMS: Academic Motivation Scale
- AMDS: Academic Moral Disengagement Scale
- ADS: Academic Dishonesty Scale
- ADQ: Academic Dishonesty Questionnaire
- CFA: Confirmatory Factor Analysis
- CFI: Comparative Fit Index
- ADFI: Adjusted Goodness of Fit Index
- NFI: Normed Fit Index
- RMSEA: Root Mean Squared Error of Approximation
- TLI: Tucker-Lewis Index
- EFA: Exploratory Factor Analysis
- SPSS: Statistical Package for the Social Sciences
- KMO: Kaiser-Meyer-Olkin Measure of Sampling Adequacy
- PAF: Principal Axis Factoring
- SDT: Self-Determination Theory

CHAPTER 1

INTRODUCTION

This chapter is divided into four sections and aims to establish a foundation for the study. First, it presents a background for the study and then describes the purpose and significance. Also, definitions of the key terms are given.

1.1. Background of the Study

A university, sending its students mirrors during online exams and requiring handwritten honor pledges as cheating prevention strategies, found itself a place in media in late 2020 in Turkey (Cumhuriyet, 2020). During the period of forced remote education because of the Covid pandemic, cheating in higher education was further featured in the media with news of a medicine student hooking up their computer with friends' to cheat on an exam and the Council of Higher Education filing official complaints about people who prepare assignments and thesis for monetary gain (Spuntiknews, 2020; YÖK, n.d.). However, academic dishonesty in higher education being featured in media is neither new in Turkey nor limited to this country. For instance, news about a cheating scandal in a Turkish university that resulted in the cancelation of midterm exams of several students was made public in 2011 (Ntvmsnbc, 2011). Likewise, prestigious Harvard University disciplining more than a hundred students in response to class-wide cheating was displayed in several media outlets (Pérez-Peña, 2013). Similarly, Australian news reported that several university students were caught in a scandal related to an online essay writing company (Visentin, 2015).

Academic dishonesty, also known as academic misconduct or cheating, consists of several unethical behaviors students employ during their academic studies (Hughes et al., 2006). These behaviors include using unauthorized materials during exams, helping other students at exams, fabrication of references, plagiarism, and many others (Whitley et al., 2002). Research suggests that academic dishonesty is prevalent in higher education worldwide (Harding et al., 2004; Murdock et al., 2006). For example, 67.4% of college students in a study done in 31 colleges across the USA admitted cheating at least once on a test or an assignment (McCabe, 1992). Another study, which compared levels of academic dishonesty between students from the US and Lebanon, found that levels of cheating were higher among Lebanese students (McCabe et al., 2008). Similarly, a nationwide survey exposed that 61.72% of Taiwanese college students participated in academically dishonest behaviors (Lin et al., 2007). Moreover, it was found that 81% of Swedish students in a university lied to get special consideration in exams (Trost, 2009). Again, in Europe, 75% of German students admitted that they had cheated at least once (Patrzek et al., 2015). Harper et al. (2020) found that 67.6% of academic staff in eight participating universities from Australia suspected an assessment task written by someone else. Although not a nationwide study, 21% of students in a Turkish university admitted working collaboratively with friends and copying information from the internet (Eret et al., 2014).

Academic dishonesty, which is considered as a *victimless crime*, becoming prevalent in higher education institutions, has consequences for students and educational institutions. First of all, students who cheat cannot develop the necessary understanding of knowledge and materials needed to gain capabilities their education program aims to transfer (Harding et al., 2004; Lupton et al., 2000; Whitley et al., 2002). Additionally, academically dishonest behaviors disturb integrity and equity of assessment among all students, making it difficult to accurately assess learning (Miller et al., 2017; Whitley et al., 2002). More concerningly, when students observe their peer's cheating behavior resulting in high grades and without proper punishment, they, too, start to cheat to level the playing field. Also, peer cheating has the effect of causing students to believe cheating is less unethical than it seems (O'Rourke et al., 2010). Therefore, this may create a vicious cycle that might make cheating a part of campus culture (McCabe et al., 1993).

Furthermore, student unethical behavior may extend into professional practice, which might cause damage to the public if said individual is working in a field where unethical behavior might have consequences for society (Brimble, 2016; Harding et al., 2004). Besides individual consequences of academically dishonest behavior, there are ramifications on the institutions themselves. For example, higher education institutions caught in cheating scandals have their reputation damaged. This situation might bring into question the institution's reputation by undermining the public's confidence in higher education institutions and the integrity of every credential and qualification given by the institution. Hence, as a result, casting doubt on every graduate of the institution whether they had cheated or not (Harding et al., 2004; Whitley et al., 2002).

It is evident that academic dishonesty leaves behind victims. Harding et al. (2004) argue that academic dishonesty could be considered deviant behavior in its context. McCabe et al. (2010) go as far as claiming that whether to cheat or not is the most basic ethical decision of a university student. As academic dishonesty is prevalent and with dire consequences, the need to establish an extensive understanding of why students cheat is crucial.

Extensive research has been done to understand why students cheat, so measures can be implemented to prevent it. The focus of the research has been mostly on demographic, individual, and contextual factors such as honor codes (Lin et al., 2007; McCabe et al., 2002; Murdock et al., 2017). However, bringing about change in most of these factors is challenging. On the contrary, motivation as a construct is considered malleable, creating opportunities for generating change concerning academic dishonesty (Anderman et al., 2017; Kurou et al., 2021). Examination of the relationship between academic dishonesty and motivation is limited (Murdock et al., 2006). Although there is research that studies the relationship between motivation and academic dishonesty from the perspective of different theories such as self-efficacy (Er et al., 2011), self-determination theory (Orosz et al., 2013), and goal orientation (Pavlin-Bernardic et al., 2016), their results about the relationship are contradicting (Kurou et al., 2021). Moreover, studies about the relationship between academic dishonesty and motivation as defined in self-determination theory are minimal. As

mentioned above, the motivation of a student is subject to change. As a result, understanding the relationship between cheating and students' motivation could allow opportunities to shape instructional practices, which in return may mitigate academic dishonesty.

Although understanding the reasons students cheat and creating solutions based on the findings is essential, it should be kept in mind that students can cheat even when they believe it is wrong to do so (Jordan, 2011; Semerci, 2006). Bandura (2016) describes this phenomenon in his social-cognitive theory as moral disengagement. Moral disengagement consists of mechanisms that allow people to act against their ethical values while keeping their sense of morality intact. It is a kind of moral self-regulatory mechanism that can quiet moral standards for a time. Since academic dishonesty is considered a form of deviant conduct (Harding et al., 2004) that can extend into the workplace (Brimble, 2016), understanding its relation to moral disengagement is essential in expanding our awareness of it.

1.2. Purpose of the Study

The study aimed to develop a comprehensive understanding of academic dishonesty among undergraduate students by describing their perceptions, awareness, observations, opinions, and trends. Furthermore, since the study took place during the Covid-19 pandemic, developing an understanding of this particular situation on student opinions about cheating during this period was targeted. Moreover, it intended to investigate the relationship between academic dishonesty, academic moral disengagement, academic motivation, knowledge of academic dishonesty regulations, and individual student characteristics of undergraduate students to contribute to the general understanding.

1.3. Significance of the Study

Academic dishonesty has been researched for a long time in international literature, starting from the 1960s (Bowers, 1964). Furthermore, it is believed that the frequency of cheating has been increasing through the years (Cizek, 1999; Newton, 2018; Schab, 1991). Technological developments and widespread use of the internet are also believed

to contribute to the increase of academic dishonesty (Eret et al., 2014; Şendağ et al., 2012). Additionally, recent challenges caused by Covid-19 are believed to increase academic dishonesty (Amzalag, 2021; Comas-Forgas et al., 2021). Several researchers also investigated academic dishonesty problem in Turkish higher education institutions and confirmed its existence (Eraslan, 2011; Eret et al., 2014; Oran et al., 2016; Semerci, 2006; Yazıcı et al., 2011; Yıldırım et al., 2018). Therefore, it is essential to investigate student perceptions, beliefs, and opinions on academic dishonesty to understand the behavior further, so that steps can be taken to prevent it. Therefore, it is worthwhile to investigate the current situation in Turkey and expand our understanding in the Turkish context.

Although there is a growing body of research about academic dishonesty in Turkey within higher education, this research generally showed limitations when choosing subjects. There are research studies encompassing more than one university (Deniz, 2020; Kocaman-Karoğlu, 2020) or studies on several students in different faculties (Yazıcı et al., 2011; Yıldırım et al., 2018), yet most research is limited to the available subject group of one faculty. These faculties are predominantly education faculties (Eret et al., 2014; Eraslan, 2011; Ersoy, 2011; Özden et al., 2015; Tümkaya, 2019) and health sciences faculties (Oran et al. 2016; Semerci, 2004; Semerci, 2006). By not limiting the study's participants to members of one faculty, this research aims to develop a more encompassing understanding without limiting the participants' experiences to the specifics of their faculties. Thus, adding to the limited campus-wide studies in the Turkish context.

Regarding the measurement of academic dishonesty construct, there are several scales developed in Turkish (Ay et al., 2015; Demir, 2018; Eminoğlu et al., 2009). However, these scales often include items about students' attitudes and feelings about academic dishonesty. In this research, a scale purely describing the operational definitions, as in purely observable behaviors without the presence of feelings or attitudes, was needed. For this research, academic dishonesty is operationally defined as student behaviors such as using crib notes or electronic devices to cheat in exams, copying from others in exams, finding out about exam questions by any means before the exam, using impersonators in exams, plagiarism, adding unused sources to references, turning in

assignments written by someone else, getting help in assignments that should be completed alone, using excuses to postpone deadlines, and agreeing to grade each other favorably in situations where students grade each other. Since there was not such a scale available with only operational definitions, it was developed through the study. Therefore, a gap in the Turkish literature was filled, hopefully aiding researchers in the subject area.

Furthermore, there is very little research in the Turkish higher education context investigating the relationship between academic dishonesty and motivation (Büyüköze, 2017; Er et al., 2011). Since motivation is considered changeable, institutional practices can affect student motivation (Anderman et al., 2017; Krou et al., 2021). Therefore, understanding the relationship could guide instruction that can be put in motion to prevent academic dishonesty in universities.

Moreover, only one research tries to investigate the correlation between academic dishonesty and morality in higher education students in Turkey (Semerci, 2006). Although understanding student morality could give direction to academic dishonesty research and prevention, it might not lead to the expected results, considering that students can cheat even if they find it unethical (Jordan, 2011; Semerci, 2006). In contrast, moral disengagement, which has a proven relationship to academic dishonesty in higher education settings (Barnabelli et al., 2018; Fida et al., 2016; Shu et al., 2011), could provide the needed direction for new research. There is no research on moral disengagement concerning academic dishonesty in higher education in the Turkish context. Hopefully, this study would stimulate new discussions and, in return would add the efforts to produce better prevention strategies. Additionally, the academic moral disengagement scale was adapted into Turkish in this research. Several moral disengagement scales had been adapted into Turkish (Çapan et al., 2016; Ekmekçioglu et al., 2019; Erbaş et al., 2017; Gezici-Yalcın et al., 2016; Gurpınar et al., 2019; Yavuz-Birden et al., 2017); however, none of them are in the context of academic life in university. With this adaptation, this gap in the Turkish literature is filled; also, possible research in the area is assisted.

Finally, assessment outsourcing and contract cheating which are terms used to describe students having their assignments done by third parties, is an increasing problem in

the current higher education environment (Ahsan et al.; Awdry, 2020, 2021; Bretag et al., 2020; Walker et al., 2012). However, there is minimal research on assessment outsourcing in Turkey, with the only specific research being a part of a study that included nine other countries (Awdry, 2020). Therefore, this study aims to stimulate a discussion about assessment outsourcing in Turkey, gaining attention from authorities like Higher Education Council. Moreover, research about academic dishonesty during the emergency remote teaching (ERT) during the Covid-19 period has started to emerge (Amzalag, 2021; Comas-Forgas et al., 2021). One of the research questions in this study tried to find student perceptions about cheating during this period to stimulate a discussion and learn from this experience.

1.4. Definition of Key Terms

Below are definitions of variables in this study.

Academic dishonesty: Unethical means that gives students an edge to have better results in assessments (Miller et al., 2017).

Moral disengagement: Moral disengagement refers to cognitive neutralization mechanisms that allow unethical behavior without feeling distressed (Bandura, 2016). In this study, these mechanisms are considered in the academic context.

Motivation: Motivation is the desire, interest, and persistence in actions (Schunk et al., 2014). There are three types of motivation in self-determination theory: intrinsic motivation, extrinsic motivation, and amotivation. Intrinsic motivation is doing an activity because of the job it brings; extrinsic motivation is doing an activity to reach another goal, and amotivation is a state where there is no desire for behavior (Deci & Ryan, 2014).

Contract cheating: Cheating behavior where students pay third parties to complete their assignments. Also, outsourcing to friends, family or third parties without exchanging money and getting assignments from assignment sharing sites are categorized as this behavior (Harper et al., 2019).

CHAPTER 2

LITERATURE REVIEW

This chapter focuses on the literature about the variables of the study. First, academic dishonesty is explained as a concept and current research around it. Next, moral disengagement is described, and research demonstrating its relation to academic dishonesty is provided. Then, motivation is explained considering self-determination theory (SDT) and its relation to academic dishonesty. Finally, a summary of the chapter is given.

2.1. Academic Dishonesty

Mullens (2000) defined academic dishonesty as

anything that gives a student an unearned advantage over another. It includes any of the following: purchasing an essay; plagiarizing paragraphs or whole texts; impersonating another to take a test; sneaking a peek at another student's answers; smuggling crib notes into a test; padding a bibliography; fudging laboratory tests; collaborating on an assignment when a professor asks for individual work; or asking for a deadline extension by citing bogus excuse. (p. 23, as cited in Christensen Hughes, 2006)

The definition of academic dishonesty is varied, and it is challenging to ensure it contains every behavior categorized under it precisely, yet these are easily recognizable behaviors when seen (Marshall et al., 2017; Whitley et al., 2002). A more concise description is that academic dishonesty is any unethical means used to produce better results in learning assessments (Miller et al., 2017). In contrast, the situation

becomes more complicated when students and staff are questioned on their perceptions of academic dishonesty. Brimble et al. (2005) used a survey that consisted of twenty scenarios on academic dishonesty and asked students and staff in four Australian universities about how serious they felt the scenarios were. The results indicated that students found academically dishonesty behaviors less serious than university staff, pointing out a difference in their perceptions of what is considered cheating. Also, different perceptions were detected between students from different countries. Yukhymenko-Lescroart (2013) asked university students from the USA and Ukraine to grade cheating behaviors on a scale of five according to how wrong they believe the behavior is. The results showed a statistically significant difference between student beliefs, as students from Ukraine were less likely to believe that academically dishonest behaviors were wrong. In contrast, when Barret et al. (2005) gave students and staff from a UK university scenarios involving descriptions of plagiarism and collusion, they found that there was a slight difference in their judgements of which category the behavior falls into.

Behaviors are often used to describe academic dishonesty. For example, Pavela (1997) categorizes academic dishonesty into behaviors of cheating in exams and assignments, fabrication of references or laboratory results, plagiarism, and facilitation, as in helping others cheat. In addition, misinterpretation, as in claiming to have turned in an assignment when not or giving false excuses to change deadlines, is also a dishonest behavior that can be added to the list together with sabotaging others' work and not contributing to group projects (Whitley et al., 2002).

Although the behaviors that make up the concept of academic dishonesty do not change, with the widespread use of technology and the internet, some of these behaviors have gained new channels to insert themselves. For instance, internet and computer use makes unlimited information more accessible to students and facilitates cheating. Eret et al. (2014) used internet-triggered academic dishonesty scale on 386 undergraduate students from different teaching departments in a university in Turkey and found that teacher candidates had a tendency to plagiarise using the internet, with the length of computer use, gender, and department as significant factors affecting the phenomenon. Similarly, Şendağ et al. (2012) used a relational survey design and

examined to extent of students' involvement in online academic dishonesty practices in a university in the USA ($n=1153$). The results showed that taking online or hybrid courses had a significant effect on online academic dishonesty practices. Also, students' field of study and the academic level was found significant; however, exposure to academic integrity tutorial was found insignificant. Moreover, buying essays is not new, yet the concept of essay mills (commercial websites that students can outsource their assignments) is relatively new. In fact, Lancaster (2020) searched Google to see what kind of help students could get to write essays in their specific field of study and found that these essay mills were well established in the fields of computer science, architecture and law in the UK. However, he speculated that the essay mill industry rapidly changed itself, and different results could be found on different days. Furthermore, with the use of BYOD (bring your own device) exams, new cheating methods continue to emerge. Dawson (2015) proved that hacking computer hardware or software to cheat is possible and demonstrated these methods. Indeed, he drew attention to the fact that student provided hardware reduces exam security.

Academic dishonesty adapted to the Covid-19 pandemic, too. There was a move from in-person classes to remote and online courses worldwide during this period. Furthermore, the use of student-provided hardware (students' own computers) during exams became widespread during Covid-19 pandemic. This shift in teaching and assessment styles was done with little to no preparation or even experience. Now, research about this period and academic dishonesty have begun to emerge. Current research points out an increase in academic dishonesty during this period. A study from Spain used search engine data, including a five-year period (2016-2020) about cheating. The results showed a significant increase in internet searches about cheating in online exams and descriptions of several cheating methods during the Covid-19 lockdown period (Comas-Forgas et al., 2021). Similarly, Lancaster et al. (2021) analyzed the use of Chegg, a homework help internet site, during April-August 2020 period in comparison with the previous year and found an increase of 196% in student request posts in STEM subjects. Another study with Israeli students and lecturers used a survey to find out about their attitudes to cheating during the Covid-19 pandemic. The study revealed that lecturers believed the likelihood of students cheating was

higher than students' belief of their peers cheating. Also, it was found that lecturers changed their assessment methods to prevent cheating during this period. Moreover, students cheated because they did not want to fail, experienced dissatisfaction with their lecturers, and had learning difficulties. In contrast, lecturers believed they cheated because it was easy to cheat in online exams (Amzalag et al., 2021).

In research about academic dishonesty, there is an abundance of studies on its prevalence. For example, in decade-long research conducted in the USA, it was found that more than half of the students in higher education cheated at least once (McCabe et al., 2010). Similarly, multiple studies across different countries report on the prevalence of academic dishonesty in tertiary institutions such as Taiwan (Lin et al., 2007), Germany (Patrzek et al., 2015), Sweden (Trost, 2009), Poland (Baran et al., 2020), Australia (Harper et al., 2020), Lebanon (McCabe et al., 2008), and Turkey (Eret et al., 2014; Oran et al., 2016). As an interesting note, it should be heeded that while these studies used self-report measures and participants admitted to cheating, in a study where samples that were collected ten years apart and compared to evaluate cheating prevalence and extent, it was found that less than 5% of students mentioned being caught in both of the samples (Diekhoff et al., 1996). As a result, there is a difference between the actual prevalence of academic dishonesty and the number of students caught committing it.

Furthermore, university staff admits to ignoring academic dishonesty when it occurs. For example, in a phenomenological study, Deniz (2020) aimed to analyze faculty members' perceptions on student plagiarism. Data collected from eighteen education faculty members from three different universities were subjected to content analysis. Obstacles to detecting plagiarism incidents were identified as traditions of ignoring plagiarism, faculty apathy to these incidents, not knowing how to combat unethical behaviors, and the excess number of students. Coren (2011) investigated faculty attitudes to cheating and found that 40.3% of the university staff from the USA and Canada admitted to ignoring student cheating on at least one occasion ($n= 206$). Some of the given reasons by the staff were insufficient proof of cheating and the cheating being minimal. Furthermore, the aforementioned study grouped faculty staff as those with bad experiences and those without bad experiences about reporting student

cheating, and it revealed that those with bad experiences about reporting cheating prefer to ignore cheating incidences more than their colleagues. Likewise, in a study from a university in the UK where the perception of students and staff on acts of plagiarism and collusion were questioned in several scenarios. Further questions were asked to the staff to find out how they deal with cheating. The results yielded that 51% of staff prefer to ignore student cheating (Barret et al., 2005). On the one hand, there is evidence that very few academic dishonesty incidences are caught, and even university staff is reluctant to report discovered incidences. On the other hand, a student's academic dishonesty could only be found if it was reported by university staff or other students. Consequently, it is shown in correlational studies conducted on university students in the USA and Lebanon that when students are under the impression that their cheating will be reported, academic dishonesty incidences decrease. In these studies, perceived certainty of being reported, perceived understanding of cheating policies, perceived severity of penalties and peer cheating behavior were used in a regression model to explain academic dishonesty. The models revealed a significant and inverse relationship between perceived certainty of being reported and academic dishonesty. (McCabe et al., 2002; McCabe et al., 2008).

Student given reasons for academic dishonesty are wide and varied. For example, Yazıcı et al. (2011) examined the perceptions of university staff and students in a university in Turkey about cheating with a survey. The students ranked the following four items as their reasons for cheating; course difficulty, to get a higher grade, inadequate preparation for exams and instructor behavior. Similarly, university staff ranked inadequate preparation, fear of failure, to get higher grades and believing that risk of being caught is low as the reasons for student cheating in the same study. Semerci (2004) tried to explain the attitudes and ideas of medical faculty students towards academic dishonesty with a survey ($n=73$). One of the questions asked, "Why do you cheat?" some students answers were as follows; to get higher grades, fear of failing the course, thinking that grades are more important than self-fulfillment, not enjoying studying, not having discipline to study, and peer influence. Similarly, Özden et al. (2015) used a phenomenological design to discover the reasons for pre-service teachers' reasons for academic dishonesty. Thematic analysis was used and it was found that two themes emerged; personal factors for cheating and environmental

factors for cheating. In the study, personal factors were further detailed as the personality of students, desiring academic gains and having low self-efficacy. Also, environmental factors were further explained as instructor attitude and behavior, exam-based evaluation system, instruction style in courses, peer influence, institutional environment, and family expectations. Moreover, Polat (2017) conducted a meta-synthesis study and used content analysis on twenty-eight research articles and two masters theses about academic dishonesty in Turkish literature. This study summarized the student reasons for cheating as mostly academic gain, fear of failure, inadequate preparation for exams, not liking the course or the instructor, desire to get higher grades, the behavior of teachers and instructors and the existing education system encouraging cheating behavior.

Different factors have been found to be related to academic dishonesty through research, too. For example, Patrzek et al. (2015) studied the effect of procrastination on academic dishonesty behaviors of German university students from four different universities in two different semesters ($n=1359$ and $n=2207$). Questionnaire for academic procrastination and a self-report measure for academic dishonesty where students reported the frequency they performed one of the seven types of cheating behavior from *zero* to *more than ten times* in the last six months were used. The regression analysis revealed academic procrastination as a predictor of all seven behaviors of academic dishonesty.

Also, Anderman et al. (2019) asked students from two universities in the USA ($n=409$) to think about the class they liked the least and answer a questionnaire including the cheating self-report scale, beliefs about cheating scale, impulse-decision making scale, sensation seeking scale and classroom goal structure scale (mastery, extrinsic and avoidance). They aimed to find the relationship between them by using structural equation modeling. In this study, perceived mastery and extrinsic goal structures were found to be related to beliefs about cheating, and a high need for sensation was found related to cheating behavior and believing in the acceptability of cheating. As a result, it was predicted that students would cheat more in classes they dislike.

Academic dishonesty regulations are put in motion to regulate incidences of academic dishonesty in higher education institutions. These regulations also inform students of

the rules and definitions of academic dishonesty. They are necessary to develop a shared understanding of academic dishonesty as it might not come naturally. For example, it was documented that students might plagiarize because they simply lack the awareness of giving correct references. Ellery (2008) extended an existing academic writing tutorial to address plagiarism in a South African university. Student essay assignments were analyzed and unstructured interviews were performed with students who plagiarized. Among the students who accepted to be interviewed, it was found that their cheating was unintentional and overwhelmingly a result of poor understanding of the act. Additionally, Gladwin (2018) argued that students might be confused about academic dishonesty when conducting research, especially in collaborative practices. Similarly, Jurdy et al. (2012) asked Canadian university students to rate cheating behaviors to the extent they found such behaviors dishonest and found that students have leniencies in their definitions of academic dishonesty behaviors, especially about plagiarism and helping somebody else cheat, pointing out a lack of awareness ($n=321$).

Evidence suggests that students' understanding of academic dishonesty policies is low. For example, Bretag et al. (2014) in their extensive research to explore students' understanding of academic dishonesty with an online survey, found that 35% of university students from six different Australian students did not know about their institution's academic integrity policies ($n=15,304$). It should be noted that a lack of understanding of academic dishonesty policies contributes to academic dishonesty itself. For instance, Jordan (2001) compared cheaters and non-cheaters on motivation, perceived social norms about cheating, attitudes toward cheating, and knowledge of institutional policy in his research. A significant difference between cheaters and non-cheaters in their knowledge of institutional academic dishonesty policies along with their attitudes on cheating and perceived social norms about cheating. Similarly, in a study that encompassed 31 US colleges and universities, academic dishonesty where several contextual factors (understanding and acceptance of academic integrity procedures, perceived certainty of being reported by peers and perceived severity of penalties) and honor codes were examined in regard to their relation to cheating, revealed that academic dishonesty was inversely related to all factors including the understanding of academic integrity policies (McCabe et al., 1993). The same result

with the same variables was also repeated in a Lebanese university student sample (McCabe et al., 2008). Also, Yıldırım et al. (2018) interviewed eighteen Turkish university students about academic dishonesty regulations. They found that students were neither informed of the regulations nor received training about what is considered academic dishonesty.

Academic dishonesty being influenced by other students' dishonesty is also a concern in research. For example, in their study where they tested the effects of several contextual factors (perceived understanding of academic dishonesty policies, perceived certainty of being reported, perceived severity of penalties, and peer cheating) on different honor code adapted campuses (traditional honor code, modified honor code, and no honor code), related to academic dishonesty McCabe et al. (2002), discovered peer cheating as the most influential factor in their regression analysis. Also, in their review of their decade-long research, they admit being shocked by the strength of the relationship and confirm that peer cheating was related to academic dishonesty in their results (McCabe et al., 2010). McCabe et al. (2010) concluded that this phenomenon could be clarified with Bandura's Social Learning Theory. Bandura (1986) explains that people learn by observing others; therefore, if students observe that their peers cheat and profit from it, they will cheat, too.

Similar results were repeated in research. For example, O'Rourke et al. (2010) tried to determine whether neutralizing attitude, cheating valence attitude, and direct knowledge of others cheating had an effect on academic dishonesty. A survey that included scales for three variables along with a self-report cheating scale was applied as a first step. In the second step, several scenarios were given to the students. Scenarios included situations that included elements of neutralization, cheating valence attitude and direct knowledge of other students cheating. Students were asked to guess whether the person in the scenario would cheat and whether they would cheat under the same conditions. All variables were found significant in predicting cheating with direct knowledge of others cheating as the most powerful predictor in survey results. Similarly, participants chose the scenarios where neutralization, cheating valence attitude, and direct knowledge of other students cheating were present as scenarios cheating would happen.

Likewise, Awdry et al. (2021) tried to identify the factors related to the contract cheating behavior of students through their family/friends or through informal means such as commercial websites. 7826 university students from ten different countries were reached through a mixed-method survey created through literature review. Bivariate analyses were performed to find the relationship of situational and individual factors to assignment outsourcing through family/friends and informal means. The research revealed that situational factors of the rate students perceived others were cheating, knowledge of peer cheating, believing cheating is acceptable, country of origin and discipline they were studying were related to assignment outsourcing from people they know. Likewise, assignment outsourcing through informal means was correlated with the rate they believed students were cheating and the number of people they knew was cheating. In both cases, individual factors of age, gender, the reason students attend the university, study level, whether their tutor knew their name and whether they were first or second language learners had little to no effect on student cheating.

Demographic factors have been a subject of scrutiny concerning academic dishonesty, and gender found a place in research. Several studies found that males report cheating more than females. For instance, Kocaman-Karoğlu et al. (2020) conducted a multi-campus correlational study where the relationship between gender, GPA, meta-cognitive learning strategies and extracurricular self-study time to internet triggered academic dishonesty was inspected ($n=357$). The relationship between meta-cognitive learning and cheating was confirmed; also, males were found as the more frequently cheating gender. Also, Kremmer et al. (2007) surveyed 1057 Australian university students to find out the influence of assessment type (assignment or exam), age, gender, nationality, field of study and level of study on academic dishonesty. The results showed that students' personal characteristics including gender (in favor of males) and their field of study had a relationship with their cheating behavior. In addition, when Lin et al. (2007) surveyed Taiwanese students to find the prevalence of cheating in university students, they found that cheating was prevalent in universities and males cheated more than females ($n=2068$). Similarly, Molnar et al. (2012) tried to find if there was a relationship between gender, discussion of ethics rules in class, punishment of cheaters and internet use to acceptance of cheating among

university students ($n=884$). The results suggested that all factors correlated with acceptance of cheating, also revealed that male students found it more acceptable to cheat. In his meta-synthesis of studies about academic dishonesty related to the Turkish context, Polat (2017) comments that there is a gender difference between Turkish students with more males admitting cheating. However, other studies report no difference between genders. Franklyn-Stokes et al. (1995) inspected the prevalence of cheating among UK university students and found its presence. The study also revealed that while age was related to academic dishonesty, gender was not. Similarly, in their review of their extensive research on academic dishonesty, McCabe et al. (2010) also found no significant difference between genders regarding academic dishonesty. Therefore, the gender difference is considered unclear (Lin et al., 2006; Williams et al., 2010). Williams et al. (2010) claim that when considering the difference in academic dishonesty rates between genders, the tendency to report the behavior should also be kept in mind.

Another individual factor that has been evaluated in research about academic dishonesty is students' academic achievement. Roig et al. (2005) studied the relationship between giving fraudulent excuses and self-report cheating, and plagiarism among university students. The results revealed that GPA was inversely related to all three measures, though it did not show a statistically significant relation to plagiarism. Correspondingly, Akdağ et al. (2002) examined 247 education faculty students' perceptions of cheating and found a relationship between academic dishonesty frequency and GPA, years in school, time allocated to study and gender. Interestingly, Kocaman-Karoglu et al. (2020) reported GPA as a non-significant factor in academic dishonesty. In his literature review, Whitley (1998) reviewed more than a hundred studies and found no relationship between GPA and academic dishonesty, too.

Although academic dishonesty and its relation to several factors are researched thoroughly, research on its relation to the type of assessment used is limited. For example, while trying to explain the relationship between cheating and morality in students of medicine, Semerci (2006) also asked student opinions on assessment types concerning academic dishonesty ($n=77$). The results showed that students found

cheating wrong, but they themselves cheated in exams. Moreover, students believed cheating occurred most in multiple-choice assessment types, less in open-ended questions, and least in projects. In this context, the most extensive study is done by Harper et al. (2020), with over ten thousand students from eight Australian universities. The study gave results about the relationship between assessment type and student prevalence to contract cheating, factors contributing to cheating, and the frequency with which staff detects cheating. For example, it was found that students reported third-party cheating occurring the most in multiple-choice exams, followed by short-answer questions, take-home exams, practical exams, essays under supervised conditions, and oral exams. Furthermore, students reported outsourcing their assignments to others.

Students using other resources to complete their assignments is not new, yet research into the area has picked up in the last decade (Awdry, 2020). Although assignment outsourcing and contract cheating are used interchangeably, there seems to be a slight confusion in the meanings. Walker et al. (2012) described contract cheating as students purchasing assignments and submitting them as their work. Newton (2018) adds that contract cheating often involves “Essay Mills,” commercial internet sites. However, Awdry (2020) argues that contract cheating does not include instances where students get their assignments done by their family and friends without money exchange and suggests the term “assignment outsourcing.” In contrast, Harper et al. (2019) define contract cheating as students submitting work completed by someone else with no regard to their relationship with the third party and whether an exchange of money exists or not. Therefore, the term contract cheating is used according to Harper et al.’s (2019) description for this research.

Research suggests that contract cheating is a serious problem. A systematic review that included 71 samples from 65 studies dating back to 1978 tried to find how common contract cheating was and to see if it was increasing. The results concluded that contract cheating was increasing. Also, while a historic average rate was found at 3.52%, in samples from 2014 to the present, it was 15.7% (Newton, 2018). Furthermore, Curtis et al. (2017) conducted a study, which aggregated data from five studies, and aimed to find the prevalence of contract cheating to aid policy makers

about the extent of the problem. The results showed that the overall rate of contract cheating was 3.5% and 62.5% of those who contract cheated, did more than once. In a more dire light, an extensive survey done both on students and staff ($n=1147$) with the participation of eight Australian universities mentions that more than half of university staff suspects at least one attempt of contract cheating (Bretag et al., 2019). In her study of multiple countries, Awdry (2020) gave information about the Turkish context, from an international study covering ten countries. According to Awdry, among respondents, Turkey had a rate of assignment outsourcing of 24.7%, with students from Turkey preferring to use peer sharing sites ($n=116$). Another result was that there had been an increase in assignment outsourcing by Turkish students in situations with no money exchange.

Aside from prevalence, there is research about contract cheating in regards to the internet sites where assignments are purchased and the qualities of these assignments. Lancaster (2019) reviewed the publicly available data from Fiverr.com to gather information about providers of contract cheating and found that majority of providers operate from Kenya; they claim qualifications like a researcher, doctor of philosophy degree holder or teacher and that essays of thousand words are available for a cost about thirty dollars. Moreover, Rowland et al. (2018) examined the persuasive features of eleven contract cheating sites. The examination revealed that these websites use persuasive words such as custom, quality, and guarantee, and they offer low-cost essays that can be prepared within hours.

The psychological effects of contract cheating and possible blackmailing of students by third parties they bought assignments from were investigated, too. Yorke et al. (2020) used a survey and scenario-based online exercises on Australian university students to examine their awareness, knowledge and experiences about blackmail involved in contract cheating business ($n=587$). It was revealed that most students were unaware of the risk of blackmail, but 14 students revealed they knew someone whom contract cheating services blackmailed. Most students (67%) also revealed that they thought being caught by the university was the worst scenario, and 27% said they would probably pay money to the blackmailers. Lastly, students said that difficult and time-consuming assignments were the reasons for contract cheating.

Consequently, Pitt et al. (2020) interviewed university students who were accused of contract cheating and were under university investigation ($n=7$). In the exploratory study, five themes were identified. These themes were the most challenging experience of their life, not telling their family about allegations, stress, and hypervigilance about future assignment submissions, rumours and reputational damage, and staying on track of academic integrity.

On a different note, Dawson et al. (2018) tried to determine the rate of marker accuracy in detecting contract cheating. Seven experienced markers were asked to grade twenty assignments; which six of them were bought from contract cheating websites. The markers were informed that some assignments were bought. A sensitivity analysis was performed on 140 incidences of marking. They were able to find bought assignments 62% of the time. They gave reasons for identifying purchased assignments: essays did not address the question, there were missing tables and charts, poor essay structure, and poor conceptualization.

In a recent systematic review of fifty-one peer-reviewed articles about contract cheating in higher education, Ahsan et al. (2021) used four themes to classify the research trends in the articles. These themes were third-party, education and technology, student circumstances and behavior and institutions. It was also criticized that research about the subject lacks grounding in any theory and correlations to educational constructs.

2.2. Moral Disengagement

In his Social Cognitive Theory, Bandura (1986) describes interactions between personal, behavioral, and social/environmental factors and how people learn from their environments (Schunk & Usher, 2012). The theory accepts an agentic view of human actions. That is, humans are viewed as influenced in their circumstances through intentionality, forethought, self-reactiveness, and self-reflectiveness (Bandura, 2006). Furthermore, human behavior is explained in triadic codetermination consisting of behavioral, personal, and environmental determinants in a three-way interactive relationship (Bandura, 1999).

Moral agency is a part of Social Cognitive Theory and has dual forms. These forms are inhibitive, refraining from amoral conduct, and proactive, actively displaying ethical behavior (Bandura, 2002). Bandura (2016) argues that most theories of morality are about the attainment and reasoning of moral standards, and they do not explain ethical conduct. Additionally, these standards fail to act as regulators of behavior. In contrast, moral agency is controlled by self-regulatory mechanisms which are put into action or retracted at will (Bandura, 2016). Therefore, Bandura (2016) explains that moral disengagement is a psychological mechanism people use to disengage from their harmful acts. By doing so, they can keep their sense of morality while behaving amorally.

Eight moral disengagement mechanisms are used to actively shut down moral self-regulation and behave amorally (Table 2.1). These eight mechanisms work at four loci: behavior, agency, outcome, and victim.

Table 2.1

Eight Moral Disengagement Mechanisms at Four Loci

<i>Locus</i>	<i>Moral disengagement mechanisms</i>
Behavior locus	Moral justification Advantageous comparison Euphemistic language
Agency locus	Displacement of responsibility Diffusion of responsibility
Outcome locus	Distortion of consequences
Victim locus	Dehumanization Attribution of blame

In behavior locus, three mechanisms transform amoral behavior into moral behavior. Bandura (2016) cautions that mechanisms at behavior locus are compelling as they use morality in the idea but disengage it in behavior. These mechanisms are moral justification, euphemistic language, and advantageous comparison. In moral

justification, harmful behavior is presented with an ethical focus. For example, aggressive behavior can be justified as protecting others. In euphemistic language, the act is described more acceptably. For instance, they were representing stealing as “borrowing” (Moore, 2015). Lastly, in behavior locus, a student displaying advantageous comparison, which is behavior compared to more unacceptable counterparts, can describe their cheating as minor compared to widespread academic corruption (Farnese et al., 2011).

At the agency locus, displacement and diffusion of responsibility are two mechanisms used. They operate by putting the responsibility on others and not accepting it and, in a sense sharing the responsibility of action with others (Bandura, 2016). For example, in an academic context, students blaming the instructor for cheating are displacing the responsibility. Students, explaining cheating by “everybody is doing it,” is diffusing the responsibility. In the outcome locus, the mechanism distorts the consequences by disregard, distortion, or denial of harmful effects. The aim is to minimize amoral action (Bandura, 2016). For instance, a customer not reporting a mistake that resulted in their favor is an example of this mechanism (Detert et al., 2008). Lastly, in victim locus, the blame is laid on wounded parties by dehumanization and attribution of blame mechanisms. In dehumanization, victims are given subhuman characteristics. For example, enemies can be described as “savages” (Bandura, 2016). In the blame attribution mechanism, the reason victims are harmed is described as their fault. For instance, they were bullying a student because they deserved it.

2.2.1. Research on Moral Disengagement and Academic Dishonesty

Moral disengagement strives to explain unethical decision-making and is researched in several disciplines (Detert et al., 2008; Moore, 2015). It has been used in several fields like organizational behavior (Erbaş et al., 2017; Newman et al., 2020), sports psychology (Boardley et al., 2011; Sarı et al., 2019), environmental decisions (Heald, 2017), school climate (Montero-Carretero et al., 2021; Özalp et al., 2019) and academic dishonesty (Farnese et al., 2011; Fida et al., 2016). In the Turkish context, there are several scale adaptations studies (Çapan et al., 2016; Ekmekçioglu et al., 2019; Erbaş et al., 2017; Gezici-Yalcın et al., 2016; Gurpınar et al., 2019; Yavuz-

Birden et al., 2017). In addition, there are studies about school bullying (Özalp et al., 2019), sports (Sarı et al., 2019), and the workplace (Erbaş et al., 2017).

The relationship between academic dishonesty and moral disengagement is an area with limited studies. Although not directly related to academic dishonesty, in their research on elementary and junior high students, Bandura et al. (1996) found moral disengagement was related to detrimental school conduct ($n=899$). The children were administered moral disengagement scale which contained items related to harmful behavior at school, prosocial behavior measure, hostile rumination measure, guilt and restitution measure and child behavior checklist- delinquency subscale. Also teachers rated children for aggression and mothers completed parental scale of child behavior checklist-delinquency subscale. The follow-up longitudinal study reached the same results (Bandura et al., 2001).

Farnese et al. (2011) studied the relationship between academic dishonesty and moral disengagement with college students as participants ($n=416$). In the study, academic moral disengagement scale, cheating behavior scale, self-efficacy scale with subscales of self-regulated learning, managing moral behaviors and regulatory self-efficacy was used and academic achievement was measured as average mark in college. Correlations showed significant and positive relationship between academic moral disengagement (both professors and university as the origin of academic moral disengagement and students as the origin of academic moral disengagement subscales) and cheating behavior. The results of the structural equation modelling suggested that both dimensions of academic moral disengagement and peer cheating behavior positively influenced cheating. Also, self-regulated learning, and regulatory self-efficacy subscales of self-efficacy scale was negatively linked to both dimensions moral disengagement, whereas self-efficacy in managing moral behaviors and peer's cheating behaviors was positively linked. This study is also noteworthy as it produced the "Academic Moral Disengagement Scale" used in several other studies examining the relationship between moral disengagement and academic dishonesty.

Following Farnese et al.'s (2011) study, a longitudinal study on nursing students was conducted by Fida et al. (2016). The study investigated the effect of moral disengagement and regulatory self-efficacy on cheating behavior in Italian nursing

students from eleven different schools. All three variables were measured at the start of academic year for three years consequently (T1, T2, and T3). The results revealed that moral disengagement was positively related to academic dishonesty and regulatory self-efficacy was negatively related to cheating. Although reciprocal relationship was not identified between academic dishonesty and regulatory self-efficacy, a supportive relationship was found between moral disengagement and cheating. It was found that moral disengagement at T3 was positively influenced by cheating behavior at T2. Similarly, moral disengagement at T1, positively influenced moral disengagement at T3 through cheating behavior at T2. It was also theorized that as academic misconduct continued, participants could disengage more and increase cheating behavior by possibly normalizing it.

Complimentary to this study, Shu et al. (2011) randomly assigned scenarios to university students in four different studies. These scenarios aimed to find the relationship between cheating, peer cheating, moral disengagement and remembering the honor code they read. After reading the scenario, participants answered a six-item moral disengagement about cheating scale. It was discovered that students' moral disengagement levels increased more after they considered their own cheating rather than their peer's cheating. Also, their moral disengagement levels were higher when they did not read the honor code. It was discovered that participants with the opportunity to cheat forgot the honor code more than others. Furthermore, reading the honor code reduced cheating levels whereas signing the honor code nearly eliminated cheating. When the results of four studies were considered together, it was hypothesized that moral disengagement responds to permissiveness of the environment and increases; moreover, a simple measure such as signing an honor code can give moral self-regulation a more ethical direction. Also, the effect of moral disengagement, which may lead to motivated forgetting of ethical rules, possibly influencing more cheating behavior was discussed.

Similarly, Barnabelli et al. (2018) studied the relationship between Machiavellianism, approaches to learning (deep and surface), academic moral disengagement, individual cheating and normative cheating (peer cheating) behavior in 223 undergraduate students. Deep approaches to learning, amoral manipulation factor of

Machiavellianism and normative cheating (peer cheating) had a significant relationship with individual cheating. Moreover, a strong relationship was discovered between academic moral disengagement and individual cheating in university students. Also, students who cheat used moral disengagement mechanisms whether they perceived their peers were cheating or not.

In contrast, Pulfey et al. (2018) used scenarios in an experiment in four studies to gather information about collective cheating. The study found that benevolence values predicted collective cheating and even under competitive conditions if coupled with moral disengagement, they still predicted collective cheating. Therefore, it was argued that moral disengagement coupled with group loyalty might lead to collective cheating.

2.3. Motivation

Motivation is a process where activities are started, plotted, and sustained towards a goal (Schunk et al., 2014). Several theories attempt to explain human motivation, and Self-Determination Theory (SDT) is one of them. SDT is a macro theory that investigates people's psychological needs and tendencies, which are the basis of motivation (Niemi et al., 2009; Ryan et al., 2000).

The basis of the theory is the interaction of human will and self-determination. "Will" is the concept that gives human beings the ability to choose, whereas "self-determination" is accepting oneself and the environment and determining ways to satisfy needs. Humans would not be satisfied when all their needs were met. They need choices, and they need to decide to reach those choices. Therefore, SDT identifies three innate needs in humans: competence (to feel capable), autonomy (to feel agency), and relatedness (to belong to a group) (Schunk et al., 2014). According to SDT, people thrive to the extent that their three innate needs are satisfied (Deci & Ryan, 2014).

Other than innate needs, SDT has two critical assumptions about the nature of human beings. First, people are active beings, and they engage with their environment. The second assumption is that people develop cognitively to integrate and organize mentally. This process is called internalization, and it may include information, values,

attitudes, drives, emotions, and such. These two assumptions should be kept in mind when discussing autonomous motivation because, for SDT, intrinsic motivation born of active human nature and internalized extrinsic motivation are both autonomous (Deci & Ryan, 2014).

SDT defines autonomy as “the capacity for and desire to experience self-regulation and integrity” (Deci & Ryan, 2014). The concept of autonomy is considered essential for development and wellness. Depending on the issue addressed, it can refer to a psychological need or a state of motivation. Moreover, in SDT, autonomy is used to classify different types of motivation, with a range from autonomous to controlled with the more autonomous the motivation, the higher quality it is (Deci & Ryan, 2014; Ryan et al., 2000). In SDT, there are three forms of motivation according to their regulatory styles: intrinsic motivation (self-regulated), extrinsic motivation (externally motivated), and amotivation (lack of regulation) (Schunk et al., 2014).

Intrinsic motivation is the most autonomous motivation, and it involves doing an activity because it brings enjoyment. It also fulfills the need to feel competent, self-determining, or related to a community (Deci & Ryan, 2014). Intrinsic motivation is sustained by satisfying essential human autonomy, competence, and relatedness. For example, students who willingly spend time on a subject (autonomous behavior) or students who feel able to meet the challenges of their subject (feeling competent) are displaying intrinsic motivation (Niemi et al., 2009).

On the other end of the autonomy spectrum is extrinsic motivation, which involves doing an activity to reach another goal (Deci & Ryan, 2014). Furthermore, SDT differentiates extrinsic motivation into four types concerning their autonomous self-regulation and internalization level. The least autonomous one is *external regulation*. With this type of motivation, people continue the behavior without their agency and because of outside influences. For instance, students study only to get high grades (reward) or remove an enjoyable activity because of low grades (punishment). The next level of extrinsic motivation, *introjected regulation*, is somewhat autonomous as the source of the behavior is internal, but behaviors continue for prospects. For example, a student might get a reward for high grades and study for a future reward. Another type of extrinsic motivation is *identified regulation* in which behavior

continues because a personal value has been given to it. A student studying to get a high score in a national examination to be accepted into university is an example of this type of motivation. Lastly, in *integrated regulation*, the behavior continues because they are internalized into personal values and self-schemas. For example, a student studying law to help others, when helping others, is in line with their values (Deci & Ryan, 2014; Niemiec et al., 2009; Schunk et al., 2014).

Amotivation is when there is no motivation for the behavior or no intention in behaviors. Amotivated people find no meaning, value, or reward in continuing the behavior. For example, an amotivated student would simply find nothing to motivate them to study (Ryan & Deci, 2017; Schunk et al., 2014).

2.3.1. Research on Motivation and Academic Dishonesty

When motivated, people start and maintain behaviors towards a goal (Schunk et al., 2014). Motivation is examined from several different perspectives such as Self-Determination Theory, Social Cognitive Theory, and Achievement Goals. Murdock et al. (2006) claimed that although extensive research has been conducted to understand academic dishonesty, studies on its relationship with motivation have been minimal. Moreover, they proposed a conceptual framework to understand the relationship between academic dishonesty and motivation.

In the framework, three motivational mechanisms are proposed to organize the literature. They are goals, expectations, and costs. These mechanisms are guided by the following three questions: “What is my purpose?”, “Can I do this?” and “What are the costs?”. Murdock et al. (2006) explain that the first question dealing with student purpose is answered by Self-Determination Theory and Achievement Goal Theory. Those who are extrinsically motivated and those who have performance-oriented goals would be more likely to cheat. However, Krou et al. (2020) criticize that motivational constructs can have parallel and overlapping aspects. However, they can also have differences in the context of academic dishonesty. For instance, intrinsic motivation and mastery goals connect with the idea of finding a task enjoyable to do, and both constructs have a negative relationship with academic dishonesty. In contrast, it was found that extrinsic motivation, extrinsic goal orientation, and performance goal

orientation do not have a similar relationship with academic dishonesty because of besting one's peers or showing competence elements of goal orientations.

In their meta-analysis, Krou et al. (2020) examined 79 studies to determine the relationship between motivation and academic dishonesty. In this study, the framework from Murdock et al. (2006) was used. Intrinsic motivation, extrinsic motivation, and amotivation were discussed with the guidance of SDT and goal orientations. The results showed that intrinsic motivation and value had a negative relationship with academic dishonesty. In the case of extrinsic motivation, the relationship with academic dishonesty was insignificant. Lastly, amotivation was found to have a significant and positive relationship with academic dishonesty.

Likewise, in their research on Hungarian high school students, Orosz et al. (2013) found similar results. 620 Hungarian high school students were asked to complete a questionnaire that included measures of hypercompetitiveness, self-development competition, perceived competitive school climate, academic motivation, attitude towards cheating, perceived risk of detection of cheating, guilt from cheating and expected punishment if cheating is discovered. It was found that when students were intrinsically motivated, academic dishonesty decreased. Also, amotivation was found to have a positive relationship with cheating, and extrinsic motivation was found insignificant in the relationship with academic dishonesty. Furthermore, competitiveness and guilt from cheating had a significant relationship with academic dishonesty. It should be noted that Orosz et al. (2013) warned that the effect of motivation was small enough to be considered inconsequential.

In contrast with the results about extrinsic motivation, Murdock et al. (2006) argue that non-experimental evidence of the relationship between academic dishonesty and extrinsic motivation should be kept in mind. For example, students who cheat to achieve high grades could be considered extrinsically motivated, in return suggesting a relationship between academic dishonesty and extrinsic motivation.

2.4. Summary of Literature Review

Literature about academic dishonesty is vast. It is shown that perceptions of what constitutes academic dishonesty may vary between instructors, students and even students from different countries. Moreover, the behaviors defined as academic dishonesty might not change. Still, they can adapt to evolving technological advancements such as buying essays from the internet or hacking computers used in BYOD exams. Also, the literature suggests that academic dishonesty adapted to Covid-19 created an ERT environment, too.

Nevertheless, academic dishonesty is high, and academic staff is known to ignore incidences they observe. Furthermore, students give various reasons for their cheating, such as fear of failure and getting higher grades. Also, awareness of academic dishonesty policies, procrastination, peer cheating, demographics, GPA, and assessment type is related to academic dishonesty.

Moreover, moral disengagement is a variable that has been studied concerning unethical decision-making in several different fields. For example, about academic dishonesty, the literature suggests that moral disengagement has a significant and positive relationship with academic dishonesty. A person who uses a moral disengagement mechanism would be more likely to cheat.

Furthermore, when the relationship between motivation and academic dishonesty is investigated, a positive and significant relationship with amotivation, a negative and significant relationship with intrinsic motivation, and a positive but sometimes significant relationship with extrinsic motivation are observed.

This study considered all these variables and aimed to increase understanding of academic dishonesty among undergraduate students by describing their perceptions, awareness, observations, opinions, trends, and opinions on cheating during Covid-19 prompted ERT. Moreover, the Turkish educational context investigates the relationship between academic dishonesty, academic moral disengagement, academic motivation, knowledge of academic dishonesty regulations, and individual student characteristics.

CHAPTER 3

METHOD

This chapter introduces the research design, sampling and participants, data collection tools, procedures of data collection, and data analysis used in the study. Also, a discussion of limitations is added.

3.1. Research Design

The purpose of this study was to form a more in-depth understanding of academic dishonesty among undergraduate students, so several questions were posed to describe their perceptions, awareness, and opinions on academic dishonesty. Also, their opinions on cheating during the Covid-19 pandemic during emergency remote teaching and observations about the contract cheating trend were questioned. Furthermore, the study aimed to investigate academic dishonesty perception, academic moral disengagement, academic motivation, knowledge of academic dishonesty regulations of undergraduate students, and individual student characteristics (gender and GPA) to determine whether a relationship among these factors exists.

Therefore, a survey design was used for this study. Survey research presents information about characteristics of a population like attitudes, opinions, and trends. They give numeric descriptions of such information by asking questions to represent the population (Fowler, 2013). Also, researchers often use scores from sets of survey questions to explore relationships between variables. In these cases, correlational research techniques are applied (Fraenkel et al., 2012).

3.2. Research Questions

The following questions are addressed in this study:

1. What are undergraduate students' awareness, perceptions, and opinions on academic dishonesty?
2. How well do academic motivation, academic moral disengagement, knowledge of academic dishonesty regulations, gender, and GPA predict academic dishonesty unawareness of undergraduate students?
3. What are undergraduate students' beliefs on dishonesty frequency during emergency remote education compared to in-person education and student reasons given for the difference?
4. What are undergraduate students' observations and experiences of contract cheating?

3.3. Participants of Study

There are two different samples: one for the pilot study and another for the main study. This section gives information about the characteristics of both samples.

3.3.1. Participants of the Pilot Study

The pilot study was carried out to provide evidence for the validity and reliability of the Academic Motivation, Academic Moral Disengagement, and Academic Dishonesty scales used in the survey. The pilot study sample included undergraduate students from a state university in Ankara, Turkey. A convenience sampling method was used. Instructors from the state university were contacted, and they were asked to share the survey with their students during their course hours. A total number of 192 undergraduate students answered the survey.

135 (70.3%) participants were female, and 57 (29.7%) were male. The number of participants was 19 (9.9%) in the 15-19 age group, 159 (82.8%) in the 20-24 group, 12 (6.3%) in the 25-29 group, and 2 (1%) students were over 30 years old. Additionally, 78 (40.6%) participants were English Language Teaching students, whereas 69 (35.9%) were French Language Teaching Department students and 45 (23.4%) were German Language Teaching students. While 19.8% ($n=38$) of them were

first-year students, 30.7% ($n=59$) were second-year, 27.1% ($n=52$) were third-year and 19.3% ($n=37$) were fourth-year students. 3.1% ($n=6$) of the students did not mention their grade level. In the sample, 3.6% ($n=7$) of students had a GPA less than 2, 54.2% ($n=104$) between 2 and 2.99, also 35.9% ($n=69$) had GPA more than 3. 6.3% ($n=12$) students left GPA-related question unanswered (Table 3.1).

Table 3.1

Characteristics of the Participants in the Pilot Study ($n=192$)

	Frequency (f)	Percentage (%)
Gender		
Female	135	70.3
Male	57	29.7
Missing	0	
Age		
15-19	19	9.9
20-24	159	82.8
25-29	12	6.3
Above 30	2	1
Missing	0	
Department		
English language education	78	40.6
French language education	69	35.9
German language education	45	23.4
Missing	0	
Year of study		
1 st	38	19.8
2 nd	59	30.7
3 rd	52	27.1
4 th	37	19.3
Missing	6	3.1
GPA		
1.00-1.99	7	3.6
2.00-2.99	104	54.2
3.00 and more	69	35.9
Missing	12	6.3

Note. Totals of percentages are not 100 for every characteristic because of rounding.

3.3.2. Participants of the Main Study

The target population for this study was undergraduate students in a state university in Ankara. Within the university, only eight faculties permitted data collection. These

faculties were the Faculty of Dentistry, Faculty of Pharmacy, Faculty of Engineering, Faculty of Health Sciences, Faculty of Medicine, Faculty of Technology, Faculty of Architecture, and Faculty of Education. Only the Urban and Regional Planning Department in the Faculty of Architecture allowed data collection. Furthermore, the Department of Primary Education within the Education Faculty did not permit data collection. This situation reduced the accessible population to 21509 students. According to the formula given by Dillman et al. (2014), the sample size needed for generalizing the population with a margin of error of 5%, at a confidence level of 95%, is 377 when simple random sampling is used (surveysystems, n.d.). Although a convenience sampling method was used in this research, this number was used as a reference to estimate the minimum sample size needed. Four hundred forty-two undergraduate students participated in the study, which satisfies the condition for a margin of error of 5% with a confidence level of 95% in the accessible population.

The data were collected in the 2020-2021 Spring term. Due to the Covid-19 restrictions, all educational activities in higher education institutions were being carried out online. Therefore, a convenience sampling method was used. Instructors from the faculties mentioned above were emailed with a request to share the survey with their students.

As shown in Table 3.2, 52.3% ($n=231$) of the participants were female, 19.2% ($n=85$) were male, and 28.5% ($n=126$) did not indicate their gender. Additionally, 67.2% ($n=297$) of participants were in 15-24 age group, whereas 2.7% ($n=12$) are in 25-34, 1.4% ($n=6$) in 35-44 and .2% ($n=1$) were over 45 years old. 28.5% ($n=126$) of students did not mention their age. While 84 (19%) of the participants' field of study were health sciences, 124 (28.1%) were engineering students, 102 (23.1%) were in education field and 2 (.5%) of them were architecture students. 130 (29.4%) students did not indicate their field of study. Moreover, 124 (28.1%) students started their university education in 2020, 87 (19.7%) in 2019, 66 (14.9%) in 2018, 28 (6.3%) in 2017, and 10 (2.2%) students in years 2016 and before. 130 (28.7%) students left the question unanswered. In the main group, .5% ($n=2$) of students had a GPA less than 1, 1.8 % ($n=8$) between 1 and 1.99, 14 % ($n=62$) between 2 and 2.99, also 52.7% ($n=233$) had GPA more than 3. 31% ($n=137$) students did not mention their GPA.

Table 3.2

Characteristics of the Participants in the Main Study (n=442)

	Frequency (<i>f</i>)	Percentage (%)
Gender		
Female	231	52.3
Male	85	19.2
Missing	126	28.5
Age		
15-24	297	67.2
25-34	12	2.7
35-44	6	1.4
Above 45	1	.2
Missing	126	28.5
Field of study		
Health sciences	84	19
Engineering	124	28.1
Education	102	23.1
Architecture	2	.5
Missing	130	29.4
University entry year		
2016 and before	10	2.3
2017	28	6.3
2018	66	14.9
2019	87	19.7
2020	124	28.1
Missing	127	28.7
GPA		
Less than 1	2	.5
1.00-1.99	8	1.8
2.00-2.99	62	14
3.00 and more	233	52.7
Missing	137	31

Note. Totals of percentages are not 100 for every characteristic because of rounding.

Health sciences as a field of study included 44 (10%) dentistry students, 23 (5.2%) pharmacy students, 7 (1.6%) physiotherapy and rehabilitation students, 7 (1.6%) social services students, 2 (.5%) nutrition and dietetics students and 1 (.2%) medicine student. Moreover, students in the engineering field were in the following departments; metallurgy and materials engineering 4.8% ($n=21$), manufacturing engineering 1.4% ($n=6$), chemical engineering 4.1% ($n=18$), civil engineering .9% ($n=4$), computer engineering 4.1% ($n=18$), industrial engineering 1.1% ($n=5$), mechanical engineering 1.4% ($n=6$), electrical and electronics engineering 1.8% ($n=8$), industrial design engineering 3.6% ($n=16$), energy systems engineering 2.9% ($n=13$) and 2% ($n=9$)

engineering without specifying department. Furthermore, students from education field were from several different divisions. 20 (4.5%) students were from Arabic language education, 11 (2.5%) from French language education, 5 (1.1%) from English language education, 7 (1.6%) from German language education, 11 (2.5%) from Turkish language education, 5 (1.1%) from special education, 4 (.9%) from guidance and psychological counseling, 2 (.5%) from physics education, 2 (.5%) from biology education, 1 (.2%) from chemistry education, 4 (.9%) from science education, 5 (1.1%) from mathematics education, 3 (.7%) from geography education, 2 (.5%) from music education, 3(.7%) from art education, 3 (.7%) from computer and instructional technologies education, 2 (.5%) from philosophy group education, 6 (1.4%) from social sciences education, 1 (.2%) from history education and 2 (.5%) from foreign languages education. 3 (.7%) only indicated that they are from education faculty. Finally, 2 (.5%) students from the architecture faculty were from urban and regional planning department.

3.4. Data Collection Instruments

Academic Motivation Scale (AMS), Academic Moral Disengagement Scale (AMDS), Academic Dishonesty Scale (ADS), and Academic Dishonesty Questionnaire (ADQ) were used in this study. Sample items from the student survey can be found in Appendix A. Also, Table 3.3 shows which data collection instruments were used to answer each research question. The following section introduces these measures in detail. AMDS was adapted into Turkish, while ADS and ADQ were developed within the scope of the present study.

Table 3.3

Summary of Data Collection Instruments and Research Questions

Research question	Instruments used
What are undergraduate students' awareness, perceptions, and opinions on academic dishonesty?	ADQ
How well do academic motivation, academic moral disengagement, knowledge of academic dishonesty regulations, gender, and GPA predict academic dishonesty unawareness of undergraduate students?	AMS, AMDS, ADS
What are undergraduate students' beliefs on dishonesty frequency during emergency remote education compared to in-person education and student reasons given for the difference?	ADQ
What are undergraduate students' observations and experiences of contract cheating?	ADQ

3.4.1. Academic Motivation Scale

The Academic Motivation Scale was developed based on self-determination theory by Vallerand et al. (1989) in French (Échelle de Motivation en Éducation) and later adapted to English by the same researchers (Vallerand et al., 1992). The scale aims to measure intrinsic motivation, extrinsic motivation, and amotivation in higher education students. Several researchers adapted the scale to Turkish (Can, 2015; Karataş et al., 2012; Ünal-Karagüven, 2012). Ünal-Karagüven (2012) adapted version was used in this research as it was easily accessible and had a documented rigorous adaptation study.

AMS has 28 items under the question “Why do you go to college?” on a seven-point Likert scale starting with “does not correspond at all” (1) and ending with “corresponds exactly” (7). Moreover, it has seven factors in line with self-determination theory. These factors are intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation, extrinsic motivation-identified, extrinsic motivation-introjected, extrinsic motivation-external regulation, and amotivation. Each factor is formed of four items adding up to a total of 28 for the whole scale. The sample item for each factor is provided in Table 3.4.

Table 3.4

Sample Items for Each Factor of Academic Motivation Scale

<i>Subscale</i>	<i>Sample item</i>
IM to know	Because my studies allow me to continue to learn about many things that interest me. [Çünkü ilgimi çeken birçok konu hakkında daha fazla şey öğrenmeye devam etmemi sağlıyor.]
IM toward accomplishment	For the pleasure, I experience while surpassing myself in my studies. [Derslerimde kendi sınırlarımı aşarken aldığım zevk için.]
IM to experience stimulation	For the pleasure I experience when I read interesting authors. [İlgi çekici metinler okumaktan aldığım zevk için.]
EM identified	Because eventually, it will enable me to enter the job market in a field that I like. [Çünkü, er ya da geç, istediğim bir iş alanına girmemi sağlayacak.]
EM introjected	To prove to myself that I am capable of completing my college degree. [Üniversiteyi bitirebileceğimi kendime kanıtlamak için.]
EM external regulation	In order to have a better salary later on [İleride iyi bir maaş alabilmek için]
Amotivation	I don't know, I can't understand what I am doing in school. [Bilmiyorum, zaten okulda ne yaptığımı bir türlü anlayamadım.]

Note. IM refers to "intrinsic motivation," EM refers to "extrinsic motivation."

Ünal-Karagüven (2012) conducted Confirmatory Factor Analysis (CFA) to test the seven-factor model of AMS. Results were deemed satisfactory for the seven-factor model with the following fit indices: Chi-square statistics (χ^2) =1017.74 (329), Comparative Fit Index (CFI)=.94, Adjusted Goodness of Fit Index (ADFI)= .81, Normed Fit Index (NFI)=.91, and Root Mean Squared Error of Approximation (RMSEA)= .073. Can (2015) further studied the proposed seven-factor model for Turkish adaptation of the scale and compared it with alternative models of five-factor, three-factor, two-factor, and one-factor. The seven-factor model was found to be a good fit.

Furthermore, Cronbach alpha coefficients for each subscale were $\alpha=.79$ for intrinsic motivation-to know, $\alpha=.74$ for intrinsic motivation-toward accomplishment, $\alpha=.67$ for intrinsic motivation-to experience stimulation, $\alpha=.79$ for extrinsic motivation-identified, $\alpha=.75$ for extrinsic motivation-introjected, $\alpha=.73$ for extrinsic motivation-external regulation and $\alpha=.83$ for amotivation (Ünal-Karagüven, 2012).

3.4.1.1. Validity and Reliability of Academic Motivation Scale

Confirmatory Factor Analysis (CFA) was conducted using the data from the main study ($n = 448$) through the Mplus program to investigate the fitness of data to the recommended seven-factor model. CFA is a hypothesis-driven structural equation modeling (SEM) analysis used to investigate the relationship between observed measures and latent variables. It is overwhelmingly used in scale development to verify underlying factor structures and patterns of factor loadings. CFA requires the researcher to specify the factor model of scales to confirm or reject the proposed hypothesis (Brown, 2015).

In CFA, the overall fit of the proposed model is evaluated by the chi-square goodness-of-fit test (χ^2) and several fit indices (Tabachnick et al., 2012). Chi-square is used to compare overall model fit; however, it tends to reject any model with a large sample (Bentler et al., 1980). Therefore, the model evaluation is supplemented with alternative fit indices. For this study, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA) were used. RMSEA is an absolute fit index and represents the fit of proposed model to the data and lower values indicate better fit. On the other hand, CFI and TLI are incremental fit indices and they assess fit of the proposed model to a null model where it is assumed that all observed variables are uncorrelated. Higher values indicate a better fit for CFI and TLI (Hair et al., 2019). Hu et al. (1999) suggest cut-off criteria close to .95 for CFI and TLI, also a value close to .06 for RMSEA for a good fit between the proposed model and data. On the other hand, Hair et al. (2019) do not give cut-off values for CFI and TLI but suggest that models with values closer to 1 have a better fit. Similarly, a value between .05 and .08 is advised for RMSEA.

Before conducting CFA on the main study sample, assumptions for the analysis were checked. The assumptions are sample size, missing data, normality, linearity and absence of outliers (Tabachnick & Fidell, 2013). The sample size was more than ten times the number of items on the scale, which is an acceptable ratio according to Hair et al. (2019). In addition, Little's MCAR test analysis revealed that missing data was in a random pattern with less than 5% missing cases for each value. Therefore, missing data was not a concern (Tabachnick & Fidell, 2013). Also, the examination of scatterplots showed linear relationships.

Next, Kolmogorov-Smirnov and Shapiro-Wilk tests, Skewness and Kurtosis values and histogram and Q-Q plots were used to evaluate univariate normality assumption. Kolmogorov-Smirnov and Shapiro-Wilk tests are specific statistical tests for normality and they were significant, expressing non-normality. These tests are sensitive to sample size, so other normality measures were examined (Hair et al., 2019). Skewness values were between -3 and 3. Whereas three Kurtosis values were more than 3, but they were less than 7. Byrne (2016) comments value of 7 can be used as a guide for Kurtosis. Also, histograms and Q-Q plots did not show evidence of non-normality. For multivariate normality, Mardia's test through SPSS Macro revealed non-normality evidence ($p < .05$).

Finally, standardized scores were checked for univariate outliers. Values over 3.29 are considered univariate outliers, but a few cases with larger values are expected (Tabachnick & Fidell, 2013; Hair et al., 2019). Also, a comparison of 5% trimmed mean values with actual means showed that extreme scores did not influence the mean. Therefore, univariate outliers were left in the sample. Afterward, Mahalanobis Distance (D^2) for each case was calculated to detect multivariate outliers. However, Tabachnick et al. warn that Mahalanobis Distance is not a reliable measure and researchers should determine whether the extreme cases are a part of their sample (2012). Therefore, cases with high Mahalanobis Distance scores were accepted as part of the sample and left within.

CFA analysis was run using maximum likelihood estimation on main data by the Mplus program. Seven-factor, 5-factor, 3-factor models and second-order CFA were run to find the most suitable model for the data. 7-factor model gave the best solution

after item 6 and item 9 were allowed to covary, a decision made by examining modification indices. An examination of items showed that they used the same wording in their sentence structures (McCoach et al. 2013). Chi-square statistics for all three models were significant since the test is sensitive to sample size fit indices were examined to evaluate the fit (Bentler et al., 1980). CFA gave following fit indices for the three models: CFI= .92, TLI= .91, RMSEA= .053 for 7-factor model; CFI= .88 TLI= .86, RMSEA= .065 for 5-factor model; CFI= .85 TLI= .84, RMSEA= .071 for 3-factor model and CFI= .89, TLI= .88, RMSEA= .061 for second-order CFA (Table 3.5).

Table 3.5

Goodness-of-fit Indicators of the Models for Academic Motivation Scale (n =427)

Model	χ^2	df	CFI	TLI	RMSEA
7-factor	726.352*	328	.92	.91	.053
5-factor	946.690*	336	.88	.86	.065
3-factor	1081.295*	346	.85	.84	.071
Second-order	896.975*	346	.89	.88	.061

Note. CFI= comparative fit index; TLI= tucker-lewis index; RMSEA= root mean square error of approximation. * $p < .001$

After comparing the results, the 7-factor model was chosen as the best fit for the data. The factor loadings of the 7-factor solution were significant and higher than .40 except for item 1 (.23) (Figure 3.1).

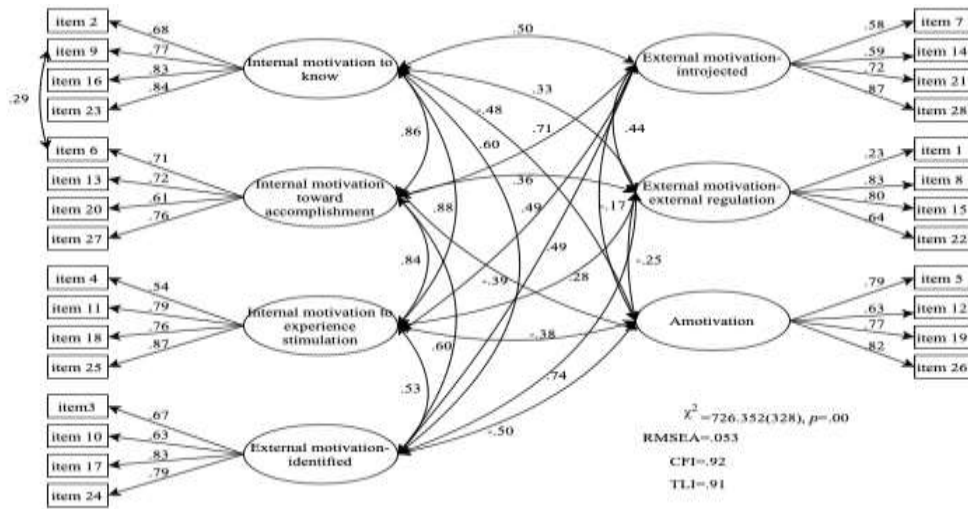


Figure 3.1. CFA Model of the Academic Motivation Scale

Cronbach alpha coefficient, also known as the reliability coefficient, is a diagnostic measure to assess the consistency of the scale. Although the widely accepted lower limit is .70, .60 can be an acceptable result in some research (Hair et al., 2019). Cronbach alpha coefficients for each subscale is as follows: .87 for intrinsic motivation-to know; .81 for intrinsic motivation-toward accomplishment; .83 for intrinsic motivation-to experience stimulation; .81 for extrinsic motivation-identified; .78 for extrinsic motivation-introjected; .66 for extrinsic motivation-external regulation, and .82 for amotivation.

3.4.2. Academic Moral Disengagement Scale

The Academic Moral Disengagement Scale (AMDS) was developed by Farnese et al. (2011) based on measures previously developed by Bandura et al. (1996). The scale aims to measure inclination to moral disengagement of forms of detrimental conduct in the academic context. The scale was adapted to Turkish by the researcher.

AMDS has twelve items and response options are in a five-point Likert scale format, ranging from 5= *completely agree* to 1=*completely disagree*. Although Farnese et al. (2011) informed about a 15-item scale, the scale received from the author herself was in English and had 12 items. Also, the appendix of the article provides a 12-item version of the scale. The instruction for the scale is “Below are some behaviors and attitudes that can occur at university. State how much you agree with them.” Additionally, the scale was proposed to have a two-factor solution: “professors and

university as the origin of academic moral disengagement” and “students as the origin of academic moral disengagement.” The first factor (7 items) used dehumanization, attribution of blame and distortion of consequences as mechanisms of moral disengagement and identified professors and university as the origin of students’ use of mechanisms. For example, “Copying during the exams of “nasty” lecturers is a way to teach them a lesson, [”Sevimsiz” hocaların sınavlarında kopya çekmek onlara ders vermenin bir yoludur]” (item 2) is a sample item for the first factor. The second factor (5 items) used mechanisms of diffusion, displacement of responsibility and advantageous comparison as mechanisms of moral disengagement and identified common practices of other students as the origin of students’ use of mechanisms. The following is a sample item for the second factor: “In comparison to the corruption within the academic system, the “shortcuts” that students use are minor, [Akademik sistemdeki yozlaşmaya kıyasla, öğrencilerin kullandığı “kısa yollar” hafif kalmaktadır]” (item 10). Farnese et al. (2011) reported .77 internal consistency reliability for both factors but did not provide any validity evidence for the scale.

3.4.2.1. Adaptation Process of Academic Moral Disengagement Scale

The Academic Moral Disengagement Scale was adapted to Turkish within this study. Several steps were carried out for the adaptation process. Before the adaptation process, permission to adapt the scale to Turkish and use it in this study was obtained from the scale developer. Although a 12-item scale was received, clarification for whether the English version is a translation or an adaptation from the Italian version was not provided.

In this study, a rigorous translation process was aimed to achieve improved translations (Sireci et al., 2006). Hambleton (2005) suggests using multiple translators who are knowledgeable in the subject matter and are familiar mainly with the target culture to achieve better translations. Accordingly, the scale was translated into Turkish by the researcher and three other experts. First, the researcher and another expert in Measurement and Evaluation examined all four translations item by item to decide on a single standard translation. Next, the composed translation was checked to verify whether each item had the original meaning and conveyed well into the target culture. Afterward, the translated version was back-translated into English by another three

language experts. It was found that the phrase “nasty teachers” (item 2) created disharmony among translators. Therefore, a meaning that conveys the context was preferred, rather than a literal translation.

Similarly, this back-translated version was examined item-by-item by the researcher and an expert in the field of Measurement and Evaluation to decide whether it was identical to the original English version. Moreover, a Turkish language specialist was asked to review the items’ grammar, vocabulary choice, and possible ambiguity and incoherency. Lastly, an expert was asked to check the format and directions of the scale for face validity.

Cognitive interviews followed the translation process. Cognitive interviews are cost-effective ways to reduce errors in the scales by investigating whether the items are understood consistently and answered validly (Fowler, 2013). Fowler (2013) suggests asking respondents to “think aloud” and ask a set of follow-up questions about what they think the question is asking and why they choose a particular answer. The cognitive interview process of this study was carried out accordingly with three male and four female undergraduate students. They were asked to complete the scale by thinking aloud. To further minimize misunderstandings that may arise from translated material, students were questioned about their inferred meaning of the items and asked about unclear parts. None of the items were found problematic.

3.4.2.2. Pilot Study for Academic Moral Disengagement Scale

The pilot study was conducted to gather validity and reliability evidence for the adapted scale. Exploratory Factor Analysis (EFA) was conducted through SPSS 27 on the pilot sample ($n = 192$) to discover underlying structures among variables. EFA is a multivariate statistical technique used to discover correlations among variables to see whether they form highly correlated subsets (factors) that are, in return, independent from each other. On a scale, these factors represent dimensions in the data that come together to form meanings that correspond to concepts that are difficult to describe with a single measure (Hair et al., 2019; Tabachnick & Fidell, 2012).

Before conducting EFA analysis, the factor extraction method and rotation type should be decided. There are several extraction methods for factor analysis; however, Fabrigar

et al. (1999) suggested using maximum likelihood for relatively normally distributed data and using principal axis factoring if multivariate normality is severely violated. On rotation, Costello et al. (2005) pointed out that even though rotation cannot improve the analysis, oblique rotation techniques (direct oblimin, quartimin and promax) give more theoretically accurate results in social sciences. Since correlation among factors is expected in social sciences, orthogonal rotations (varimax, quartimin and promax) predisposition to produce factors that are uncorrelated is problematic. Furthermore, Costello et al. (2005) argued that manipulating delta or kappa values about rotation caused unnecessary complexity in results and suggested leaving them in default values (delta (0), kappa (4) for SPSS). Following the analysis, the number of factors to retain should be decided. Eigenvalues that represent variance and Cattell's Scree Test are used for the decision (Tabachnick & Fidell, 2013). Eigenvalues greater-than-one are suggested to be retained as factors and Cattell's Scree Plot is examined for the breaking point in the data to decide on the number of factors. Lastly, factor loadings should be checked and they should be over .3 (Tabachnick & Fidell, 2013)

Assumptions of EFA were checked before the analysis was run. The assumptions are sample size, missing data, metric variables, absence of outliers, normality, sphericity, linear relationships, sampling adequacy and factorability (Hair et al., 2019; Tabachnick & Fidell, 2013). The pilot sample size ($n=192$) was more than 10:1 ratio of the number of items, which was deemed more than acceptable (Hair et al., 2019). Missing data analysis revealed less than 5% of missing cases with a random distribution pattern, so missing data was not a concern. Moreover, Academic Moral Disengagement is a continuous variable and was measured by a 5-point Likert scale, meaning the assumption of metric variables was met.

Regarding univariate normality, Kolmogorov-Smirnov test, Shapiro-Wilk test, skewness values, kurtosis values, Q-Q plots and histograms were examined. Kolmogorov-Smirnov and Shapiro-Wilk tests were significant, indicating non-normality. However, they are sensitive to sample size, so other indicators were also examined (Hair et al., 2019). Skewness and kurtosis values were between -3 and 3, indicating normality. Similarly, Q-Q plots and histograms suggested normality. Finally, multivariate normality was examined through Mardia's test, which was significant. This result indicates multivariate non-normality.

Outliers were examined through standardized scores. Only four scores exceeded the value of 3.29. Also, an examination of 5% trimmed mean values and actual means showed that extreme scores did not influence the mean. Since a few outliers are expected, they were left in the data (Tabachnick & Fidell, 2013). Next, linear relationships among variables were checked through scatterplots and any evidence of curvilinearity was not found. Tabachnick & Fidell, 2013, argues that if no correlations are over .3, the scale is not factorable. Hair et al. (2019) add that scores over .9 are unusual. AMDS has no items below .3 or over .9. Therefore, it met the factorability assumption. Afterward, sphericity was checked via Barlett's Test of Sphericity, which tests the overall significance of correlations within the correlation matrix. The test was found significant. Lastly, sampling adequacy was examined by Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO). For KMO, .80 or above results are considered meritorious; .70 or above as middling; .60 or above as mediocre; .50 or above miserable, and below .50 as unacceptable (Hair et al., 2019). KMO value was found to be .87 and deemed acceptable for the assumption of sampling adequacy.

EFA was run with Principal Axis Factoring (PAF) as the extraction method and Direct Oblimin as the rotation method with a delta value of 0 and kappa value of 4. Catell's Scree Test and eigenvalues were examined to decide the number of retained factors. Scree plot suggested a two-factor solution. Similarly, eigenvalues greater than one supported the same result with a two-factor solution explaining 38.83% of the total variance (Figure 3.2).

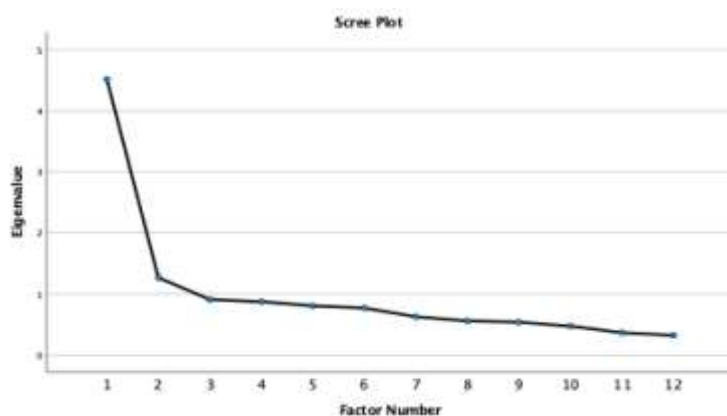


Figure 3.2. *Scree Plot of Academic Moral Disengagement Scale*

Factor loadings ranged from .65 to .36 except for item 6, loading at .27. Item 6 also did not load into any of the factors properly. Also, in contrast with the original scale, item 7 loaded into the second factor. Keeping in mind the theory about the construct, and the need to establish equivalence of scores in adapted scale with loyalty to the original scale, decisions about item 6 and item 7 were left after Confirmatory Factor Analysis (Hambleton 2005) (Table 3.6).

Table 3.6

Factor Loadings of Academic Moral Disengagement Scale with PAF and Direct Oblimin

Item	Factor 1	Factor 2
1	.59	
2	-.37	
3	-.54	
4	-.94	
5	-.45	
6	-.22	.27
7		.55
8		.57
9		.43
10		.48
11		.65
12		.56

3.4.2.3. Validity and Reliability of Academic Moral Disengagement Scale

CFA analysis was conducted using the data coming from the main study (n = 391) through the Mplus program to determine whether the proposed two-factor model fits the main sample data. Before the analysis was run, assumptions about sample size, missing data, normality, linearity and outliers were checked (Tabachnick & Fidell, 2013)

The main sample size was greater than the 10:1 ratio; therefore, it was appropriate (Hair et al., 2019). Missing data was less than 5% and was found random after Little's MCAR test analysis was run. As a result, it was not a concern. Moreover, scatterplots revealed linear relationships of variables.

Kolmogorov-Smirnov and Shapiro-Wilk tests, Skewness and Kurtosis values and histogram and Q-Q plots were used to investigate univariate normality. First, Kolmogorov-Smirnov and Shapiro-Wilk tests were found significant, which indicates non-normality. Since they are sensitive to sample size, other measures were used simultaneously to judge univariate normality (Hair et al., 2019). Skewness and kurtosis values were between -3 and 3, indicating normality. Also, the investigation of histograms and Q-Q plots suggested normality. Next, multivariate normality was examined through Mardia's test, which was significant. Therefore, it indicated multivariate non-normality.

Afterward, standardized scores were checked for univariate outliers. Again, there were a few values greater than 3.29, which is expected. Moreover, comparison of actual mean with 5% trimmed mean showed extreme scores did not influence the mean. Therefore, these cases were accepted as a part of the data (Tabachnick & Fidell, 2013). Next, Mahalanobis Distance was investigated to examine multivariate outliers. Similarly, a few multivariate outliers were found and left in the sample (Tabachnick & Fidell, 2013).

CFA analysis was run in the Mplus program with the Maximum Likelihood Method. The first run produced a poor model, so items 7 and 9 were allowed to covary after modification indices were examined. These items used the same wording which according to McCoach et al. explains their correlation (2013). Then, the analysis was run again. Chi-square statistics for the 2-factor model were significant, so fit indices were examined. Fit indices gave the following results; CFA=. 93, TLI= .91 and RMSEA= .058, indicating good fit (Hu et al., 1999). Also, factor loadings were significant and greater than .3 (Figure 3.3).

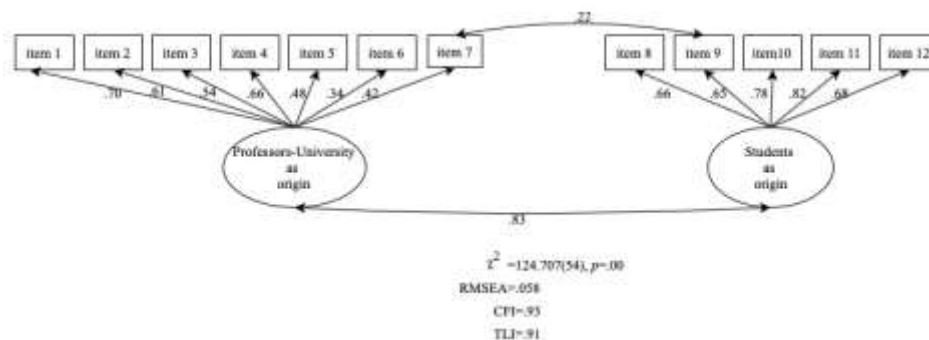


Figure 3.3. CFA Model of the Academic Moral Disengagement Scale

Cronbach alpha reliability coefficient for factor 1 (professor/university as origin) was .68 and factor 2 (students as origin) was .80, which are acceptable results (Hair et al., 2019).

3.4.3. Academic Dishonesty Scale

Academic Dishonesty Scale (ADS) was developed specifically for this research., aiming to measure academic dishonesty behaviors and undergraduate students' perception of them. The development process and statistical information about the scale are covered in the following sections.

3.4.3.1. Development Process of Academic Dishonesty Scale

The scale aimed to measure directly observable, operationally defined behaviors that are considered academic dishonesty. Before the decision on scale development, it was confirmed that a suitable instrument did not exist (McCoach et al., 2013). So, first, Turkish literature was searched for a suitable scale. However, Turkish academic dishonesty scales include items about students' attitudes, feelings and thoughts (Ay et al., 2015; Eminoğlu et al., 2009; Yam et al., 2021). However, the scale needed for this study was a definition of behaviors that are considered academic dishonesty among university students. Similarly, search into broader literature gave similar results. A scale which can be adapted to Turkish was not found. Therefore, the decision about scale development was made.

The first step was to generate an item pool with an extensive literature search. According to Devillis (2016), when developing scales very lengthy items, items that convey two or more ideas and items with meaning ambiguities should be avoided. Also, items should be written at the reading level of future respondents. These considerations were kept in mind during item generation. Following item generation, items were reviewed with a Measurement and Evaluation specialist, and 15 were chosen. Five-point rating scale was chosen ranging from 5= *very appropriate* to 1= *very inappropriate*. Next, instruction for the scale was written as "Indicate how appropriate you think the following behaviors are." The scale was proposed to have two factors: exam-related and assignment-related academic dishonesty behaviors. A

sample item from each factor reads “Accessing exam questions before the exam, by any possible means [Sınavdan önce herhangi bir şekilde sınav sorularını öğrenmek]” and “Turning in an assignment written by someone else [Başka biri tarafından yazılmış bir ödevi, kendi ödeviniz yerine teslim etmek],” respectively. Lastly, a Turkish language specialist was consulted to examine the correct use of grammar and suitable vocabulary choices to eliminate incoherency in the meanings.

Afterward, a cognitive interview with seven undergraduate students was held to minimize errors in the scale and check what meaning students infer from items (Fowler, 2013). They were asked to “think aloud” during the interviews and explain their reasons for choosing particular answers. They were also asked follow-up questions to test if the meaning of items were clear. Students were also asked whether there were parts in the items that were unclear. Some of the students mentioned that items one and two had “nearly the same meaning” and they were uncertain about the difference in their meanings. This comment was noted and decisions about the items were left to be made after the pilot study.

3.4.3.2. Pilot Study for Academic Dishonesty Scale

A pilot study was conducted to gather information about the validity and reliability of ADS. Before EFA was run on SPSS, the following assumptions were examined: sample size, missing data, metric variables, absence of outliers, normality, sphericity, linear relationships, sampling adequacy and factorability (Hair et al., 2019; Tabachnick & Fidell, 2013). The pilot sample ($n = 192$) had a size greater than the 10:1 ratio to item numbers, satisfying the sample size assumption (Hair et al., 2019). Also, missing cases were less than 5% and they were distributed in a random pattern according to Little’s MCAR Test. Therefore, they were not a concern (Tabachnick & Fidell, 2013). An examination of scatterplots revealed linear relationships. Furthermore, ADS is a five-point scale that meets the assumption of metric variables.

Next, Kolmogorov-Smirnov test, Shapiro-Wilk test, skewness and kurtosis values, Q-Q plots and histograms were examined to decide the univariate normality of the data. Kolmogorov-Smirnov and Shapiro-Wilk tests gave significant results. However, they are sensitive to sample size, so other measures were examined (Tabachnick & Fidell,

2013). Skewness and kurtosis values were between 3 and -3, except for the kurtosis values of items 8 and 14. Moreover, Q-Q plots and histograms did not show serious evidence of univariate non-normality. Finally, Mardia's Test was used to measure multivariate normality. Again, it was found significant, which shows multivariate non-normality.

Afterward, standardized scores were examined for values greater than 3.2, which indicates univariate outliers. Although a few cases were univariate outliers, they were accepted as a part of the sample. Also, comparing 5% trimmed mean values with actual means revealed that extreme scores did not influence the mean. (Tabachnick & Fidell, 2013). Next, Mahalanobis Distance was calculated to make decisions about multivariate outliers. Similarly, there were a few cases that showed evidence of being multivariate outliers. Since Mahalanobis Distance is not a reliable test and a few outliers in a sample are expected, they were left in the sample (Tabachnick & Fidell, 2013).

Lastly, factorability, sphericity, and sampling adequacy were checked. Decisions about the factorability of the scale were made after the examination of the correlation matrix. Since correlations were over .3, the scale was accepted as factorable (Tabachnick et al., 2012). Furthermore, Bartlett's Test of Sphericity gave significant results, which is desired for the sphericity assumption. Also, the KMO value was .89, which meets the sampling adequacy assumption (Hair et al., 2019).

Since the pilot sample showed evidence of non-normality, EFA was run on Principal Axis Factoring (PAF) as the extraction method and Direct Oblimin as the rotation method to get the most theoretically correct result. Also, a delta value of 0 and a kappa value of 4 were used to prevent unnecessarily complicated results (Costello et al., 2005; Fabrigar et al. 1999). Catell's Scree Test and eigenvalues greater than one suggested a three-factor solution. However, there were two issues with this solution. The first issue is that there were several cross-loadings to factor three, which did not make a definite theoretical sense. For example, items 6 and 8 cross-loaded to factors 1 and 3; items 11 and 15 cross-loaded to factors 2 and 3. Also, item 14 loaded only to factor three. To solve this problem, item 14 was dropped, which resulted in a 2-factor solution closer to the theoretical sense. The other issue was that items 1, 2 and 3, which

are about plagiarism, loaded to factor one, which contains exam-related academic dishonesty rather than assignment-related academic dishonesty. It was previously stated that some respondents found items 1 and 2 too similar in the cognitive interview process and the decision about the items was left after the pilot study. Therefore, item 2, which had a lower factor loading, was decided to be removed from the scale. Items 1 and 3 were left on the scale as their removal would have caused a significant loss of meaning. Further decisions about them were left to be made after CFA.

After items 2 and 14 were dropped, the second run of EFA gave a 2-factor solution according to Cattell’s Test and eigenvalues over 1, explaining 49.27% of the total variance. The first factor was named exam-related academic dishonesty and the second factor was assignment-related academic dishonesty. Also, factor loadings ranged from .48 to .89 (Figure 3.4) (Table 3.7).

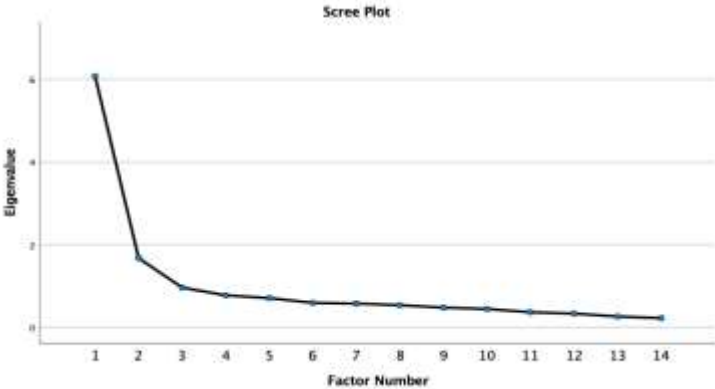


Figure 3.4. Scree Plot of Academic Dishonesty Scale

Table 3.7
Factor Loadings of Academic Dishonesty Scale with PAF and Direct Oblimin

Item	Factor 1	Factor 2
1	.62	
3	.48	
4	.70	
5	.89	
6	.74	
7	.54	
8	.65	
9		.59
10		.82
11		.51

12	.67
13	.74
15	.52

3.4.3.3. Validity and Reliability of Academic Dishonesty Scale

CFA analysis was run by the Mplus program to confirm the 2-factor structure for the main sample data. Before the analysis was run, assumptions of sample size, missing data, normality, linearity and absence of outliers were checked (Tabachnick & Fidell, 2013). As the main sample size was more than ten times the item number, the sample size assumption was met (Hair et al., 2019). Next, missing data was scrutinized and found less than 5% and at a random pattern by Little's MCAR analysis. This result makes missing cases not a severe problem for data (Tabachnick & Fidell, 2013). Finally, linearity was checked through scatterplots and any sign of curvilinearity was not found.

Afterward, univariate normality was examined through Q-Q plots, histograms, skewness and kurtosis values, also Kolmogorov-Smirnov and Shapiro-Wilk tests. Q-Q plots and histograms did not show serious evidence of non-normality. Skewness and kurtosis values were between -3 and 3, except for kurtosis values of item 7 and item 10. Kolmogorov-Smirnov and Shapiro-Wilk tests were significant, which indicates non-normality. However, their sensitivity to sample size should be noted (Hair et al., 2019). For multivariate normality, Mardia's test was conducted through SPSS Macro. The result was significant, which indicates multivariate non-normality.

Following normality checks, standardized scores were examined for values over 3.29 for univariate outliers. There were a few cases with values over 3.29 but examining %5 trimmed mean values with actual means showed that they did not influence the mean. Therefore, they were considered a part of the sample. Lastly, Mahalanobis Distances were checked for multivariate outliers. Similarly, a few cases with high values were found and left in the sample because a few cases with larger values are expected (Tabachnick & Fidell, 2013).

Mplus program was used to run CFA analysis with the Maximum Likelihood Method. The first run of CFA gave a poor fit. After modification indices were examined, items

3 and 4 were allowed to covary as this is a solution in line with the theory since they are in the same factor (Brown, 2015; Schumacker, 2016). Chi-square statistics were significant in the second run of the CFA, indicating poor fit. However, as chi-square statistics are sensitive to sample size, fit indices were examined to decide fitness (Bentler et al., 1980). Results for fit indices are CFI=.90, TLI=.88 and RMSEA=.079, indicating a good fit (Hair et al., 2019; Hu et al., 1999). Furthermore, factor loadings were significant and greater than .3 (Figure 3.5).

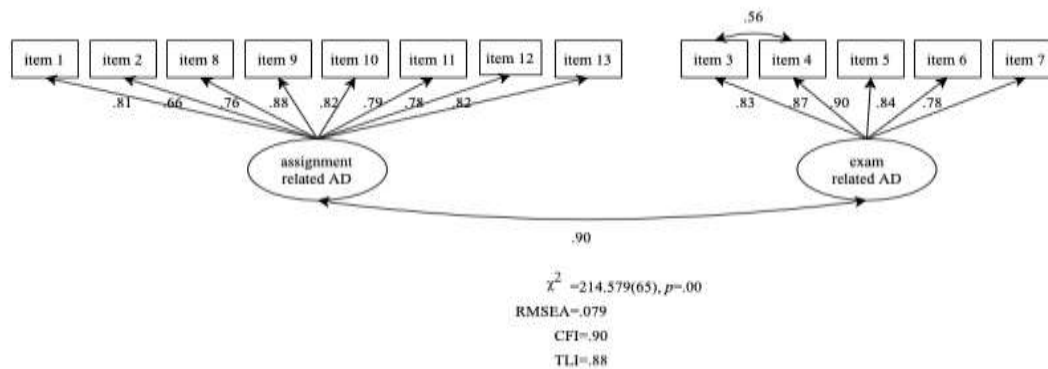


Figure 3.5. CFA Model of the Academic Dishonesty Scale

Cronbach alpha reliability coefficient for factor 1 (exam-related academic dishonesty) was found .87, and factor 2 (assignment-related academic dishonesty) was .86, indicating good reliability (Hair et al., 2019).

3.4.4. Academic Dishonesty Questionnaire

Academic Dishonesty Questionnaire was developed for this research to give more information about undergraduate students' perceptions, attitudes, opinions, and beliefs about academic dishonesty. Also, to investigate assignment outsourcing trends and cheating during Covid-19 forced remote education. Finally, the questionnaire aimed to give a better picture of dishonesty culture in academic environments.

First, the items in the questionnaire were written with the help of the literature. The items were created in line with the purpose of this study with gaps in the Turkish literature (assignment outsourcing, students' opinions on the relationship between academic dishonesty and assessment type, etc.) and recent trends related to the topic (cheating in emergency remote teaching, assignment outsourcing, etc.). Next, items

were reviewed with input from a Measurement and Evaluation specialist, followed by a review with a Turkish language specialist to eliminate grammar and vocabulary problems and ambiguity in the items (Devillis 2016).

Afterward, a cognitive interview with seven target respondents (undergraduate university students) was held. Respondents were asked to give information about items' clearness of meaning, their thought processes while giving answers, and their reasons for choosing answers. This process was used to eliminate errors in the questionnaire and to make sure items were understood consistently (Fowler, 2013)

The questionnaire has 14 items aiming to collect information about student beliefs, opinions, and perceptions about academic dishonesty. The first two items deal with students' awareness of academic dishonesty regulations in their university and their sources of knowledge on these regulations. Response categories for source of knowledge on regulations are as follows, orientation program, student handbook, internet site of Registrar's, in class from instructors and from other students. Another item attempts to collect information about students' reasons for academic dishonesty with following unordered response categories; for higher grades, peer cheating, coinciding assignment deadlines/exam dates, course difficulty, individual factors (such as motivation, moral attitude), social/ family pressure and overlooked cheating incidences. Further, two items gather knowledge of their assumptions about being reported for cheating by their peers and instructors. Moreover, their perceptions of their peers' cheating and peers' knowledge of academic dishonesty regulations are investigated by two 5-point Likert scale items. Also, their opinions on the relationship between academic dishonesty and assessment types are questioned with three items. The categorical answering choices in these three items were created by using the assessment preference inventory (Birenbaum, 1994; Gülbahar et al., 2008). Besides, the questionnaire seeks to understand their opinions on cheating during emergency remote teaching by two items, one of which is an open-ended question worded like "Do you think there is a change in academic dishonesty frequency during emergency remote education compared to in-person education? Explain why.". Finally, their observations about contract cheating are collected in two items. The first item was worded as "Did you observe assignments being shared among students or on internet sites or assignments being bought from third parties?". Lastly, the second question

asked students to write about their observations and experiences with contract cheating. (Table 3.8).

Table 3.8
Summary of Academic Dishonesty Questionnaire

Variable	Explanation of items
Awareness of academic dishonesty regulations	Yes/no question
Source of knowledge on academic dishonesty regulations	Closed-ended question with unordered response categories
Reasons for academic dishonesty	Closed-ended question with unordered response categories
Assumptions about being reported for cheating	Two items on a 5-point Likert scale: One for being reported by the instructor, one for peers.
Relationship between academic dishonesty and assessment type	Three items with categorical answering choices
Perceptions of peers' cheating	Item on 5-point Likert scale
Peers' knowledge of academic dishonesty regulations	Item on 5-point Likert scale
Opinions on cheating during covid forced online education	Two items: one categorical question, one open-ended question
Observations about contract cheating	Two items: One yes/no question, one open-ended question

3.5. Research Variables

Academic Dishonesty: Academic dishonesty was measured by the Academic Dishonesty Scale developed within this study. The scale had two dimensions.

Exam-related academic dishonesty: High scores on the subscale indicate greater unawareness of academic dishonesty behaviors in exam-related situations.

Assignment-related academic dishonesty: High scores on the subscale refer to greater unawareness of academic dishonesty behaviors in assignment-related situations.

Academic Moral Disengagement: Academic Moral Disengagement of the students was measured by the Turkish version of the Academic Moral Disengagement Scale of Farnese (2011). The scale had two dimensions.

Professor-university as origin: High scores on this subscale refer to greater use of moral disengagement mechanisms with professors and/or university as the origin for the use of mechanisms.

Students as origin: High scores on this subscale indicate greater use of moral disengagement mechanisms with practices of other students as the origin for the use of mechanisms.

Academic Motivation: Academic motivation of the students was measured by the Turkish version of the Academic Motivation Scale by Vallerand et al. (1989). The scale had seven dimensions.

Intrinsic motivation-to know: High scores on the subscale indicate that university students continued their studies for the pleasure and enjoyment they derive from learning.

Intrinsic motivation-toward accomplishment: High scores on the subscale indicate that university students continued their studies for the satisfaction they experienced from their accomplishments.

Intrinsic motivation-to experience stimulation: Higher scores on the subscale indicate that students continued their studies for the pleasure they drive from experiencing stimulation.

Extrinsic motivation-identified: High scores on the subscale indicate that university students continued their studies for a sense of personal value and importance.

Extrinsic motivation-introjected: High scores on the subscale indicate that university students continued their studies for the pleasure they drive from a future reward.

Extrinsic motivation-external regulation: High scores on the subscale indicate that university students continued their studies to avoid negative consequences or receive a reward.

Amotivation: High scores on the subscale indicate that university students are not motivated to continue their studies.

Awareness of Academic Dishonesty Regulations: This is a discrete and independent variable with two levels: aware of academic dishonesty regulations and unaware of academic dishonesty regulations. The scale of measurement is nominal.

Individual Student Characteristics: Gender and GPA were subcategories of this group.

Gender: Discrete independent variable with two levels; female and male. The scale measurement is nominal.

GPA: Continuous independent variable on a 4.0 point scale.

3.6. Data Collection Procedure

Before starting data collection for the research, permission was obtained from Human Subjects Ethics Committee at Middle East Technical University (Appendix B). At the same time, necessary permissions were obtained from Gazi University.

The study was piloted in the 2019-2020 Spring term until March when Covid-19 restrictions prevented further data collection. Instructors were asked to share the survey with their students during course hours. The students were asked to participate in the study voluntarily. Before completing the survey, they were asked to complete an informed consent form where confidentiality of their responses was emphasized, and a brief description of the purpose of the study was introduced. They were also given communication addresses to reach the researcher if needed.

The main study took place from March 2021 to June 2021. Because of Covid-19 restrictions, higher education studies were being carried out online. Therefore, a survey was formed on the online survey web app LimeSurvey. Instructors were emailed the web link for the survey and were asked to share the link with their students. Similar to the pilot study, the main study included an informed consent form, an

explanation of the purpose of the study with stress in the confidentiality of the responses, and communication channels with the researcher.

3.7. Data Analysis

To answer the research questions, descriptive statistics, inferential statistics, and content analyses were conducted. Descriptive and inferential statistics were done in IBM SPSS 27 except for CFA analyses done in the Mplus program. Missing value analyses were performed before any analyses on either pilot sample or main sample. Missing cases were missing at a random pattern and less than 5% in each sample. According to Tabachnick and Fidell (2013), if the missing data has a random pattern of 5% or less of the total number of cases, it is not a serious concern.

Prior to conducting inferential analyses to answer the first research question, evidences for construct validity were provided with exploratory and confirmatory factor analyses. EFA analyses were done to explore the relationship among variables and identify factors in scales AMDS and ADS with the pilot sample. Eigenvalues, Cattell's scree plot, pattern matrices, and factor correlation matrices were checked to propose factorial models for the abovementioned scales. CFA analyses were conducted for AMS, AMDS, and ADS to confirm proposed factorial structures of the scales for the main sample of the study before conducting analysis to answer research questions. Chi-square test of model fit, RMSEA, CFI, and TLI were examined to interpret the results. Moreover, Cronbach alpha coefficients were conducted for all scales to check internal consistency.

First, descriptive statistical methods of frequencies and percentages were used to describe undergraduate students' knowledge of academic dishonesty regulations, perceived peer cheating, perceptions of cheating related to assessment types, reasons for cheating, perception of peers' knowledge of academic dishonesty, and assumptions about being reported for the second research question.

it was examined whether academic motivation, academic moral disengagement, and knowledge of academic dishonesty regulations can predict academic dishonesty perception of undergraduate students. Therefore, a multiple regression analysis was used to explore the relationship between the outcome variable and predictors. Before

that, the assumptions of regression analysis, which are the absence of univariate and multivariate outliers, normality, linearity, homoscedasticity of residuals, absence of multicollinearity, and independence of errors, were checked. In addition, the minimum sample size was also achieved (Tabachnick & Fidell, 2013).

Finally, content analysis was used for the last two research questions, which focused on undergraduate students' opinions on cheating during covid emergency remote education and their observations about contract cheating.

To analyze student answers about emergency remote education, data were read extensively, and a list of codes was formed. These codes were formed with literature about academic dishonesty and student answers in mind. Next, they were grouped into themes. The list of codes and data were shared with another researcher to ensure inter-coder reliability (Marshall et al., 2016). Furthermore, Cohen's Kappa was computed by SPSS to measure agreement between two coders. Cohen's Kappa is a value that ranges from -1 to 1, where 1 is perfect agreement. Although Cohen did not set cutoff points and standards, other researchers had (Johnson et al., 2018). Landis et al. (1977) indicate that kappa statistics less than 0 indicate poor agreement; 0-.20 slight agreement; .21-.40 fair agreement; .41-.60 moderate; .61-.80 substantial and .81-1.0 almost perfect agreement. Therefore, there was a substantial agreement between the two coders (*Cohen's kappa* = .74, $p < .05$). The same procedure was followed for the contract cheating question. Cohen's Kappa was computed, and there was an almost perfect agreement between the two coders (*Cohen's kappa* = .91, $p < .05$) (Landis et al., 1977).

3.8. Limitations of Study

Every study should be considered in light of its limitations, and this study has several that should be kept in mind. First, a non-experimental, cross-sectional survey design was used in this study, which means the results in the study attempt to describe the characteristic of the population and try to describe the relationship between certain variables. However, any result should not be inferred as causality. Second, the sample used in the study was limited to one state university in Ankara, and data were not collected from all faculties in the university due to some faculties not granting

permission for the study. Therefore, although the sample size was adequate to complete data analysis, further generalizations from the data should be inferred with caution. Also, the convenience sampling method was used in the research rather than random sampling, which adds to concerns about generalization. Therefore, the findings may have limited applications in other contexts. Third, self-report measures were used in the study. Furthermore, the study collected data about the academically taboo subject of cheating. As a result, subjects might have felt compelled to give more socially desirable answers, creating limitations for the study's internal validity. To mitigate this effect, the participants were informed that their answers would remain anonymous. Lastly, it should be paid attention that the present study was conducted during the unique situation of Covid-19 forced remote teaching period with students that typically attend classes on their campus. Therefore, it is impossible to discern whether this unexpected situation caused any discrepancy in the findings. In conclusion, the findings should be considered per these limitations.

CHAPTER 4

RESULTS

In this chapter, the research findings are presented regarding each research question. In the first section, descriptive statistics about the first research question, which covers students' awareness of academic dishonesty regulations in their university and their sources of knowledge regarding these regulations, their reasons for academic dishonesty, their assumptions about cheating incidences being reported, their perceptions of their peers' cheating and peers' knowledge of academic dishonesty regulations, and their opinions on the relationship between academic dishonesty and assessment types are given. Next, the question of "How well do academic motivation, academic moral disengagement, knowledge of academic dishonesty regulations, gender, and GPA predict academic dishonesty of undergraduate students?" was addressed by regression analysis. Before the analysis, assumptions are also discussed. Then, results of research questions three and four about students' opinions on cheating during emergency remote teaching and their observations about contract cheating are presented. Lastly, a summary of results is given.

4.1. Academic Dishonesty

In order to understand the characteristics of the participants regarding academic dishonesty, descriptive statistics was examined. It should be noted that unawareness of the participants is measured for the study, not the behavior itself. The mean score for exam-related academic dishonesty was 1.61 ($SD= 0.69$) and for assignment-related academic dishonesty, it was 1.93 ($SD= 0.71$). On a 5 point scale, the findings suggested that both exam-related and assignment-related academic dishonesty of the students

were relatively low. Moreover, assignment-related academic dishonesty was minimally higher. The mean scores for all items were calculated and are given in Table 4.1. The highest mean score was 2.73 ($SD=1.17$), which belongs to item 11, “Getting help from others in any way, in an assignment that must be completed individually.” Also, the lowest mean score was 1.26 ($SD=0.65$) for item 7, “Making someone impersonate you in an exam.”

Table 4.1

Descriptive Statistics by Items for Academic Dishonesty Scale (n=377)

	<i>M</i>	<i>SD</i>
Exam-related academic dishonesty		
Item 3	1.86	0.95
Item 4	1.80	0.93
Item 5	1.79	0.96
Item 6	1.62	0.92
Item 7	1.26	0.65
Assignment-related academic dishonesty		
Item 1	1.61	0.82
Item 2	1.61	0.82
Item 8	2.02	1.14
Item 9	1.94	1.00
Item 10	1.45	0.75
Item 11	2.73	1.17
Item 12	2.28	1.24
Item 13	2.21	1.13

4.2. Students’ Awareness, Opinions, and Perceptions on Academic Dishonesty

Three questions were asked regarding participants’ observations. The frequency distributions of each question are presented in Table 4.2. In the first question, students were asked to rate their observations about other students’ cheating frequency on a 5-point rating scale ranging from “never” to “always.” Three hundred forty students responded to this question. Mean value is 2.55 ($SD = 1.08$). In the second question, students were also asked to rate their observations regarding the frequency of cheating incidents that instructors report cheating incidences on a 5-point rating scale. Three hundred thirty students responded to this question. Mean value is 3.26 ($SD = 1.08$). The third question asked them to rate their observations regarding the frequency of

cheating incidents reported by students on a 5-point rating scale. Three hundred thirty-three students responded to this question. Mean value is 1.45 ($SD = .75$).

Table 4.2

Students' Observations on Peer Cheating Frequency, Cheating Incidences Reported by Instructors and Students

<i>Variable</i>	<i>f</i>	<i>%</i>
Peer cheating frequency		
Never	66	19.41%
Rarely	100	29.41%
Sometimes	109	32.06%
Often	53	15.59%
Always	12	3.53%
Total	340	100%
<i>Missing</i>	36	
Cheating incidences reported by instructors		
Never	24	7.27%
Rarely	52	15.76%
Sometimes	110	33.33%
Often	104	31.52%
Always	40	12.12%
Total	330	100%
<i>Missing</i>	46	
Cheating incidences reported by students		
Never	63	18.92%
Rarely	134	40.24%
Sometimes	82	24.62%
Often	43	12.91%
Always	11	3.30%
Total	333	100%
<i>Missing</i>	43	

Next, students were questioned about the reasons students resort to academic dishonesty. Seven options were provided on a checklist, and they were asked to choose one or more options. Student responses are presented in Figure 4.1. More than half of the students selected the reason “to achieve a higher GPA” (68.25%, $f=230$) and “because of coinciding assignment deadlines and exam dates” (61.42%, $f=207$). Moreover, nearly half reported, “course difficulty” (49.55%, $f=167$) and “social and family pressure to be successful” (49.55%, $f=167$) as reasons for cheating. Furthermore, 44.51% ($f=150$) selected “peer cheating” as to why students choose

academically dishonest behaviors. Also, 39.76% ($f=134$) chose “individual factors (personality, attitude, etc.),” while 19.29% selected ($f=65$) “ignorance of cheating incidences by instructors and university administrators.” Fifteen students (4.45%) chose the “other reason” option. Students wrote poor instruction ($f=4$), poor assessment design ($f=2$), and ineffective online education ($f=1$) as reasons for students’ cheating behavior. Thirty-nine students did not respond to the question (Figure 4.1).

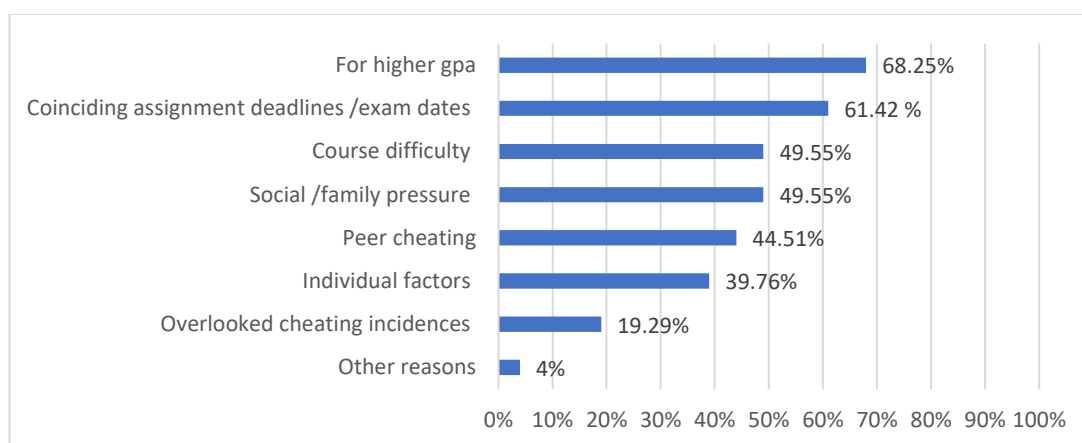


Figure 4.1 *Reasons for Student Academic Dishonesty*

Undergraduate students’ opinions on the relationship between academic dishonesty and assessment types were also examined by asking three questions. The first question had items about assessment types and item formats, the second question was about the cognitive processes, and the third question was explicitly about assignment deadlines and their place in the overall evaluation. Responses to the first question are presented in Table 4.3. More than half of the students (59.94%, $f=202$) indicated that students would be more likely to cheat in “multiple-choice questions.” About thirty percent (30.27%, $f=102$) selected “open-ended questions requiring long answers,” 29.08% ($f=98$) selected “open-ended questions that require short answers,” and 21.96% ($f= 74$) chose in “exams that have application component” (with lab techniques, computer programs, etc.). Almost 20 percent (18.10%, $f=61$) reported more likelihood of cheating in “open-book exams,” 12.46% ($f=42$) in “internship reports,” and 7.12% ($f=24$) in “oral exams.” Thirty-nine students did not respond to the question.

Moreover, more than half of the students (61.13%, $f=206$) stated that they thought students would be more likely to cheat in exams with “knowledge-based questions.” Other options were selected by fewer participants. Students’ responses are presented in Table 4.2. Forty students did not respond to the question.

Furthermore, most of the students (71.81%, $f=242$) reported that students would be more likely to cheat on “assignments with a limited amount of time to complete (less than a week).” Approximately half of the participants (45.10%, $f=152$) expressed that students would be more likely to cheat on “assignments that are highly weighted (more than 40% of the grade). Lastly, 24.63% ($f=83$) of students reported that students would be more likely to cheat on “assignments they have to complete within the semester (Table 4.3). Thirty-nine students did not respond to the question.

Table 4.3

Students Perceptions on Relationship Between Assessment Types, Question Type, Assessment Deadline and Academic Dishonesty

<i>Variable</i>	<i>f</i>	<i>%</i>
Assessment type		
Multiple-choice questions	202	59.94%
Open-ended, long answers	98	29.08%
Open-ended, short answers	102	30.27%
Exams with implementation	74	21.96%
Open book exams	61	18.10%
Oral exams	24	7.12%
Internship reports	42	12.46%
Total	337	100%
<i>Missing</i>	39	
Question type		
Knowledge-based	206	61.13%
Comprehension-based	52	15.43%
Application into new situations	69	20.47%
Providing examples	85	25.22%
Comparison of concepts and ideas	65	19.29%
Analysis and interpretation	70	20.77%
Drawing conclusions	61	18.10%
Critical thinking	75	22.26%
Total	337	100%
<i>Missing</i>	39	
Assessment Deadline		
Assignments to complete in a short time (less than a week)	242	71.81%
Assignments with high effect on overall grade (>40%)	134	40.24%
Assignments to complete within the semester	83	24.63%
Total	337	100%
<i>Missing</i>	39	

Students were asked whether they knew academic dishonesty regulations applied in their university. Three hundred seventy-six students responded to this question. More than half of the students (53.19%, $f=200$) did not know the academic dishonesty regulations applied in their university. The remaining 46.81% ($f=176$) indicated that they were aware of academic dishonesty regulations applied in their university. Next, students were asked to indicate their sources of knowledge regarding academic dishonesty regulations by selecting one or more options from a list provided. Students' responses are shown in Figure 4.2. Nearly half of the students (44.25%, $f=150$) pointed out they learned about the regulations in class from their instructors. A further 22.42%

($f=76$) mentioned learning the regulations from other students in their class, 22.12% ($f=75$) from the orientation program when they started university, 20.94% ($f=71$) from the internet site of register's office, and 20.35% ($f=69$) from the student handbook. Moreover, 4.13% ($f=14$) of students indicated they learned about academic dishonesty regulations from other sources. Of the students who chose "other sources," 3 of them (0.1%) claimed that their source was "their guesses," and 2 (0.1%) of them mentioned they made guesses based on morality. Thirty-seven students did not respond to this question.

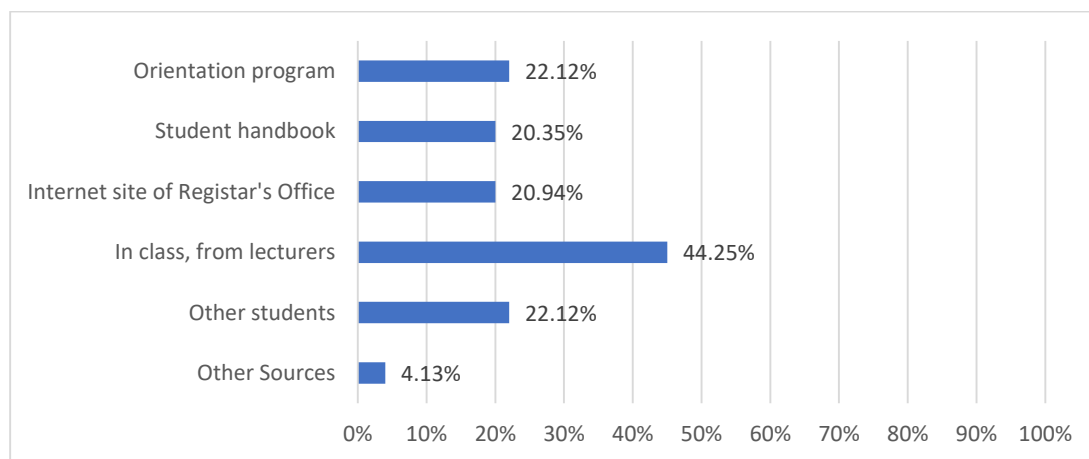


Figure 4.2. *Sources of Students' Academic Dishonesty Regulations Knowledge*

Finally, students were also asked to rate other students' knowledge of academic dishonesty regulations on a 5-point rating scale. Responses indicate a normal distribution with a mean value of 2.02 ($SD=1.14$). The frequency distribution is presented in Table 4.4.

Table 4.4

Students' Perceptions on Their Peers' Knowledge of Academic Dishonesty Regulations

<i>Variable</i>	<i>f</i>	<i>%</i>
Very poor	21	6.25%
Poor	61	18.71%
Fair	177	52.68%
Good	66	19.64%
Excellent	11	3.27%
Total	336	100%
<i>Missing</i>	40	

4.3. Predictors of Academic Dishonesty

Multiple regression analysis is used to assess the relationship between a single outcome variable and several predictor variables (Hair et al., 2019; Tabachnick & Fidell, 2013). Standard multiple regression, sequential (hierarchical) regression, and stepwise (statistical) regression are different regression techniques. In hierarchical regression, which was the chosen analysis in this research, predictors are entered into the analysis in order. The order can be chosen according to theoretical or logical considerations. For example, entering the variable with greater importance first or entering “nuisance” variables first are both acceptable (Tabachnick & Fidell, 2013).

For this research, two hierarchical regression analyses were conducted on SPSS 27 to predict exam-related academic dishonesty and assignment-related academic dishonesty (outcome variables). The predictor variables were entered into the analysis, starting with variables of lesser importance. They were entered in four steps for both analyses, in the following order:

1. Individual student characteristics: gender and GPA
2. Awareness of academic dishonesty regulations
3. Factors of academic motivation: “intrinsic motivation-to know,” “intrinsic motivation-toward accomplishment,” “intrinsic motivation-to experience stimulation,” “extrinsic motivation-identified,” “extrinsic motivation-introjected,” “extrinsic motivation-external regulation,” and “amotivation”

4. Academic moral disengagement: “professors and university as the origin of AMD” and “students as the origin of AMD”

4.3.1. Assumptions of Multiple Regression Analysis

Assumptions of regression analysis are normality, linearity, and homoscedasticity of residuals, the absence of outliers, the absence of multicollinearity, and independence of errors. Before checking assumptions, the sample size was evaluated according to the formula given by Tabachnick and Fidell (2013). The formula $N \geq 50 + 8m$, in which “m” represents the number of independent variables in the study, suggested a minimum sample size of 146 was needed for this study. The main sample size of this study is 442, and 300 of them were eligible to use in the regression analyses. As a result, the sample size was considered adequate.

Next, normality, linearity, and homoscedasticity of residuals were checked. Since regression analysis is built upon the concept of correlation and association, linearity is a critical issue (Hair et al., 2019). An examination of scatterplots of standardized residuals revealed a linear relationship with no sign of curvilinearity. Thus, the linearity assumption was satisfied for both exam-related academic dishonesty and assignment-related academic dishonesty as outcome variables in two regression analyses. Next, the histogram of residuals and normality p-p plot were checked for the normality assumption. Although regression analysis with samples larger than 200 is robust to violations of normality, it is advisable to assess normality to identify problems (Hair et al., 2019). For both analyses, histograms of residual and normality p-p plots showed normal distributions. Also, homoscedasticity of residuals, which is the presence of unequal variances meaning lack of constant variance across independent variables, was assessed by scatterplots of predicted values and residuals (Hair et al., 2019). For both analyses, the homoscedasticity of residuals was not violated.

Afterward, outliers were checked since regression is sensitive to outliers (Tabachnick & Fidell, 2013). Mahalanobis distance, Cook’s distance, DFBeta values, and centered leverage values were examined to identify outliers. In the analysis with exam-related

academic dishonesty as the dependent variable, there were two outliers according to Mahalanobis Distances. In contrast, all Cook's distances and DFBeta values were less than 1, meaning there were no outliers. Also, centered leverage values did not reveal an outlier (Hair et al., 2019). Similarly, in the analysis with assignment-related academic dishonesty as the dependent variable, two cases appeared as outliers according to Mahalanobis distances, whereas centered leverage values, Cook's distances, and DFBeta values revealed no outliers. Therefore, it was decided to keep these cases in the analysis.

Lastly, the absence of multicollinearity and independence of errors terms were checked. Durbin-Watson statistics were used to examine whether each predicted value is independent. For exam-related academic dishonesty, the value was 1.87, and for assignment-related academic dishonesty, 1.71. As Field (2018) states that values between 1 and 3 indicate independence of errors, the assumption was satisfied. Next, the absence of multicollinearity, which is a high degree of relationships among independent variables, was examined by correlations matrices, tolerance, and VIF values. Tolerance values less than .10 and VIF values more than 10 are signs of multicollinearity (Hair et al., 2019). For both analyses, there was no such value. When correlations matrices were inspected for correlations among independent variables (Table 4.4), all values were less than .90 (Field, 2018). As a result, the absence of multicollinearity was concluded for both analyses.

4.3.2. Relationships Among Outcome and Predictors

Before giving the results of two multiple regression analyses, the relationships between predictor variables and their correlations to each outcome variable were examined (Table 4.5). The following section describes only the statistically significant correlations with the outcome variables.

A negative and significant relationship was observed between exam-related academic dishonesty and all three intrinsic motivations (intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation). In contrast, a positive and significant relationship was observed with exam-related

academic dishonesty and both dimensions of academic moral disengagement and amotivation. That is, students who are intrinsically motivated were likely to have lower exam-related academic dishonesty. On the other hand, students who are amotivated and students who use academic moral disengagement mechanisms were likely to have greater unawareness of academic dishonesty behaviors in exam-related situations.

Similarly, with assignment-related academic dishonesty, a negative and significant relationship was observed with all three intrinsic motivations; also, a positive and significant relationship was observed with amotivation and both dimensions of academic moral disengagement. In other words, intrinsically motivated students were also likely to have lower assignment-related academic dishonesty. In contrast, if they were amotivated and used academic moral disengagement mechanisms, they were likely to have higher assignment-related academic dishonesty. Furthermore, there was a positive and significant relationship with gender; in other words, male students were likely to have higher assignment-related academic dishonesty than female students (females were coded as 1; males were coded as 2).

Table 4.5

Intercorrelations for Exam-related and Assignment-related Academic Dishonesty and Predictor Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	
Exam-related academic dishonesty		-.05	.05	.09	-.21*	-.15*	-.22*	-.05	-.02	.05	.21*	.46*	.54*
Assignment-related academic dishonesty	.16*	.03	.08	.08	-.27*	-.21*	-.29*	-.05	-.02	.08	.26*	.53*	.60*
Predictor variables													
1. Gender													
2. GPA	-.17*												
3. Awareness of academic dishonesty regulations	.09	-.06											
4. Intrinsic motivation -to know	-.21*	.08	-.12*										
5. Intrinsic motivation-toward accomplishment	-.15*	.13*	-.13*	.73*									
6. Intrinsic motivation-to experience stimulus	-.18*	.06	-.12*	.77*	.70*								
7. Extrinsic motivation-identified	-.14*	.13*	-.13*	.50*	.47*	.40*							
8. Extrinsic motivation-introjected	-.19*	.12*	-.04	.38*	.56*	.42*	.48*						
9. Extrinsic motivation-external regulation	-.06	.13*	.01	.15*	.18*	.08	.51*	.39*					
10. Amotivation	.17*	-.07	.12*	-.47*	-.38*	-.37*	-.50*	-.17*	-.14*				
11. Professors/university as the origin of AMD	.07	.01	.14*	-.28*	-.22*	-.31*	-.05	-.02	.12*	.40*			
12. Students as the origin of AMD	.10*	.07	.06	-.23*	-.12*	-.20*	-.12*	.03	.08	.33*	.61*		

*p<.05

4.3.3. Predictors of Exam-Related Academic Dishonesty

Hierarchical multiple regression was used to assess the extent of gender, GPA, awareness of academic dishonesty regulations, academic motivation, and academic moral disengagement to predict exam-related academic dishonesty. Predictor variables were entered into the equation in four steps. In the first step, individual student characteristics were not statistically significant predictors of exam-related academic dishonesty, $F(2, 297) = 0.88, p > .05$. In other words, gender and GPA did not significantly contribute to undergraduate students' exam-related academic dishonesty. In the second step, awareness of academic dishonesty regulations was entered into the equation after controlling the effects of gender and GPA. However, it did not make a statistically significant unique contribution to explaining exam-related academic dishonesty. The model was not significant, $F(3, 296) = 1.33, p > .05$.

In the third step, seven academic motivation variables were entered into the equation with the effects of individual student characteristics and awareness of academic dishonesty regulations being controlled. For this study, academic motivation was defined as intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation, extrinsic motivation-identified, extrinsic motivation-introjected, extrinsic motivation-external regulation, and amotivation. The third model was found statistically significant in predicting exam-related academic dishonesty, $F(10, 289) = 2.89, p < .05$. This model explained 9% of the variance in exam-related academic dishonesty. Only amotivation made a significant unique contribution to this result by 2%. That is, amotivated undergraduate students were more likely to have higher exam-related academic dishonesty.

In the fourth and last step, academic moral disengagement variables were entered into the equation after controlling the effects of individual student characteristics, awareness of academic dishonesty regulations, and academic motivation. For this study, academic moral disengagement was defined as “professors and university as the origin of AMD” and “students as the origin of AMD.” The model was significant, $F(12, 287) = 11.95, p < .05$. This step explained an additional 24% variance in exam-

related academic dishonesty. Both mechanisms of academic moral disengagement made significant unique contributions to the model, with professors/university as the origin of academic moral disengagement explaining 2% of variance and students as the origin of academic moral disengagement explaining 11% of the variance. This result indicated that undergraduate students who use mechanisms of moral disengagement with professors/university as the origin and students as the origin were likely to have higher exam-related academic dishonesty.

In summary, results indicated that individual student characteristics, awareness of academic dishonesty regulations, academic motivation, and academic moral disengagement explained 33% of the variance in exam-related academic dishonesty. Among all of the predictors, amotivation, professors/university as the origin of academic moral disengagement, and students as the origin of academic moral disengagement made significant contributions. Given their squared semi-partial correlation coefficients, students as the origin of academic moral disengagement explained the most (11%) of the variance. Table 4.6 shows the results of hierarchical multiple regression used to predict exam-related academic dishonesty in undergraduate students.

Table 4.6

Hierarchical Regression Analysis Predicting Exam-Related Academic Dishonesty

Variable	B	SE B	β	t	sr ²	R ²	ΔR^2
Step 1: Individual student characteristics							
Gender	.09	.09	.06	.95	.00	.01	.00
GPA	.10	.09	.06	1.07	.00		
Step 2: Regulations							
Awareness of academic dishonesty regulations	.12	.08	.09	1.49	.00	.01	.00
Step 3: Academic motivation							
Intrinsic motivation -to know	-.04	.06	-.08	-.74	.00		
Intrinsic motivation-toward accomplishment	-.00	.05	-.00	-.04	.00		
Intrinsic motivation-to experience stimulation	-.07	.04	-.15	-1.61	.00		
Extrinsic motivation-identified	.07	.05	.12	1.38	.00		
Extrinsic motivation-introjected	.02	.03	.04	.48	.00		
Extrinsic motivation-external regulation	.01	.04	.02	.34	.00		
Amotivation	.10	.04	.18	2.59	.02*		
Step 4: Academic moral disengagement							
Professors/university as origin of academic moral disengagement	.18	.07	.18	2.64	.02*	.33*	.31
Students as origin of academic moral disengagement	.30	.04	.43	6.77	.11*		

*p<.05

4.3.4. Predictors of Assignment-Related Academic Dishonesty

A second hierarchical multiple regression was run to examine the degree of gender, GPA, awareness of academic dishonesty regulations, academic motivation, and academic moral disengagement to predict the assignment-related academic dishonesty. Similar to the first regression analysis, individual student characteristics were defined as gender and GPA. In addition, academic motivation was defined as intrinsic motivation-to know, intrinsic motivation-toward accomplishment, intrinsic motivation-to experience stimulation, extrinsic motivation-identified, extrinsic motivation-introjected, extrinsic motivation-external regulation, and amotivation. Also, academic moral disengagement was defined as professors and university as the origin of AMD and students as the origin of AMD. Moreover, predictor variables were entered into the equation in four steps.

In the first step, it was found that model involving individual students characteristics (gender and GPA) was significant, $F(2, 297) = 4.54, p < .05$, explaining 3% of the variation. Only gender made a unique contribution to the equation and explained 3% of the variance. In other words, male student students were more likely to have higher assignment-related academic dishonesty. In the second step, awareness of academic dishonesty regulation was added to the regression after controlling for individual student characteristics. Although the overall model was statistically significant $F(3, 296) = 3.45, p < .05$, awareness of academic dishonesty regulations did not make a significant unique contribution to explaining assignment-related academic dishonesty in undergraduate students.

In the third step, academic motivation was added to the equation after controlling the effects of previously added predictors. The result was statistically significant $F(10, 289) = 5.53, p < .05$, explaining a further 13% variation. Moreover, “intrinsic motivation-to know,” “extrinsic motivation-identified,” and “amotivation” made statistically significant unique contributions to the result. However, only amotivation made a relatively sizeable 3% contribution, whereas the contributions of the other two were 1% each. Namely, undergraduate students were more likely to have higher

assignment-related academic dishonesty if they were extrinsically (-identified) motivated or amotivated. In contrast, intrinsically (-to know) motivated students were likely to have lower assignment-related academic dishonesty.

In the last step, after controlling the effects of individual student characteristics, awareness of academic dishonesty regulations, and academic motivation, academic moral disengagement was entered into the equation. The model was found statistically significant, $F(12, 287) = 5.40, p < .05$, and it explained an additional 27% of the variance in assignment-related academic dishonesty. Professors/university as the origin of academic moral disengagement made a unique statistical contribution of 2% to explain variance. Moreover, students as the origin of academic moral disengagement added a significant, unique contribution of 11%. That is, undergraduate students who use the academic moral disengagement mechanisms were more likely to have higher assignment-related academic dishonesty.

In brief, results indicated that individual student characteristics, awareness of academic dishonesty regulations, academic motivation, and academic moral disengagement explained 43% of the variance in assignment-related academic dishonesty. When squared semi-partial correlation coefficients were examined, it was found that the predictor “students’ origin of academic moral disengagement” made the most substantial unique contribution (11%). Furthermore, intrinsic motivation -to know (1%), extrinsic motivation-identified (1%), amotivation (3%), professors/university as origin of academic moral disengagement (2%) made statistically significant unique contributions to predict assignment-related academic dishonesty (Table 4.7).

Table 4.7

Hierarchical Regression Analysis Predicting Assignment-Related Academic Dishonesty

Variable	B	SE B	β	t	sr ²	R ²	ΔR^2
Step 1: Individual student characteristics							
Gender	.28	.09	.17	2.96	.03*	.03*	.02
GPA	.10	.09	.06	1.06	.00		
Step 2: Regulations							
Awareness of academic dishonesty regulations	.09	.08	.07	1.13	.00	.03*	.02
Step 3: Academic motivation							
Intrinsic motivation -to know	-.04	.05	-.08	-.79	.01*	.16*	.13
Intrinsic motivation-toward accomplishment	-.03	.05	-.05	-.59	.00		
Intrinsic motivation-to experience stimulation	-.09	.04	-.19	-2.09	.00		
Extrinsic motivation-identified	.10	.05	.16	2.01	.01*		
Extrinsic motivation-introjected	.04	.03	.08	1.08	.00		
Extrinsic motivation-external regulation	.02	.04	.04	.53	.00		
Amotivation	.12	.04	.22	3.26	.03*		
Step 4: Academic moral disengagement							
Professors/university as origin of academic moral disengagement	.22	.06	.21	3.40	.02*	.43*	.41
Students as origin of academic moral disengagement	.32	.04	.44	7.51	.11*		

*p<.05

4.4. Covid-19 Pandemic and Academic Dishonesty

Students were asked about their beliefs on whether academic dishonesty incidences decreased, stayed the same, or increased during the Covid-19 pandemic emergency remote teaching (ERT) compared to in-person education. Also, they were inquired about their reasons for their beliefs about these changes in academic dishonesty incidences with an open-ended question. Three hundred twenty-eight students answered the first question. The majority of the students (69.82%, $f=229$) reported a belief in an increase in academic dishonesty incidences during ERT compared to in-person education. In comparison, 25% ($f=82$) reported it stayed the same and 5.18% ($f=17$) reported it decreased.

One hundred eight students shared their reasons for their perceptions of changes in the number of academic dishonesty incidences. Six themes emerged from student answers: exam security issues; dissatisfaction with online education; instructor behavior and attitude; assessment design; personal characteristics of students; Covid-19 pandemic-related issues.

Most students ($f=59$) mentioned “exam security issues” as to why academic dishonesty increased. These students stated that online exams had low security, resulting in an increase in cheating incidences. “*Exams are not held with sufficient security measures.*” and “*Exams are held online, and universities cannot provide enough test security.*” were two student quotes about security. Also, “*Exams and assignments are not done in class; there is no proctor, which increases cheating.*” Another student described a security problem as, “*More than the necessary time allocated to exams and students completing the same exam in different time slots lies behind academic dishonesties.*”

Another prominent theme was “dissatisfaction with online education” ($f=23$). Students described online education as unproductive and ineffective. Furthermore, they stated that this dissatisfaction was why academic dishonesty incidences increased. Example responses were: “*Online education decreases productivity and prevents knowledge gain...and students resort to academic dishonesty in exams and assignments*” “*We*

have too many courses, and time allocated for lectures is too short...since we cannot do practical sessions, we cannot comprehend theoretical knowledge. This is evident from exams.”

Thirteen students referred to “instructor behavior and attitude” as a reason for their belief in the increase in academic dishonesty. These students wrote about how instructors manage classes and exams as well as instructors’ perceived competence. A few examples are: *“Instructors just read the presentation to finish the material related to the course.”*, *“They give too many responsibilities (assignments, presentations) to the students.”* and *“Because there aren’t suitable and competent instructors and...the right to cheat is a given”*. Students also mention instructors’ attitudes towards online education and their perceived unfairness as an increase in academic dishonesty: *“Some instructors think that online education is too easy and students are being lazy, so they try to make it harder for students.”* *“We, sadly, observed students who follow dishonest ways because of really unfair grading of instructors.”*

The next theme, which was also related to instructors, was “assessment design” ($f=23$). Limited time allocated to complete exams and assignments, difficult exam questions, and problems in coordination of online exams were prevalent responses. For example, a student described: *“Because instructors believe we have a better education when they arrange exaggeratedly short-timed exams, assignments, and projects, and since they don’t want cheating incidences, they ask exaggeratedly difficult questions. This pushes people to academic dishonesty.”* Also, students stated, *“Contrary to what is believed, difficult questions prepared by the instructors drive students to cheat”* and *“Very short time is given to complete the exam because it is a multiple-choice type of exam.”* A student shared the following anecdote:

Our first semester with online education (2019-2020 Spring) was completed successfully with assignments to complete in a long time instead of exams. However, discovering that ten students out of a class of 70 cheated, our instructors completely gave up on assignments, and we had exams with complicated questions and extremely short time given... I observed two results of these bad decisions: Even students who never wanted to cheat in exams had to get help from their peers because of the

short time given to complete the exam, or because of nobody completing the exam, grades were extremely low. Hence, instructors felt forced to assign extra credit randomly.

Among students who believed academic dishonesty incidences decreased, they ascribed their perceived decrease of academic dishonesty incidences to “assessment design” ($f=3$). They believed that increased use of assignments instead of tests, use of citations for assignments, and appropriate time given for tests were the reasons for the decrease in academic dishonesty. Sample quotes were: “*We have an increase in assignments since the start of distance education, and this brought an academic sensitivity... we learned about and started to use APA style citations and give proper references.*” “*It decreased because of shorter time periods given for exams.*”

Similar to students who believed academic dishonesty decreased because of good assessment design, some students believed the number of incidences stayed the same because of it ($f=2$). One student stated their belief in the appropriate allocation of time-limited academic dishonesty incidences: “*Time is limited...there is no time to help other students*”. Another student wrote that assessment methods adapted to distance education prevented an increase in the incidences: “*Exams changed as much as the education.*”

Several students attributed the reason for their perceived increase in academic dishonesty to “Personal characteristics of students” ($f=35$). Low motivation, lack of discipline, and unethical behavior of individual students were given explanations. For example, students shared, “*Because there is no motivation to study*” and “*...but most importantly because we cannot motivate ourselves enough for our courses.*”. Furthermore, “*I think students cheat in exams and assignments because they don’t have discipline.*” was written by another student. For unethical behavior, “*Students have several opportunities to reach information. As a result, a student’s disposition about academic dishonesty is about their thought processes or their morality or whether they want to cheat or not*” and “*... students have low ethics. Therefore, this kind of behavior will go on.*” were written.

More than half of the students ($f=10$) who believed academic dishonesty incidences stayed the same mentioned that reason for this belief was “personal characteristics of students”. These students stated that academic dishonesty stayed at the same levels because students who had cheated in in-person education continued to cheat in online education, and those who had not before likewise did not. Furthermore, they connected this behavior to individual student characteristics. One of the students stated, *“I believe for those who want to cheat, whether it is in-person or online education does not matter.”* Another student wrote, *“They are the same person. Only the ways to achieve this changed.”* A student connected this behavior to individual characteristics stated, *“Because this is about personality. If they cheated before, they would cheat in online education, too. Pandemic cannot stop them”*. Another student wrote that *“This is about cheating becoming a habit for them... time, the place would not matter for them”*.

“Covid-19 pandemic-related issues” was another theme in student responses ($f=12$). Students described psychological problems caused by the Covid-19 pandemic and problems in access to stable internet connections or internet-enabled devices as the reasons for their perception of the increase in academic dishonesty. Some students wrote,

“We are struggling with anxiety for our health and unhappiness caused by weariness. This, no activity, asocial life is hard for individuals at our ages. We are stuck at home when we were supposed to be our most social. So, we don’t want to study... these psychological crises are enough to increase academic dishonesties.”

“...and when I think of the depression people live through because of being away from social life, I can say that it (academic dishonesty) increased.”

Also, a student stated,

“I live in a village where we often have electricity cutoffs, no infrastructure for internet or no stable internet connection...I don’t even have a computer that works properly... I have to use other internet sites or my notes during those exams”.

One student among four who believed there was a decrease in academic dishonesty incidences because of Covid-19 stated their belief that students had more time to study

while they were at home, so academic dishonesty incidences decreased. This student stated, *“Since people were at home during this period, they could allocate more time to their assignments, and for this reason, academic dishonesty decreased.”*

4.5. Contract Cheating

Students were asked whether they observed assignment outsourcing in terms of assignment sharing between students or on internet sites and assignment purchasing from third parties (individuals or internet sites) with a yes or no question and a further open-ended question to write their observations and experiences. Three hundred twenty-seven students answered the first question. Among them, 33.94% ($f=111$) of students indicated they had observed contract cheating, and 66.05% ($f=216$) indicated they had not. Of the 111 respondents who mentioned they witnessed contract cheating, 26 of them chose to share their observations and experiences. Their answers were coded, and findings were presented under three themes. The first theme was “offers in on internet and social media sites,” the second theme was “exchange of payment,” and the third theme was “cooperation between friends and acquaintances.”

“Offers on internet and social media sites” appeared as the first theme ($f=13$). According to students, they encountered internet sites with contract cheating services, advertisements on such sites and social media accounts that offered to complete assignments. Example excerpts are as follows: *“...saw internet sites and social media accounts specifically built for this purpose, and they have a considerable number of followers” “I have seen offers made on several different social media sites” “We encounter internet sites that do assignments for money as advertisements...”*

The second theme, “exchange of payment,” comprised ten students who mentioned money for such services. One student wrote their experience *“I came across a student who purchased all assignments in the semester for 4500 Turkish Liras”*. Another student stated, *“There are too many incidences. I have even seen people who do assignments for 50 Turkish Liras”*. One of the participant’s conclusions on the matter was, *“I think this has become a business model.”*

The last theme, “cooperation between friends and acquaintances,” was addressed by eight students. Students expressed that they came across these incidences as requests for help from other students, assignments done together, and assignments done with sharing of tasks. One of the students summarized it as, *“I heard people discussing this... free of charge, as requests or task sharing.”* Another student added, *“...I have seen people who have their assignments done by friends with a good command of the subject.”*

4.6. Summary of Results

The results were reported on four main issues. Firstly, students' beliefs, perceptions, and opinions on academic dishonesty were examined. Then, the relationship between academic motivation, academic moral disengagement, knowledge of academic dishonesty regulations, gender, GPA and academic dishonesty of undergraduate students was analyzed. Afterward, undergraduate students' beliefs on cheating frequency during emergency remote education compared to in-person education and reasons for the difference were reported. Lastly, undergraduate students' observations and experiences of contract cheating were added.

Undergraduate students reported that they believe more than half of their peers cheat, and their instructors tend to report these incidences, whereas other students mostly prefer to ignore the incidences. Also, students indicated that wanting a higher GPA is the most frequent reason for cheating. Moreover, exams with multiple-choice and knowledge-based questions were pointed out as exams students would most likely cheat in. Furthermore, it was also reported that students were likely to cheat on assignments with limited time to complete and heavily weighted assignments. Lastly, more than half of the students said that they do not know about academic dishonesty regulations in their university; however, they believed more than half of their peers had a fair amount of knowledge about said regulations.

Next, two hierarchical regression analysis was conducted to examine how well independent variables predicted exam-related and assignment related academic dishonesty in four steps: (1) individual student characteristics (gender and GPA), (2)

awareness of academic dishonesty regulations, (3) academic motivation, (4) academic moral disengagement. The models explained 33% of exam-related academic dishonesty and 43% of assignment-related academic dishonesty. For exam-related academic dishonesty, only the third and fourth steps were significant. Moreover, the most salient predictor was students as the origin of academic moral dishonesty followed by amotivation, and professors/university as the origin of academic moral disengagement for exam-related academic dishonesty. As for assignment-related academic dishonesty, all four steps were significant with students as the origin of academic moral dishonesty as the most powerful predictor. Amotivation, gender, professors/university as the origin of academic moral disengagement, intrinsic motivation-to know, and extrinsic motivation-identified were also predictors of assignment-related academic dishonesty in order. Awareness of academic dishonesty regulations was not a predictor for both factors of academic dishonesty.

Finally, most students reported that they believed academic dishonesty incidences increased during the Covid-19 pandemic ERT period compared to in-person education. A content analysis revealed that students thought exam security issues, dissatisfaction with online education, instructor behavior and attitude, assignment design, students' personal characteristics, and Covid-19 pandemic-related issues were the reasons for this increase. Also, one-third of students observed contract cheating. Another content analysis of their observations and experiences revealed: "offers in internet and social media sites," "exchange of payment," and "cooperation between friends and acquaintances" as themes.

CHAPTER 5

DISCUSSION

The last chapter aims to present the result from a critical perspective. First, the results are shown alongside the literature to report the similarities and differences. Afterward, implications of the results for educational practices and recommendations for further research are given.

5.1. Conclusion of the Results

This study strived to present a thorough understanding of academic dishonesty among undergraduate students by presenting their perceptions, awareness, opinions, and trends on academic dishonesty. Therefore, students' knowledge of academic dishonesty regulations, perceived peer cheating, perceptions of cheating related to assessment types, reasons for cheating, perception of peers' knowledge of academic dishonesty, assumptions about being reported, opinions on cheating during covid pandemic emergency remote teaching, and observations about contract cheating trend was questioned. Furthermore, the influence of individual student characteristics (gender and GPA), knowledge of academic dishonesty regulations, academic moral disengagement, and academic motivation on academic dishonesty was analyzed. Essentially, the study intended to improve understanding of academic dishonesty environment in Turkish universities, which could be enlightening in terms of positive changes to reduce academic dishonesty incidences.

When students were asked to rate their peers on their cheating frequency from "never" to "always," around one-fourth responded that their peers "never" cheat. In contrast, very few responded that their peers "always" cheat, and the remaining reported that

they believed other students cheated with varying frequencies. The results imply that most Turkish undergraduate students believe their peers cheat with differing frequencies. The results are in line with Chapman et al. (2004) as they also reported that students are likely to perceive that others are cheating. The results also have support in the Turkish context as Semerci's (2004) results revealed that most students believed at least half of their peers were cheating.

Student observations about cheating incidences reported by instructors and other students were debated. For example, only very few of the students observed instructors "always" reporting cheating incidences, and there were students who observed the instructor "never" act against cheating. However, most students observed instructors reporting cheating incidences with varying frequencies. Likewise, studies from the UK (Barret et al., 2005) and North America (Coren, 2011) revealed that university staff ignores cheating incidences. Also, Deniz (2020) asked Turkish university staff about their reactions to discovering cheating and found that they prefer to ignore it.

Not surprisingly, student observations revealed that their peers preferred to turn a blind eye to observed cheating incidences, with trivial numbers reporting that cheating incidences are "always" reported. The answers pointed out that students were more inclined than academic staff to ignore cheating. More than half reported "never" and "rarely" observing an incident being reported by another student. Waltzer et al. (2021) support that students often feel conflict and decide against reporting cheating incidences. Similar results are found in the Turkish context. For example, Yildim et al. (2018) asked students about their reactions to observing academic dishonesty and received the answer that they often do not react.

It should be noted that when all three variables above (perceived peer cheating frequency, perceived rate of being reported by instructors or one's peers) are considered together, they paint a picture where students perceive their environment as a place where cheating happens. Those who cheat are not reported or punished accordingly. In other words, they might believe that they are in an environment where cheating without facing the consequences is the norm, and they might decide to cheat to level the playing field. Also, studies report a negative relationship between the certainty of being reported and academic dishonesty (McCabe et al., 2002; McCabe et

al., 2008). Consequently, this situation might lead to the dangerous concept of cheating becoming a part of campus culture, as McCabe et al. (1993) warn.

Next, students were asked, "Why do people cheat?". The most popular choice was for a higher GPA, followed by the coinciding deadline and exam dates, course difficulty, social and family pressure, peer cheating, individual factors (personality, attitude), and lastly, overlooked cheating incidences were reasons for cheating. Turkish literature supports that when students were asked the same question, they tend to mention getting higher grades (Polat, 2017; Semerci, 2004; Yazıcı et al., 2011), and the relationship between cheating and GPA is supported (Roig et al., 2005). Interestingly, in accord with McCabe et al.'s (1997) research, students tended to rate individual factors (personality, attitude) low on their list as the reason for academic dishonesty. The results also contradicted the research as students placed peer cheating and overlooked cheating incidences relatively low on the list. McCabe et al. (2010) reported peer behavior as the strongest factor that facilitates academic dishonesty. It should be mentioned that the research cited above differs from this study because they are correlational studies.

Conversely, when students were asked the same question about emergency remote teaching (ERT), their answers shifted focus from their circumstances and concentrated mostly on quality-related issues. For example, they stated that exam security issues, dissatisfaction with online education, and instructor behavior were the main reasons students cheated. It should be noted that the period of ERT caught institutions unprepared and with most having near to no experience in online teaching, perhaps explaining the shift to quality of education and assessment in student answers. Additionally, when asked about the period of ERT, most students mentioned believing that there was an increase in academic dishonesty incidences. The research about education during the ERT is still emerging, but some studies support the idea of increasing cheating rates (Amzalag et al., 2021; Comas-Forgas et al., 2021).

Attempts were made to understand students' opinions on the relationship between academic dishonesty and assessment design. Students overwhelmingly reported that they believed cheating happened mostly in multiple-choice questions and open-ended short-answer exams. In contrast, internship reports and oral exams were rated as the

safest options. Semerci's study (2006) also reported cheating in multiple-choice exams. Furthermore, in a study with more than ten thousand students from Australia, students reported cheating most commonly in multiple-choice exams (Harper et al., 2020). In this aspect, the study is in line with the previous literature, nonetheless, at the same time contradicting literature in the belief that invigilated exams are the most secure exams (Lines, 2016).

Moreover, knowledge-based questions were also rated as the most frequently cheated question type. There is a lack of research about academic dishonesty and the cognitive process of assessment types. Therefore, neither agreement nor conflict could be found for Turkish and foreign contexts. However, it can be predicted that knowledge-based questions would be presented with multiple-choice or open-ended short-answer formats, both reported as frequently cheated assessment types (Harper et al., 2020; Semerci, 2006). Participants reported that students would be more likely to cheat on assignments that have less than a week to complete. Also, participants stated that students would cheat in heavily weighted assignments. The results are in-line with international and Turkish research. In their study, Yildirim et al. (2018) concluded that time constraints are a reason for academic dishonesty. Similarly, Bretag et al. (2019) reported that students are more likely to cheat in heavily weighted assignments and assignments given a short time to finish.

Furthermore, students were questioned about contract cheating. Around one-third admitted they observed it, pointing out that students have and use measures to cheat in assignments. The problem of contract cheating is well documented (Bretag et al., 2019; Curtis et al., 2017; Newton, 2018). Although Awdry (2020) reported Turkish university students, there is no research on contract cheating in the Turkish context.

When students were questioned about their knowledge of academic dishonesty regulations, 53.19% of them stated they did not know about the regulations at their university. Furthermore, they rated their peer's knowledge generally less than satisfactory. The research complements the result in the respect that students often confess to not being aware of academic regulations (Jordan 2001, McCabe et al., 1993). However, the percentage is much greater than 35% reported by Bretag et al.

(2014). In the Turkish context, students reported not being informed about dishonesty regulation in their universities (Yıldırım et al., 2018).

In this research, two four-step hierarchical regression analyses were conducted to explain undergraduate students' exam-related and assignment-related academic dishonesty. The model predictors were: (1) individual student characteristics (gender and GPA), (2) awareness of academic dishonesty regulations, (3) seven factors of academic motivation, and (4) academic moral disengagement (professors and university as the origin of AMD and students as the origin of AMD). The model successfully predicted 33% of exam-related academic dishonesty and 43% of assignment-related academic dishonesty. In addition, the findings showed that the models including moral disengagement variables were the strongest, with students as the origin of AMD as the most notable factor in both exam and assignment-related academic dishonesty with an effect of 11% for both variables. Professors/universities as the origin of AMD was also a significant factor in predicting both variables; however, its effect was limited to an inconsequential 2% in both.

In other words, two factors of the AMD positively predicted the two different factors of academic dishonesty. High levels of professors and university as the origin of AMD and students as the origin of AMD were related to high levels of exam-related and assignment-related academic dishonesty. Bandura (2016) states that using a moral disengagement mechanism allows people to bypass their ethical standards to perform harmful acts. Still, at the same time, they can keep believing they have the same level of moral standards. Hence undergraduate students who employ high moral disengagement mechanisms have higher academic dishonesty unawareness. Also, they are more likely to be academically dishonest and keep feeling that they have the ethical standards as if they did not cheat. The results also mean that students who use other students as the origin of their moral disengagement mechanisms can keep believing that academically dishonest behaviors are not harmful actions and are not doing something wrong. The results agree with research on the relationship between academic dishonesty and moral disengagement. Farnase et al. (2011), Fida et al. (2016), and Barnabelli et al. (2018) all found a strong relationship between moral disengagement and student cheating.

Additionally, the context students use to activate their moral disengagement mechanisms are other students, signaling peer misconduct and cheating. Peer cheating has been correlated with cheating (Awdry, 2021; McCabe et al., 2010). McCabe et al. (2010) go as far as to call it "the most influential factor." Perhaps, one of the reasons that "peer cheating" correlates with academic dishonesty is student reliance on moral disengagement mechanism with other students as the origin. This result can also be explained by Bandura's Social Learning Theory (1986). Bandura explains that people learn socially by observing others. In this case, perhaps students learn that cheating is acceptable by observing others. For Turkey, this study is the first to show the predictable role of moral disengagement in academic dishonesty on undergraduate students.

Academic motivation also had a role in academic dishonesty. In exam-related and assignment-related academic dishonesty, amotivation had a significant contribution of 2% and 3%, showing that students who have no interest in their studies had higher unawareness of academic dishonesty. Similar results about the relationship between amotivation and academic dishonesty were repeated in research (Krou et al., 2020; Orosz et al., 2013). In the case of assignment-related academic dishonesty, intrinsic motivation (to know) and extrinsic motivation (-identified) made significant contributions; however, they were small enough to be negligible. Orosz et al. (2013) also warned of finding the effect of motivation on cheating very small. Even so, intrinsic motivation had a negative, and extrinsic motivation had a positive relationship with academic dishonesty unawareness, which is also in line with research (Krou et al., 2020).

Regarding the effect of intrinsic and extrinsic motivations on assignment-related academic dishonesty in contrast to exam-related academic dishonesty, it can be speculated that assignments being a more formative evaluation is the reason they are correlated with intrinsic motivation, especially intrinsic motivation- to know. As extrinsic motivation (-identified) is explained as a state where a personal value is given to the task. Supposing the task is not to know but to succeed, thus making it is easier for extrinsically motivated students to have more academic dishonesty unawareness

and be more prone to cheating. Given that assignments are not invigilated, perhaps students find it easier to act on their extrinsic motivation to succeed in the assessment.

Moreover, gender and GPA did not significantly affect exam-related academic dishonesty but explained only 3% of assignment-related academic dishonesty, with only gender contributing to the result. Therefore, the effect of gender on academic dishonesty is considered unclear (Lin et al., 2006). However, international (Lin et al., 2007; Molnar et al., 2012) and Turkish (Kocaman-Karoğlu et al., 2020, Polat, 2017) research found males are more prone to cheating than females. Finding gender difference only in assignment-related academic dishonesty can be explained by the fact that exams are administered mainly in proctored conditions in contrast to assignments. Therefore, students find it easier to cheat in non-invigilated assessment types.

Finally, awareness of academic dishonesty regulations was not a significant contributor to exam-related and assignment-related academic dishonesty. This result is in direct contrast to literature as awareness of academic dishonesty regulations is found related to academic dishonesty in more than one study (Jordan, 2001; McCabe, 2008). Perhaps the discrepancy in the results indicates that students can predict which behaviors are dishonest instinctively without reading the regulations.

5.2. Implications for Practice

Academic dishonesty has proven to be a persistent problem in higher education institutions (Murdock et al., 2006). Moreover, it has proven to have unfortunate consequences for the practice, such as disturbing educational attainment (Whitley et al., 2002) and preventing the equity of assessments (Miller et al., 2017). Furthermore, such behaviors often extend into workplaces (Brimble, 2016). Therefore, this study aimed to shed light on academic dishonesty so that necessary measures can be taken to prevent it.

Honor codes are among the suggested means to consider for fighting against academic dishonesty. McCabe et al. (2002) point out that honor codes define what is expected from students regarding academic integrity and share the responsibility to hold up the

integrity with students. As research suggests that students under honor codes are less likely to cheat (McCabe et al., 2002), such a mean could be adapted for Turkish institutions or part of course syllabuses.

Moreover, Eret et al. (2014) suggest a non-credit compulsory course on using academic resources and the internet in the first semester of the first year to fight against plagiarism. This kind, of course, could be expanded to include all types of academic dishonesty to raise awareness of the issue among new university students. Similar to honor codes, this practice will help share the responsibility of holding academic integrity with students. Also, a course dedicated to academic dishonesty would add the concept into curriculums and raise the issue's visibility.

In addition, universities - and in Turkey's specific case Higher Education Council - could take a holistic approach to developing effective policies to prevent and combat academic dishonesty. Bretag et al. (2011) explain the five core elements of exemplary educational integrity policies. These elements are access, approach, responsibility, detail, and support. The three elements most relevant to students are access, support and detail. A brief description of five elements of exemplary policies based on Bretag et al. (2011) is given below:

Access: The policy should be written clearly and briefly, and it is easily accessible for all stakeholders.

Approach: Academic integrity is seen as an educative process, and policies should give descriptions of academic integrity and values. A systematic and consistent commitment to academic integrity practices should be implied through the policy.

Responsibility: The policy should draw a clear picture for all stakeholders; students, university staff, and university management.

Support: Systems should be developed to ensure the implementation of policies. For example, modules, seminars, and training for both students and university staff could be arranged to provide an understanding of policy.

Detail: A detailed list of outcomes should be given about processes. Moreover, descriptions of academic dishonesty behaviors and their levels of severity.1a4 should be included. Reporting, recording, and appeals processes should also be detailed.

Bretag et al. (2014) also warned that universities should warn students about academic dishonesty and provide them with repeated, engaging activities in different media and forums through their education. Moreover, they should ensure students' involvement in building an academic integrity culture. Also, informing students of the results of academic dishonesty investigations is suggested. Lastly, universities should target student groups that might have confusion about what academic integrity stands for and how to practice it.

Furthermore, the implication of the relationship between assessment types and academic dishonesty should be considered. However, assessment should be designed with learning in mind, not cheating. With the widespread use of the internet, academic dishonesty types such as plagiarism and contract cheating have come to the spotlight, which may facilitate gravitation towards traditional assessment methods. Unfortunately, they have proven to be unreliable in the face of academic dishonesty, too. For this reason, instructors should keep best practices in mind, choose appropriate assessment tasks, and design their courses in that light.

University instructors are solely responsible for the assessment practices in their courses. Assessments should be comprehensive enough for a higher education course and at the same time secure from academic dishonesty practices. However, an often neglected part of the discourse is that most university instructors are not prepared to be educators. Their knowledge of how to assess students could be limited. Universities should consider educating their staff in proper assessment techniques, which could increase the quality of the education and reduce assessment type related academic dishonesty.

Finally, the implications about academic dishonesty frequency during ERT are telling. Perhaps these are already existing problems in online education and were highlighted as we saw them in mass. Nevertheless, the lessons learned from this period should be

reflected in online education, so instructional practices and exam security should be reconsidered.

5.3. Recommendations for Further Research

This study attempted to develop a comprehensive understanding of academic dishonesty in Turkish higher education institutions. Some insight has been provided, but also more questions have arisen.

Individual student characteristics, awareness of academic dishonesty regulations, academic motivation, and academic moral disengagement were used in a correlational study to shed light on academic dishonesty. Moral disengagement, a strong contributor, is not a well-studied variable in educational contexts. It would be better to study its effects together with several other factors, as finding factors that negate the effect of moral disengagement on academic dishonesty could be crucial to providing solutions. For example, the relationship between moral disengagement and academic self-efficacy of university students and their task/time management competency could be investigated further. Another dimension of moral disengagement and academic dishonesty that should be studied is culture. Documenting the effects of culture on cheating and morally disengaging decisions could provide further insight. In addition, moral disengagement should be studied together with cultural issues to see if detrimental behaviors that take root in culture have any relation to moral disengagement mechanisms. Also, studies that can determine whether moral disengagement is context-specific or whether using these mechanisms in one context makes it easier to use them in other contexts can assist in understanding unethical behaviors.

Furthermore, the understanding of the effect of moral disengagement on academic dishonesty could be supported by qualitative studies. For example, interviews with students have the potential to help expand our comprehension of how students use moral disengagement mechanisms to justify their cheating. Also, longitudinal studies have the potential to provide information about whether these two constructs grow reciprocally. Additionally, data were collected from one university in Turkey.

Therefore, this study can be replicated with more extensive and more diverse populations to increase generalizability.

Moreover, AMDS was adopted in Turkish within this study, and ADS was developed for the study. Both measures need further validity studies to gather more information about their psychometric properties.

One of the study's findings was students' perception that multiple-choice and knowledge-based exams, heavily weighted or very short time allocated assignments are most cheated in assessment types. The relationship between academic dishonesty and assessment type is relatively less studied, especially in the Turkish context. A correlational study that would establish the relationship between assessment type and academic dishonesty rates is undoubtedly needed and would give helpful information for instruction. Additionally, contract cheating is a problem that is being vigorously researched in a global context, yet Turkish studies are nonexistent. A study about the current contract cheating trend in Turkish universities is urgently needed. Further studies to identify contract cheating prevalence, student reasons, and studies about prevention strategies are essential.

Another consideration for research should be about the emergency remote teaching period and academic dishonesty during it. For now, international research is limited and Turkish research about the connection is nonexistent. Research about academic dishonesty types, reasons, and frequencies during this period should be conducted before the time frame to reasonably do so ends. The lessons learned from this period could give direction to online instruction.

Lastly, although there is an immense body of research about academic dishonesty, the phenomenon's higher education instructor, and administrator dimensions are limited. Therefore, understanding the perspectives of Turkish instructors and administrators might give valuable information for possible preventive strategies. Furthermore, why instructors are reluctant to report the cheating incidences they observe should be given special attention.

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APPENDICES

A. SAMPLE ITEMS FROM STUDENT SURVEY

Değerli Öğrenciler,

Bu anket, üniversite hayatınızdaki bazı durumlara karşı tutumlarınızı öğrenmeyi amaçlamaktadır. Katılım gönüllük esasına dayanmaktadır. Ankete verdiğiniz cevaplar gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir. Bu ankette herhangi bir kimlik ya da iletişim bilgisi istenmemektedir. Soruları samimiyetle cevaplayabilirsiniz. Lütfen anket içinde size yöneltilen soruları boş bırakmayınız.

Katkılarınız için teşekkür ederiz.

Kerime Köfünelyi
Doç.Dr. Yeşim Çapa Aydın
Eğitim Programları ve Öğretim Bölümü

BÖLÜM-1

Lütfen aşağıdaki ifadelerin “Neden üniversite eğitimi alıyorsunuz?” sorusuna cevabınızla uyuşma derecelerini (1-7) belirtiniz.

	Hiç uyuşmuyor			Orta derecede uyuşuyor			Tamamen uyuşuyor
Neden üniversite eğitimi alıyorsunuz?							
4. Bana ait düşünceleri başkalarıyla paylaşırken yaşadığım yoğun duygulardan dolayı	1	2	3	4	5	6	7
12. Önceden okula gitmek için iyi nedenlerim vardı ama, şimdi devam edip etmeme konusunda kararsızım	1	2	3	4	5	6	7
18. Önemli yazarların yazdıklarına tamamen kendimi kaptırdığımda hissettiğim mutluluktan dolayı.	1	2	3	4	5	6	7
22. İleride daha iyi maaş alabilmek için	1	2	3	4	5	6	7
28. Çünkü kendi kendime, derslerimde başarılı olabileceğimi göstermek istiyorum.	1	2	3	4	5	6	7

BÖLÜM-2

Üniversite ortamında rastlanabilecek bazı kişisel tutumlara aşağıda yer verilmiştir. Lütfen, bu tutumlara ne kadar katıldığınızı (1-5) belirtiniz.

	Kesimlikle katılmıyorum	Katılmıyorum	Ne katılmıyorum ne katılmıyorum	Katılıyorum	Tamamen katılıyorum
7. Ödev, proje, vb.lerini başkasına yaptırmak ciddi bir sorun <u>değildir</u> çünkü bunun kimseye bir zararı yoktur.	1	2	3	4	5
10. Akademik sistemdeki yozlaşmaya kıyasla öğrencilerin kullandığı “kısa yollar” hafif kalmaktadır.	1	2	3	4	5

BÖLÜM-3

Aşağıdaki davranışların, size göre ne derecede uygun bir davranış olduğunu (1-5) belirtiniz.

	Hiç uygun değil	Uygun değil	Ne uygun ne değil	Uygun	Tamamen uygun
6. Sınavdan önce herhangi bir şekilde sınav sorularını öğrenmek	1	2	3	4	5
7. Başka bir kişiyi, kendi yerinize sınava sokmak	1	2	3	4	5
10. Başka biri tarafından yazılmış bir ödevi, kendi ödeviniz yerine teslim etmek	1	2	3	4	5
13. Bahaneler kullanarak ödev teslim tarihini erteletmek	1	2	3	4	5

BÖLÜM-4

Üniversitenizin akademik dürüstlük ilkeleri veya öğrenci disiplin uygulamaları hakkında bilginiz var mı?	VAR	YOK
--	-----	-----

Sizce aşağıdaki verilen durumların hangisi/hangilerinde öğrenciler akademik usulsüzlüğe daha sık başvurur?	
	Dönem içerisinde tamamlanması gereken ödevler
	Dönem sonu notunun büyük bir kısmını oluşturan ödevler (%40'dan fazla)
	Kısa bir sürede tamamlanması gereken ödevler (bir haftadan az)

Hocaların gözlemedikleri akademik usulsüzlük hakkında, gerekli cezai işlemleri yapma sıklıklarını belirtiniz.	
<input type="checkbox"/>	Hiçbir zaman
<input type="checkbox"/>	Nadiren
<input type="checkbox"/>	Bazen
<input type="checkbox"/>	Çoğu zaman
<input type="checkbox"/>	Her zaman

Şu an içinde bulunduğumuz pandemi koşullarının sebep olduğu uzaktan eğitim sürecini düşündüğünüz zaman, sizce akademik usulsüzlük oranında bir değişiklik var mıdır?	
<input type="checkbox"/>	Azalmıştır
<input type="checkbox"/>	Değişmemiştir
<input type="checkbox"/>	Artmıştır

Üniversitenizde ödev, proje, vb. öğrenciler arasında/internet sitelerinde paylaşıldığını veya para karşılığında kişilere/internet sitelerine yaptırıldığını gözlemlediniz mi?	
<input type="checkbox"/>	Evet, gözlemledim.
<input type="checkbox"/>	Hayır, gözlemedim.

BÖLÜM-5

1. Cinsiyetiniz	
2. Yaşınız	
3. Şu anda eğitim aldığınız bölüm	
4. Üniversiteniz	
5. Üniversiteye giriş yılınız	
6. Akademik ortalamanız (GPA)	

Çalışmamıza katıldığınız için teşekkür ederiz.

B. APPROVAL OF METU HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



ORTA DOĞU TEKNİK ÜNİVERSİTESİ
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02 Ocak 2020

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (IAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Yeşim Çapa AYDIN

Danışmanlığı yaptığımız Kerime KÖFÜNVELİ'nin "Lisans Öğrencilerinden Kopya Çekme Eğiliminin Yordayıcıları: Akademik Motivasyon ve Akademik Ahlakî Geri Çekilme" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve 498 ODTU 2019 protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız

Doç.Dr. Mine MISIRLISOY

Başkan

Prof. Dr. Tolga CAN

Üye

Doç.Dr. Pınar KAYGAN

Üye

Dr. Öğr. Üyesi Ali Emre TURGUT

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Üye

Dr. Öğr. Üyesi Müge GÜNDÜZ

Üye

Dr. Öğr. Üyesi Sireyya Özcan KABASAKAL

Üye

C. TURKISH SUMMARY / TÜRKEÖZET

Giriş

Araştırmanın Amacı ve Önemi

Çalışmanın amacı lisans öğrencilerinin akademik usulsüzlüklerine ilişkin kapsamlı bir anlayış geliştirmektir. Ayrıca, bu çalışma Kovid-19 pandemisi sırasında yapıldığı için bu durumun öğrencilerin kopya davranışları üzerindeki etkisi de araştırılmıştır. Buna ek olarak, akademik ahlaki geri çekilme, akademik motivasyon, akademik usulsüzlük yönergesi farkındalığı ve bireysel öğrenci özelliklerinin akademik usulsüzlük üzerindeki etkisi incelenmiştir.

Akademik usulsüzlük veya diğer adıyla kopya çekme davranışı yükseköğretim kurumlarında sıkça rastlanan bir durumdur. Bu durum hem yurtiçinde (Cumhuriyet, 2020; Ntvmsnbc, 2011), hem de yurtdışında (Pérez-Peña, 2013; Visentin, 2015) medyada yer almıştır. Ayrıca, çeşitli ülkelerde yapılan bilimsel araştırmalar da akademik usulsüzlüğün yükseköğretim kurumlarında yaygın olduğunu desteklemektedir (Harding vd., 2004; Murdock vd., 2006).

Kopya çekmenin yaygınlaşmasının öğrenciler ve kurumlar üzerinde olumsuz etkileri vardır. Öncelikle, kopya çekmek eğitimin amacına yani öğrencinin gerekli bilgileri edinmesine engel olmaktadır. Ayrıca, ölçmenin doğruluk ve eşitlik ilkelerine zarar vermektedir. Daha da önemlisi, akranlarının kopya çektiğine tanık olan öğrencilerin, kopya çekmeye başlayarak kısır bir döngü oluşturma tehlikesi vardır (O'Rourke vd., 2010). Bunun yanında, etik olmayan davranışlar iş hayatına da yansımabilmektedir (Brimble, 2016; Harding vd., 2004). Son olarak, kopya skandallarına karışan kurumların itibarları zedelenmektedir (Harding vd., 2004).

Akademik usulsüz davranışının anlaşılabilmesi ve engellenebilmesi için çeşitli değişkenlerle ilişkisi incelenmiştir. Fakat, literatürde, motivasyonla olan ilişkisi sınırlı derecede incelenmiştir (Murdock vd., 2006). Halbuki, motivasyon şekillendirilebilen bir değişkendir ve kopya çekme davranışıyla olan ilişkisi kullanılarak bu davranışta, eğitim ortamlarında, değişiklikler oluşturmak için fırsat sunabilir (Anderman vd., 2017; Kurou vd., 2021). Aynı zamanda öğrencilerin kopya çekme davranışının yanlış olduğunu bilmelerine rağmen, kopya çekmeye devam ettikleri çeşitli araştırmalarda ortaya çıkmıştır (Jordan, 2011; Semerci, 2006). Bandura (2016) bir davranışın yanlış olduğu bilindiği halde devam ettirilmesi durumunu ahlaki geri çekilme mekanizmalarıyla açıklamaktadır. Bu mekanizmalar, insanlara etik olmayan davranışlarda buldukları halde ahlak standartlarını koruma imkânı sağlar. Bu mekanizmaların akademik usulsüzlükle bağlantılarını incelemek, akademik usulsüzlük davranışlarının daha iyi anlaşılabilmesini sağlama olasılığı vardır.

Akademik usulsüzlüğün varlığı Türk üniversitelerinde de kanıtlanmıştır (Eraslan, 2011; Eret vd., 2014; Oran vd., 2016; Semerci, 2006; Yazıcı vd., 2011; Yıldırım vd., 2018). Dolayısıyla, akademik usulsüzlüğün araştırılması ve öğrencilerin algı, inanç ve görüşleri incelenerek, Türk üniversiteleri bağlamında daha fazla bilgi toplanması değerlidir. Ayrıca Türkiye'deki üniversiteler bağlamında yapılan çoğu araştırmada katılımcılar tek bir fakülteden olmuştur ve bu açıdan sınırlı kalmıştır (Eret vd., 2014; Eraslan, 2011; Oran vd., 2016; Semerci, 2004). Bu çalışmada, araştırma grubu olarak üniversitenin tamamı kullanılmış ve fakülte bazında öğrenci deneyimleri kısıtlaması aşılmaya çalışılmıştır.

Türkçe birçok akademik usulsüzlük ölçeği geliştirilmesine rağmen (Ay vd., 2015; Demir, 2018; Eminoğlu vd., 2009), bu ölçekler duydular ve tavırlarla ilgili maddeler içermektedir. Bu araştırma için gerekli olan ölçek ise sadece davranış betimlemeleridir. Dolayısıyla, sadece davranış betimlemeleri içeren bir ölçek geliştirilmiş ve Türk literatüründeki bir boşluk da giderilmiştir.

Üstelik, Türk yüksek öğretim bağlamında motivasyon ve akademik usulsüzlük arasındaki ilişkiyi araştıran çalışma sayısı azdır (Büyükgöze, 2017; Er vd., 2011). Bu

bağlantı araştırılarak bağlama katkı sağlamak amaçlanmıştır. Ayrıca, Türkiye’de kopya çekme ve ahlak arasındaki ilişki az çalışılmış bir alandır (Semerci, 2006) ve ahlaki geri çekilme mekanizmalarıyla kopya arasındaki ilişki daha önce incelenmemiştir. Bu araştırma, alandaki tartışmalara ahlaki geri çekilme mekanizmalarını eklemeyi teşvik etmeyi de amaçlamaktadır. Buna ek olarak, akademik ahlaki geri çekilme ölçeği Türkçeye uyarlanmış ve alandaki bir boşluk doldurularak, olası araştırmalar desteklenmiştir.

Son olarak, dünyada, yüksek öğretim öğrencileri arasında sözleşmeli kopyaya davranışın yaygın olduğu bilinmektedir (Ahsan vd.; Bretag vd., 2020; Walker vd., 2012). Bu davranış, öğrencilerin ödevlerini üçüncü kişilere, para karşılığında veya karşılıksız olarak yaptırması olarak tanımlanmıştır (Harper et al., 2019). Türkiye’deki üniversitelerde bu konu neredeyse hiç araştırılmamıştır (Awdry, 2020). Bu araştırma, konuyla ilgili tartışmaları teşvik etmek ve yetkilerin dikkatini konuya çekmeyi de amaçlamaktadır. Ayrıca, bu araştırma Kovid-19 pandemisi sırasında yapılmıştır ve öğrencilerin bu dönemdeki kopya çekme davranışları hakkında bilgi edinerek, bu konuda tartışmaları da teşvik etmeyi hedeflemektedir.

Araştırma Sorusu

1. Lisans öğrencilerinin, akademik usulsüzlükle ilgili algı, inanç ve görüşleri nelerdir?
2. Akademik ahlaki geri çekilme, akademik motivasyon, akademik usulsüzlük yönergesi farkındalığı ve bireysel öğrenci özellikleri, akademik usulsüzlüğü ne kadar iyi yordayabilmektedir?
3. Lisans öğrencilerinin Kovid-19 sırasındaki acil uzaktan eğitimle yüz yüze eğitim arasındaki akademik usulsüzlük sıklığının farkı hakkındaki düşünceleri nelerdir ve bu fark için hangi sebepleri öne sürmektedirler?
4. Lisans öğrencilerinin anlaşmalı kopya hakkındaki gözlemleri ve deneyimleri nelerdir?

Literatür Taraması

Akademik usulsüzlük, eğitim değerlendirilmesinde daha iyi sonuçlar alabilmek için kullanılan etik olmayan yöntemler olarak tanımlanır (Miller vd., 2017). Bunun yanında akademik usulsüzlüğün tanımının öğrenciler ve hocalar tarafından farklı algılanabildiği kanıtlanmıştır (Brimble vd., 2005). Hangi davranışların akademik usulsüzlük olarak görüldüğü, farklı ülkelerde öğrenciler tarafından da farklı algılanabilmektedir (Yukhymenko-Lescroart, 2013). Ayrıca akademik usulsüzlük davranışlarının interneti ve teknolojiyi kullanarak değişen zamanlara uyum sağladığı da gözlemlenmiştir (Eret vd., 2014; Şendağ vdl., 2012). Hatta, hızlı değişikliklerin olduğu Kovid-19 uzaktan eğitim döneminde kopya vakalarının arttığını gösteren çalışmalar ortaya çıkmaya başlamıştır (Comas-Forgas vd., 2021; Lancaster vd., 2021). Bunun yanında, öğretim görevlilerinin fark ettikleri kopya vakalarını görmezden geldiği de bilinmektedir (Coren, 2011; Deniz, 2020). Öğrenciler ise akademik usulsüzlükleri açıklamak için çeşitli sebepler ortaya sürmektedir. Bunlarda bazıları; akademik usulsüzlük yönergesinin farkında olamamak (Jordan, 2001), daha iyi bir ortalamaya sahip olmayı istemek (Polat, 2017), akranların kopya çekmesi (McCabe et al., 2002), demografik özellikler (Kocaman-Karoğlu vd., 2020; Roig vd., 2005), erteleme alışkanlığının olması (Patrzek et al., 2015) ve değerlendirme çeşitleridir (Harper vd., 2020). Ayrıca, son zamanlarda sözleşmeli kopya çekmekle ilgili araştırmalar giderek artmaktadır (Awdry, 2020). Yapılan araştırmalar sözleşmeli kopyanın ciddi bir problem olduğunu göstermektedir (Curtis vd., 2017). Awdry (2020) araştırmasında Türk öğrencilerin sözleşmeli kopya çekme oranıyla ilgili bilgi vermiştir ve bu oran %24,7'dir.

Ahlaki geri çekilme, insanları gerçekleştirdikleri zararlı davranışlardan kendilerini uzaklaştırmak ve bağlantılarını kesmek için kullandıkları psikolojik mekanizmalardır (Bandura, 2016). Bandura (2016) kişilerin ahlaki davranışlarıyla ilgili olan teorilerin genellikle ahlakın idrak ve muhakemesi üzerine olduğunu ve ahlaki davranışları açıklamada yetersiz kaldıklarını iddia eder. Bunun tersine, ahlaki geri çekilme mekanizmaları kişinin istediği zaman kullanılabildiği veya geri çekilebildiği mekanizmalar olarak açıklanır. Araştırmalar, akademik ahlaki geri çekilmeyle

akademik usulsüzlük arasında anlamlı ve pozitif bir ilişki olduğunu göstermektedir (Barnabelli vd., 2018; Farnase vd., 2011; Fida vdl., 2016; Pulfey vd., 2018; Shu vd., 2011). Bu ilişki, ahlaki geri çekilme mekanizmalarını kullanan kişilerin kopya çekme olasılıklarının daha yüksek olduğu anlamındadır.

Motivasyon, aktivitenin başlatıldığı, planlandığı ve devam ettirildiği bir süreçtir (Schunk et al., 2014). Self-Determinasyon Teorisi (SDT) ise motivasyonu açıklamaya çalışan teorilerden biridir. Bu teoriye göre insanların üç temel gereksinimi vardır ve insanlar bu gereksinimlerin karşılandığı ölçüde gelişirler. Bu gereksinimler yeterli hissetmek, otonomi sahibi olmak ve bağlantı hissetmektir (Deci & Ryan, 2014). SDT'ye göre otonomi gelişmek ve sağlıklı olmak için zaruridir (Deci & Ryan, 2014). Ayrıca, SDT otonomi motivasyon çeşitlerini sınıflandırmak için kullanır. Motivasyon çeşitleri otonomdan kontrollüye doğru sıralanır ve daha otonom motivasyonların, daha kaliteli olduğu kabul edilir (Deci & Ryan, 2014; Ryan vd., 2000). Düzenleme şekline göre üç motivasyon şekli vardır. Bunlardan ilki, öz-düzenleme uygulanan içsel motivasyondur. İçsel motivasyonda bir eylem zevk getirdiği için gerçekleştirilir. Dışsal motivasyon ise bir eylem belirlenmiş bir hedefe ulaşmak için gerçekleştirilir. Dört çeşidi vardır ve bunlar; belirlenmiş dışsal motivasyon, içe yansıyan dışsal motivasyon, dışsal motivasyon-dış düzenleme ve dışsal motivasyon- bütünleşmiş düzenlemedir. Son olarak, amotivasyon eylemleri gerçekleştirecek motivasyona sahip olmamak veya eylem gerçekleştirme maksadının bulunmamasıdır (Deci & Ryan, 2014). Motivasyonla akademik usulsüzlük arasındaki ilişki incelendiği zaman, amotivasyonla anlamlı ve pozitif bir ilişki; içsel motivasyonla anlamlı ve negatif bir ilişki ve dışsal motivasyonla bazen anlamlı ve pozitif bir ilişki bulunmuştur (Krou vd., 2020; Orosz vd., 2013). Bu ilişkiler, motivasyonsuz kişilerin ve dışsal motivasyonu yüksek olan kişilerin muhtemelen daha çok kopya çektiği, ayrıca içsel motivasyonu yüksek olan kişilerin daha az kopya çekme olasılığı olduğu anlamına gelmektedir.

Sonuç olarak, bu çalışma çeşitli değişkenleri incelemiş ve akademik usulsüzlüğü daha iyi anlamayı hedeflemiştir. Bunu öğrencilerin akademik usulsüzlükle ilgili görüş, algı ve inançlarını tanımlayarak; Kovid-19 dönemindeki çevrimiçi dönemde yaşananlar hakkında görüşlerini alarak ve sözleşmeli kopya eğilimini araştırarak yapmıştır.

Ayrıca akademik ahlaki geri çekilme, akademik motivasyon, akademik usulsüzlük yönergesi farkındalığı, bireysel öğrenci özellikleri ve akademik usulsüzlük arasındaki ilişkiyi Türkiye bağlamında incelemiştir.

Yöntem

Desen

Bu araştırma bir anket çalışmasıdır. Anket çalışmaları, bir popülasyonun tavır, karakter ve algı gibi özellikleri hakkında, popülasyonu betimleyen, sayısal bilgiler veren çalışmalardır (Fowler, 2013). Ayrıca, anketlerden elde edilen bilgiler kullanılarak değişkenler arasındaki ilişkiler de araştırılabilir. Bu gibi durumlarda korelasyon araştırma teknikleri uygulanır (Fraenkel vd., 2012).

Örnekleme

Türkiye’de devlet üniversitelerinde eğitim gören lisans öğrencileri bu araştırmanın hedef kitlesini oluşturmaktadır. Erişilebilir popülasyon, Türkiye’de bir devlet üniversitesinde eğitim gören 21509 lisans öğrencisi olarak belirlenmiştir. Veriler 442 lisan öğrencisinden toplanmıştır. Katılımcıların %52,3’ü kadın ve 19,2’si erkektir. %28,5’i cinsiyetlerini belirtmemiştir. Ayrıca, katılımcıların %19’u sağlık bilimleri, %28,1’i mühendislik, %23,1’i eğitim ve %5’i mimarlık alanda eğitim görmektedir. %29,4’ü eğitim alanlarını belirtmemiştir.

Veri Toplama Araçları

Bu çalışmada Akademik Motivasyon Ölçeği (AMS), Akademik Ahlaki Geri çekilme Ölçeği (AMDS), Akademik Usulsüzlük Ölçeği (ADS) ve Akademik Usulsüzlük Anketi (ADQ) kullanılmıştır.

Akademik Motivasyon Ölçeği, Vallerand vd. (1989) tarafından Fransızca olarak geliştirilmiş ve daha sonra aynı araştırmacılar tarafından İngilizceye çevrilmiştir (Vallerand vd., 1992). Bu çalışmada, kolay ulaşılabilir olduğu ve titiz bir adaptasyon süreci olduğundan dolayı Ünal-Karagüven (2012) adaptasyonu

kullanılmıştır. AMS, 28 maddeden ve yedi alt boyuttan oluşmaktadır. Bu alt boyular; bilmeye yönelik içsel motivasyon, başarıya yönelik içsel motivasyon, uyarım yaşamaya yönelik içsel motivasyon, belirlenmiş dışsal motivasyon, içe yansıyan dışsal motivasyon, dışsal motivasyon-dış düzenleme, amotivasyondur. Maddeler 7’li Likert tipindedir (1 “hiç uyuşmuyor” ile 7 “tam olarak uyuşuyor” arasında). Ana veriyle yapılan Doğrulayıcı Faktör Analizi (DFA) sonucunda, uyum indeksleri CFI .92, TLI .91, RMSEA .053 olarak hesaplanmış ve yedi boyutlu yapı doğrulanmıştır. Cronbach alfa değerleri, .87 bilmeye yönelik içsel motivasyon için, .81 başarıya yönelik içsel motivasyon için, .83 uyarım yaşamaya yönelik içsel motivasyon için, .81 belirlenmiş dışsal motivasyon için, .78 içe yansıyan dışsal motivasyon için, .66 dışsal motivasyon-dış düzenleme için ve .82 amotivasyon için hesaplanmıştır.

Akademik Ahlaki Geri çekilme Ölçeği (AMDS), Farnese vd. (2011) tarafından geliştirilmiştir. Ölçek bu çalışma kapsamında Türkçeye uyarlanmıştır. 5’li Likert tipinde, 12 maddesi ve iki boyutu bulunmaktadır. İlk olarak ölçek üç dil uzmanı tarafında Türkçeye çevrilmiştir. Daha sonra bu çeviriler araştırmacılar tarafından incelenerek, ortak bir taslak geliştirilmiştir. Bu taslak, başka üç dil uzmanı tarafından İngilizce ’ye çevrilmiştir. Çeviriler tekrar incelenmiş ve bir dilbilim uzmanı tarafından incelendikten sonra son haline getirilmiştir. Pilot verisi kullanılarak açıklayıcı faktör analizi (AFA) yapılmıştır. Bu analiz sonucunda altıncı madde hiçbir alt boyuta yerleşmemiştir ve yedinci madde ters boyuta yerleşmiştir. Maddeler hakkında karar DFA sonrasında verilmiştir. Bu analiz iki faktörlü yapıyı, orijinal ölçekteki madde dağılımıyla onaylamıştır. Ana veriyle yapılan DFA sonucunda, uyum indeksleri CFI .93, TLI .91, RMSEA .058 olarak hesaplanmıştır. Cronbach alfa değerleri .68 ve .80 olarak hesaplanmıştır.

Akademik Usulsüzlük Ölçeği bu araştırma sırasında geliştirilmiştir. Öncelikle literatür taraması yapılarak bir madde havuzu oluşturulmuş ve araştırmacılar tarafından bu havuzdan 15 madde seçilmiştir. Bu maddeler 5’li Likert tipindedir (1 “çok uygun” ile “hiç uygun değil” arasında). Daha sonra, yedi lisans öğrencisiyle bilişsel görüşme yapılmıştır. AFA analizi sonuçlarına dayanarak 14. Madde atıldığında, ölçek iki alt boyut ayrılmıştır. Ayrıca birinci ve ikinci madde birleştirilmiştir. Bu iki faktörlü yapı

ana veriyle DFA yapılarak onaylanmıştır. Uyum indeksleri CFI .90, TLI .88, RMSEA .079 olarak hesaplanmıştır. Cronbach alfa değerleri .87 ve .86 olarak hesaplanmıştır.

Akademik usulsüzlük anketi bu araştırma kapsamında geliştirilmiştir. Literatür taraması yapılarak bir madde havuzu oluşturulmuş ve araştırmacılar tarafından bu havuzdan maddeler seçilmiştir. Maddeler ayrıca bir dilbilim uzmanı tarafından kontrol edilmiştir. Bu maddeler öğrencilerin akademik usulsüzlük hakkındaki algıları inançları ve görüşleri hakkında bilgi toplamak için kullanılmıştır.

Veri Toplama Süreci

Öncelikle, ODTÜ İnsan Araştırmaları Etik Kurulundan Ocak 2020’de onay alınmıştır. Veri toplama süreci pilot ve ana çalışma olarak, iki aşamada gerçekleşmiştir. Birinci aşama için 2019-2020 Bahar döneminde, bir devlet üniversitenin 192 lisans öğrencisinden veri toplanmıştır. İkinci aşamada, 2020-2021 Bahar döneminde, bir devlet üniversitedeki 442 lisans öğrencisinden veri toplanmıştır. Kovid-19 kısıtlamalarından dolayı ikinci aşama için anket LimeSurvey uygulamasına girilmiştir ve öğretim görevlilerinden anketi öğrencileriyle paylaşmaları istenmiştir.

Veri Analizi

Araştırma sorularını cevaplamak için betimsel istatistik, çıkarımsal istatistik ve içerik analizi kullanılmıştır. Mplus programında yapılan doğrulayıcı faktör analizi hariç, betimsel ve çıkarımsal istatistik analizler SPSS 27 programında yapılmıştır.

Çıkarımsal analizler yapılmadan önce ölçeklerin yapısal geçerlilikleri için açıklayıcı ve doğrulayıcı faktör analizleri yapılmıştır. Açıklayıcı faktör analizi AMDsve ADS ölçekleri için pilot çalışma verileriyle yapılmıştır. Bu ölçeklerin yapılarını değerlendirmek için öz değerleri, serpilme diyagramı ve faktör korelasyon matrisleri kullanılmıştır. Doğrulayıcı faktör analizleri her üç ölçek için faktör yapılarını onaylamak amacıyla yapılmıştır. Sonuçları değerlendirilebilmesi için Ki-kare testi, RMSEA, CFI, ve TLI kullanılmıştır. Ayrıca, ölçeklerin iç tutarlılığı için Cronbach alpha kat sayısı kontrol edilmiştir.

Öncelikle betimsel istatistik yöntemler kullanılarak öğrencilerin akademik usulsüzlükle ilgili algı, inanç ve görüşleri incelenmiştir. Daha sonra akademik ahlaki geri çekilme, akademik motivasyon, akademik usulsüzlük yönergesi farkındalığı ve bireysel öğrenci özellikleri, akademik usulsüzlüğü ne kadar iyi yordayabildiğini bulmak için çoklu hiyerarşik regresyon kullanılmıştır. Son olarak, öğrencilerin Kovid-19 sırasındaki acil uzaktan eğitimle yüz yüze eğitim arasındaki akademik usulsüzlük sıklığı hakkındaki düşünceleri ve sözleşmeli kopyayla ilgili gözlemlerini incelemek için içerik analizi yapılmıştır.

Araştırmanın Sınırlılıkları

İlk sınırlılık, bu araştırmanın deneysel olmayan bir anket çalışması olmasından kaynaklanmaktadır ve elde edilen sonuçlar arasında neden-sonuç ilişkisi kullanılamamasıdır. İkincisi, örneklemin Ankara'daki bir devlet üniversitesinden elde edilmesiyle alakalıdır ve araştırma sonuçlarının genellenebilirliğini azalmaktadır. Ayrıca bu araştırmada elverişli örneklem yönteminin kullanılması da araştırmanın genellenebilirliğini düşürmektedir. Üçüncü sınırlılık, öz bildirim veri toplama araçlarının “kopya çekme” gibi tabu sayılabilecek bir konuda kullanılmasıyla alakalıdır. Bu durum katılımcıların sosyal beğenirlik kaygısıyla farklı yanıtlar vermelerine sebep olabilmektedir. Son olarak, bu araştırma Kovid-19 uzaktan eğitimsürecinde tamamlanmıştır ve bu durumun sonuçlar üzerinde herhangi bir etkisi olup olmadığı bilinmemektedir.

Bulgular

Öğrencilere akranlarının ne sıklıkta kopya çektiği sorulmuştur. Üç yüz kırk öğrencinin bu soruya verdiği cevabın ortalaması 2.55'tir (1 “hiçbir zaman” ile 5 “her zaman” arasında). İkinci soruda öğrencilere öğretim görevlilerinin ne sıklıkta fark ettikleri akademik usulsüzlükler hakkında işlem yaptıkları 5'li Likert tipinde sorulmuş ve cevapların ortalaması 3.26 bulunmuştur. Aynı şekilde öğrencilere akranlarının fark ettikleri kopya olaylarını ne sıklıkta şikayet ettikleri sorulmuş ve ortalama 1.45 bulunmuştur. Öğrencilere neden kopya çektikleri sorulmuştur. Cevaplar şu şekilde sıralanmıştır; daha yüksek ortalama için, aynı zaman denk gelen ödev ve sınavlar

yüzünden, dersler zor olduğu için, aile baskısı, diğer öğrencilerin kopya çekmesi, kişiliğe bağlı sebepler ve görmezden gelinen kopya olayları.

Daha sonra öğrencilerin hangi soru tiplerinde daha çok kopya çekildiğini düşündüklerini anlamak için onlara sorular yöneltilmiştir. Öğrenciler çoktan seçmeli soruların, bilgi temelli soruların, ağırlığı yüksek olan ve yapılması için kısa bir süre verilen ödevlerin en sık kopya çekilen değerlendirme çeşidi olduklarını raporlamıştır. Öğrencilerin yarısı üniversitelerinin akademik usulsüzlük yönergeleri hakkında bilgilerinin olmadığını raporlamıştır. Ayrıca, öğrenciler akranlarının akademik usulsüzlük yönergeleri hakkında ne kadar bilgi sahibi olduklarının 5'li dereceleme ölçeği üzerinden tahmin etmeleri istenmiş ve ortalaması 2.02 bulunmuştur.

Bununla birlikte, akademik ahlaki geri çekilme, akademik motivasyon, akademik usulsüzlük yönergesi farkındalığı ve bireysel öğrenci özelliklerinin (cinsiyet ve akademik başarı) akademik usulsüzlüğü üzerinde etkisini görmek için iki hiyerarşik regresyon analizi uygulanmıştır. Bu model sınav odaklı akademik usulsüzlüğün %33'ünü ve ödev odaklı akademik usulsüzlüğün %43'ünü açıklamıştır. Sınav odaklı akademik usulsüzlüğü en çok öğrenci temelli akademik ahlaki geri çekilme yordamıştır ve onu amotivasyonla profesör/okul kaynaklı akademik ahlaki geri çekilme takip etmiştir. Ödev odaklı akademik usulsüzlüğü sırayla öğrenci temelli akademik ahlaki geri çekilme, amotivasyon, cinsiyet, profesör/okul kaynaklı akademik ahlaki geri çekilme, bilmeye yönelik içsel motivasyonla içe yansıyan dışsal motivasyon yordamıştır. Akademik usulsüzlük yönergesi farkındalığı, akademik usulsüzlüğün her iki boyutunu da (sınavla ilişkili ve ödevlerle ilişkili) yordamamıştır.

Öğrencilerin çoğunluğu Kovid-19 sırasında kopya çekme oranlarında bir artış olduğuna inanmaktadır. Öğrencilere göre bu değişimlerin sebepleri gruplandırılmıştır. Şu gruplar oluşmuştur; sınav güvenliği ile ilgili durumlar, çevrimiçi eğitimle ilgili memnuniyetsizlik, hocaların tavır ve davranışları, değerlendirme stilleri, öğrencilerin bireysel özellikleri ve Kovid-19 pandemisiyle ilgili durumlar. Öğrencilerin üçte biri sözleşmeli kopyaya tanık olduğunu belirtmiştir. Öğrenci gözlem ve deyimleri

gruplandırıldığında sosyal medya ve internet sitelerinden gelen teklifler, para karşılığı ödev yaptırma ve arkadaşlar ve tanıdıklar arası iş birliği temaları bulunmuştur.

Sonuç ve Öneriler

Mevcut çalışma lisans öğrencilerinin, akademik usulsüzlükle ilgili algı, inanç ve görüşleri, Kovid-19 sürecinde yapılan eğitimdeki kopya seviyeleri hakkındaki görüşleri ve sözleşmeli kopya hakkındaki gözlemleri hakkında veri toplamıştır. Ayrıca, akademik ahlaki geri çekilme, akademik motivasyon, akademik usulsüzlük yönergesi farkındalığı, bireysel öğrenci özellikleri ve akademik usulsüzlük arasındaki bağlantı irdelenmiştir. Esas olarak, çalışma Türk üniversitelerindeki akademik usulsüzlük ortamı hakkında bilgi edinerek akademik usulsüzlük sayılarında azalmayı düşürebilmeyi amaçlamıştır.

Üniversite öğrencileri akranlarının değişen sıklıklarla kopya çektiklerini düşündüklerini raporlamıştır. Bu bulgu, akranların kopya çektiği algısına sahip olmak, Chapman vd. (2004) ve Semerci'nin (2004) bulgularıyla paraleldir. Aynı zamanda, öğrenciler hocaların farkettileri kopya vakalarını bildirme sıklıklarının değiştiğini ve akranlarının da kopya vakalarını bildirmeyi genellikle tercih etmediklerini iletmiştir. Hem hocaların (Barret vd., 2005; Coren, 2011; Deniz 2020), hem de öğrencilerin (Waltzer vd. 2021; Yıldım vd. 2018) tanık oldukları kopya çekme vakalarını görmezden gelmeyi tercih etmeleri literatürle uyumludur. Burada dikkat edilmesi gereken nokta, öğrencilerin buldukları ortamı algılama biçimidir. Bu senaryoda öğrenciler, akranlarının kopya çektiği ve bu kopya vakaları hakkında gerekli işlemlerin yapılmadığı bir ortamda olduklarını düşünebilirler. McCabe vd. (1993) bu durumun kopya çekmeyi kampüs kültürü haline gelebileceği konusunda uyarı yapmıştır.

Öğrencilere neden kopya çektikleri sorulduğunda alınan cevaplar şunlardır; daha yüksek ortalama için, aynı zaman denk gelen ödev ve sınavlar yüzünden, dersler zor olduğu için, aile baskısı, diğer öğrencilerin kopya çekmesi, kişiliğe bağlı sebepler ve görmezden gelinen kopya olayları. Özellikle daha yüksek not alma arzusunun kopya çekmeye sebep olduğu görüşü Türk literatürüyle paraleldir (Polat, 2017; Semerci, 2004; Yazıcı vd., 2011). Buna zıt olarak, bireysel sebeplerin kopya çekme sebepleri

arasında alt sıralara alındığı çalışmalar vardır (McCabe vd.,1997). Ayrıca, bu araştırmanın aksine akranların kopya çekmesi ve görmezden gelinen kopya olaylarını önemli sebepler olarak sıralayan çalışmalar mevcuttur (McCabe vd., 2010).

Öğrencilere Kovid-19 döneminde yaşanan kopya olaylarının sebepleri sorulduğunda cevaplar kişisel sebeplerden uzaklaşarak eğitim ve sınavların kalitesiyle ilgili cevaplar artmıştır. Örneğin, sınav güvenliği ile ilgili durumlar, çevrimiçi eğitimle ilgili memnuniyetsizlik, değerlendirme stilleri, kopya sebepleri olarak verilmiştir. Bu durum eğitim kurumlarının uzaktan eğitim sürecine aniden ve daha önce tecrübeleri olmadan girmeleriyle açıklanabilir.

Öğrencilerin akademik usulsüzlük ve hangi soru tiplerinde daha çok kopya çekildiğini düşündüklerini anlamak için yöneltilen sorularda, çoktan seçmeli soruların, bilgi temelli soruların, ağırlığı yüksek olan ve yapılması için kısa bir süre verilen ödevlerin en sık kopya çekilen değerlendirme çeşidi olduklarını düşündükleri bulunmuştur. Bu sonuç hem Türk literatürüyle (Semerci, 2006), hem de yabancı literatürlerle paraleldir (Harper vd., 2020). Fakat, bu bulgular en güvenli sınavların gözetmenlerin bulunduğu sınavlar olduğu düşüncesiyle zıttır (Lines, 2016). Kopya çekmeyle değerlendirme sorularının bilişsel süreci hakkında araştırma bulunmamaktadır. Buna rağmen, bilgi temelli soruların, çoktan seçmeli şekilde sorulduğu tahmin edilebilir ve bulgu bu şekilde açıklanabilir.

Ayrıca öğrencilerin üçte biri sözleşmeli kopyaya tanık olduklarını bildirmiştir. Sözleşmeli kopya sorunu yabancı literatürde iyi incelenmiş olsa da (Bretag vd., 2019; Curtis vd., 2017; Newton, 2018), Türk öğrencilerle ilgili bilgi veren çalışmalar sınırlıdır (Awdry, 2020). Bunun yanında öğrencilerin yarısından fazlası, üniversitelerinin akademik usulsüzlük yönergeleri hakkında bilgi sahibi olmadıklarını bildirmiştir. Bu durum da yabancı literatür (Bretag vd., 2014) ve Türk literatürüyle paraleldir (Yıldırım vd., 2018).

Bu araştırmada ayrıca akademik ahlaki geri çekilme, akademik motivasyon, akademik usulsüzlük yönergesi farkındalığı ve bireysel öğrenci özelliklerinin akademik usulsüzlüğü üzerinde etkisini görmek için dört basamaklı, iki hiyerarşik regresyon

analizi uygulanmıştır. Sonuçlar akademik ahlaki geri çekilmenin iki faktörünün de (öğrenci kaynaklı ile profesör/üniversite kaynaklı) iki çeşit akademik usulsüzlüğü (sınavla ilişkili ve ödevle ilişkili) yordayabildiği bulunmuştur. Diğer bir deyişle yüksek akademik ahlaki geri çekilme oranları yüksek akademik usulsüzlük oranları anlamına gelmektedir. Bandura (2016) ahlaki geri çekilme mekanizmalarının insanlarda kötü davranışlar sergiledikleri zaman bile kendi ahlaki standartlarını korumalarına yardımcı olduğunu söylemektedir. Dolayısıyla akademik ahlaki geri çekilme mekanizmalarını kullanan öğrenciler hem kopya çekip hem de bu konuda iyi hissetmeye devam etmektedir. Kopya ve ahlaki geri çekilme arasındaki bağlantı diğer araştırmalarla paraleldir (Barnabelli vd., 2018; Farnase vd., 2011; Fida vd., 2016). Ayrıca, öğrencilerin ahlaki geri çekilme mekanizmalarını aktive ettikleri bağlam olarak diğer öğrenciler olmuştur. Bu akranların kopya davranışına işaret etmektedir. Akranların kopya davranışı literatürde akademik usulsüzlüğü arttıran bir faktör olarak yer almaktadır (Awdry, 2021; McCabe vd., 2010). Bunun yanında, Bandura'nın Sosyal Öğrenme Teorisi (1986) kişilerin gözlemleyerek öğrendiğini de belirtir ve bu sonucu açıklamak için kullanılabilir. Bu çalışma, Türkiye'de akademik ahlaki geri çekilmenin kopya davranışı üzerindeki etkisi açıklayan ilk araştırmadır.

Ek olarak, akademik motivasyonun akademik usulsüzlük üzerinde etkileri olduğu bulunmuştur. En çok etkiyi amotivasyon yapmıştır. Dışsal ve içsel motivasyon çeşitlerinin akademik usulsüzlük alt boyutları üzerinde değişen oran ve çeşitlerde etkileri olmuştur. Dışsal motivasyonun akademik usulsüzlüğü arttıran ve içsel motivasyonun azaltan etkisi daha önceki araştırmalarla benzerdir (Orosz vdl. (2013). Fakat bu etkiler göz ardı edilebilecek kadar azdır. Bu bulgu diğer araştırmalarla paraleldir (Orosz vd., 2013). Ayrıca cinsiyet ve akademik ortalamanın ödevlerle ilişkili akademik usulsüzlükle bağlantısının bulunması da daha önceki araştırmalarla benzerdir (Kocaman-Karoğlu vd., 2020; Lin vd., 2007; Molnar vd., 2012; Polat, 2017). Bu durum akademik usulsüzlük yönergesi farkındalığı için söylenemez. Bu araştırmada akademik usulsüzlük yönergesi farkındalığının kopya çekmeyle ilişkisi bulunamamıştır ama literatürde durum farklıdır (Jordan, 2001; McCabe, 2008). Bu

bulgu, öğrencilerin içgüdüsel olarak hangi davranışın yanlış olduğunu bildiğinin bir işareti olarak yorumlanabilir.

Bu araştırmanın sonuçlarına dayanarak, akademik usulsüzlüğün azalmasını sağlamak üzere çeşitli önerilerde bulunulabilir. Bunlardan ilki, onur metni uygulanmasıdır. McCabe et al. (2002) onur metni uygulanmasının akademik usulsüzlükleri azalttığını araştırmada göstermiştir. Bu tür metinler Türk üniversitelerinde uygulanabilir. İkincisi, kredisiz zorunlu olarak, üniversiteye yeni başlayan öğrencilere akademik usulsüzlük ile ilgili ders verilebilir. Bu fikir ortaya intihalle başa çıkma yöntemi olarak atılmış olsa da kapsam genişletilebilir (Eret vd., 2014). Üçüncü olarak, daha bütüncül bir anlayışla, Bretag et al.'ın (2011) örnek akademik usulsüzlük politikalarının beş özelliği de göz önünde tutularak, akademik usulsüzlükle ilgili politikalar geliştirilebilir. Bu beş özellik şöyledir: erişim, yaklaşım, sorumluluk, destek ve detay.

Bunun yanında üniversiteler, öğrencileri akademik usulsüzlük hakkında sadece uyarmakla kalmamalı, onları çeşitli mecralarda, tekrarlayan şekilde akademik usulsüzlük hakkında bilgilendirmelidirler. Ayrıca, öğrenciler sadece uyarılmamalı ve akademik dürüstlük kültürünün bir parçası haline getirilmelidirler.

Unutulmaması gerek diğer bir detay da öğrenci değerlendirme biçimleridir. Öğretim görevlileri kopya önlemek amaçlı değil, eğitimin değerlendirilebilmesi için en iyi ve doğru değerlendirme şeklini seçmelidir. Ayrıca, öğretim görevlileri gerekli durumlarda değerlendirme yöntemleriyle ilgili eğitim almalıdırlar. Son olarak, uzaktan eğitim döneminde öğrenilenler, çevrimiçi eğitimi geliştirmek için kullanılmalıdır.

Gelecek çalışmalar içinse şu öneriler verilebilir. Öncelikle ahlaki geri çekilme mekanizmaları akademik bağlamda ve özyeterlik, görev/zaman yönetimi kavramları beraber incelenerek ahlaki geri çekilmenin etkisini azaltıp azaltmadıkları incelenebilir. Aynı şekilde toplum kültürünün ahlaki geri çekilmeyle bağlantısı araştırılabilir ve ahlaki geri çekilme mekanizmalarının bağlama dayalı olup olmadığı araştırılabilir. Ahlaki geri çekilme mekanizmalarını daha iyi anlayabilmek için nitel araştırmalar da yapılabilir. Bunlara ek olarak, AMDS ve ADS ölçeklerinin psikometrik özellikleri hakkında daha fazla bilgi edinebilmek için bu ölçekler başka çalışmalarda da

kullanılabilir. Son olarak, deęerlendirme biçimiyle akademik usulsüzlük arasındaki ilişki, sözleşmeli kopya ve Kovid-19 dönemindeki eğitim hakkında Türk bağlamı açısından daha fazla bilgi edinebilmek için bu konularda arařtırmalar yapılabilir.

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