The effect of academic integrity policy on students' perception of academic dishonesty: a case of one Kazakhstani university

Aliya Sarsenbayeva

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53 Kabanbay Batyr Ave.
010000 Astana,
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October 2019

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You may proceed with contacting your preferred research site and commencing your participant recruitment strategy.

Yours sincerely,

Zumrad Kataeva

Assistant Professor

On behalf of Elaine Sharplin
Chair of the GSE Research Committee
Professor
Graduate School of Education
Nazarbayev University

Block C3, Room 5006
Office: +7 (7172) 70 9371
Mobile: +7 777 1929961
email: elaine.sharplin@nu.edu.kz

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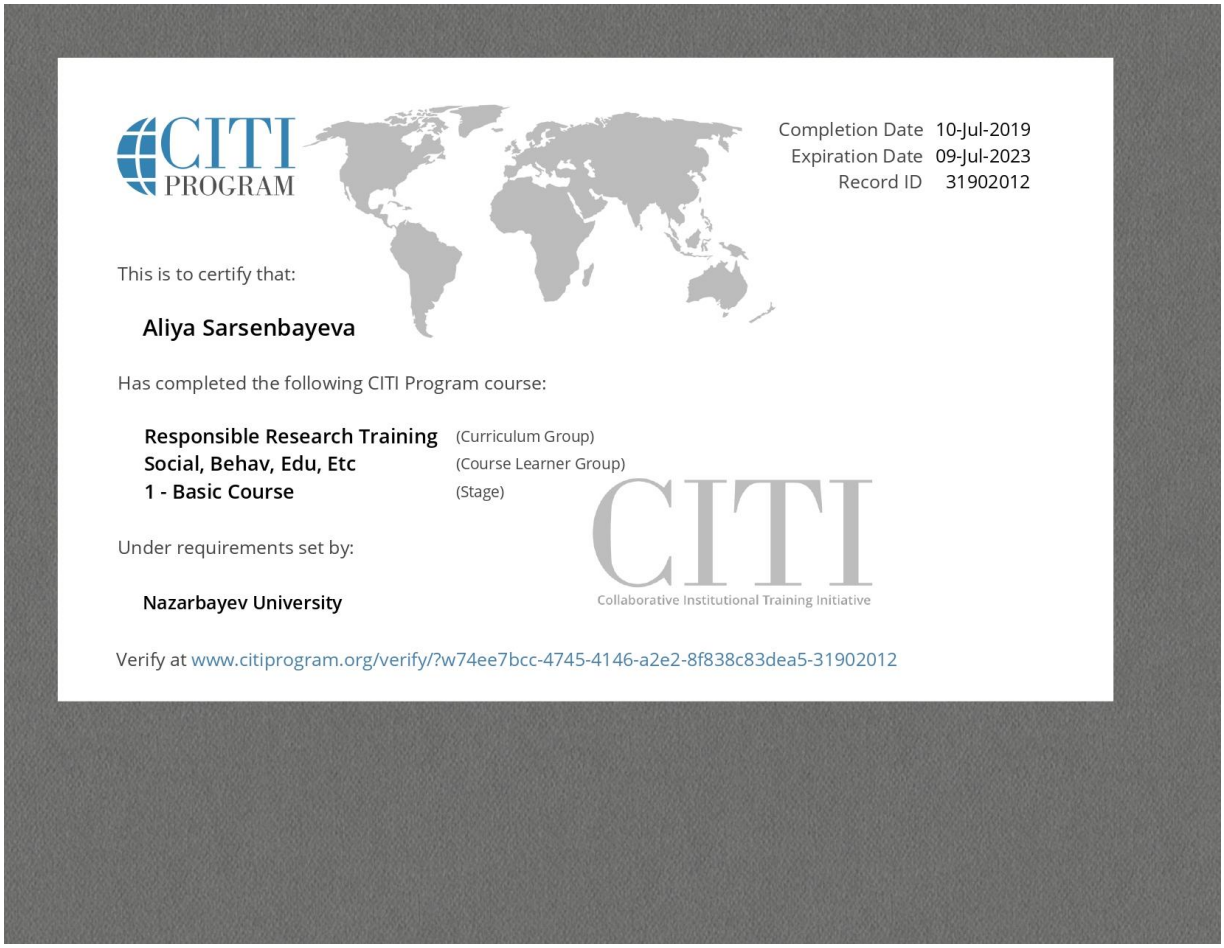

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The effect of academic integrity policy on students' perception of academic dishonesty: a case of one Kazakhstani university

Abstract

Neither Kazakhstan nor Kazakhstani education is perceived as corruption-free. To get rid of such a negative situation which has a detrimental effect on society, the state adopts various reforms including the sphere of education. One of the measures that are called to address the issue is the establishment of the academic integrity culture with zero-tolerance of any dishonesty practices. The tool, which is in charge of disseminating integrity values, is considered to be academic integrity policies which are introduced into the academic process by many Kazakhstani educational institutions. The primary role of the policies is to reduce the number of violation cases that can be done by enhancing students' negative perception of academic dishonesty. In Kazakhstan, there is little research dedicated to the influence of academic integrity policies on students' perception of academic dishonesty. Therefore, the purpose of the current study is to analyze students' perceptions of academic dishonesty based on one Kazakhstani university that applies the policy in its academic process. The quantitative study was carried out employing a cross-sectional survey among undergraduate students. The study revealed that students are aware of various forms of academic dishonesty, but have split perceptions of the effectiveness of the policy. It was also revealed that they do not treat dishonesty practices equally in relation to their severity, which may affect their involvement in various forms of academic dishonesty. The findings of the study could be implied for Kazakhstani universities with the view to improve the integrity practices at their site and other researchers for further studies.

Студенттердің академиялық бейадалдықты түйсінуіне академиялық адалдық саясатының әсері: қазақстандық университеттерінің бірінің мысалында

Аңдатпа

Қазақстан да, қазақстандық білім де жемқорлықтан ада деп қабылданбайды. Қоғамға зиянды әсер ететін аталмыш келеңсіз ахуалдан құтылу үшін мемлекет түрлі реформаларды, оның ішінде білім беруде де реформалар жүргізуде. Бұл мәселені шешуге бағытталған шараның бірі кез келген бейадалдық сипаттарға атымен төзбейтін академиялық адалдық мәдениетін қалыптастыру болып табылады. Адалдық құндылықтарын таратуға жауап беретін құралдың бірі көптеген қазақстандық білім беру мекемелерімен оқу үдерісіне енгізіліп жатқан академиялық адалдық саясаты болып саналады. Студенттердің академиялық бейадалдықты теріс қабылдауына әдеттендіру арқылы азаятын бұзушылық оқиғалар санының қысқартылуы саясаттың негізгі міндетіне кіреді. Қазақстанда студенттердің академиялық бейадалдықты түйсінуіне академиялық адалдық саясатының әсері туралы зерттеулер аз. Сондықтан өзінің оқу үдерісінде саясатты қолданатын қазақстандық университеттердің бірінің мысалында студенттердің академиялық бейадалдықты түйсінуін талдау аталмыш зерттеудің мақсаты болып табылады. Сандық зерттеу бакалавриат студенттеріне алуан қырлы сауалнама жүргізу көмегімен өткізілді. Зерттеу студенттердің академиялық бейадалдықтың түрлі сипаттарын білетінін, бірақ саясаттың тиімділігі туралы түсінікті қуаттайтынын көрсетті. Сонымен қатар олардың бұзушылық мәнінің деңгейіне қарай пікірлері біркелкі еместігі анықталды, ал ол болса, олардың сол бұзушылықтарға қатысуына әсер етуі мүмкін. Зерттеу нәтижелері қазақстандық университеттер үшін академиялық адалдық тәжірибесін жақсарту мақсатында және болашақта басқа да зерттеушілермен зерделенуі үшін қолданылуы мүмкін.

Влияние политики академической добропорядочности на восприятие студентами академической нечестности: кейс одного казахстанского университета

Аннотация

Ни Казахстан, ни казахстанское образование не воспринимаются как свободные от коррупции. Чтобы избавиться от данного негативного положения, которое пагубно влияет на общество, государство проводит различные реформы, в том числе в сфере образования. Одной из мер, которые призваны решить эту проблему, является создание культуры академической добропорядочности с нулевой терпимостью к любым проявлениям нечестности. Инструментом, который отвечает за распространение ценностей честности, считается политика академической добропорядочности, которая внедряется в учебный процесс многими казахстанскими образовательными учреждениями. Основная роль политики заключается в сокращении количества случаев нарушения, которые могут быть уменьшены путем привития негативного восприятия студентами академической нечестности. В Казахстане мало исследований посвящено влиянию политики академической добропорядочности на восприятие студентами академической нечестности. Таким образом, целью настоящего исследования является анализ восприятия студентами академической нечестности на основе одного казахстанского университета, который применяет политику в своем учебном процессе. Количественное исследование проводилось с помощью перекрестного опроса студентов бакалавриата. Исследование показало, что студенты знают о различных формах академической нечестности, но разделяют представления об эффективности политики. Выяснилось также, что они не одинаково относятся к формам нарушении с точки зрения их степени серьезности, что может повлиять на их участие в них. Результаты исследования могут быть использованы казахстанскими университетами с целью

улучшения опыта академической честности и другими исследователями для дальнейшего изучения.

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Chapter 1: Introduction

Academic integrity is a "multifarious", "multifaceted and multi-stakeholder issue" (Bretag, 2016, pp. 3-4) that is the subject of research in many countries. This issue is the concern at various levels ranging from micro (university) to macro (national). In Kazakhstan, the phenomenon of academic dishonesty in education is considered as one of the priorities by educational institutions and the state. According to The Organization for Economic Co-operation and Development [OECD], the corruption-related incidents including data falsification and plagiarism increased by 50% in 2016 compared to 2015 in Kazakhstan (OECD, 2017). The latest report by the OECD reveals that the country has made progress in relation to reduction in corruption in the field of education since 2018 (OECD, 2019). It is connected with a number of reforms which are implemented on behalf of the anti-corruption initiative SANALY URPAQ (OECD, 2019).

Academic Integrity and the need for the improvement of educational quality

The Agency of the Republic of Kazakhstan for Civil Service Affairs (2019) states that academic integrity is one of the keys to ensure the quality of education in the Kazakhstani universities. The agency is certainly right as these two concepts are interdependent as the indicator that defines the education quality is related to academic achievements and, unfortunately, Kazakhstan does not show good results. For example, according to the Global Competitiveness Index, Kazakhstan takes 63rd place "in terms of the quality of higher education", while only eight universities are in the list of QS World University Rankings (The Agency of the Republic of Kazakhstan for Civil Service Affairs, 2019). In other words, academic dishonesty may have an impact on educational outcomes. The agency (2019) continues stating that one of the reasons for such poor results is the "sale of scores" situation that is present in

many educational institutions and, which is taken for granted at mental level. It means that such graduates leave their universities and are likely to cheat in their workplaces (Gillespie, 2013; Richards, Saddiqui, White, McGuigan & Homewood, 2016). Moreover, the universities, where academic dishonesty is flourishing, produce a "less competent" labour force, which in turn undermines the public trust in education (Feday, 2017). Thus, it is also vital for Kazakhstan to address the issues of academic dishonesty in higher education institutions due to the following reasons:

First of all, poor quality of Kazakhstani education could be one of the main causes why many students tend to leave the country to seek better education. According to Meldeshev (2019), the number of students from Kazakhstan who study abroad comprises about 100, 000 and this figure is going to rise (as cited in Pokidayev, 2019). However, Begari (2019), a Vice-Minister of Education and Science of the Republic of Kazakhstan, states that this number is about 70, 000 (excluding Bolashak scholarship holders), whereas those who come to study to Kazakhstan amounts approximately 25, 000, which is three times lower (as cited in Markova, 2019). Probably, such statistics do not seem negative and alarming for higher education because students' mobility is a world-wide trend, but the statistical indicators are against Kazakhstan due to the fact that for many school graduates, the country of origin seems to be less attractive in terms of educational and, as a result, labour opportunities (Chankseliani, 2015). What is more, the inadequate quality of higher education might be the reason for youth unemployment (Lazaridi, Aziz & Sergi, 2014). The President of Kazakhstan, Qassim-Zhomart Tokayev, blames mostly private higher educational institutions for massive "publishing" of diplomas (as cited in Dyussengulova, 2019). The author continues citing the Atameken that approximately 60% of graduates cannot get employed based on their major (Dyussengulova, 2019).

Another reason why it is important to enhance the quality of Kazakhstani education is that being a member of the Bologna process and entering the European Higher Education Area, Kazakhstani universities should be competitive enough to attract students and provide graduates who will be in demand on the international market. Furthermore, it is a well-known fact that the development of education is strategically important for any developing and developed country because education is a prerequisite for the country's economic growth, the development of society and human capital (Selami, 2013).

Last but not least, it is well-known that Kazakhstan is one of the most corrupt countries in the world, since it takes 124th place among other 180 countries (Transparency international, n.d.). The Kazakhstanskaya Pravda considers education to be "among the most corruption-prone areas in Kazakhstan" ("Education is among most corruption-prone areas in Kazakhstan", 2018). Corruption in education has a myriad of forms. Denisova-Schmidt (2018) writes that bribery, collusion, favoritism, fraud, conflict of interests can serve as clear examples. The author (2018) continues stating that plagiarism is a kind of fraud which also can be one of the forms of corruption (Denisova-Schmidt, 2018). In other words, for some authors, Chapman and Lindner (2016) and Denisova-Schmidt (2018), the terms of corruption in education and academic dishonesty are the same and interchangeable. But corruption is broader in its scope since this phenomenon is encountered in many spheres, such as medicine, politics, business, engineering and so on, and academic dishonesty is the corruption only in the sphere of education. Consequently, academic dishonesty is considered as both the corruption in education and part of the whole.

The effect of corruption and academic dishonesty on students, educational institutions and society

Corruption in higher education is pervasive and has a detrimental effect on individual and society as a whole (Heyneman, 2008; Chapman & Lindner, 2016; Denisova-Schmidt, 2018). It is a serious impediment to educational development as, according to Feoktistova (2014), it prevents Kazakhstani universities from being successfully accredited by international agencies. In fact, education itself is responsible for combatting the corruption rate in the country, not only for the sake of the education, but for societal development too. In the opinion of Heyneman, Anderson and Nuraliyeva (2007), corruption in education also has individual and social costs, in other words, students who are engaged in buying grades are less motivated to learn. What is more, if students come from a university with a poor reputation, they have less chances to be employed even if they are clean or their salary could be significantly lower (Heyneman et al., 2007). Employers prefer those who graduate from universities which are known for honesty, and, broadly speaking, a corrupt education system predicts corrupt society and state since it educates future corrupt citizens (Heyneman et al., 2007).

As for the role of academic integrity, according to Brimble and Stevenson-Clarke (2005), academic integrity has an effect on the quality of education provided too (as cited in Bachore, 2014). First of all, it impedes the fair and equal students' assessment because their skills and abilities are not assessed equally. Moreover, it affects students' "level of learning" that makes them unable to apply their knowledge during the course and their disrespectful attitude to future professions (as cited in Bachore, 2014, p. 1063). Dyer (2010) continues arguing that academic dishonesty has a negative impact on the institutions' values and reputation (as cited in Esposito, Ross & Matteson, 2015). Discussing academic integrity, Gallant (2018) states that quality

indicators as "graduate rates, access, time to degree, grades, faculty publication rates, and so on" do not reflect the quality of gained education since they can be achieved by violating academic integrity and, therefore, there is no educational quality without academic integrity. The author adds that high ethical practices and best experience in educational quality may serve as a preventative measure of corruption and may tackle this issue (Gallant, 2018). Hence, the proliferation of academic integrity is significant to struggle against corruption not only in education itself, but in society as a whole.

Statement of the problem

Academic dishonesty phenomenon is being highlighted not only in Kazakhstan, but in other post-Soviet countries too. In Armenia, Russia, and Ukraine, there is already some research work dedicated to this topic. These works study the theoretical aspects of academic integrity (Artyukhov & Liuta, 2017; Milovanovitch, Ceneric, Avetisyan, & Khavanska, 2015), unethical students' behavior (Shmeleva, 2016), the relationship of the perception of university honest environment with students' involvement (Maloshonok, 2016), content analysis of honor codes (Eremenko, 2019). As the issue of academic dishonesty in Kazakhstani academic environment is relatively new, there is still little empirical research conducted in this field including the Kazakhstani population and Kazakhstani higher educational institutions.

Much information that is related to the issues of corruption and academic or research integrity comes from mass media, which usually has a negative connotation. So, Eldesov (2018) assumes that the Ministry of Education and Science of the Republic of Kazakhstan (hereinafter referred to as MES RK) probably supports applicants' cheating at United National Testing. The author also claims that such students continue cheating at universities, which have all conditions for that, and become "fake" specialists with inclinations to falsifications, fraud and corruption

(Eldesov, 2018). When it comes to plagiarism, Kazakhstani mass media covered the plagiarism incidents, which was not proved, with one of MES RK top officials. Despite that, the Minister of Education and Science of the Republic of Kazakhstan, Askhat Aimagambetov, (2019) states that he disagrees with the argument that Kazakhstani education is fully bogged down in corruption (as cited in Amanzhol, 2019). Aimagambetov (2019) agrees that corruption is present in education and one can encounter it during the United National Testing, examination period at universities, applying for a job, so the state should not be limited with arrests, but apply preventative measures (as cited in Amanzhol, 2019).

One of the preventive measures can be the introduction of explicit academic integrity policies or honor codes into the academic process. The given documents prescribe different types of academic misconducts and aim to establish ethical culture with the view to decrease academic violations number (Von Dran, Callahan & Taylor, 2001). The reason why students are engaged in academic dishonesty might be their wrong perception of the issue. It is important to understand how students perceive academic dishonesty since their perception influences their behavior, frequencies of violations and their determinants (Bisping, Patron & Roskelley, 2008; O'Neill & Pfeiffer, 2012). In addition, it is more significant to study students' perception of academic dishonesty at universities with academic integrity policies to examine the effectiveness of such policies as preventative measure.

Purpose of the study

The purpose of this study is to analyze students' perceptions of academic dishonesty in one Kazakhstani university that has introduced the academic integrity policy and applied it to the academic process. As it was mentioned above, students' perception is important to study as it may affect academic dishonesty rate. Moreover, it is reasonable to study the given phenomenon

at the university with the policy since the effect of the policies on addressing academic dishonesty is still controversial (Von Dran et al., 2000). There is much research in the world concerning the honor codes (McCabe & Trevino, 1993; O'Neill & Pfeiffer, 2012; von Dran et al., 2001; Whitley & Keith-Spiegel, 2001), but the benefits and drawbacks of such initiative should be investigated within the Kazakhstani context.

Research Questions

The following overarching research question will guide the study:

In what ways do students perceive academic dishonesty at the university?

The study also answers the subsidiary questions

1) What are students' perceptions about the effectiveness of academic integrity policy?

2) What factors affect students' attitude towards academic dishonesty?

3) What factors affect students' dishonest behavior?

Hypothesis

The research also puts forward two hypotheses:

1 There is a positive correlation between students' attitude towards academic dishonesty and students' dishonest behavior.

2 There is a negative correlation between students' attitude towards academic dishonesty and students' dishonest behavior.

Significance of the study

The research has a practical value for different groups of interests. First, the university that practices academic integrity policy might benefit as it will learn if there is a usefulness of the policy. The findings may indicate the problem zones to deal with to decrease the dishonesty cases.

Second, students could express their voices on the issue of academic integrity in general. That will help to define the strongest points of the policy or omissions that inhibits the successful practice of the policy. Moreover, students will have a better understanding of what academic integrity is and what the core ethical values are which further can help them improve their behavior.

Third, the results and findings of the study can help faculty and staff see their role in the dissemination of academic integrity culture in view of the fact that they are those agents who can instill ethical values in their classrooms (Wangaard, 2016)

Finally, the results and findings of the research could be useful for other researchers. In this case they can be spread by means of various conferences and journal publications.

Thesis structure

The given thesis consists of 6 chapters. The introductory chapter illustrates the background information and states the problem of the research. It also depicts the purpose of the research, research questions and significance of the study. The literature review chapter presents the critical analysis of the international literature on the studied topic. This chapter introduces key concepts and different factors that predict academic dishonesty. Secondly, the literature review chapter provides information about the importance of academic policy and honor codes for disseminating the academic integrity culture and reducing the dishonest students' behaviors. Finally, it considers the issue of students' attitude towards academic integrity. The methodology chapter describes the research design, sample, data collection instruments and data analysis procedures, ethical issues of the present research and possible limitations of the study. The fourth chapter presents the results of the cross-sectional survey. The discussion chapter presents the findings of the study and tells how research questions were answered. The conclusion chapter

provides a summary of the research findings with regard to research questions and gives implications for further studies.

Chapter 2: Literature review

The given chapter reviews the existing literature on, first of all, key concepts related to academic dishonesty. Then the chapter analyzes and explores the factors contributing to academic dishonesty and considers the role of academic policies as a prevention tool. Further, the literature review analyzes the importance of students' attitudes to decrease academic violations and, finally depicts the framework that theorized the current research.

Key concepts

The given section aims to explain the main concepts operating in the current research. These concepts outline what constitutes academic dishonesty and are used further to organize the survey. They also act like variables and can be treated as their definitions.

Perception

The current research aims to analyze students' perception of academic dishonesty at one Kazakhstani university. Prior to the discussion of key concepts of academic dishonesty, it is relevant to explain what is understood under 'perception' within the scope of the given research.

Tuan (1990) views perception as "both the response of the senses to external stimuli and purposeful activity in which certain phenomena are clearly registered while others recede in the shade or are blocked out" (p. 4). Pickens (n.d.) adds that a person reacts to stimuli on the bases of her or his experience and the given reaction can differ from reality. According to Assael (1994), the way people perceive these stimuli may be shaped by their "beliefs, attitude, motivation, and personality" (as cited in Pickens, n.d., p. 54). In addition to the listed attributes of perception, culture plays an important role and influences people's perception of the world, i.e. their attitude (Tuan, 1990).

In accordance with Pickens (n.d.), attitude is "a mindset or a tendency to act in a particular way due to both an individual's experience and temperament", therefore the attempt to interpret people's attitude implies the explanation of their behavior (p. 44). In fact, the relationships between attitude and behavior are difficult, like a chicken-egg casualty dilemma. Reibstein, Lovelock and Dobson (1980) write that in case attitude preconditions behavior, then behavior can be affected by changing people's perception through attributes or communication. However, in case people's behavior preconditions their attitude, then attitude can be changed by changing their experience (Reibstein et al., 1980). In such an interpretation of attitude-behavior relationships, it may be concluded that these two concepts are correlated.

The concept of perception is multi-faceted and implies mutual relationships between attitude, behavior, beliefs, and experience. With regard to the research topic, there are many studies on the perceptions of either academic dishonesty or its different types and the scope of this research is also diverse: it is used as the umbrella term for such topics as awareness, beliefs, attitude and behavior.

Types of academic dishonesty

There are numerous definitions of academic integrity. According to the International Center for Academic Integrity (n.d.), it is "a commitment, even in the face of adversity, to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage". From the first view, such a definition may seem vague but these values prescribe academic integrity or honest, fair and responsible behavior in the academic field.

The opposite concept to academic integrity is academic dishonesty. Hosny and Shameem (2014) view academic dishonesty as a resort to illegal practices, such as cheating at the exam or other assessments in order to achieve higher grades. Kibler et al. (1988) state that academic

dishonesty "refers to the forms of cheating and results in students receiving unauthorized assistance in an academic exercise or receiving credit for work which is not their own" (as cited in Sutton, 1991, p. 9).

There are different areas where academic dishonesty can take place and it is related not only to the learning process (grade subjectivism, cheating, plagiarism, collusion etc.) but also research (fabrication, misrepresentation, publication dishonesty etc.) and the violations by administration (Quist, n.d.). The area of this research is academic dishonesty that occurs in the academic environment during the learning process. Moon (2006) identifies three types of academic dishonesty: cheating, plagiarism and collusion (as cited in Hosny & Shameem, 2014). According to Kibler (1988) and Pavela (1997), there are four types of academic dishonesty which are cheating, fabrication, facilitation and plagiarism (as cited in Sutton, 1991; Tatum & Schwartz, 2017). However, this list can be extended with bribery, contract cheating, duplicate submission and other types (St. Petersburgh college, n.d.). The conclusion can be drawn that there is no consistency in terms of academic dishonesty classification. For example, Esposito et al. (2015) differentiate contract cheating, ghostwriting, paper mills and unknown ghostwriting in spite of the fact that in all these types, the writing is done by third parties. The given section will rely on the classification offered by Kibler (1998) and Pavela (1997) (as cited in Sutton, 1991; Tatum & Schwartz, 2017).

Cheating

The most popular types of academic dishonesty are cheating and plagiarism (Balik, Sharon, Kelishek & Tabak, 2010). Cheating is considered as "intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise" (as cited in Sutton, 1991, p. 9). Khodaie, Moghadamzadeh and Salehi (2011) study discovered that 95.6% of

students were engaged in cheating explaining their dishonest behavior with the following reasons: "difficult school subjects, not taking the teacher seriously, and lack of self-study" (p. 1593). Another reason for violations can be students' belief that there are fewer chances of being caught during cheating and consequently benefits are higher (Simon et al., 2004).

Cheating has many forms. From the point of view of Hosny & Shameem (2014), the most popular forms of cheating are considered to be copying off other students during the test or examination, talking to neighboring students while taking an exam. O'Neil and Pfeiffer (2010) continue the list with using cribs on the test, using text messengers or other devices on the test or examination, "using false excuses to get an extension" of the deadline and others (p. 236). However, it should be noted that sometimes the term 'cheating' is substituted with 'academic dishonesty' and in some research they are interchangeable (O'Neill & Pfeiffer, 2012; Yu, Glanzer, Sriram, Johnson & Moore, 2017).

When describing the most popular cheating behaviors, one cannot deny contract-cheating which is getting third parties to complete students' assignments (The University of Sydney, 2020). Lee (2019) reports on the multiple scandals that have happened in the UK, Australia and the USA, which received media coverage. The author calls it "dismissal of the learning process" and, showing the seriousness of the violation, says that Australia is going to sentence cheaters to 2 years of prison (Lee, 2019). Esposito et al. (2015) write that there is a bulk of schemes between unknown ghostwriters that might hide behind editing services and customers, but despite the popularity of the issue, there is little research on this form.

Plagiarism

Another popular type of academic dishonesty is plagiarism. Kibler et a. (1988) defines plagiarism as "the deliberate adoption or reproduction of ideas or words or statements of another

person as one's own words without acknowledgement" (as cited in Sutton, 1991, p. 9). While stating that plagiarism is a deliberate form of dishonesty, Hosny and Shameem (2014) claim that it is not always intentional. This is what differentiates plagiarism from cheating. They continue writing that students may not always know that they plagiarize since they do not know, for example, standards of quoting (Hosny & Shameem, 2014). Chen and Chou (2017) agree that poor academic skills contribute to plagiarism rates. They also argue that students might plagiarize because they are not interested in the discipline or they have a vague awareness of plagiarism's essence (Chen & Chou, 2017). The most popular forms of plagiarism can be copying the texts word for word without using the quotation marks, paraphrasing other people without acknowledging the author, submitting other students' works as their own (Hosny & Shameem, 2014). Chen and Chou (2017) in their research note the concept of self-plagiarism which makes some students' confused because they do not consider copying their own works as plagiarism.

Facilitating academic dishonesty

The third type of academic dishonesty is facilitating academic dishonesty. In accordance with Kibler's et al. (1988) study, facilitating is "intentionally or knowingly helping or attempting to help another violate a provision of the institutional code of academic integrity" (as cited in Sutton, 1991, p. 9). Seaver College (n.d.) adds that one can facilitate or help others to breach academic rules when simply does not report on malpractices. In the survey by O'Neil and Pfeiffer (2012), the behavior depicting facilitation can be "seeking help from other students on a take home exam", "allowing someone to copy your answers during a test or examination" (p. 236). The University of Maryland (n.d.) adds that facilitating can occur when students "share answers to assignments via group chats", doing the assignments for other students on a paid or

unpaid basis and posting course assessed materials on the external websites. Facilitating could have the same reasons as other types of dishonesty, but one of the main reasons might be the fact that students do not take it seriously. Elzubeir and Rizk (2003) report that some students treat helping friends by writing an assignment as a misdemeanor and it should be not punished harshly. Hosny and Shameem (2014) state that students approve getting help from someone and found that 14.13% of students cheated to help a friend.

Fabrication

The fourth type is fabrication, which is defined by Kibler et al. (1988) as "intentional and unauthorized falsification or invention of any information or citation in an academic exercise" (as cited in Sutton, 1991, p. 9). Seaver College (n.d.) adds that fabrication happens not only in academic issues but also to "university officials" and in cases of lying to the teachers or administration. Patrzek, Sattlerb, van Veenb, Grunschel and Fries (2015) found that 19% of surveyed respondents reported that they have fabricated or falsified data at least one time. In addition, the most important peculiarity was the fact that the frequency of fabrication behavior decreased every semester by about 12%, and in later semesters it was less frequent (Patrzek et al., 2015).

Factors contributing to academic dishonesty.

Studying academic dishonesty, researchers simultaneously study the factors that influence the academic violations rate. Most of the research is about factors that influence cheating and plagiarism as these types of academic dishonesty are the most common (Cronan, Mullins & Douglas, 2015). But, it should be reminded that cheating and academic dishonesty might be used as equal terms as it was mentioned above. In this section, the factors that have an

impact on the academic dishonesty rate are presented in accordance with the classification suggested by McCabe, Trevino and Butterfield (2001): individual, institutional or contextual.

Individual factors that predict academic dishonesty

Individual factors include GPA, gender, self-esteem, age or year of study, social status, cocurricular activities, parents' education etc. All these variables have different effects on the delinquency rate and there is still no hard evidence that, for example, males cheat more than females or students with educated parents cheat less than others because different research shows contradicting results (Balik et al., 2010; O'Neill & Pfeiffer, 2012; Yu et al., 2017). The significance to study the influence of individual factors on the academic violations rate is grounded in the fact that there is still little research dedicated to these relationships (McCabe, Butterfield & Treviño, 2012).

As was aforementioned, the results are mixed on, for example, who break academic rules more: females or males. Khodaie et al. (2011), studying the probability of cheating in Tehran, outline that some research shows that female students cheat less, which can be explained by the possibility that they are more honest and afraid of being caught. Simon et al. (2004) add that despite the increase in the number of females who are involved in academic dishonesty, they are still taking their education more seriously than men and tend to report the cases of violations more than male students.

As for age or year of study, Hosny and Shameem (2014) claim that younger students are likely to cheat more. Reviewing the previous studies, Yu et al. (2017) concludes that students of the first or second year tend to cheat more than their senior peers which is explained with the fact that these students "are more likely to be at early stages of cognitive and moral development, where they are swayed by peer influence and are therefore less likely to develop their own ideas

and take appropriate actions" (2017, p. 403). However, their own findings showed a positive relationship of the year of study with academic violations: students of higher years are more likely to be involved in academic dishonesty (Yu et al., 2017), which contradicts Khodaie's et al. (2011) findings that "age as a variable has indicated a very poor and insignificant correlation" (p. 1591). Concerning peer-report, according to Simon et al. (2004), students of higher years tend to report the cases of academic violations more than freshmen or sophomores, perhaps because they are more committed to organizational culture and support the academic standards existing at university.

As Tibbets (1999) discovered, self-control, sense of guilt and GPA have a direct influence on students' cheating rate (as cited in Khodaie et al., 2011). They continue stating that students with higher GPA are less involved in cheating (Khodaie et al., 2011). Bisping et al. (2008) using econometric methods to study students' perceptions revealed that GPA and age are likely to negatively correlate with cheating which implies that the higher a GPA or the older a student, the lower the propensity to cheat. According to Baird (1980), 75% of surveyed students confessed to cheating and gender, GPA and major of study served as significant predictors for it (as cited in Khodaie et al., 2011).

Other individual factors that may affect students' dishonest behavior are social status, curricular activities and academic preparation. To be more specific, it is revealed that students who come from high income families are less prone to violate academic integrity rules (Yu et al. 2017). As a myriad of studies state curricular activities such as sport or belonging to different communities are found to adversely influence the incidents of dishonesty (as cited in Yu et al. 2017). Also, in their study Yu et al. (2017) found the relationship between academic violations and academic preparation implying that it is important to reduce the number of cases.

While studying students' intention to plagiarize and share homework, Cronan et al. (2015) surveyed 1353 students and revealed that attitude, past behavior and moral obligations are the strongest predictors of dishonest behavior. They write that attitude determines students' intention to violate academic rules and it can be changed and formed by means of persuasion, therefore, students' dishonest behavior may also undergo some influence (Cronan et al., 2015). Apart from attitude, students' behavior can also be changed with the help of moral obligations which are represented by a sense of guilt and personal obligation (as cited in Cronan et al., 2015). Moral obligation can be instilled by setting the proper environment and values in the university community, so that when violating the rules of the community students could feel guilt or pride (Cronan et al., 2015). As for past behavior, it cannot be influenced as it may turn into a habit, but a university can introduce preventative measures to reduce the number of violations (Cronan et al., 2015).

Contextual factors that predict academic dishonesty

Contextual or institutional factors that might affect students' dishonest behavior are but not limited to honor codes, teaching staff's and administration's attitude to violations, university sanctions and peers' dishonest behavior (McCabe & Trevino, 1993). The influence of honor codes or academic integrity policies will be discussed further, but it should be stated that, according to McCabe and Trevino (1993), honor codes do not guarantee an academic honest environment at educational instructions because there are other contextual factors that support it.

First of all, the role of the faculty staff and university administration in preventing academic violations is quite huge. The university that is lenient and lax towards academic violations fosters students' dishonest behavior due to the absence of serious and reasonable penalties (Jereble et al., 2018; Tatum & Schwartz, 2017). Khodaie et al. (2011) argue that if the

university has strict punishment rules, then the probability of cheating is decreasing. Much attention should also be drawn to the quality of teaching and assessment (Tatum & Schwartz, 2017). Poor teaching and assessment can be the result of teachers' indifference to academic progress of their students, "unclear assignments" and not a serious attitude towards their teaching responsibilities (Zimmerman, 2012). The role of teachers cannot be diminished since they are in charge of explaining the rules and forming students' attitudes to academic integrity (Cronan et al., 2015). Löfström, Trotman, Furnari and Shephard (2015), carrying out mixed method research on teachers' perception of academic integrity, revealed teachers' ambivalent attitude to their responsibilities within the issue. The authors found that there were some who perceived it as students' responsibility and they were not sure whether it was their role to teach academic integrity (Löfström et al., 2015). But, some of them stated that they were in charge of disseminating integrity values and should serve like role models rather than explicitly explain the standards and rules (Löfström et al., 2015). Moreover, they allege that if a student breaks the rule, it is "an institutional failure" (Löfström et al., 2015, p. 443). Peters, Boies and Morin (2019), studying teachers' role in reinforcing academic integrity, found that only a few professors out of 49 promoted academic integrity values in their classroom and concluded that teaching staff should be trained how to do it in order to become integrity ambassadors. Therefore, not just students should follow the rules, but it is obligatory to establish an environment based on honesty and trust. Teachers and students should support the given environment by expressing commitment to ethics and integrity in learning (Khodaie et al., 2011; Simon et al., 2004; Löfström et al., 2015). A positive academic environment is important for a student's perception, which could also serve as a predictor of his or her intentions to break the rules (Maloshonok, 2016). The author (2016) continues stating that students are less engaged in

academic violations if the environment is characterized by transparent behavior of both students and teachers, positive students-teacher relationships, adequate demand for students etc.

Another important contextual factor is the student engagement in the organizational process existing at the university. It means that students, as the main stakeholders in the sphere of education, should have a voice in the quality assurance process. In the terms of academic integrity, students may serve as role models or ambassadors establishing students' organizations which provide the support at various workshops and training programs (Richards et al., 2017)

Social pressure or in this case peer pressure is another factor that may affect students' intention to break the rules. Social pressure might be built explicitly through, for example, discussion of possible cases or implicitly through simple observation of other students who violate academic integrity rules (Cronan et al., 2015).

Finally, according to McCabe, Butterfield and Treviño (2001) a lot of honor codes imply reporting on academic violation and peer-reporting is the strongest predictor of high standards of an academically honest environment. The authors studied the impact of peer reporting environment on student behavior in code and non-code universities and checked the hypothesis that the stronger peer reporting environment means the less academic dishonesty rate (McCabe et al., 2001). Their results found out that "peer reporting responsibilities are not a very strong influence on actual reporting in either code or non-code environments" (McCabe et al., 2001, p. 41) despite being higher in code institutions. Such findings might have several explanations. First of all, students are reluctant to report on academic violations among their peers due to a sense of community. In other words, there are some behavioral norms in student communities and for the violations of these norms they can face condemnation, accusation or just turn into an enemy (McCabe et al., 2001). Secondly, not all codes prescribe the peer reportage as one of the

requirements for academic honesty (McCabe et al., 2001). As Melendez (1985) indicates, some honor codes require reportage and not reporting is violation itself, other codes oblige students to do so, encourage and some do not encourage at all which means that students are not responsible for that (as cited in McCabe et al., 2001). Finally, most students in non-code institutions do not think that it is their responsibility to monitor other students, which demonstrates a clear separation of students' role and teachers' or administration's role in this issue (McCabe & Trevino, 1993).

During the last two decades, one of the largest causes of academic violations is the proliferation of technologies and social media, and an easy access to Internet sources which tempt students to plagiarize, cheat or facilitate (Peytcheva-Forsyth, Esposito et al., 2015). While Eccles et al. (2006) defined a strong positive correlation between plagiarism and Internet use (as cited in Hosny & Shameem, 2014). Peytcheva-Forsyth et al. (2018) found that cheating and plagiarism rates during online submission were not higher and even less frequent than during traditional submission, due to awareness of detection machines and the possibility of being caught. However, one cannot deny that it led to an increase in contract-cheating or paper mills (Esposito et al., 2015). Esposito et al. (2015) continue naming paper mills "digital masked bandits" that undermine not only the reputation of a university, but also can be treated as federal criminals (p. 15). It is rarely possible to detect contract-cheating, as students submit not-plagiarized papers and assignments written by editing service providers or somebody else.

To conclude, it should be said that it is important to make aware the factors that influence academic dishonesty as it can help to formulate effective preventative measures to address the issue and instill in students the culture of learning (Cronan et al., 2015).

Academic integrity policy as the measure to prevent academic dishonesty.

As it was written above, educational institutions introduce academic integrity policies in order to decrease the number of violations in their academic environment by making students aware of what academic violations are and what punishment the university may apply in case the rules are violated. Another purpose of the policy is to assure the culture of integrity among all university stakeholders (Dix, Emery & Le, 2014). The policy is a strategic document and its proper implementation depends upon mutual efforts of administration, faculty staff and students (Anohina-Naumeca, Tauginienė & Odineca, 2018).

The nature of academic integrity policies

The first academic integrity policies or honor codes date back to the 18th century after which they evolved undergoing changes and amendments. Firstly, they prescribed good manners and, then were seen as the tool to ensure production of knowledge and educate future citizens to tackle corruption (Gallant, 2008). The era of mass education gave birth to such terms as 'academic dishonesty' and 'academic integrity', the allegations against cheating students received media attention and it became clear that students' dishonesty was the result of poorly developed academic integrity standards (Gallant, 2008).

Recently, the rampant cases of academic dishonesty made educational institutions review their academic integrity policies to maintain the academic integrity standards (McCabe, Trevino, Butterfield, 2001). Some research has emerged on the nature of the policies so that they can be effective in performing their function. Accordingly, Pavela and McCabe (1993) provide the principles that academic integrity policy should have in order to promote the ethical learning environment: clear definitions of academic integrity which are uniform for all stakeholders, students' involvement in teaching academic integrity to their peers and their participation in

decision-taking process related to academic violations, call for students' personal integrity and honor behavior, reduction in students' temptation to violate academic integrity rules, assessments that require students to think critically, fair and reasonable penalties and, last but not least, absence of proceduralism during the cases (as cited in von Dran et al., 2000). It means that academic integrity policy should be clear to both students and faculty staff without any double standards, and procedures should be transparent.

What is more, Whitley and Keith-Spiegel (2001) highlight the necessity to explain why academic integrity matters and what behavior the university expects to be permitted or banned. The authors continue giving some recommendations on the implementation of the policy. They state that academic integrity values should be discussed in the classroom, students' press and promoted through special programs and activities (Whitley & Keith-Spiegel, 2001). Moreover, they think that universities should publish the cases of dishonesty either in institutional newspapers or web pages (Whitley & Keith-Spiegel, 2001). The most important thing that Whitley and Keith-Spiegel (2001) consider is that students should play an active role in promoting integrity.

Bretag, Mahmud, East and James (2011), studying academic integrity policies in Australia, came to the conclusion that not all policies are consistent with procedure and practice. Acknowledging the significance of educating students rather than punishing them, the authors disclosed the problems that universities have in relation to the policy application (Bretag et al., 2011). For example, it was found that universities missed "opportunities to educate students about academic integrity" and exercised inconsistent punishments (Bretag et al., 2011, p. 3). Such discrepancy between the different measures of punishment in universities has a negative impact on students' perception regarding what constituted dishonest behavior (Bretag et al.,

2011). With regard to the consistency of the policies and how it is applied and practiced, East (2009) claims that the alignment should exist "between policy, course development, teaching, learning and assessment" (p. 46). The author highlights the importance of communication in the form of accessible online resources, workshops for students, training for faculty staff and work of special offices and officers responsible for the work of the policy (East, 2009).

To sum up, the role of the academic integrity policy is not to punish but to encourage honest culture. Students benefit from studying in such an integrity-based environment because it increases trust in them which is a very important quality for future leaders. Secondly, it indicates the value of the diploma students receive at university and, finally, it makes students more productive and less stressful (Bauer College of Business, n.d.).

Academically dishonest behavior and academic integrity policy

As mentioned above, academic dishonesty is on the rise. Students' perception of academic dishonesty is vital for study by any university to reduce dishonest behavior. Chen and Chou (2017) underpin this argument stating that, for example, students' perception of plagiarism affects plagiarism behavior.

Students' dishonest behavior is the topic of multifarious research. According to Hosny and Shameem (2014), most students tend to resort to such dishonest behaviors as cheating and plagiarism. It was found that 40% of students under the study plagiarized word for word without quotation and 11.30% of them experienced copying other students or submitting assignments done by other students (Hosny & Shameem, 2014). However, the research by Patrzek et al. (2015) showed that if self-reported cheating was the most popular, plagiarism was the least one.

As for the influence of academic integrity policy on students' perception, in accordance with the study conducted by Drye, Lomo-David and Snyder (2018), the students at the university

that has the academic integrity policy clearly understand what academic integrity is as well as plagiarism and cheating. However, this fact does not prevent them from cheating (Drye et al., 2018) if there are no measures against such behavior (O'Neill & Pfeiffer, 2012).

While studying the awareness of academic misconduct, the researchers indicate the discrepancies in the perceptions of academic dishonesty by students and teachers. From the point of view of Schmelkin, Gilbert, Spencer, Silva and Pincus (2008), teachers and students have different opinions on the seriousness of different kinds of misleading behavior. For example, "sabotaging someone else's work" was perceived as one of the most serious by teachers and less serious by students (Schmelkin et al., 2008, p. 590). The authors conclude that both academics and students should have a clear understanding and be in an agreement of what constitutes dishonest behavior and honor codes that could serve as a guideline and reduce the discordance in their perceptions (Schmelkin et al., 2008, p. 604). Conversely, Bieranye, Martin, Ablordeppey, Mensah and Karikari (2016) report that regulations on academically honest behavior do not guarantee that students adequately understand them because of lack of training and practice (p. 11).

The importance of students' attitude in dealing with academic violations

Since attitude was defined as a tendency to behave in relation to one's own experience and temperament (Pickens, n.d.), the conclusion can be drawn that students' attitude towards academic integrity might have an impact on their ethical behavior with regard to academic violations (Cronan et al., 2015). Students' high ethical and moral standards are very important for majority of professions, for example, doctors, lawyers, teachers and so on. Therefore, the university is seen as the place that instills in students the ethical value of honesty that will further

affect their future professional behavior (Brown, Stephen, Alexandra, & Jamie, 2019; Elzubeir & Rizk, 2003).

For Kazakhstani higher educational institutions, teaching students to behave honestly and ethically is highly important as the values of honesty and responsibility developed at university might help to decrease the corruption rate that is prevalent in the country (The Agency of the Republic of Kazakhstan for Civil Service Affairs and Anti-corruption, 2018). According to Eckstein (2003), the university is in charge of developing zero tolerance to any corruption and other dishonest forms of behavior. For this purpose, Kazakhstani universities established the Academic Integrity League in August 2018. At the moment, the league consists of 12 universities and 14 universities are candidates to join. The league aims to support the quality of higher education and ensure the transparency of education process (Daulenov, personal communication, May 20, 2019). The establishment of the league probably resulted in the introduction of the academic integrity policies at many Kazakhstani universities.

Cronan et al. (2015) argue that attitude is a "stronger predictor" of students' intention to plagiarize, so the same can be applied for violations of academic integrity, in general. Therefore, it is significant to define the factors that influence students' attitude, so that the university could design effective prevention measures. Within the study of students' attitude to cheating and plagiarism in Saudi Arabia, Hosny and Shameem (2014) revealed that 22% of surveyed students paid other parties to complete the assignment and they probably found it acceptable because their parents could approve that. Moreover, their research found that students could find cheating ethically acceptable when it is the only chance to pass the course and not retake it (Hosny & Shameem, 2014). The study by Ball, Bowen, Kristi, Brown and Dumbell (1997) revealed that

only 5% of surveyed students disapproved of cheating and 50% would probably cheat to improve their progress (as cited in Khodaie et al., 2011).

Attitude can be changed and formed by means of persuasion, therefore, students' dishonest behavior may also undergo some influence. Apart from attitude, students' behavior can also be changed with the help of moral obligations which are represented by a sense of guilt and personal obligation (as cited in Cronan et al., 2015). Moral obligation can be instilled by setting the proper environment and values in the university community, so that when violating the rules of the community students could feel guilt or pride.

As for plagiarism, it was noted that mature students tend to approve plagiarizing from other sources without citation and 35% of students find it acceptable to plagiarize from open sources. Moreover, students' understanding of the essence of plagiarism influences their attitude (Hosny & Shameem, 2014). To be specific, students think that while paraphrasing they use their own words and, therefore, it does not contribute to plagiarism (Hosny & Shameem, 2014). Hu and Lei (2015) state that "slack" attitude to plagiarism influences students' hypothetical engagement (p. 247).

One of the reasons why students disapprove of cheating was found to be religion. So, 65% of students disapprove cheating as it is forbidden in Islam (Hosny & Shameem, 2014). 81% of students in the same research who did not approve of plagiarism claimed that it was equal to stealing and 16% said it violated intellectual property rights (Hosny & Shameem, 2014).

Talking about medical students, Elzubeir and Rizk (2003) propose to reconsider examination formats and use behavioral techniques that call students to show their responsibility for their progress.

When it comes to attitude to academic integrity, honor codes play a vital role. The study that was conducted by von Dran et al. (2001) shows that the honor codes made the impact on the positive students' attitudinal shift as students' awareness of what constitutes academic dishonesty had increased. It was achieved by a well-developed policy and changes in the organization of the academic process caused by the policy. Thus, there is a point to study how academic integrity policy influences students' attitude on academic dishonesty by revealing the influencing factors and general students' perception of academic integrity in order to establish a positive and honest learning environment.

Theoretical framework

Having theorized the key concepts related to the research, individual and conceptual factors that influence academic dishonesty and the importance of attitude and behavior, it is necessary to determine the framework that will conceptualize the study. For that purpose, Kohlberg's moral development theory, which is described in Figure 1, was chosen to explain the role of academic integrity policy in the moral development of students (Kohlberg & Hersh, 1977, pp. 54-55).

Kohlberg's moral development theory consists of six stages which could be joined into three levels: Pre-Conventional, Conventional and Post- Conventional. Pre-Conventional level is characterized with obedience of rules when students start their education not because it is morally unacceptable but because they are aware of the possible consequences, i.e. penalties, or they tend to pursue their own interests (Sutton, 1991). At this level, the absence of respect for institutional rules and self-gain contributes are the reasons why students cheat (Sutton, 1991).

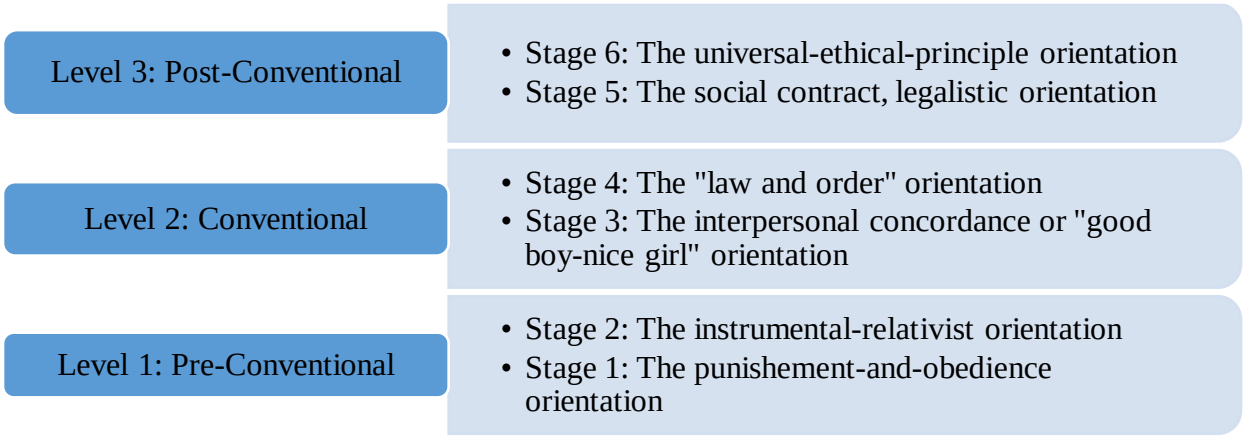
Conventional level is described with 'good boy/nice girl' relationships and 'law and order' orientation. Students are influenced by social norms and expected to act in accordance

with these norms (Nuss, 1981). They "blindly accept rules and convention" and "morality is still predominantly dictated by an outside force" (Lumen Learning, n.d.). Within the conventional level, students' attitude towards academic dishonesty is likely to be influenced by the order existing at the university, in other words they follow the rules because it is required by the internal rules.

Post-Conventional level is in charge of abstract values and principles. Ethical principles are becoming universal and common for society. Students follow the rules not because it is prescribed in the code, but due to the feeling of obligation, and violating the rules, they "feel guilty" (Lumen Learning, n.d.). Sutton (1991) adds that students at this stage of moral development cheat less because of values and authority.

Figure 1

Kohlberg's moral development theory



The justification for choosing the current theoretical framework is that the issue of academic dishonesty is related to moral values and reasoning that make a student act specifically in certain situations (Nuss. 1981). In other words, moral values affect students' attitude and behavior and are shaped along with their maturity within the certain environment (Nuss, 1981).

Chapter 3: Methodology

This chapter describes and rationalizes the methodology that leads the study in order to answer the stated research question, namely revealing the way students perceive academic dishonesty at the university where the research was carried out.

The methodology is the section of research papers that serves as a 'roadmap' and tells what methods were chosen and how the research was conducted. What is more important, the section provides a justification for methods of data collection and analysis and gives the opportunity for further "…analysis, critique, replication, repetition" (Given, 2008, p.516). The given chapter includes the following sections: research design, research site, sample, research methods, data analysis approach, ethical considerations and limitations.

Research design section is the first section that explains the choice of quantitative research design to answer the research questions. It is preceded by a sample description, which describes the criteria for selecting the respondents, and the research method section which aims to justify the method used and demonstrate how the research was conducted. Finally, the chapter presents a data analysis section that lays out the step by step procedure applied for analyzing the obtained data, ethical considerations which were followed over the research period and limitations of the study.

Research design

The research design section describes and justifies the methods that are used to hold the study. This research is built upon the quantitative design. Quantitative research is non-experimental or as it is also called "ex post facto research" as the researcher in this type of research does not have any control over the independent variables (Hoy, 2010, p.17). In other words, the number of such independent variables as gender, age, major, year of study, GPA,

tuition form, and social status in the quantitative part of the research is not random and controlled. In addition, non-experimental quantitative research allows the researcher to study the relationship between the independent variables and dependent variables in a real-life context (Mujis, 2011).

The purpose of the given research is to analyze students' perceptions of academic dishonesty at a code-university by means of revealing the relationship between students' attitudes towards academic dishonesty and their probable behavior. It also aims to define the factors that affect students' attitudes and behavior. The research attempts to cover as many respondents as possible to see the overall trend at the university, so quantitative design has opted since this research design helps the researcher "establish the overall tendency of responses from individuals and to note how this tendency varies among people" (Creswell, 2014, p. 13).

Data collection was carried out by means of the cross-sectional survey that tests the hypotheses and helps to generalize the results of many samples (Hoy, 2010). The survey was constructed on the basis of the analysis of previous literature on this topic.

Research site

The research site was the most challenging part of the given research. To begin, it was supposed to be a comparative analysis of two universities with academic integrity policy and without. However, if a year ago it was not difficult to find a university without an academic integrity policy, today it is practically impossible due to the fact that universities, institutions, colleges, and schools have started to introduce the integrity policies into their academic process, which I find a positive step towards enhancing the quality of education. The second challenge was the research site access. I wrote to two universities regarding research site access, but was rejected by one university and did not get a reply from the another one. It might have happened

because of the sensitivity of the research topic. Due to the challenges the research was narrowed down to a case study and was taken in one Kazakhstani university. This university is not large in terms of undergraduate academic programs it offers. It trains specialists in various fields within both full-time and distance education formats. The programs are taught in two languages, namely Kazakh and Russian, but some language courses are taught in English. The academic programs of the university are accredited and every year the university is positively ranked by the MES RK and The National Chamber of Entrepreneurs of the Republic of Kazakhstan "Atameken".

The university suited well my research purpose since it has the official academic integrity policy which was introduced in 2018 and published on the official website for public access. While acquiring access to the university, I was interviewed by the Vice-Rector for Academic Issues on the purpose of my research. In addition to a letter of support that I gave, I was asked to show my survey to make sure that the questions are relevant and appropriate for the university population.

Sample

During the data collection process, the given quantitative research relied upon convenience sampling because the sample was going to be nonrandom. It means that every volunteer student (except first-year students and part-time ones) could participate in the survey (Johnson & Christensen, 2012). The survey was conducted among undergraduate students and included about 7% of the total undergraduate population to reach more accuracy and make better generalizations of the results for the total population. However, according to Johnson and Christensen (2012), it is difficult to generalize from convenience sampling due to the fact that researchers may not know what group of population the individuals represent. The following independent variables were accounted for: gender, age, academic program, year of study, GPA

and tuition forms. As the sample was convenient, which means that all cases were taken into consideration (Given, 2008, p. 800), the number of males and females, students with the same GPA, tuition form and other characteristics was not equal. The research did not include first-year students, as at the time of the survey they did not have enough academic experience for the research because the academic period was not finished and they did not have their own strong perception of academic dishonesty. Another group of students which was excluded was distance education students because the survey was allowed to be taken on paper, which in its turn limited access to students.

Data collection

In this section I will describe the research methods that were used for the study. When I received the Ethics Committee approval to carry out the research, I started to look for the research site. After some failures, I gained accessed to one of the universities and explained the purpose of my research and how I wanted to hold it.

As aforementioned, for quantitative data collection, I applied a cross-sectional survey that was developed in accordance with the literature review. A cross-sectional survey was chosen due to its convenience since it provided quick and one-off access to a population (Creswell, 2014, p. 404). The survey was developed on the basis of the present surveys designed by O'Neill and Pfeiffer (2012), von Dran et al. (2001), Bisping et al. (2008) and in accordance with the literature review. The survey included two sections. In the first section, students provided their background information (independent variables) such as gender, age, academic program, year of study, GPA, and tuition form. In the second section, students were given the statements with which they expressed their agreement in accordance with the five-point Likert scale: *strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree* and *strongly agree*. When the

survey design was finished in Qualtrics, I placed the link on my Instagram account and asked my followers, who came from academic environments or student communities, to take it. I found this way to be the fastest to contact those who could suit my focus group. First of all, the participation was voluntary and, secondly, when I looked through the responses I could not identify them. In addition, I asked my peer-students from the master's cohort to take the survey too. My focus group helped me to check the content validity of the statements. Then I checked the reliability of the survey in SPSS to see the internal consistency. Cronbach's Alpha coefficient was equal to .884 which demonstrated the internal consistency of the test.

The online survey was rejected by the research site gatekeeper, so I prepared the paper survey. The vice-rector assigned me the person who looked through the schedules and took me to the classrooms. After that, I explained to the students who I was and why I attended their university. Then, the purpose of research and research procedure were explained. I gave them the survey and a copy of a consent form so that they could take it with them. Students completed the survey in the classroom. When they finished the survey, they gave it back to me. Survey responses were not shown to the administration, so I could ensure students' confidentiality. I managed to cover not all students despite the gatekeeper's permission the access to some faculties was rejected. In total, 196 participated in the survey which comprised around 8% of the total population of about 2400 students. When the survey was completed, the data were put into the Qualtrics for further analysis.

Data analysis

When I inserted the data into Qualtrics, I downloaded them to analyze with Statistical Package for Social Sciences (hereinafter referred to as SPSS). The choice for SPSS was obvious because, first of all, this software is widely used for research in social sciences (Mujis, 2011)

and, secondly, its availability and easy access at Nazarbayev University support my choice for this statistical tool.

The first step for data analysis was data cleaning, which I did in the data view section. I looked through all responses and deleted those responses which were empty for more than one question. First of all, students could skip the questions accidentally when they answered the survey, but if there were responses with more empty values it could happen on purpose. Secondly, the deletion of responses with one empty value could reduce the sample size which could negatively affect the analysis. As for the necessity of data cleaning, this process is necessary as it improves the quality of data and makes them more consistent.

The initial analysis that I conducted was a univariate analysis, which allowed me to make a descriptive analysis of the values to prepare the participants characteristics. The univariate analysis also helped to detect the outliers in the data set. After the detection of outliers, it was decided to either change the code or not to drop them. Two variables underwent recoding: a form of study and a language of instruction. For the former, 1 student out of 156 noted that he or she had a rector's grant, so the category 3 for 'other' was changed into 2 for 'state grant'. For the latter, 2 students noted that their language of instruction was English, but in fact the university provided education only in two languages. Therefore, the decision was made to recode the 1st response from category 3 (other) to category 2 (Russian) and the 2nd one to category 1 (Kazakh). The outliers for dependent variables presented in the form of Likert scale were not dropped since, first of all, the initial responses were reduced to 156 and data drop could influence the further analysis, and, secondly, it was difficult to predict if the response was an outlier or students' answer.

After the univariate analysis, I separated all tests depending on my research questions. First, I conducted the ordinal logistic regression or in other words polytomous universal model (hereinafter referred to as PLUM) to look at the relationships between more than two nominal or ordinal variables (Mujis, 2011) or in my case to check if independent variables predicted students' perception of the effectiveness of academic integrity policy. The next ordinal regression tests were conducted to see if independent variables affected students' attitude to academic violations and the likelihood of their involvement in these violations. Along with causation tests, I held the correlation analysis to reveal the relationships between students' attitudes to the academic violation and the degree of the likelihood of their involvement in them. For that reason, Spearman's Rho coefficient was calculated to reveal the statistical significance in the relationships between two ordinal variables, and the effect size was defined to look at "how strong the relationship is" (Mujis, 2011, p. 109).

In addition, before ordinal logistic regression, I prepared the variables for analysis. Two research questions aimed to determine the factors or independent variables that influenced students' attitudes and behavior. The given independent variables were represented by nominal variables, such as gender, program, the language of instruction, tuition form and ordinal variables, such as enrollment year and GPA. According to Mujis (2011), as the nominal variables are not ordered, dummy variables should be created before regression analysis. Therefore, the 'males' variable for gender was turned into a reference category, 'Russian' – for language of instruction, 'state grant' for a form of study and 'other' for program.

The independent variables were also checked for multicollinearity in order to avoid misleading results. To check the multicollinearity, independent variables were correlated and for further ordinal regression the variables that were not correlated or poorly correlated with each

other were chosen. For that purpose, the multicollinearity matrix demonstrated by Kenton (2020) was calculated (Table 1) that helped pick up the set of the most appropriate independent variables.

Table 1

Multicollinearity Matrix

Variable	Gender	Program	Form of study	Language of Instruction	Enrollment Year	GPA
Gender	-					
Program	.000	-				
Form of study	.061	.234	-			
Language of Instruction	.000	.000	.141	-		
Enrollment Year	.119	.028	.042	.432	-	
GPA	.058	.813	.187	.200	.213	-

This table does not demonstrate a strong correlation between any of the variables, but shows a moderate correlation between enrollment year and language of instruction. It also could be seen that for regression analysis the set of gender, language of instruction and form of study could be taken or, for example, from of study and language of instruction.

Ethical considerations

Prior to data collection, I passed ethics training at Nazarbayev Univerity and sent my application with all accompanying documents for ethics approval to GSE IREC (Institutional Research Ethics Committee). As the survey was not intended for first-year students, nobody under 18 could participate in the survey. Therefore, the research was characterized as no more than minimal risk.

The data collection did not start until the access was approved by the gatekeeper on behalf of the university vice-rector. I showed the letter of support and my survey and answered

the questions regarding the data collection procedure and publications. I also explained how I would ensure the confidentiality of the university name and students who would participate in the interview. In order to ensure the confidentiality of the university, the programs were coded.

During the survey data collection, students were explained the purpose and benefits of the research as well as the right not to participate if they do not want or return the empty survey. All of them were given the copy of consent form.

Limitations

The given research has some limitation that I will describe in this section. First, the number of respondents might not comprise 10% of the total population. At this university, there are about 2400 full-time undergraduates in the second, third and fourth years of study but the study analyses only 156 responses. In fact, there were more than 190 participants but after the data were cleaned, the number was slightly reduced to 156 which is only 7% of the total population. The small sample size could affect the generalizability of the research and make the findings not representative for the population.

Second, the research does not present a wide range of programs. In fact, only four of them participated due to access issues and students' availability.

Third, the number of males and females in the research is not equal that is why probably it would influence the research findings in terms of considering gender as one of the factors that affect students' perception of academic dishonesty.

Last but not least, the survey was built on the five-point Likert scale which made it possible that participants did not take it seriously. While conducting the research, I noticed that for some students it took only about 5 minutes to answer the questions; that is why the probability of random answers cannot be denied.

Chapter 4: Findings of the study

Introduction

The given research aims to reveal students' perceptions of academic dishonesty and explain the factors that predict such perceptions. With this view, a quantitative research design was performed. The chapter below presents the findings for the following data analysis:

- descriptive analysis or frequency distribution;

- ordinal regression to reveal the predictors that influence students' perceptions of the effectiveness of the academic integrity policy;

- ordinal regression to reveal the predictors that influence students' attitude towards the academic integrity policy;

- ordinal regression to reveal the predictors that influence students' likelihood of involvement in various academically dishonest practices;

- Spearman Rho to indicate the association between students' attitude and the likelihood of involvement in various academically dishonest practices;

Background of the participants

The survey was carried out on paper and then inserted into Qualtrics. Initially 196 questionnaires were distributed, but only 193 returned the survey with their permission. When all participants' answers were inserted into Qualtrics, the data were cleaned and the focus group's responses as well as missing data were cleared in SPSS (data view). Overall, the number of responses analyzed for the given research comprises 156 which is 37 less than expected.

The detailed results of the descriptive analysis of the participants' background are depicted in Table 2. This analysis showed that 114 (73.1%) students participating in the survey were females while the males accounted for 42 with 26.9%. Such distribution of gender can be

explained by the fact that the survey was mostly held among students that studied programs which are female dominant. The percent of those who are enrolled in the abovementioned programs, namely Program 2, Program 3 and Program 4, is equal to 58.3% of the total which is 91 students.

In addition to gender and program, participants were asked to indicate their form of study, the language of instruction, enrollment year and GPA. So, most of the students, namely 147, pay for their education, another 7 students have state grants and 1 student writes that he or she has a rector grant. More than 50% of students which are 86 students study their subjects in the Russian language, while the other 68 study in the Kazakh. Regarding their year of study, 51.3% are first-year students, 31.4% - fourth-year students and 17.3% of them are in their second year. Most of the students noted that their GPA varies from 4.0 to 3.67, at 73 students, and from 3.3 to 2.67, at 75 students, which is A and B grades. Only 8 students noted that their GPA equaled 2.33-1.67.

Table 2

Demographics of the Sample

Variable	Category	N	%
Gender	Female	114	73,1
	Male	42	26,9
Program	Program 1	65	41,7
	Program 2	62	40
	Program 3	21	13.4
	Program 4	8	5,1
Form of study	Tuition fee	148	94,9
	State grant	8	5,1
Language of Instruction	Kazakh	69	44,2
	Russian	87	55,8
Enrollment Year	2018	27	17,3
	2017	80	51,3
	2016	49	31,4
GPA	4.0-3.67	73	46,8
	3.3-2.67	75	48,1

2.33-1.67	8	5,1

Students' Perception of the Academic Integrity Policy

All participants were asked to evaluate their experience of the academic integrity policy (hereinafter referred to as the AIP) existing at the university (Table 3). Descriptive analysis showed that about 47% of students happened to have a medium level of awareness of the existing policy, 38% of them noted that their awareness level was 'high' and 'very high', while only 15% said it was low.

From the point of view of the respondents, students at the university frequently and always follow the policy, 30.8% and 35.9% respectively. Another popular response was 'sometimes' which was 25%. 34.6% and 22.4% of the participants indicated that university teachers follow the policy 'often' and 'always', 25% said that it happened 'sometimes', whereas for 17% it was 'rarely' or 'never'.

The participants were asked to assess the effectiveness of the policy. So, 35.3% reported that they found the policy 'effective', while approximately the same proportion of students, at 31.4%, thought that it was 'moderately effective'. 10.9% of students hesitated and noted that the policy was 'somewhat effective'. Almost the same number of students found the policy very 'effective' and 'ineffective', 17 and 15 respectively.

Table 3

Students' experience of Academic Integrity Policy

Variable	Responses	N	%
What is your awareness of the AIP ?	very low	9	5,8
	low	14	9,0
	medium	73	46,8
	high	50	32,1
	very high	10	6,4
	never	3	1,9
	rarely	13	8,3

To what extent do students follow the university AIP?	sometimes	33	21,2
	often	48	30,8
	always	56	35,9
	other	3	1,9
To what extent do teachers follow the university AIP?	never	7	4,5
	rarely	19	12,2
	sometimes	39	25,0
	often	54	34,6
	always	35	22,4
	other	2	1,3
To what extent is the university AIP effective?	ineffective	15	9,6
	somewhat effective	17	10,9
	moderately effective	49	31,4
	effective	55	35,3
	very effective	17	10,9
	other	3	1,9

Further, ordinal logistic regression was conducted to reveal how nominal independent variables or factors predict students' experience of the AIP expressed by ordinal variables, in other words whether such factors as gender, GPA, a form of study, academic program, the language of instruction and enrollment year affect the dependent ordinal variable. First of all, PLUM was carried out to see if the abovementioned predictors influence students' awareness of the AIP. The calculation showed that significance level for all 7 factors was higher (p-value > .05) than the cut-off point which means that it was statistically insignificant and, consequently, the changes in either gender, GPA, a form of study, program, the language of instruction and enrollment year did not cause the changes in students' awareness of the AIP at the university. No predictions were also found to the extent students followed the AIP. The significance level was also higher than the cut-off point, i.e. p-value > .05. This implied that the gender of the respondents did not explain the responses on how frequently students follow the AIP. The same influence neither had their program, GPA, form of study, year of study and the language of instruction.

When it came to analyzing the data for 'To what extent do teachers follow the academic integrity policy', regression revealed that the only factor that affected the students' perception of the extent teachers follow the AIP was academic program. In this case, the analysis showed that the final model with two predictors fitted better than the baseline model without predictors, p-value = .002, but the level of fit was poor (Cox and Snell R^2= .079, Nigelkerke R^2= .083). The given predictor had two categories: 'Program 1' for category 1 and 'Other' for category 10, which is presented with Program 2, Program 3 and Program 4. 'Other' had zero coefficient in 'Estimate' column because it was used as a reference category. It implies that category 1 was significantly related to the responses on dependable variables 'To what extent do teachers follow the academic integrity policy' (p-value=. 001) with 'estimate' equal to 1,232 (see Table 4). This finding means that students of Program 1 were likely to believe that their teachers follow the AIP or the guidelines prescribed in it more than students of other programs. Moreover, the more students of Program 1 believe that teachers follow the AIP, the more students of other programs do so.

Table 4

Factors predicting students' perception of the effectiveness of the AIP

Independent variable	Dependent variable	Estimates	Sig.
Program	To what extent do teachers follow the AIP	1,232	.001

Students' attitude towards academic dishonesty acts

During the survey, respondents were asked to evaluate the acceptability of various academic dishonesty acts which were the examples of cheating, plagiarism, fabrication and facilitation. To analyze the data, descriptive statistics and ordinal regression were performed.

Further, in the fourth section correlation analysis was held to define the association with the likelihood of students' involvement in academic dishonesty.

The survey had seven practices that respondents were asked to assess. These practices include the cases when students cheat using others' work, allow others to cheat from their work and contract-cheating. The descriptive statistics showed that the majority of the participants did not approve of the use of cribs or messengers during the test. The number of those who 'strongly disagree' or 'disagree' was equal to 93 respondents on the former and 122 on the latter. However, 20.5% of respondents hesitated and could not express their agreement or disagreement if it was acceptable to use cribs. It should also be noted that 31 respondents chose 'strongly agree' or 'somewhat agree', 9 and 22 respondents respectively. There were less respondents, namely 15, who 'neither agree nor disagree' on the acceptability of using messengers like what's up, SMS and other ones during the test or exam. 19 students approved it by choosing 'somewhat agree' or 'strongly agree'.

In terms of copying other students' work during the exam or test or just homework, most of the respondents did not support these kinds of cheating. 86 respondents 'strongly disagreed' and 43 'somewhat disagreed' that it was acceptable to copy other students' answers during tests or exams. Moreover, 116 respondents did not favour even copying homework. However, 23 participants did not find anything wrong in cheating on homework. As for the responses to 'allowing to copy your work during a test or exam is acceptable', 120 respondents did not support it opposite to 16 students who agreed with the statement. Students' attitudes to contract-cheating, namely ordering papers online or from third parties, showed a similar pattern: the number of those who disagreed exceeded those who thought it was acceptable, 118 and 15 respectively. Regarding the practice where students act like suppliers or do the

homework or write the essays for money or other benefits, the data demonstrated no changes: 110 for 'strongly disagree' and 'somewhat disagree' and 20 for 'somewhat agree' and 'strongly agree'.

When it came to plagiarism, students had to assess five cases. The case with the most frequents response 'strongly disagree' was 'copy-pasting another students' work and submitting it as own work is acceptable' with 107 students. Another 33 participants indicated 'somewhat disagree'. Moreover, this case acquired the fewest responses 'neither agree nor disagree' with 8 students and 'somewhat agree' and 'strongly agree' with 8 students which probably means that they have a clear understanding that such acts of academic dishonesty is wrong. With reference to other cases, most of the students did not approve of self-plagiarism and plagiarizing without references and in-text citations. The proportion of these responses constituted from 58% to 75%, unlike those who supported these acts – from 9% to 15%. What was interesting in these responses is that 43 participants, or 27.6%, neither agreed nor disagreed on 'Using your own work more than one time without citing or referencing is acceptable'. Indeed, this case seems to be confusing for students as it is likely that they believe that there is nothing wrong with that.

There were only two cases offered to assess students' attitudes towards facilitation and one case for fabrication. The frequency distribution shows that most respondents chose that it was normal to help other students to complete their assignments, at 28.8%. But, nearly the same percentage of students responded 'strongly disagree', at 26.9%, and 'somewhat disagree', at 23.7%. In terms of the situation when students seek help themselves, most students find it unacceptable for them, 34.0% for 'strongly disagree'. The percentage for those who opted for 'somewhat disagree' is about the same as 'somewhat agree', 22.4% and 21.2% respectively. As

for fabrication or falsification, just under half of the total number of students find it wrong, 46.2% - 'strongly disagree' and only 6% agree that it is normal.

Overall, frequency distribution analysis demonstrated that students' attitudes towards various academic dishonesty acts is mostly negative. But, there were no zero responses to such categories as 'somewhat agree' and 'strongly agree' which say that there is a share of students who do not find it unacceptable.

To reveal the factors that affect students' attitudes towards academic dishonesty, ordinal regression, which results are shown in Table 5, was performed. Firstly, cases describing cheating were analyzed. The PLUM showed that students' attitudes to six of seven dishonest acts are likely to be caused by one or two factors. The only variable that did not experience any influence from independent variables was 'allowing to copy your work during a test or exam is acceptable'. The relationship was not statistically significant because the p-value was higher than 0.05 ($p>0.05$), which means that the attitude to this case probably does not depend on students' programs, gender, the language of instruction, GPA etc. As for the other cases, they can be divided into those which are predicted by enrolment year, the language of instruction and both enrollment year and gender. Students' attitudes towards the dependent variable 'Using cribs to answer test or exam questions is acceptable' is influenced by enrollment year. The calculation showed that the p-value for category 1 (2018) is equal to .012 which shows the statistically significant relation to the year of study (p-value<.05). However, the significance level in 'model fitting information' showed that the analyzed model does not fit better than the baseline model (p-value=. 116) with no predictors and the improvement of this model over the baseline model is poor (Cox and Snell R^2= .046, Nigelkerke R^2= .049). Moreover, the goodness-of-fit demonstrated that the given model predicts the outcomes different from actual

outcomes and this model does not fit the data (Person=.025, Deviance = .013). Regarding the variable 'Using What's up, SMS and other text messengers to get answers to test or exam is acceptable', the calculation shows that it also had a statistically significant relation to enrollment year. P-value for Category 1 (2018) is equal to .022 and for Category 2 (2017) it is .012. The coefficient for Category 3 (2016) is 0 since its significance is calculated and used as a reference category. It can be concluded that attitude to cheating by means of messengers may change upon the year of study which is likely to be caused by the length of study. It can be seen that the older the student, the more significant the relation. The significance level in 'model fitting information' was just above the cut-off point (p-value=.080), but still demonstrated that the model does not fit better than the baseline model with poor improvement fit (Cox and Snell R^2= .052, Nigelkerke R^2= .056). As for the goodness-of-fit, the difference between model outcomes and actual outcomes is not significant and could fit the data (Person=.328, Deviance = .256). The data are rather contradictory as it implies that the model fits the data but does not fit better the baseline model.

There were two factors that are likely to predict students' attitude to copying off other students during the exam or test: gender and enrollment year. According to the calculations, the relationship between gender and attitude to cheating from other students is statistically significant. The significance level showed p-value=.034 for females and used males as a reference category. The information on whether the model fits better than the baseline model is not in favor of the model with p-value=.095 but with modest or moderate improvement over the baseline model (Cox and Snell R^2= .030, Nigelkerke R^2= .033). Goodness-of-fit demonstrates that the difference between model outcomes and actual outcomes is not significant and could fit the data (Person=.755, Deviance = .671) which again means that even if the model is worse than

baseline model it still fits the data. The enrollment year shows contradictory results which say that the relationship is statistically significant for Category 1 (2018 enrolment year) with p-value=.017 but insignificant for Category 2 (2017 enrolment year) with p-value = .400. The coefficient for the 2016 enrollment year is 0 as it is used as a reference category. Correlation analysis showed dubious data because the Pearson correlation demonstrated significant positive association between enrollment year and students' attitude to cheating from other students, ($r(156) = .184$, $p = .022$), while the Spearman correlation defined insignificant positive association, ($rs(156) = .156$, $p = .051$). The analysis of the model fit shows that despite being worse than the baseline model (p-value=.068) with poor improvement (Cox and Snell $R^2 = .030$, Nigelkerke $R^2 = .033$), it fits the data (Person=.537, Deviance = .442).

Further ordinal regression indicated that such factors as the language of instruction may predict the following dependable variables 'Copying homework from another student is acceptable', 'Ordering a paper online or from peer and submitting it as own is acceptable' and 'Doing the homework or writing an essay for your peers for money, for other benefits or for free is acceptable'. The information shows that there is a statistically significant difference in the attitude to cheating on the homework (p-value=.000) and contract-cheating (p-value=.000) between the students who study in the groups with different languages. The coefficient for Category 2 (Russian language) is equal to 0 as it is used as a reference category. The information about the model fit reports that it does not fit better than the baseline model (p-value= .089) but with strong improvement (Cox and Snell $R^2 = .050$, Nigelkerke $R^2 = .054$). Pearson and Deviance coefficients mark the model as fitting the data (Person=.979, Deviance = .971). The same pattern can be applied for the model analysis of variables describing contract-cheating cases: 'Ordering a paper online or from peer and submitting it as own is acceptable' and 'Doing the homework or

writing an essay for your peers for money, for other benefits or for free is acceptable'. It can be interpreted with the fact that students whose language of instruction is Kazakh experience some difficulties related to the access to Kazakh online and published sources. Therefore, probably the contract-cheating rate among students with Russian-language of instruction is higher. According to cross-tabulation, such likelihood is supported for cheating homework, where the number of Russian-speaking students (n=16) who approve of cheating is twice higher than Kazakh ones (n= 7). However, there is no significant difference in the number of responses for the other two practices

Ordinal regression did not show much evidence that independent variables predict the outcomes for cases of plagiarism, fabrication and facilitation. For most of them, the significance level was statistically insignificant (p-value>.05). An exception were the cases of copy-paste plagiarism and helping other students. The PLUM defined that gender has an influence on students' attitudes to 'copy-pasting another student's work and submitting it as own work' (p-value=.026). Though, the model analysis demonstrated that this model did not fit better than the baseline model (p-value=.077) with moderate improvement (Cox and Snell R^2= .032, Nigelkerke R^2= .038). Cross-tabulation revealed that there are more females (93%) for whom copy-paste is unacceptable than males (81%), but still the proportion for both is too high to predict actual data for population.

The last but not least, ordinal logistic regressions identified the statistically significant relation of helping other students with their assignment to enrollment year (p-value=.034), namely only Category 2. On the other hand, the coefficient for Category 1 was insignificant. Such discrepancy can be explained with the fact that the given model with independent variables does not fit the data better than the baseline model (p-value=.285).

Table 5

Factors predicting students' attitude towards academic dishonesty

Factors/independent variable	Dependent variable	Estimates	Sig.
Enrollment Year	Using cribs to answer test or exam questions is acceptable	-1.131	.012
Enrollment Year	Using What's up, SMS and other text messengers to get answers to test or exam is acceptable	-1.051 -.860	1= .022 2= . 012
Enrollment Year	Copying from another student during a test or exam is acceptable	-1,249	.017
Gender	Copying from another student during a test or exam is acceptable	-.881	.034
Gender	Copy-pasting another students' work and submitting it as own work is acceptable	-1.020	.026
Language of Instruction	Copying homework from another student is acceptable	15.671	.000
Language of Instruction	Ordering a paper online or from peer and submitting it as own is acceptable	15.740	.000
Language of Instruction	Doing the homework or writing essay for your peers for money, for other benefits or for free is acceptable	16.123	.000
Language of Instruction	Seeking help of other students on your projects, exams or other individual works is acceptable	17.026	.000
Enrollment Year	Helping someone to complete projects, exams or other individual works is acceptable	-.702	1= .381 2= . 034 3= .

Likelihood of students' involvement in academic dishonesty acts

Having defined the factors that affect students' attitudes towards academic dishonesty, the research continues with an attempt to discover if these factors influence the likelihood of students' dishonest behavior. Descriptive statistics were used to reveal the frequency distribution of students' responses to statements about the involvement in various dishonest acts.

As descriptive statistics shows, most of the students do not consider violating academic integrity rules and, therefore, choose 'definitely not' or 'probably not'. First of all, regarding

cheating, 87 students would not use cribs or notes to do a test or an exam and 107 students note that they would not use messengers for cheating. 130 said they would not be involved in copying off other students and for 107 students there is no likelihood to copy the homework. It is interesting that the number of those who hesitated and chose 'possibly' comprises a fair share of the total responses. So, 44 students probably would resort to cribs and other notes, 32 students are likely to use the messengers, 34 would possibly copy homework and only 18 probably would copy off other students. As for the contract-cheating, a high number of students noted that they were not likely to buy papers or do the work for other students for money or other benefits, 125 students and 119 students respectively. The number of those who hesitated accounted for 23-24 for both variables.

When it came to plagiarism, 136 students pointed out that they would not use copy-paste from students' papers in their work and 115 said that they would not copy word for word from various sources. Finally, 100 students wrote that they would not paraphrase without proper citation. It should be noted that 34 and 30 students expressed their hesitation in answering the questions about paraphrase and copy-paste from sources. It could be connected with the fact that some students are confused with citing the paraphrase because they think that if they paraphrase with their own words then there is no authorship. As for the copy-paste from sources, this type of plagiarism is widespread since students come from schools where it is not punished and when they enter the university environment they might be confused. Opposite to copy-paste from sources, copy-pasting other students' tasks are punished at schools which may explain that only 18 students would do that at university. Approximately the same figures were for self-plagiarism, 105 students chose 'definitely not' or 'probably not' and 35 students chose 'possibly'.

Frequency distribution of participants' responses concerning facilitation demonstrated that the likelihood of violating academic integrity is relatively low. 107 students wrote that they would not allow others to copy their works, but only 80 refused to seek help and 67 students refused to help others with projects and other assignments. However, the number of those who experienced hesitations here is quite high and comprises 49 students who would probably ask for help and 51 students who would help other students with their projects. It means that helping other students is not considered as something that violates academic rules. Moreover, 24 and 35 students responded that they would probably or definitely help and seek help. Speaking about fabrication, 122 respondents reported that they would not indulge in falsifying or fabricating any data and 20 of them chose 'possibly'.

In conclusion, it should be said that despite the fact that the majority of respondents wrote that they would not involve themselves in various types of academic dishonesty, there were on average 10 respondents who chose 'probably yes' or 'definitely yes' which might mean that universities should apply more measures to disseminate the culture of integrity among students, faculty staff and administration.

Ordinal logistic regression was performed to reveal what factors predict students' academically dishonest behavior. The given analysis demonstrated that such factors as program, GPA and form of study do not predict students' dishonest behavior opposite to gender, enrollment year and language of instruction.

To start, the PLUM analysis, presented in Table 6, showed that gender is likely to predict the use of cribs and other notes during the test or exam by students. The statistical significance between males and females is significant with p-value = .021 for category 1 (females) and zero for a reference category (males). The significance level for the given model

(p-value=.05) shows that the model fits better than the baseline model with no predictors and Pearson (.871) and Deviance (.846) indicate that the model fits the data. As written above, there is a huge discrepancy between the number of females and males which is one of the limitations of the research. However, the proportion of the responses in cross-tabulation shows no significant difference in the responses. For example, 60% of male students noted that they would not cheat while for females the figures are equal to 55%. Moreover, 10% of males are reportedly ready to indulge in cheating as opposed to 12% for females. It can be concluded that there is not a significant difference between the dishonest behavior of males and females

Similar to attitude, PLUM revealed that enrollment year showed a statistically significant difference in the dishonest behavior regarding 'Using cribs to answer test or exam questions' and 'Using What's up, SMS and other text messengers to get answers to test or exam'. The data for cheating by means of cribs and other notes show that students who entered the university in 2018 (category 1) were less likely to cheat than students of the 2016 year of enrollment, which is represented by reference category (p-value=. 035). The information on model fitting shows that the given model does not fit better than the baseline model with no predictors (p-value = .272) with poor improvement indicators (Cox and Snell R^2= .033, Nigelkerke R^2= .034). However, Pearson and Deviance demonstrate that the difference between the expected and actual results are non-significant (Pearson p-value= .620, Deviance p-value=. 521) and, therefore, fits the data. Such contradictory information could be caused by the few number of students of 2018 year (n=26) in comparison with other years of enrollment (n=80 in 2017, n=49 in 2016).

The same figures were shown for cheating with the help of What's up, SMS and other text messengers. Students who entered the university in 2018 probably cheated less than those

who enrolled in the university in 2016 (p-value= .015). Significance level for model fitting information is more than .05 (p-value= .072) which means that the given model does not fit better than the baseline model with poor improvement (Cox and Snell R^2= .054, Nigelkerke R^2= .057). Like the previous case, the model is non-significant according to Pearson and Deviance, which means that it fits the data. As for the interpretation of the findings, it could mean that students of 2018 are more exposed to the rules of the policy because it was introduced in 2018, while students of other years probably paid less attention to it.

Another factor that has an impact on students' dishonest behavior is the language of instruction. The PLUM analysis identified a statistically significant difference in the influence of the language of instruction on cheating by means of messengers and facilitation cases. For 'Using What's up, SMS and other text messengers to get answers to test or exam', p-value = .000 for category 1 (Kazakh language) and estimates coefficient is 17,253, which implies that the increase in cheating by means of messengers by students with the Kazakh language of instruction increases the probability of cheating by students who study in Russian. The analysis of the model for the given variable shows that it fits better than the baseline model with poor improvement (Cox and Snell R^2= .062, Nigelkerke R^2= .066) and there is no difference between the outcomes predicted by this model and the actual outcomes.

To continue, there are two cases of facilitation with a statistically significant difference: 'allowing to copy your work during a test or exam' and 'seeking help of other students on your projects, exams or other individual works'. The p-value = .000 for both cases and estimates are equal to 16,097 for the former and 17, 253 for the latter. The model analysis for the first model reveals that it does not fit better than the baseline model, but fits the data well (Pearson=. 778, Deviance=.798). For the second case, the significance level for model fit is equal to .05 and

demonstrates the fact that the model fits better than the baseline model with poor improvement (Cox and Snell R^2= .059, Nigelkerke R^2= .062). Goodness-of-fit shows that the model fits the data and there is not a difference between the predicted outcomes and actual data (Pearson=. 329, Deviance=.407). Additional cross-tabulation analysis was performed to see the differences in responses, which demonstrated that students with Kazakh-medium of instruction are less likely to be involved in dishonest practices.

Table 6

Factors predicting the likelihood of students' involvement in academic dishonesty

Factors/independent variable	Dependent variable	Estimates	Sig.
Gender	Using cribs to answer test or exam questions	.909	.021
Enrollment Year	Using cribs to answer test or exam questions	-.947	.035
Enrollment Year	Using What's up, SMS and other text messengers to get answers to test or exam	-1.110	.015
Language of Instruction	Using What's up, SMS and other text messengers to get answers to test or exam	17.253	.000
Language of Instruction	Allowing to copy your work during a test or exam	16.097	.000
Language of Instruction	Seeking help of other students on your projects, exams or other individual works.	17.253	.000

The relationship between students' attitude towards academic dishonesty and the likelihood of their involvement in academically dishonest acts.

The given section aims to indicate the relationship between students' attitude to academic dishonesty and their possible dishonest behavior. To reveal the relationships between the ordinal variables, Spearman's Rho analysis was carried out in addition to cross-tabulation Chi square that tested the statistical significance of these relationships. The findings are organized according to the types of academic dishonesty: cheating, plagiarism, facilitation and fabrication.

The association of attitude to cheating with students' involvement in cheating behavior.

Within the study, six cases or practices of cheating were analyzed which are presented in the correlation matrix in Table 7. The Chi-square test showed the significant relationship between students' attitudes to the use of cribs and other notes during the test or exam and their involvement in it (Chi-square = 79.060, df = 20, p-value =.000). Chi-square demonstrated that there is a low possibility that the responses received as a result of the test happen to be by chance and differ from the population. Spearman rho analysis also found a positive relationship between these variables with a strong effect size. It can be interpreted that the less students at the case university treat using cribs unacceptable, the less they use them. The same results were found for the relationship between students' attitudes to using messenger and the likelihood of their use. The relationship was found significant (Chi-square = 75.383, df = 20, p-value =.000) and positive, but moderate in strength. A positive relationship displays the same result for the variables: the less acceptable students find using messengers like What's up at the exam, the less they are involved in using them.

The statistical analysis of contract cheating indicated the positive moderate relationship between attitude and behavior for two cases, namely ordering a paper and doing the homework or writing essays for peers, which means that negative attitude towards contract cheating indicates little involvement in these acts. In addition to Spearman's rho correlation, Chi-square test found the correlation statistically significant for the first case (Chi-square = 104.529, df = 16, p-value =.000) and the second case (Chi-square = 96.160, df = 20, p-value =.000) that shows the suitability of the correlation not only for the sample, but for the university population.

The last cases of cheating include copying from other students' works during the test or exam and copying homework. Spearman rho's correlation analysis found the relationship positive with modest strength <0.3, but highly significant (p-value= .000). It signifies that students who think that copying is negative tend to do it less. Chi-square test demonstrated a significant difference which means there is little probability that the difference will not suit the population (Chi-square = 54.086, df = 16, p-value =.000).

Table 7

Spearman's rho Correlations on Students' attitude and behavior of cheating

Behavior / Attitude	1	2	3	4	5	6
1 – Using cribs to answer test or exam questions	.544					
2 – Using What's up, SMS and other text messengers to get answers to test or exam		.495				
3 – Copying from another student during a test or exam			.226			
4 – Copying homework from another student				.387		
5 – Ordering a paper online or from peer and submitting it as own					.452	
6 – Doing the homework or writing essay for your peers for money, for other benefits or for free						.495

The association of students' attitude to plagiarism with their involvement in plagiarism cases.

Similar to the cheating cases, the study makes an attempt to reveal the relationship between the way students treat plagiarism and the likelihood of their involvement in plagiarism acts. There were four practices offered to students to express their agreement or disagreement: copy-paste from other students' works, copy-paste from sources, improper paraphrase and self-

plagiarism. Spearman's rho correlation as well as cross tabulation Chi-square test were performed. The correlation matrix with Spearman coefficients is displayed in Table 8.

Bivariate analysis of ordinal variables expressing attitude and behavior showed that there was a positive correlation between students' attitude to copy-pasting other students' works and submitting them as their own and their indulgence in this dishonest behavior. The strength of the relationship was calculated as modest, but still the significance level for this correlation is high (p-value=.007). It implies that students who do disapprove of copy-pasting from other students are less likely to violate this integrity rule themselves. Chi-square analysis showed that the relationship is significant and findings were not revealed by chance and the same difference is likely to be present in the population (chi square = 33.351, df = 16, p-value =.007).

The statistical analysis showed similar results for plagiarism by means of copy-pasting from different sources. First of all, Spearman's rho rank-order correlation revealed the positive moderate relationship between students' attitude to plagiarism with copy-pasting, which concludes that whether students disapprove of copying other sources, they are less likely to copy word for word without using quotations, references or in-text citations. Chi square analysis showed this relationship statistically significant and points at the lower probability of finding no relationships in the population (chi square = 50.794, df = 20, p-value =.000).

Concerning improper paraphrasing, Spearman's rho correlation shows that there is a positive moderate relationship between a student's disapproval of paraphrasing without citing and the likelihood of their involvement. As a rule of positive correlation runs, the less acceptable students find plagiarizing by means of paraphrasing without proper citation, the less they turn to plagiarism with improper paraphrasing. This result is supported by Chi-square test

that tells that the relationship revealed is highly significant (Chi-square = 64.345, df = 20, p-value =.000).

As for self-plagiarism which is quite a dubious case, then the correlation analysis showed a positive relationship with the strongest effect size among all plagiarism cases. It implies that for students it is not good enough to use their own work more than one time without citing and the less acceptable they find it, the fewer the cases of self-plagiarism are spread among them. Chi-square test in its turn confirms that the difference found in the sample is applicable for the population too (Chi-square = 68.490, df = 16, p-value =.000).

Table 8

Spearman's rho Correlations on Students' attitude and behavior of plagiarism

Behavior / Attitude	1	2	3	4
1 – Copy-pasting another student's work and submitting it as own work	.230			
2 – Copying word for word without quotations, references or in-text citations		.457		
3 – Paraphrasing few sentences without citing			.440	
4 – Using your own work more than one time without citing or referencing				.517

The association of students' attitude to fabrication and facilitation with their involvement in the given cases.

It was decided to unite the analysis of such types of academic dishonesty as fabrication and facilitation because they are not represented by many cases in the survey. Respondents had to evaluate one case of fabrication and three cases of facilitation while taking the survey. Spearman's rho correlation analysis revealed a positive relationship for all four cases. To begin with, the positive moderate correlation for fabrication case identified by SPSS shows that

students at the case university object to fabricating or falsifying any data, findings in their works and, therefore, they do not tend to indulge in it. Cross-tabulation Chi square tested the given variables and supported the relationship by indicating it is significant both for the sample and population (Chi-square = 68.247, df = 20, p-value =.000).

Turning to facilitation cases, Spearman's rho correlation calculated the strong relationship between students' attitude to allowing to copy their works during a test or exam and their behavior within the given variable. It signifies that if students do have a negative opinion of letting other students cheat from them, they are not inclined to do it. Chi-square test demonstrated that the relationship is highly significant and the difference found in the sample is relevant to the population (Chi-square = 81.535, df = 20, p-value =.000). The effect size for the second variable 'seeking help of other students on your projects, exams or other individual works' is the strongest among other cases. It signifies that the less acceptable students find the idea of turning for help to other students, the less they seek or ask for help. Similar to other case, Chi-square test found this association highly significant (Chi-square = 133.869, df = 20, p-value =.000). The last but not least analysis revealed the moderate correlation between the extent students treat helping other students during the test and their indulgence into it. This case signifies that students who disapprove of helping other students do not do that. Chi-square test confirmed the relationship statistically significant (Chi-square = 78.481, df = 20, p-value =.000).

Table 9

Spearman's rho Correlations on Students' attitude and behavior of facilitation and fabrication

Behavior / Attitude	1	2	3	4
1 – Fabricating or falsifying references or research data	.514			

2 – Allowing to copy your work during a test or exam	.514		
3 – Seeking help of other students on your projects, exams or other individual works		.608	
4 – Helping someone to complete projects, exams or other individual works			.500

Having analyzed the results of PLUM, it should be concluded that there is a positive correlation, and, therefore, significant relationships are found between students' attitudes to academic dishonesty and their behavior. These findings tell that students that have positive attitude to academic dishonesty tend to violate the rules and, vice versa, negative attitude signifies fewer cases of cheating, plagiarism, fabrication and facilitation occur. Chi-square test that was carried out indicates not only the significance of the analyzed correlation, but also that the findings found in the sample are likely to be found in the population of the case university.

Key findings

1. Half of the respondents have medium awareness of academic integrity policy existing at their university.
2. Half of the respondents find the academic integrity policy effective or moderately effective.
3. Most of the respondents believe that students and teachers at the university adhere to the policy on a regular basis.
4. Program influences students' perception of the degree teachers follows academic integrity policy.
5. In general, students have a negative attitude towards academic dishonesty.
6. Enrollment year, gender and the language of instruction have an impact on students' attitude to cheating and contract-cheating.

7. Gender predicts students' attitude to plagiarism, namely copy-pasting other students' works.
8. Language of instruction and enrollment year predict students' attitude to facilitation.
9. Gender, enrollment year and language of instruction predict students' likelihood of involvement in cheating.
10. Language of instruction influences students' likelihood to engage in facilitation.
11. Overall, there is a positive correlation between attitude to academic dishonesty and students' likelihood to violate academic rules.

Chapter 5: Discussion

The given chapter compares and contrasts the findings of the research with the existing literature. The purpose of the research is to analyze students' perceptions of academic dishonesty at one of the Kazakhstani universities. The research is guided by the main research question, namely, in what ways students perceive academic dishonesty at a case university, and answers the sub-questions posed in the introduction section: 1) What are students' perceptions of the effectiveness of the academic integrity policy? 2) What factors affect students' attitudes towards academic dishonesty? 3) What factors affect students' dishonest behavior? In addition, the research tests the hypothesis of whether there is a positive or negative correlation between students' attitude towards academic dishonesty and students' dishonest behavior.

The chapter is organized in accordance with the subsequent research questions and hypothesis posed. It has three sections and starts with the discussion of students' perceptions of the effectiveness of the academic integrity policy. The second section aims to compare the factors that predict students' attitude and dishonest behavior. Finally, the last section discusses the relationship between students' behavior and attitude.

Research Question 1 What are students' perceptions of the effectiveness of the academic integrity policy?

The first section of the survey interprets students' perceptions of the academic integrity policy acting at the university, namely the effectiveness of the policy, their awareness and the opinions if students and faculty follow the policy.

Students' perceptions of the academic integrity policy

Based on the findings of descriptive statistics, the conclusion could be made that most of the students at the case university have a medium or high awareness level about the policy

existing at their university. One should not ignore that responses vary from 'very low' to 'very high' awareness about the policy, which is not in favor of the university. The policy itself is officially published on the university website, so if students assess their awareness as 'medium', it can be inferred that the policy might not be enforced well enough by the administration and faculty staff. As for the students' perception of the effectiveness of the policy, still the responses vary from 'ineffective' to 'very effective' or 'other', which means 'I don't know'. To continue, the descriptive statistics for students' opinion about how often students and teachers at university follow the policy shows predominant responses as 'always', 'often', 'sometimes' and no zero responses for 'rarely' and 'never'. Even if almost a quarter of responses is for 'sometimes', it might be inferred that either students were not honest and misreported or the policy did not work well enough.

The Academic Integrity Policy at the current university was published in 2018, so at the moment of the data collection it had been in place for a year and half, which is quite a short term. The given results could also be explained with the idea that students did not have enough experience with encountering the policy standards, since it takes time for the policy to have an impact on students' perception. The given explanation is consistent with the findings by Roig and Marks (2006), who found no shift in students' attitude towards cheating before and after the honor code introduction. In their case, the second survey was conducted only after the semester when the code was introduced into the academic process, so the faculty probably could not have enough time to communicate the integrity standards.

However, with regard to the current university, students who participated in the survey had a year and a half experience studying under the existing policy. So, one cannot discount the fact that the policy could exist on its own and the insufficient efforts on behalf of the teachers

and administration are applied to put it into practice. McCabe and Treviño (2002) argue on the futility of the honor codes unless there is "ongoing dialogues in the class and outside of class" between students, teachers and administration (as cited in Roig & Marks, 2006, p. 168). To ensure the honest and transparent environment at the university is the aim of honor codes (Dix, Emery & Le, 2014), so for such an environment, students would likely perceive the academic integrity negatively, which, in turn, may increase the number of academic dishonesty violations (Maloshonok, 2016).

The influence of program on students' perception of the degree teachers follow the AIP

With the view to explain students' perceptions of the effectiveness of the policy, ordinal regression was performed. The only demographic factor that predicted students' opinion how much teachers follow the policy was their program.

With regard to the current research, it can be deduced that there might be a certain discrepancy between the enforcements to communicate the integrity values across the programs. The difference in promulgation may negatively affect students' perception of academic dishonesty. So, the qualitative research by Power (2009) showed that students perceived "discrepancy of enforcement" of different teachers as one of the reasons for plagiarism (p. 652). In other words, students complained that what one teacher did not consider as plagiarism was plagiarism for another (Power, 2009). Such discrepancy could arise due to the difference in teaching by gender. The population of male teachers at Program 1 is much larger than in the Program 2, Program 3 and Program 4, where the majority is comprised of women. According to Tsoni and Lionarakis (2014), female teachers are stricter on plagiarism than males, but Islahi and Nasrin (2013) argue that research findings about whether there is difference in the effectiveness

between male and female teachers are mixed. The cross-tabulation results of the current research show that students of Program 1 are inclined to consider their teachers to follow AIP more than other ones, though. So, the findings contradict the argument about discrepancy in gender approach to teaching. Conversely, the cross-tabulation results are supported by the findings of Kwong et al. (2010) where students of Program 1 had a strong negative perception of academic dishonesty, otherwise, it could have a destructive effect on their career (as cited in Chen & Chou, 2017). As for the Kazakhstani context, Heyneman et al. (2007) reported an increase in the percentage of bribery by 7.4% at Program 1 from 2001 to 2005 in comparison with other programs. Therefore, such negative perceptions towards academic dishonesty might signify the effectiveness of the policy.

Conclusion

To sum up, students in the research have different levels of awareness of the AIP. Moreover, their opinions are split in relation to whether the AIP is effective or not and to what extent teachers and students follow the policy. Such divergence in responses may have some interpretations. To start with, time is an important factor for any policy to come into desirable effect. More than a year is not enough to instill the values of academic integrity in academia and enhance the communication between all stakeholders in this issue. To continue, the findings could indicate that the measures of teachers and/or administration, in order to disseminate the integrity culture, are not enough. To conclude, an academic program was found to predict students' perception of the extent teachers follow the AIP, which means that there is a discrepancy between teachers in working towards the issue. Thus, the conclusion can be drawn that, in general, students have a positive perception of the effectiveness of the AIP existing at university. However, such positive perception is not common for all students which may support

Bretag's et al. (2011) and East's (2009) arguments on the absence of alignment between the policy, practice and procedure which negatively influences students' perception of academic dishonesty.

Research Questions 2 – 3 What factors affect students' attitude towards academic dishonesty and their dishonest behavior?

The survey aimed to find out what factors influenced students' attitude towards cheating, plagiarism, fabrication and facilitation. The last section of the survey studied students' perceptions of their probable engagement in academic violations. Within the given research, only individual factors are considered: gender, program, the language of instruction, GPA, form of study and enrollment year. At the end, ordinal regression analysis showed that there were only three individual factors that predicted students' attitude and probable behavior: gender, the language of instruction and enrollment year.

Despite the findings by Miller and Izsak (2017) and Baird (1987) that confirmed GPA as one of the predictors of academic dishonesty (as cited in Khodaie et al., 2011), the given research found out that it neither affected the attitude nor the behavior. It could be explained with the fact that responses were represented by mostly those students who had A or B grades with only 5% of C students. These findings are also opposite to the results of Brown et al. (2019) that determined GPA as a positive predictor to academic dishonesty among domestic students. Other factors that did not show any impact on attitude to academic dishonesty and behavior within the given research are program and form of study. According to James (2016), students that choose to study the major related to program 1 are required to strictly adhere to academic integrity since it is the foundation of their profession. However, at the same time the

author points out the high probability of involvement in violations due to the high competitive character that distinguishes them from other professions (James, 2016).

Gender

The first individual factor that appeared to have an influence on students' attitude to breaching academic integrity is gender. As was written in the literature review chapter, the findings of the previous research on this aspect are contradictory (Yu et al., 2017). The current study shows that gender is predictive in relation to whether students find it unacceptable to cheat by means of copying from other students and plagiarize by copy-pasting other students' works. Yet, the discrepancy between females' and males' response is not large; the findings of the study coincide with the previous ones running that females were predicted to have better academic achievements and males were associated with more academic violations (Brown et al., 2019; Hu & Lei, 2015; Khodaie et al., 2011). It could be explained with the overall attitude to learning by men and women. It is considered that female students tend to treat education more seriously than male ones and they feature more positive attitudes towards study due to higher intrinsic motivation (Simon et al., 2004). Brown et al. (2019) add that females are inclined to develop necessary study skills "within female-dominated disciplines" (p. 36), which might be applicable for the current study since the majority, namely 75%, of females come from Program 2, Program 3 and Program 4.

Enrollment year

Enrollment year or age was the second predictor of academic dishonesty among students. The prior literature also presents the contrasting findings in this term, i.e. there is no hard proof that senior students cheat more than freshmen or sophomores, for example. So, while Yu et al. (2017) found that students of higher years tend to be engaged in academic

dishonesty more, whereas studies of Brown et al. (2019) and Miller and Izsak (2017) showed opposite results. According to the current research, enrollment year is predictive to students' attitude to cheating in the following practices: using cribs and messengers during the test and exams, and copying from other students during the test. As for the probable likelihood to breach academic integrity rules, enrollment year also predicts the cheating by means of using cribs and messengers. To be specific, the given study defined that the older a student, the more acceptable he or she found cheating and probably would cheat using cribs. It is not consistent with Simon et al. (2004) who explain it with the commitment to the university standards which characterizes senior and junior students, i.e. the length of study influences students' perception of cheating. The findings of this study also do not align with Brown et al. (2019) who connect dishonesty rate with maturity level, in other words, senior students are more experienced in relation to taking tests and exams and are aware of the possible consequences of academic violations. The findings of the given investigation could be explained with the fact that the AIP was introduced in 2018 and, probably, the students who entered the university that year were more exposed to it. At the early age students tend to be more affected by subjective norms (Cronan et al., 2015), and, therefore, their moral judgment could be shaped by the policy that acts like an outside force. That period students behave like good boys and nice girls which correspond to Conventional level of Kohlber's moral development theory.

Language of Instruction

The last but not least factor that affects students' attitude to academic dishonesty and probability of breaking the academic integrity rules is language of instruction. While reviewing literature sources, there was not explicit research found in relation to language of instruction and academic integrity. Fass-Holmes and Vaughn (2019) confirmed a hypothesis that English

language deficiency might predict academic dishonesty incidences because poor language competence impedes a full understanding of academic standards. The same conclusion was drawn by Eccles et al. (2006) in their study on factors that raise plagiarism (as cited in Hosny & Shameem, 2014). But, such conclusions cannot be applied for this research because students study in the language they choose and that they have used it as a medium of instruction throughout all their academic life. Other factors should be discussed to explain the findings of this research, namely the influence of language on students' attitudes towards cheating and facilitation, and the likelihood of engaging in them. This factor was included in the survey because of the Kazakhstani context. The universities in Kazakhstan provide educational services in three languages, Kazakh, Russian and English, and it is common to indicate the language of instruction in any surveys.

According to the findings, there is no significant difference between the responses of Kazakh-medium students and Russian-medium ones with regard to contract-cheating. It is necessary to reason why students with Russian-medium of instruction find it more acceptable to copy homework from another student and/or seek unauthorized help. It might be explained with the cultural differences or moral values. The given results contradict the proposition by Elzubeir and Rizk (2003) that the sense of brotherhood and cooperation are inherent to Muslim students, but are consistent with Hosny and Shameem (2014) who found that 65% of Muslim students thought that cheating was unacceptable because it opposed Islamic values. Yu et al. (2017) found no relationship between religious belief and academic cheating, but that aspect does not suit the scope of the current research. In Kazakhstan, the title religion for Kazakh people is Islam, but for groups with Russian-medium of instruction, it cannot be applied because many students of other ethnicities, the Kazakhs, the Russians, the Uzbeks, the Germans, the Tatars

etc., study there. The theory that students who come from collectivists society are inclined to cheat or plagiarize more than students from individualist society does not work in this issue too (Payan, Reardon & McCorkle, 2010; Sowell, 2018). Therefore, the influence of the language of instruction on students' attitudes to cheating and facilitation and their perception of being involved in these academic violations could serve as the subject of further research. In particular, it is necessary to investigate the discrepancies in the ethical values of those who are raised in Kazakh-speaking families and Russian-speaking ones, as an example. In this case, it would be appropriate to study the subjective norm which "refers to an individual perception of social pressure to perform or not perform the behavior" and might arise from parents' upbringing or other caregivers (Cronan et al., 2015, p. 203).

Conclusion

To conclude, opposite to the prior research, GPA was not a factor in either students' attitude towards academic dishonesty or probable dishonest behavior. Enrollment year was found to predict students' attitude to cheating, which is the most popular violation among students. Younger students tend to disapprove of cheating due to their moral judgment instilled by the policy. Gender also serves as a risk factor to predict students' attitude to cheating and plagiarism as well as the likelihood to cheat during the test. The findings are consistent with the previous research stating that females are likely to breach the rules less since they take their study more seriously. Last but not least, it was detected that language of instruction is significantly predictive to students' attitude to cheating and facilitation. The same was found for the behavior. No explanation in the literature was found to explain why students from Kazakh-group have a less favorable attitude to cheating and facilitation and why they are less likely to

provide unauthorized help. Thus, further research is recommended to investigate the current result.

The relationship between students' attitude towards academic dishonesty and students' dishonest behavior.

The section explicates the results of bivariate analysis aimed to define the relationship between students' attitude to academic dishonesty and the likelihood of their involvement in academic dishonesty behavior.

Overall, the Spearman rho correlation analysis showed a positive correlation between attitude and probable behavior: cheating, plagiarism, facilitating and fabrication. The effect size for all cases varied from modest to strong. From the first sight, the obtained results do not seem to align with the previous research that found negative association between attitude and behavior (Bisping et al., 2008; Miller & Izsak, 2017), which meant the more students disapproved of academic dishonesty, the less they engaged in dishonest practices. The results of the current research are positive due to the Likert scale answers, which ran from 'strongly disagree' to 'strongly agree' for attitude and 'definitely not' to 'prefer not answer'. So, the positive correlation is interpreted as follows: the more students find academically dishonest practices acceptable, the higher the likelihood of their involvement into these practices, which coincides with the previous interpretation that positive attitude towards dishonesty is likely to increase the cases of academic violations.

To be specific, bivariate analysis showed a strong correlation between attitude and behavior for practices of facilitating academic dishonesty. Strong correlation may indicate that students not only disapprove of facilitating but are less likely to help their friends to do the projects, allow cheating at the test and seek help themselves. Such attitudes toward facilitating

contradicts the findings that students approach this type of dishonesty as a misdemeanor and their severe attitude may stop them from facilitating other students to breach academic rules (Elzubeir & Rizk, 2003; Hosny & Shameem, 2014). In a similar vein, students treated fabrication or falsification of bibliography or data, i.e. students, who tend to have a negative opinion about data or bibliography falsification, are less likely to resort to it. The strength of the relationship for the given variable does not agree with the research results that find attitudes to falsification as not severe or a bit unacceptable (Miller & Izsak, 2017; Pickett & Roche, 2018). The reason why students unwelcome falsification might be that they associate it with fraud which is prohibited under the law.

The strong positive correlation for cheating by means of cribs go with the results of O'Neil and Pfeiffer (2012), who also defined that students approached using cribs as severe cheating, which resulted in a small percentage of engagement. There is no direct explanation of why there is a strong relationship between attitude and behavior for using cribs and moderate or modest for other cheating practices and contract-cheating. Conversely, contract-cheating was treated as the most unacceptable and, therefore, was the least frequent (O'Neil & Pfeiffer, 2012). While Hosny and Shameem (2014) found copying off other students at the test or exam to be the most wide-spread, O'Neil's and Pfeiffer's (2012) research found it as one of the most unacceptable, but more frequent than contract-cheating and as frequent as using cribs. Concerning the results of the current investigation, one can assume that it may be linked with the academic culture of the university. For example, there are more chances to be caught at the test or exam while cheating from the cribs rather than with the use of messengers and copying from other students. During the exams, students are usually checked for the presence of gadgets with metal detectors or asked to hand in them. So, there is less opportunity to cheat. The possibility to

copy off other students also is small due to the number of invigilators that proctor the exams. As for contract-cheating, it is likely to be a reliable cheating source for students as it is difficult to detect and prove (Esposito et al., 2015).

Concerning plagiarism, a strong correlation was found for self-plagiarism, while for other plagiarism practices correlation was also moderate or modest. A strong correlation for self-plagiarism supports the assumption that students mostly hesitate if it is plagiarism when they submit their own writing or the part of the writing for another assignment. Such confusion is caused by the belief that they own the authorship and, therefore, may decide freely on their work (Creutz, 2010). Moreover, the reasons why students self-plagiarize might be the fact that it is not explicitly prescribed in honor codes and different perceptions of self-plagiarism by both students and teachers (Chen & Chou, 2017; Halupa, 2014). Opposite to a modest correlation identified for copy-pasting other students' works within the current research, O'Neil and Pfeiffer (2012) found it to be the most unwelcome and, thus, the least frequent. But, there is a consistency for improper paraphrasing. The inconsistency in the findings could be connected with the fact that students have an unclear understanding of plagiarism which may end up with unintentional plagiarism (Chen & Chou, 2017).

Conclusion

Overall, the positive correlation between attitude and probable engagement supports the argument that attitude is a reliable predictor of behavior (Bisping et al., 2008; Chudzicka-Czupała & Grabowski, 2016; Cronan et al., 2015; Khodaie et al., 2011). However, the discrepancy in effect size for various academic violations demonstrates the difference in the perception of these violations. Such discrepancy again may arise from a divergence in teachers' perception of their responsibilities, unclear understanding of dishonest behavior, and lax

penalties (Halupa, 2014; Löfström et al., 2015). Moreover, one cannot ignore that "the role of attitudes is not always unambiguous", which means that even if students disapprove academic dishonesty, they can still breach the rules (Chudzicka-Czupała & Grabowski, 2016, p. 640; Khodaie et al., 2011).

Chapter 6: Conclusion

The given chapter finalizes the key findings with regard to the purpose of the study, research questions and hypothesis. In addition, it outlines the limitations of the study and suggests the implications for further research.

Conclusions on the key findings

The dissemination of academic integrity values is one of the priorities in Kazakhstani education as it has a wider purpose, which is the education of the generation with zero tolerance to corruption. In accordance with Kohlberg's moral development theory, it could be concluded that future citizens should correspond to the Post-Conventional stage and be oriented with universal standards of morality, such as commitment to integrity. Higher educational institutions are seen as the agents that are in charge of instilling these standards, namely negative perception of academic dishonesty, by means of introducing and applying academic integrity policies that prescribe students' behavior in academia. Having conducted the cross-sectional survey and analyzed the findings, the main research question is going to be answered in relation to students' perceptions of the effectiveness of academic integrity policy, the relationship between students' attitude and behavior and factors that predict them.

By and large, the study showed that students have a positive perception of the AIP operating at the university. However, it should be emphasized that half of the students are neither fully aware of the policy acting at their university nor perceive the policy as effective or very effective. On the one hand, it could be explained with the issue of limited time, namely a year and a half, during which the policy has operated at the university. On the other hand, it may indicate that measures that the university and teachers take to spread academic integrity standards are not enough. The policy might exist at the university, like other academic

documents, and little effort is made in promoting the policy. Moreover, in studying students' opinion about the extent their teachers follow the AIP, it could be deduced that there could be a discrepancy in the policy practice between the programs. Yet again one can infer that there is probably no alignment in the policy, practice and procedure. In that case, it is recommended that the university hold training for teachers, administration staff and students on a regular basis, so that the given stakeholders can have the similar perception and expectations.

To continue, the bivariate analysis determined a positive correlation between students' attitude to academic dishonesty practices and their probable engagement in them. That demonstrates that attitude and behavior are mutually interdependent variables and, therefore, the university should work with students and at enhancement of students' attitude in order to decrease cheating, plagiarism, facilitation and fabrication practices among them. The difference in the strength of the relationship between the variables supports the assumption that students approach some dishonesty practices more seriously than others and vice versa. In addition, ordinal regression analysis revealed the risk factors that may predict students' attitude and behavior: enrollment year, gender and language of instruction. Students of higher years, females and students from Kazakh-medium groups demonstrated more positive attitudes to academic integrity, which leads to the conclusion that maturity, experience, gender and, probably, cultural components affect the attitude and moral development of students.

Overall, in answering the question of what students' perception of academic dishonesty is, it should be noted that students have an understanding of what constitutes cheating, plagiarism, facilitation and fabrication, but they perceive the severity of these practices differently which, in turn, might influence their involvement into various forms of academic dishonesty.

Implications

Academic integrity is a relatively new phenomenon in Kazakhstani education, therefore, there have not been many local empirical studies on this issue. This study could be one of the first that investigates students' perception of academic dishonesty at the Kazakhstani university with academic integrity policy. The findings of the study have implications for both the current university and other Kazakhstani educational institutions. First, the reduction of academic dishonesty rate depends on students' perception of academic violations. Therefore, educational institutions should increase students' awareness of the nature of academic violations and instill zero-tolerance to all academic dishonesty practices with no exceptions. Second, students' positive perception of academic integrity relies on how the integrity environment is implemented. Administration, faculty and students should have similar perception of academic dishonesty which is supported with the aligned work of policy, practice and procedure.

Limitations

The current research has several limitations which may influence its implications. First, the research was conducted at one university only and, a similar research effort at other higher educational institutes could yield dissimilar data. Second, the sample size comprises only 7% of the total targeted university population and it could affect the generalizability of the findings. Third, not all students took part in the survey, so the assumption on the discrepancy between the programs on the issue might be premature. In a similar vein, a difference in the number of females and males could have another effect on the findings. Finally, the assumption that students were not being honest during the research may affect the reliability of the collected survey data.

Recommendations for further research

Taking into consideration the findings and limitations, some recommendations should be proposed for further research. First, it is recommended to carry out the research at numerous universities in order to provide more substantial database, and therefore, more reliable findings within the Kazakhstani population. Second, it would be productive to compare the data between universities that implement the AIP for more than four years and those for which the policy is a new component of academic studies. Such a comparative analysis will allow researchers to determine the effectiveness of the policies and grey zones. Third, the findings of the current research showed that students from Kazakh-medium and Russian-medium groups do not similarly perceive academic dishonesty. It could be explained with the difference in the education in Kazakh and Russian speaking families. Hence, a deeper qualitative study is necessary to explore the finding. Finally, qualitative and/or quantitative research are recommended in order to analyze teachers' perception of their role in promoting and disseminating an academic integrity culture at Kazakhstani universities.

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Appendices
Appendix A
SURVEY

SECTION 1 PERSONAL INFORMATION

1 Choose a gender:

a) female
b) male

2 Choose a program

a) Program 1
b) Other

_____

3 Choose an enrollment year

a) 2018
b) 2017
c) 2016

4 GPA

a) 3.67-4.0
b) 2.67-3.33
c) 1.67-2.33
d) 1.0-1.33
e) 0

5 Form of study

a) tuition fee
b) state grant

Other

6 Language of instruction:

a) Kazakh
b) Russian

SECTION 2 THE EFFECTIVENESS OF THE ACADEMIC INTEGRITY POLICY

7 What is your awareness of academic integrity policy

a) very low
b) low
c) medium
d) high

e) very high

Other _____

8 To what extent do teachers follow the university academic integrity policy

a) never
b) rarely
c) sometimes
d) often
e) always

Other _____

9 To what extent do students follow the university academic integrity policy

a) never
b) rarely
c) sometimes
d) often
e) always

Other _____

10 To what extent is university academic integrity policy effective?

a) ineffective
b) somewhat effective
c) moderately Effective
d) effective
e) very effective

Other _____

SECTION 3 ATTITUDE TOWARDS ACADEMIC DISHONESTY

Indicate how do you treat different types of academic dishonesty

	strongly disagree	somewhat disagree	neither agree nor disagree	somewhat agree	strongly agree
11 Using cribs to answer test or exam questions is acceptable					
12 Using What's up, SMS and other text messengers to get answers to test or exam is acceptable					
13 Copying from another student during a test or exam is acceptable					

14 Copy-pasting another student's work and submitting it as own work is acceptable						
15 Copying homework from another student is acceptable						
16 Ordering a paper online or from peer and submitting it as own is acceptable						
17 Doing the homework or writing essay for your peers for money, for other benefits or for free is acceptable						
18 Allowing to copy your work during a test or exam is acceptable						
19 Seeking help of other students on your projects, exams or other individual works is acceptable						
20 Helping someone to complete projects, exams or other individual works is acceptable						
21 Using your own work more than one time without citing or referencing is acceptable						
22 Fabricating or falsifying references or research data is acceptable						
23 Paraphrasing few sentences without citing is acceptable						
24 Copying word for word without quotations, references or in-text citations is acceptable						

SECTION 4 THE LIKELIHOOD OF STUDENTS' INVOLVEMENT IN ACADEMICALLY DISHONEST BEHAVIOR

Indicate the likelihood of your involvement in the following practices

	Definitely not	Probably not	Possibly	Probably	Definitely	Not relevant
25 Using cribs to answer test or exam questions						
26 Using What's up, SMS and other text messengers to get answers to a test or exam						

27 Copying from another student during a test or exam						
28 Copy-pasting another student's work and submitting it as own work						
29 Copying homework from another student						
30 Ordering a paper online or from peer and submitting it as own						
31 Doing the homework or writing essay for your peers for money, for other benefits or for free						
32 Allowing to copy your work during a test or exam						
33 Seeking help of other students on your projects, exams or other individual works						
34 Helping someone to complete projects, exams or other individual works						
35 Using your own work more than one time without citing or referencing						
36 Fabricating or falsifying references or research data						
37 Paraphrasing a few sentences without citing						
38 Copying word for word without quotations, references or in-text citations						