



UNETHICAL PURCHASE OF ACADEMIC PAPERS IN PUBLIC UNIVERSITIES OF ARMENIA

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Academic dishonesty is known to be a widespread phenomenon in higher education institutions. A type of academic dishonesty, unethical purchase of academic papers among students of public universities of Armenia, is a topic of discussion in the country. However, no empirical study has been conducted on the type of academic dishonesty. This study is aimed at contributing to filling this gap and exploring current trends in unethical purchase of academic papers among students and the kind of measures taken to regulate academic integrity in public universities of Armenia. Faculty members and experts from governmental and non-governmental organizations, as well as employees of specialized centers that sell academic papers were interviewed to get insight into current academic integrity policies and reasons that drive students to unethically purchase papers. Based on the interview results, a survey was administered to 623 students from different fields of study in 12 public universities of Armenia to confirm findings of the interview and reveal current trends in the purchase of papers by students. As findings suggest, there is no government regulation concerning academic integrity and such problems mainly receive university-level solutions. Most universities do not have written policies on academic integrity despite the fact that it is required by newly operating accreditation standards. Nevertheless, interviewed faculty members and administrative staff of the universities have negative attitude towards the phenomenon. Based on the study results, a number of reasons, such as laziness, desire to get high grades and scholarship, lack of academic writing skills, lack of literature and laziness may be essential factors in driving students to obtain papers written by others. Besides, the survey results suggest that unethical purchase of academic papers is mostly common among male students, particularly graduate male students.

Keywords: Academic integrity, Plagiarism, Academic papers, Unethical purchase, Armenian universities.

Introduction

1.1. Background of the Study

In recent years, the topic of academic dishonesty has become prominent and has attracted much public attention. Although a few studies on this issue are available in Armenia, no empirical study has been published on the unethical purchase of academic papers, which is reportedly a widespread phenomenon in public universities of Armenia.

Thus, the purpose of the study is to investigate existing regulations for academic integrity in higher education in Armenia, as well as to find out reasons for and current trends in the unethical purchase of academic papers by students.

While the main focus of the study is the unethical purchase of academic papers, the study sometimes takes a broader look at academic integrity and dishonesty to contextualize the main findings of the study.

1.2. Significance of the Study

The findings of the present study may inform solutions to the problem of unethical purchase of academic papers in public universities of Armenia. They will also contribute to the current literature on the topic in the larger region of the former USSR republics that are likely to share similar educational contexts and challenges with academic integrity.

Literature Review

According to Jones (2011), academic integrity is a system of ethical principles which connects all the members of academia. The role of academic integrity is essential in creating honest academic atmosphere, providing academic progress and also promoting responsible citizenship among students. The International Center for Academic Integrity (2014) states that academic integrity is formed based on six fundamental values: honesty, fairness, trust, respect, responsibility and courage. These values should be respected and followed not only by students but also by the faculty and the administrative staff in teaching, learning, doing research or in any other context. Jones (2011) defines academic dishonesty with several different categories. He states that academic dishonesty includes "cheating", "plagiarism", "fraud", and the theft of any intellectual property.

The reasons for academic dishonesty may vary. Based on many research studies (cited in McCabe & Trevino, 2012), some of the factors that may cause academic dishonesty are gender, grade point average (GPA), work ethic, honor codes, self-esteem, faculty responses to cheating, peer behavior and sanction threats. According to McCabe and Trevino, one of the main reasons of academic dishonesty is the lack of any honor code tradition in universities. They argue that honor codes are an effective approach in matters of academic integrity. However, they also mention that because the honor codes vary in different universities in their content and implementation, other factors may also influence academic dishonesty. In that case, combined faculty and student understanding of the institutional policies on academic integrity may be more important. Other factors that may result in academic dishonesty include pressure to get higher grades, have a good job, lack of responsibility, laziness, desire to be the best, poor self-image, lack of responsibility and pride in the job which should be done (McCabe, Trevino & Butterfield, 2001). Nowadays, many digital technologies may also be the reasons for academic dishonesty among students. Lehman and DuFrene (cited in Dorothy, 2011) state that even though many institutions of higher education have adopted academic honesty policies and have acquired plagiarism software detection tools, the research shows that the Internet provides large opportunities for students to cheat.

Academic dishonesty also exists in many public and state universities of Armenia. Antonyan (2012) reveals some types of academic dishonesty common among Armenian students. They include:

- using cheat sheets during exams
- using new technologies, such as mobile phones, during exams
- dishonestly purchasing academic papers
- writing academic papers without proper references
- asking elder students for help (e.g. borrowing ready academic assignments)
- unequal distribution of responsibilities in group work
- improper control by professors during exams
- giving lectures without references.

The most popular among them is using cheat sheets during the exams (Antonyan, 2012). This research study supports the reasons for academic dishonesty cited in international literature, e.g. lack of personal and general motivation, low learning abilities and the tendency to study for grades.

Students in Armenian universities can dishonestly obtain different types of academic papers: term papers, reports, undergraduate and graduate final papers, dissertations and other academic papers according to the news article by Hambardzumyan published in Yerevan State University newspaper (2011). They may buy them from individuals or centers specialized in such services. They can buy ready-made products through the internet or they may ask their older friends to share their previous academic papers. The services offered by these centers include writing academic papers, preparing cheat sheets, rewriting the lectures from others' notes, writing essays for school students, and doing translations. Unfortunately, it is impossible to prevent students from taking advantage of the above-mentioned methods. As a result, many such services become widespread and function quite openly without the fear of legal consequences. A vivid example is a center located next to two major universities in Armenia: Yerevan State University and Armenian State University of Economics. Their website (<http://kursayin.am/>) features various services including ordering term papers, BA and MA capstones.

According to Hambardzumyan (2011), one of the centers in Yerevan which specializes in such services received orders for writing 15,000 term papers and six graduate papers in one year. The term papers are sold for 250-500 AMD per page, while graduate papers are 1,000-1,500 per page. Based on the same source, if the center has a requested academic paper in its database, they do not have to rewrite it. They sell the same paper multiple times. Unfortunately, the specialists who write papers for students are often professors of different universities. According to the author, the orders are mostly made by students from the humanities and economics fields. The materials that specialists use are mostly direct translations from Russian and English. Based on a research study by Antonyan (2012), 36.16 percent of 420 participant students from 10 public and state universities of Yerevan, Gyumri and Vanadzor obtain their academic papers by unethically purchasing them. According to Hambardzumyan (2011), more and more students benefit from such services as writing academic papers has become a required component for many universities. Although there is considerable discussion about this issue in the general public and mass media (e.g. the TV show “Մարդկային Գործոն” - “Human Factor”), there is lack of empirical study conducted on this particular type of academic dishonesty in Armenia.

Based on a research study by Yerevan State University Research Center for Civilization and Cultural Studies (2011), there are several factors that may promote plagiarism, one of the forms of academic dishonesty. First, the Armenian educational system does not fully recognize the consequences of academic dishonesty. There is currently no overarching institutional approach for solving the problem of academic dishonesty. The universities do not inform students about the risks of plagiarizing and do not sufficiently encourage independent thinking of students. According to the report, these issues have deeper roots, such as absence of awareness raising tools or academic writing courses that would inform students about criteria for writing academic papers, including citation forms. The report also came up with recommendations to address the situation. Firstly, state bodies and universities should form a formal attitude towards plagiarism and develop and implement respective policies, e.g. awareness-raising about plagiarism, punishment and reward. Besides, the authors of the report suggested organizing orientation classes for new students, preparing guidebooks with information on plagiarism, creating videos and disseminating them, including information on plagiarism and possible consequences in the syllabus for each subject. Another suggestion was working towards creating research methods courses and a common citation system that would guide students in citing different sources.

Methodology

The aim of the study was revealing the existing situation in the unethical purchase of academic papers among students in Armenian public universities. Thus, the study addressed the following research questions:

1. What is the state of regulations for academic integrity in higher education of Armenia?
2. What are the current trends in and reasons for the unethical purchase of academic papers by students in public universities in Armenia?

For the purposes of the present study, unethical purchase is defined as paying money and obtaining an academic paper written by another person and presenting it as one's own.

The study employed both qualitative and quantitative methods. The qualitative part consisted of desk research and interviews with representatives of official bodies and university faculty and administrative staff. The qualitative part of the study informed the subsequent quantitative part: a questionnaire survey administered to university students.

3.1. Participants and Sampling

Interviews: The qualitative part included interviews with representatives of the Ministry of Education and Science of RA, National Center for Professional Education Quality Assurance Foundation, 27 faculty members and administrative staff from 12 public universities, and an interview with an employee of a specialized store which sells academic papers. The interview participants were selected following a purposive sampling strategy based on the following selection criteria:

- 1) Expertise on this topic (for participants from other than universities)
- 2) Administrative position in the university (for participants from universities)
- 3) Experience in supervising academic papers (for participants from universities)

The respondents from government agencies were interviewed after getting a formal consent. The universities also required official enquiry addressed to the rectors to conduct a survey. After getting consent from the universities, the interviewers contacted coordinators that were attached to help in selecting and contacting faculty members for the interviews and for the questionnaire survey with students based on given criteria.

Questionnaire Survey: The quantitative part of the study entailed a questionnaire survey conducted with 623 students from 12 universities, seven of which are located in Yerevan and five are located in different regions. The finalized questionnaire in Armenian was piloted with ten students to ensure its content and face validity and clarity of the questions before administering it.

Random stratified sampling strategy was used to sample students for the survey. We selected the participants according to the field and level of study. The sample size was more or less proportional to the number of students studying in the fields of Science and Engineering, Economics, Humanities and Social Sciences, both in graduate and undergraduate programs.

The following public universities participated in the study:

1. Yerevan State University
2. Yerevan State Linguistic University
3. Armenian State University of Economics
4. State Pedagogical University
5. State Engineering University
6. Armenian National Agrarian University
7. National University of Architecture and Construction
8. Goris State University
9. Yerevan State University, Ijevan Branch
10. Gyumri State Pedagogical Institute
11. Vanadzor State Pedagogical Institute
12. Gavar State University

Table 1 shows the distribution of survey participants across the fields of study and programs. While Economics is often associated with Social Sciences, we chose to keep it in a separate category and analyze as such because of the large sample size.

Table 1. Distribution of Survey Participants across Field of Study and Program

Field of study	Program	Number of students (and percentage of total data)
Humanities and Social Sciences <i>n</i> =362 (58%)	Pedagogy	108(17.3%)
	Philology	102(16.3%)
	Journalism	36(5.8%)
	Linguistics	33(5.3%)
	Oriental Studies	23(3.7%)
	History	28(4.5%)
	Law	19(3.0%)
	Public Administration	13(2.1%)
Science and Engineering <i>n</i> =87 (14%)	Engineering	46(7.4%)
	Natural Sciences	5(0.8%)
	Mathematics	36(5.8%)
Economics <i>n</i> =175 (28%)	Marketing	175(28%)

Table 2 demonstrates the number of students by level of study. As shown, most of the respondents were undergraduate students.

Table 2. Number of Respondents by Level of Study

Level of study	Year of study	Number of students and percentage of total data
Undergraduate <i>n</i> =505 (80.9%)	Bachelor 1	27 (4.3%)
	Bachelor 2	127 (20.4%)
	Bachelor 3	314 (50.3%)
	Bachelor 4	37 (5.9%)
Graduate <i>n</i> =118 (18.9%)	Master 1	80 (12.8%)
	Master 2	38 (6.1%)
Postgraduate <i>n</i> =1 (0.2%)	PhD	1 (0.2%)

Table 3 shows that majority of respondents were female, single and mainly unemployed. The number of male and female respondents was disproportionate mainly because the sample is largely composed of students from the Humanities and Social Science departments, where female students dominate.

Table 3. Number of Respondents by Gender, Marital and Employment Status

Gender	Male	142 (22.8%)
	Female	481 (77.2%)
Marital Status	Single	582 (93.3%)
	Married	42 (6.7%)
Employment status	Full time	40 (6.5%)
	Part time	64 (10.5%)
	Unemployed	508 (83%)

3.2. Data Collection

Data collection proceeded in the following stages: desk research, interviews with official representatives, university faculty and staff, employee of a specialized center, survey of students.

Desk Research: The purpose of the desk research was to find out existing Government and university level regulations related to academic integrity. These findings were then followed up with administrative staff responsible for university regulations and policies.

Interview with a Representative from the Ministry of Education and Science of Armenia: The main aim of the interview was to find out whether the Ministry has any regulations related to academic integrity, as well as their perception of the reasons of unethical purchase of academic papers by students (Appendix A).

Interview with a Representative from the National Center for Professional Education Quality Assurance Foundation: The purpose of the interview was to find out the role of the quality assurance center in ensuring academic integrity in public universities, as well as their opinion about the reasons of unethical purchase of academic papers by students (Appendix B).

Interviews with Faculty and Administrative Staff of Target Universities: The aim of the interviews was to discover university policies regarding academic integrity, as well as perceived reasons of unethical purchase of academic papers among students of the universities (Appendix C).

Interviews with employees of the specialized centers: The aim of the interviews was to find out conditions of writing papers for students, tendency of purchasing papers by gender and field of study (Appendix D).

Questionnaire Survey with the Students of Target Universities: The questionnaire survey was conducted to find out what students' perception of academic integrity is, the reasons for unethical purchase of academic papers from their own perspective (Appendix E). Another important goal was to reveal the trends in unethical purchase of academic papers among the respondents and their peers.

3.3. Data Analysis

The qualitative data were analyzed by categorizing findings into major themes, some of which emerged from the data inductively through iterative coding, and some were identified deductively based on topics presented in the interview questions.

The quantitative data were analyzed through SPSS for descriptive statistics (means, standard deviations, frequencies, and percentages), as well as correlations and multiple regression analysis to reveal the relationship between various variables.

Results

4.1. Desk Research

The main findings of the desk research suggest that there are no government regulations, specifically addressing academic integrity. Only one of the participant universities has an Academic Integrity Concept. Another university is in the process of creating such a document.

In addition to the study of Codes of Ethics on the official websites of the universities, two lawyers of the participant universities were interviewed to ensure that the findings were reliable. One of them mentioned that their university is not mandated to have a written policy to prevent academic dishonesty. They try to solve such problems without written rules. The lawyer of another university mentioned that they are planning to update the codes of ethics of their universities, which will probably include some points about academic integrity.

To conclude, policies to regulate academic dishonesty in Armenia do not originate from the Government. The choice and responsibility rest with individual universities, most of which do not seem to have policies regulating academic dishonesty. This may explain why businesses selling academic papers are abundant in Armenia.

4.2. Interview Analysis

This section presents a summary of results from interviews with official representatives of the Ministry of Education and Science, National Center for Professional Education Quality Assurance Foundation, an employee of a specialized store which sells academic papers, as well as faculty and administration from target universities. The results are organized around most prominent themes.

Low Student Motivation: One of the findings of the interviews with the participants implies that some of the reasons that students unethically purchase academic papers are laziness and low interest towards the programs in which they study. Obtaining a ready-made paper is an easier option for many of them than writing it on their own.

Low Admission Score and Lack of Opportunity in Labor Market: Academic dishonesty, particularly the unethical purchase of academic papers, may also be the result of low admission scores to the public universities of Armenia. Students with different academic interests and capacities enter universities, which may ultimately lead the weakest of them to dishonest behavior. Besides, many students are not optimistic about finding a job in their field of specialization after graduating. Consequently, they do not put much effort in their studies.

Poor Social Conditions: The findings suggest that students' and professors' bad social conditions and financial problems may also drive students to purchase academic papers. Many students obtain ready-made papers because of additional workload, such as employment. Other factors could be their desire to get a scholarship.

Concerning professors, there is sometimes a disproportion of their workload and salary. Thus, they might cooperate with centers that sell academic papers in search of alternative sources of income.

Gender, Level and Field of Study: Interview results also suggest that undergraduate students tend to unethically purchase academic papers more than graduate students. The reason might be that undergraduate students may not be mature enough to value the importance of education. Besides, the

findings suggest that the purchase of academic papers is gender and field-related. More cases are reported with male rather than female students. According to professors, this phenomenon is widespread in the fields of Humanities and Social Sciences rather than Science and Engineering where practical tasks are required more than secondary research. According to one of the employees of the centers selling academic papers, students from Economics, Humanities and Social Sciences fields are the ones who order most of the papers.

Selection of Topics and Availability of Literature: The interviewed participants mentioned that the list of topics of academic papers is usually suggested by the faculty. However, students may propose their own topics if it is in line with their specialization. As stated by many professors, lack of up-to-date literature may not cause academic dishonesty since the libraries of the universities provide necessary literature in Russian and English. Additionally, nearly all the students have access to the internet nowadays.

Models of Peer Behavior: According to some interviewees, peers' dishonest behavior may drive honest students to unethically purchase academic papers if the dishonest ones remain unpunished and get higher grades. Conversely, other faculty members mentioned that it could not be a major reason as responsible and hard-working students always strive to learn.

Students' Awareness of Academic Writing Skills: Some target universities have courses called Research Methods available for graduate and postgraduate students only, which may address academic writing skills. Some other universities have special writing courses but it is not clear if they entail all the components of academic writing. Our interview data suggest that universities have manuals that guide students to properly write academic papers. Besides, most professors stated that every adviser works individually with students and explains how an academic paper should be written.

Control of Businesses That Sell Academic Papers: The findings suggest that all of the interviewees are aware of the centers and individuals selling academic papers. These centers tend to be more widespread and prevalent in Yerevan compared to the regions of Armenia. The Ministry does not consider itself responsible for control of such businesses. They consider that the problem of academic dishonesty should be solved only at the university level. However, some of the interviewees, including the representative from the National Center for Professional Education Quality Assurance Foundation, argued that the legislation should ban the operation of such centers. Surprisingly, as reported by the employee of the center selling papers, it is mostly PhD students and professors who cooperate with them and write academic papers for money.

Responsibility for Academic Integrity: According to the representative from the Ministry of Education and Science, the Ministry does not have written regulations on this issue and even if it had, the impact of written rules might not be impressive. The representative from the National Center for Professional Education Quality Assurance Foundation mentioned that the Center has developed professional education accreditation standards that universities have to comply with in order to get accreditation, and one of the standards is related to academic integrity. Regarding the faculty, most of them mentioned that it is university administration's responsibility to ensure academic integrity. Only a few of them considered themselves responsible for it. At the same time, most of the faculty members claimed that written university regulations might not be effective enough.

Suggestions for Promoting the Culture of Academic Honesty in Armenian Universities: The analyses of the interviews imply that there are different methods for boosting the culture of academic integrity in the public universities of Armenia. According to the representative from National Center for Professional Education Quality Assurance Foundation, having a university-wide regulation on academic integrity would be a possible solution to the problem. But unless students see that the document entails consequences, they will continue to commit acts of academic dishonesty. Besides, most of the interviewed faculty members expressed their willingness to have certain programs that check the

originality of academic papers. For example, according to one of the deans, the Higher Qualification Commission of the Republic of Armenia (www.boh.am) has created an originality checking software program for the Armenian language and uses it for checking the originality of submitted postgraduate dissertations.

Other possible ways of promoting academic integrity suggested by the participants were rewarding good academic papers and giving students the opportunity to publish and present academic papers, making assignments more interesting and practical, and punishing students for unethically purchasing papers.

To summarize the interview results, academic dishonesty, including the unethical purchase of academic papers is not the universities’ or the Ministry’s problem alone. It seems that there are no regulations on academic integrity or legal consequences for offering services encouraging such violations at the national level. In this context, universities should be responsible for educating their students in these matters and regulating their academic behavior. Perhaps, national institutions overseeing the quality of higher education in Armenia could provide more support to universities in developing and enforcing their own regulations.

4.3. Survey Results

Most of the data below are presented descriptively with frequencies, percentages, means and standard deviations sorted by the following three variables: gender, field of study (Humanities and Social Sciences, Sciences and Engineering; and Economics), and level of study (undergraduate and graduate - master’s and PhD levels reported together). The data that report on fellow students are sorted by one variable only: level of study. Some survey data are also followed by correlations. Finally, this section is concluded with the results of a linear multiple regression analysis, where selected variables are used as independent variables and self-reported cases of academic dishonesty as the dependent or outcome variable.

4.3.1. Awareness of Academic Integrity

The aim of the first question in the survey was finding out whether students are aware what academic integrity is, and four options were given, of which only option “c” is correct: “Performing academic work without cheating and fabrication” (Table 4). Students’ task was marking all answers that apply.

One fourth of the participants did not recognize what academic integrity means. The data also show that undergraduate students are only a little behind graduate students in their understanding of academic integrity. Regarding gender, both graduate and undergraduate female students have better understanding of this concept than their male peers. The results also show that two of the wrong answers (“b” and “d”) have also been mentioned as correct answers by many students.

Table 4. Students’ Understanding of Academic Integrity by Level of Study and Gender in Percent

Awareness of academic integrity	Undergraduate		Graduate		Total number of responses (n=623)
	Male (n=114)	Female (n=390)	Male (n =28)	Female (n=91)	
a) Presenting another person’s words or ideas as your own.	8.3%	1.8%	14.3%	1.1%	3.4%
b) Caring about the university and its students	41.7%	30.4%	39.3%	24.7%	31.9%

c) Performing academic work without cheating and fabrication	61.1%	78.6%	64.3%	88.8 %	76.4%
d) Actively participating in university life	50.9%	49.2%	35.7%	29.2%	45.9%

Table 5 shows the same responses sorted by field of study. Science and Engineering students show the highest awareness of academic integrity, then come Humanities and Social Sciences, followed by Economics students. The biggest gap (around 25%) in this awareness between male and female participants is among Science and Engineering students. The smallest gap (around 7%) between male and female students is among Humanities and Social Sciences.

Table 5. Students' Understanding of Academic Integrity by Field of Study and Gender in Percent

Awareness of Academic Integrity	Science and Engineering		Humanities and Social Sciences		Economics	
	Male (n=54)	Female (n=33)	Male (n=23)	Female (n=339)	Male (n=65)	Female (n=109)
a) Presenting another person's words or ideas as your own	4.1%	0%	17.4%	1.5%	10.9%	2.8%
b) Caring about the university and its students	38.8%	40.6%	34.8%	28.8%	45.3%	27.8%
c) Performing academic work without cheating and fabrication	65.3%	90.6%	73.9%	80.4%	54.7%	77.8%
d) Actively participating in university life	46.9%	75%	39.1%	44.8%	51.6%	38.9%

As shown in Table 6, graduate students evaluate their peers' awareness of academic integrity slightly higher than undergraduate students do. This is supported by self-reported understanding of this concept in Table 4 above. However, as reported by the students, undergraduate students seem to follow values of academic integrity a bit more than the graduates.

Table 6. Perception of Fellow Students' Awareness and Adherence to Academic Integrity by Level of Study on the Scale 1-5 (Strongly disagree-1 and Strongly agree -5), in Means and Standard Deviations

	Undergraduate (n= 505)	Graduate (n= 119)
Fellow students understand what academic integrity is.	3.36 (1.12)	3.54 (1.11)
Fellow students follow the values of academic integrity when they write academic papers.	3.35 (1.17)	3.15 (1.09)

Additionally, Pearson Correlation analysis among undergraduate ($r(494)=.39, p=.000$) and graduate students ($r(119)=.34, p=.000$) showed that there is a weak but positive relationship between the two statements. This may mean that understanding of academic integrity is not necessarily related to following its values.

Table 7 shows that students do not quite agree with the statement that there is nothing wrong in submitting a purchased academic paper. Graduate students are more prone to disagree with the statement than undergraduate students.

Table 7. Students’ Agreement with the Following Statement “There is nothing wrong about submitting a purchased academic paper to my instructor” by Gender and Level of Study on the Scale 1-5 (Strongly disagree-1, Strongly agree-5), in Means and Standard Deviations

Undergraduate		Graduate	
Male ($n= 114$)	Female ($n=390$)	Male ($n=28$)	Female ($n= 91$)
2.9 (1.40)	2.8 (1.38)	2.5 (1.26)	2.5 (1.26)

4.3.2. Reported Reasons for Unethical Purchase of Academic Papers

To find out how many students agreed with each statement about reasons for the unethical purchase of academic papers, we calculated percentages for each level on the agreement scale. As shown in Table 8, reasons that received most agreement among students (61% and above for Agree and Strongly Agree) include:

- Need to get higher grades
- Need to get a scholarship
- Lack of academic writing skills
- Laziness
- Lack of available literature

Other noteworthy statements that received agreement from students (50-60% of Agree and Strongly Agree) include:

- Lack of more practical tasks
- Extracurricular activities (job, family, etc.)
- Lack of interest towards the subject/specialty
- Low awareness about academic integrity policies in universities.

Our survey data do not provide convincing evidence for some other reasons that are claimed strong in the literature or have emerged as strong reasons for this form of cheating in our qualitative data. These reasons have received an approximately equal split of agreeing and disagreeing students:

- Unreasonable academic load
- Lack of guidance from professors
- Limited topics for papers
- Models of dishonest academic behavior among peers
- Low admission scores

Table 8. Reasons for Unethical Purchase of Academic Papers in Percent

Reason (number of respondents)	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Sum of agree and strongly agree
Models of dishonest academic behavior among peers (<i>n</i> =603)	10.1%	28.8%	23.9%	19.6%	14.3%	39%
Low awareness about academic integrity policies in universities (<i>n</i> =600)	16.5%	34.1%	18.8%	17.3%	9.5%	50%
Need to get higher grades (<i>n</i> =614)	44.4%	32.9%	8.8%	7.5%	4.8%	77%
Need to get a scholarship (<i>n</i> =610)	41.8%	27.2%	11.2%	10.7%	6.6%	69%
Lack of academic writing skills (<i>n</i> =609)	32.1%	38.8%	14.3%	8.7%	3.8%	71%
Lack of available literature (<i>n</i> =614)	28.8%	32.1%	11.5%	16.2%	9.8%	61%
Unreasonable academic load (<i>n</i> =607)	17.8%	26.3%	23.9%	19.6%	9.8%	44%
Unreasonable deadlines (<i>n</i> =599)	16.8%	22.3%	16.8%	26.3%	13.8%	39%
Lack of guidance from the professor (<i>n</i> =608)	13.8%	28.2%	13.5%	22.0%	20.0%	42%
Limited topics for papers (<i>n</i> =613)	13.3%	27.7%	15.7%	22.8%	18.8%	41%
Assignment of the topic by the professor (<i>n</i> =612)	21.5%	28.7%	14.7%	20.3%	12.7%	42%
Involvement in non-academic activities (<i>n</i> =614)	20.7%	36.7%	17.3%	13.6%	10.1%	57%
Lack of interest towards the chosen profession or course (<i>n</i> =575)	23.6%	31.4%	16.2%	12.7%	8.3%	55%
Laziness (<i>n</i> =608)	39.7%	29.5%	10.6%	9.5%	8.2%	69%
Low admission score (<i>n</i> =604)	15.1%	26.3%	24.2%	19.7%	11.5%	41%
Lack of more practical tasks (<i>n</i> =604)	19.2%	32.4%	24.2%	13.8%	7.2%	51%
Negligible consequences of cheating (<i>n</i> =591)	13.9%	22.8%	29.0%	17.8%	11.2%	36%

Table 9 shows that there are no striking differences in reported reasons by gender and level of study. “Lack of interest towards the profession or course”, “laziness”, “low awareness about academic integrity policies in universities” and “limited topics for papers” are considered as important reasons for the unethical purchase of academic papers more by female students. Besides, graduate students tend to perceive “lack of academic writing skills”, “lack of available literature”, “unreasonable academic load” as potential reasons for this particular type of academic dishonesty.

Table 9. Reasons for Unethical Purchase of Academic Papers by Level of Study and Gender on the Scale 1-5 (Strongly disagree-1 and Strongly agree-5), in Means and Standard Deviations

Reasons	Undergraduate		Graduate	
	Male (n=114)	Female (n=390)	Male (n=28)	Female (n=91)
Models of dishonest academic behavior among peers	2.9 (1.28)	3.1 (1.21)	2.5 (1.18)	2.9 (1.16)
Low awareness about academic integrity policies in universities	3.0 (1.19)	3.4 (1.21)	3.0 (1.27)	3.4 (1.26)
Need to get higher grades	3.7 (1.27)	4.1 (1.13)	4.0 (1.02)	3.7 (1.21)
Need to get a scholarship	3.5 (1.37)	4.0 (1.71)	3.6 (1.47)	3.7 (1.23)
Lack of academic writing skills	3.5 (1.07)	4.0 (1.08)	4.0 (0.98)	4.0 (0.90)
Lack of available literature	3.1 (1.45)	3.7 (1.30)	3.6 (1.33)	3.8 (1.21)
Unreasonable academic load	3.0 (1.20)	3.3 (1.24)	3.6 (1.10)	3.4 (1.13)
Unreasonable deadlines	2.8 (1.37)	3.1 (1.34)	3.3 (1.24)	3.0 (1.26)
Lack of guidance from the professor	2.5 (1.33)	3.0 (1.40)	3.0 (1.05)	3.3 (1.22)
Limited topics for papers	2.5 (1.35)	3.0 (1.32)	2.8 (1.15)	3.4 (1.17)
Assignment of the topic by the professor	2.9 (1.37)	3.3 (1.34)	3.1 (1.29)	3.4 (1.29)
Involvement in non-academic activities	3.7(1.21)	3.4 (1.23)	3.9 (1.15)	3.7 (1.13)
Lack of interest towards the chosen profession/ course	3.4 (1.29)	3.6 (1.24)	3.0 (1.31)	3.8 (1.09)
Laziness	3.6 (1.35)	3.9 (1.27)	3.8 (1.19)	4.2 (0.95)
Low admission score	3.0 (1.24)	3.1 (1.27)	3.0 (1.20)	3.1 (1.20)
Lack of more practical tasks	3.1 (1.24)	3.5 (1.17)	3.6 (1.09)	3.5 (0.99)
Negligible consequences of cheating	2.9 (1.25)	3.1 (1.20)	3.1 (1.11)	3.4 (1.03)

Table 10 shows the same responses by field of study. As can be seen from the table, there are no striking differences regarding field of study. “Need to get a scholarship” and “need to get higher grades” have been given importance by female students from all the fields, which may imply that there is more competition among female students in academic life. Female students also have high level of agreement with “lack of available literature”. Meanwhile, male students have attached much importance to “involvement in non-academic activities”. “Laziness” has received equally high mean values irrespective of gender and field of study.

Table 10. Reasons for Unethical Purchase of Academic Papers by Gender and Field of Study on the Scale 1-5 (Strongly disagree-1 and Strongly agree-5), in Means and Standard Deviations

Reasons	Science and Engineering		Humanities and Social Sciences		Economics	
	Male (n=54)	Female (n=33)	Male (n=23)	Female (n=339)	Male (n=65)	Female (n=109)
Models of dishonest academic behavior among peers	2.9 (0.98)	3.1 (1.01)	3.4 (1.58)	3.0 (1.24)	2.6 (1.31)	3.0 (1.17)
Low awareness about academic integrity policies in universities	3.0 (1.01)	3.4 (0.84)	2.8 (1.56)	3.5 (1.29)	3.2 (1.20)	3.4 (1.10)
Need to get higher grades	3.5 (1.17)	4.0 (1.30)	3.6 (1.37)	4.1 (1.20)	4.0 (1.20)	4.1 (0.99)
Need to get a scholarship	3.4 (1.43)	3.9 (1.39)	3.5 (1.46)	4.0 (1.81)	3.5 (1.36)	3.9 (1.07)
Lack of academic writing skills	3.3 (0.96)	4.0 (0.90)	3.9 (1.27)	4.0 (1.08)	3.7(1.03)	4.0 (0.98)
Lack of available literature	3.0 (1.40)	3.8 (1.09)	3.4 (1.46)	3.7 (1.68)	3.2 (1.47)	3.7 (1.32)
Unreasonable academic load	3.2 (1.07)	3.2 (1.16)	3.1 (1.32)	3.4 (1.25)	3.1 (1.28)	3.2 (1.14)
Unreasonable deadlines	2.9 (1.24)	2.9 (1.18)	3.0 (1.37)	3.2 (1.36)	2.9 (1.44)	2.8 (1.20)
Lack of guidance from the professor	2.6 (1.14)	2.9 (1.49)	2.8 (1.44)	3.1 (1.38)	2.6 (1.34)	2.9 (1.34)
Limited topics for papers	2.7 (1.24)	3.1 (1.09)	2.5 (1.51)	3.1 (1.32)	2.5 (1.32)	3.1 (1.32)
Assignment of the topic by the professor	3.0 (1.14)	2.7 (1.11)	2.8 (1.64)	3.4 (1.34)	2.8 (1.41)	3.4 (1.31)
Involvement in non-academic activities	3.6 (1.04)	3.2 (1.13)	3.8 (1.15)	3.5 (1.25)	3.8 (1.31)	3.5 (1.13)
Lack of interest towards the chosen profession/ course	3.0 (1.10)	3.3 (1.44)	3.1 (1.58)	3.7 (1.16)	3.7 (1.27)	3.4 (1.26)
Laziness	3.6 (1.30)	3.9 (1.33)	3.7 (1.54)	3.9 (1.25)	3.7 (1.27)	3.9 (1.13)
Low admission score	3.2 (0.97)	3.4 (1.28)	2.9 (1.36)	3.1 (1.23)	3.0 (1.35)	3.0 (1.19)
Lack of more practical tasks	3.4 (1.07)	3.4 (1.15)	3.2 (1.43)	3.5 (1.13)	3.2 (1.27)	3.6 (1.15)
Negligible consequences of cheating	3.1 (1.19)	3.2 (1.06)	3.2 (1.29)	3.1 (1.18)	2.8 (1.22)	3.1 (1.22)

4.3.3. Perceived Role of Professors

Table 11 shows that both undergraduate and graduate students tend to think that university staff serve as good role models for following values of academic integrity, and that students regularly meet with their professors to discuss their papers.

Table 11. Student Attitudes towards the Role of Professors in Academic Life by Gender and Level of Study on the Scale 1-5 (Strongly disagree-1, Strongly agree-5), in Means and Standard Deviations

	Undergraduate		Graduate	
	Male (n=114)	Female (n=390)	Male (n=28)	Female (n= 91)
University staff serve as good role models for following the values of academic integrity	3.7 (1.30)	3.6 (1.23)	3.7 (1.25)	3.6 (1.12)
Students regularly meet, discuss their papers and get helpful feedback from their professors	4.0 (1.20)	4.0 (1.07)	3.6 (1.25)	4.0 (1.00)

Table 12 shows that there is no striking difference in students’ attitude towards the role of professors as role models for following the values of academic integrity and support provided by them except for Science and Engineering students. In case of both statements, results from students of Humanities and Social sciences show slightly higher mean values.

Table 12. Student Attitude towards the Role of Professors in Academic Life by Gender and Field of Study on the Scale 1-5 (Strongly disagree-1, Strongly agree-5), in Means and Standard Deviations

	Science & Engineering		Humanities and Social Sciences		Economics	
	Male (n=54)	Female (n=33)	Male (n =23)	Female (n=339)	Male (n=65)	Female (n=109)
University staff serve as good role models for following the values of academic integrity	3.4 (1.25)	3.5 (1.21)	4.1 (1.09)	3.6 (1.22)	3.8 (1.35)	3.5 (1.17)
Students regularly meet, discuss and get helpful feedback from their professors	3.8 (1.18)	4.00 (1.13)	4.0 (1.07)	4.1 (1.09)	3.8 (1.30)	3.7 (1.14)

4.3.4. Reported Cases of Unethically Obtained Academic Papers

Table 13 shows that both undergraduate and graduate students think that male students are more inclined towards unethical purchase of academic papers than female students. In graduate students' perception, undergraduate students tend to buy papers more than graduate ones.

Table 13. Students' Agreement with the Following Statement "Based on my observations, **unethical purchase** of academic papers is more common among ..." by Level of Study on the Scale 1-5 (Strongly disagree-1 and Strongly agree-5), in Means and Standard Deviations

	Undergraduate (<i>n</i> =504)	Graduate (<i>n</i> =119)
Female students	2.9 (1.38)	2.8 (1.21)
Male students	3.7 (1.21)	3.9 (1.07)
Undergraduate students	3.2 (1.14)	3.3 (1.09)
Graduate students	3.2 (1.22)	2.3 (1.19)
Humanities and Social Sciences students	3.0 (1.16)	3.1 (0.97)
Science and Engineering students	2.9 (1.11)	3.0 (0.86)

As Table 14 displays, the average number of fellow students reported as having purchased academic papers is "three". However, standard deviation is high, which shows high variability of responses.

Table 14. Average Number of Fellow Students who Reportedly Purchased Academic Papers

Number of respondents	571
Mean (SD)	3.0 (5.32)

In addition to asking students about their fellow students' academic dishonesty, we also asked them about their own unethical purchasing of academic papers. Table 15 shows that there were more cases of submitting unethically obtained academic papers among male students, especially graduate ones. Moreover, the percentage for submitting such papers "more than three times" has the highest value among male graduate students. But the percentage of submitting papers "once" is higher among female undergraduate students compared to male undergraduate ones.

Table 15. Number of Self-Reported Times Students Submitted Unethically Obtained Papers by Level of Study and Gender in Percent

	Undergraduate		Graduate	
	Male (<i>n</i> =102)	Female (<i>n</i> =379)	Male (<i>n</i> =27)	Female (<i>n</i> =87)
Never	78%	90.2%	48%	88%
Once	2.2%	5.7%	12%	8.4%
Twice	5.5%	1.7%	8%	3.6%
Three	3.3%	0.3%	4%	0%
More than three	11%	2%	28%	0%

Further, Table 16 shows that students from Science and Engineering submit unethically obtained academic papers slightly more frequently than students from other fields.

Table 16. Number of Times Students Submitted Unethically Obtained Papers by Field of Study and Gender in Percent

	Science and Engineering		Humanities and Social Sciences		Economics	
	Male (n=53)	Female (n=32)	Male (n=20)	Female (n=331)	Male (n=56)	Female (n=103)
Never	63.8%	92.9%	77.8%	90.1%	76.5%	87.9%
Once	4.3%	3.6%	11.1%	6.2%	2.0%	7.1%
Twice	8.5%	3.6%	5.6%	2.0%	3.9%	2.0%
Three	2.1%	0%	0%	0.3%	5.9%	0%
More than three	21.3%	0%	5.6%	1.3%	11.8%	3.0%

Table 17 compares respondents’ perceptions about tendencies of unethical purchase of academic papers with self-reported cases. Respondents mainly considered that male students are more inclined towards unethical purchase of papers, which corresponds with self-reported data. Although students’ perception indicates almost no difference between graduate and undergraduate fellow students’ tendency for purchasing academic papers, self-reported frequency shows that graduate students reported to have submitted unethically obtained papers more than undergraduates. This perhaps lies in the fact that graduate students counted the purchased academic papers since undergraduate studies. Contrary to faculty members’ and students’ perception, self-reported frequency shows that Science and Engineering students are more inclined towards submission of unethically obtained papers. This is probably explained by the fact that most of the students studying in this field are male.

Table 17. Students’ Agreement with the Following Statement “Based on my observations, unethical purchase of academic papers is more common among ...” Compared with Frequency of Reportedly Obtaining Ready-Made Academic Papers (in Percent)

	Students’ perception	Self-reported frequency
	Frequency (%)	Frequency (%)
Female students	35.4%	10.6%
Male students	66.6%	29.6%
Undergraduate students	44.8%	13.3%
Graduate students	38.3%	21.9%
Humanities and Social Sciences students	30.2%	10.5%
Science and Engineering students	26.6%	22.9%

It should be noted that in Tables 18 and 19, minimum number of times are presented as all the suspected outliers have been excluded from the data. Besides, the students were given the option of skipping the answer if they didn't want to confess.

Table 18 displays descriptive statistics on the sources from which students obtained academic papers. For each source, students had to indicate whether papers were obtained free or were paid for. The table shows that majority of students get papers from the internet, from fellow students for free and from specialized centers paid. Notably, five students reported having unethically obtained papers from professors, both for money and free of charge.

Table 18. Number of Reported Times of Purchase of Academic Papers from Different Sources in Means and Standard Deviations

Sources of papers	Number of respondents	Mean	Standard deviation
Centers paid	5	2.0	1.73
Centers free	2	1.0	0.00
Internet paid	8	1.3	0.71
Internet free	22	1.7	1.46
Professor paid	2	1.0	0.00
Professor free	3	6.7	2.89
Student paid	6	1.2	0.41
Student free	18	1.9	2.36
Other paid	3	1.3	0.58
Other free	2	3.0	2.83

Table 19 shows the distribution of answers in regard to the types of academic papers obtained. As we can see, literature reviews are the most common papers obtained by students for free. This may be considered normal because literature reviews are more frequently assigned across all programs than term papers.

Table 19. Number of Different Types of Academic Papers Obtained by Students in Means and Standard Deviations

Types of papers	Number of respondents	Mean	Standard deviation
Literature review paid	8	1.1	0.35
Literature review free	24	1.6	0.97
Term paper paid	11	1.3	1.01
Term paper free	6	1.3	0.8
BA capstone paid	1	1.0	0
BA capstone free	0	0	0
MA capstone paid	0	0	0
MA capstone free	0	0	0

Table 20 shows estimated prices of different types of academic papers reported by students. As can be observed, the standard deviation for all types of academic papers is quite high implying lack of consistent responses from students. As for the prices reported by the employee of the center, the price per

page is 1300 AMD (irrespective of the type of the paper) and 1800 AMD if the originality of the paper is checked through software. Thus, compared to the prices per page mentioned by the employee of the center, the average prices of literature reviews and term papers reported by students are lower.

Table 20. Student Reports about Approximate Prices for Academic Papers in Means, Standard Deviations, Modes

	Price Literature review (n=101)	Price Term paper (n=97)	Price BA capstone (n=68)	Price MA capstone (n=69)
Mean	5,100	12,000	37,000	66,000
SD	4,146	7,709	22,950	44,430
Mode	5,000	5,000	20,000	100,000
Minimum	1,000	3,000	8,000	12,000
Maximum	20,000	30,000	100,000	250,000

4.3.5. Analysis of Multiple Factors Predicting Academic Dishonesty

In addition to the descriptive and correlational statistics, we analyzed some of the data using multiple linear regression (MLR). MLR explores the relationship between a number of independent variables and a dependent variable. In this analysis, the dependent variable is self-reported cases of academic dishonesty identified with the following survey item:

How many times have you submitted to your instructor an academic paper written by another person during your study?

- *Never*
- *Once*
- *Twice*
- *Three times*
- *More than three times*

The following independent variables were used in the analysis identified based on the current literature and evidence from other data in the present study:

1. Age
2. Gender (analyzed as a dichotomous variable)
3. Marital status (analyzed as a dichotomous variable)
4. Number of children
5. Field of study analyzed as three separate dichotomous variables
 - a. Science and Engineering
 - b. Humanities and Social Studies
 - c. Economics

Employment status: mostly unemployed, part-time, full-time

Year of study: Bachelor’s 1st, 2nd, 3rd, 4th year, MA’s 1st, 2nd year, and PhD

Understanding of what academic integrity means based on Item 9 in the survey (Appendix E)

Ethical position about submitting a purchased academic paper to a professor based on Item 16 in the survey (Appendix E).

From among the nine independent variables, four were identified as valid predictors of academic dishonest behavior, based on the stepwise method of multiple linear regression: age, gender, employment status, and understanding of academic integrity ($R^2=.18$, $F=(4, 504)=28.5$, $p<.001$) (see Table 21 for predictor coefficients).

Table 21. Predictors of Multiple Regression for the Dependent Variable of Committed Academic Dishonesty

	Unstandardized β	<i>t</i> -test
(Constant)	-1.07	-2.4**
Age	0.11	5.8***
Gender (1 - male, 2- female)	-0.34	-3.74***
Employment status (0 - unemployed, 1 - part-time, 3 - full-time)	0.14	2.14**
Understanding of academic integrity (0 - incorrect, 1 - correct)	-0.38	-4.44*
* $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$		

This finding implies that 18% of variability in the dependent variable can be explained with these four independent variables. Based on the coefficients in Table 21 we can build the following predictive model for academic dishonest behavior (ADB) defined as submitting to an instructor an academic paper written by someone else:

$ADB = -1.07 + (0.11 \times \text{Age}) - (0.34 \times \text{Gender}) + (0.14 \times \text{Employment Status}) - (0.38 \times \text{understanding of academic integrity})$.

The following example demonstrates how this formula can be applied to predict the likelihood of students' dishonest behavior. Suppose a student has the following profile:

- 20 years old
- Male
- Mostly employed full-time
- Doesn't know what academic integrity means

$$ADB = -1.07 + (0.11 \times 20) - (0.34 \times 1) + (0.14 \times 3) - (0.38 \times 0) = \mathbf{1.21}$$

According to our measure, this student is predicted to have submitted a paper written by someone else 1.21 times in his academic career (roughly once or twice).

However, this predictive model should be taken with caution because it can only predict up to 18% of variability of the academic dishonest behavior, as stated above.

5. Conclusion

5.1. Summary of Findings and Recommendations

The purpose of the study was to reveal the existing situation related to regulations on academic integrity and responsibility of university faculty and administrative staff, as well as government and non-government agencies in ensuring academic integrity in public universities of Armenia. The study was also aimed at finding out the reasons and current trends in the purchase of academic papers among students.

The study results showed that there are no government regulations specifically addressing academic integrity. As for the universities, only one of them has developed an academic integrity concept. Moreover, the representative from the Ministry of Education and Science claimed that universities alone are responsible for ensuring academic integrity. The National Center for Professional Education Quality Assurance, which is responsible for accrediting universities, has special criteria according to which universities are obliged to ensure academic integrity in order to get the newly-introduced accreditation. This may serve as a stimulus for universities to develop special regulations on the matter. Another important finding was that only a few professors consider themselves responsible for establishing the culture of academic integrity and they maintain that it is university administration's duty. One interesting recurrent idea was that the culture of academic integrity should be embedded in school education. Thus, it can be implied that acts of academic dishonesty by students often have systemic causes and each related institution should probably have its share of responsibility.

Regarding centers and individuals selling academic papers, almost all the respondents, including the faculty and the expert from the National Center for Professional Education Quality Assurance Center, mentioned that this issue should be put on the legislative level and such openly-operating centers should be banned.

Suggestions on promoting the culture of academic integrity in higher education included having university-wide written regulations on academic integrity, originality checking programs, punishment, application of rewards, such as publishing good academic papers, and assigning more practical and motivating tasks.

As for the current trends in the unethical purchase of academic papers by students of public universities of Armenia, the descriptive statistics showed that male students reported to have purchased academic papers more than female students. This is in line with faculty members' perceptions. As for the level of study, male graduate students reportedly purchased papers more than male undergraduates. However, this finding is not consistent with faculty's perceptions. Concerning the tendency of purchasing academic papers across fields of study, some interesting conflicting data were obtained. Professors claimed that the phenomenon is widespread in the field of Humanities and Social Sciences as Science and Engineering is quite a subject-specific field. In their turn, employees of the centers selling academic papers reported that most of the papers are ordered by students from Economics and Humanities and Social Sciences. However, the survey results showed that students from Science and Engineering fields had the highest self-reported tendency to unethically obtain academic papers. This is a very curious finding as students from this field showed slightly better understanding of academic integrity compared to students from the other fields of study. Hence, it might be connected with the fact that there are mainly male students studying at the departments of Science and Engineering, rather than with the field of study itself.

The multiple regression analysis of the quantitative data showed that age, gender, employment status, understanding of academic integrity are predictors for the tendency to unethically obtain academic papers. Among these, gender was the strongest predictor.

As reported by students, the most common types of academic papers obtained by them from other individuals or centers are literature reviews free of charge and term papers obtained for money. This may be considered logical, as literature reviews and term papers are assigned frequently. Mostly, the papers were reported to have been obtained from the internet, fellow students and specialized centers. This is not surprising taking into account the fact that the internet is full of free resources. Hence, the application of originality checking software in the Armenian language seems to be a priority for handling the issue.

The main reasons for unethical purchase of academic papers mentioned by the students were the need to get higher grades, need to get a scholarship, lack of academic writing skills, laziness and lack of available literature. However, most of the faculty did not agree that lack of literature can be a cause of this type of dishonest behavior. Additionally, the faculty members claimed that students are aware of academic writing skills as most of the universities have manuals that guide students in writing papers. Both students and interviewed faculty members claimed that professors regularly meet with students and discuss the papers. Moreover, professors emphasized the influence of bad social conditions on students'

behavior, extracurricular activities students are engaged in as potential reasons for unethical purchase of academic papers. While most of the professors stated that students are provided with the opportunity to choose topics for writing academic papers and that limited choice of topics cannot promote dishonest purchase of academic papers, some students still mentioned limited choice of interesting topics and assignment of topics by the professor as possible reasons for this kind of dishonest behavior. Interestingly, half of the students considered that low awareness about academic integrity policies in universities may serve as a potential reason for unethical purchase of academic papers. This finding is interesting considering the fact that most of the faculty members considered that having regulations on academic integrity is not likely to change the situation.

To sum up, there are different factors that contribute to the unethical purchase of academic papers and countermeasures should be comprehensive and involve all the members of academic community and related agencies.

Based on the results of the study, the following recommendations are made:

- National institutions that oversee quality of higher education should support universities in developing and implementing academic integrity policies. Based on our evidence, important national institutions take a neutral position on this.
- Some legal action should be taken to ban centers that sell academic papers as these centers operate quite openly and without fear of legal prosecution.
- The agency responsible for accreditation of universities should make its point clear that ensuring academic integrity is an essential prerequisite for getting accreditation and universities have to take observable measures in that direction.
- Schools should also discourage cheating in order to prevent this habit from entering the universities. The Ministry of Education and Science should assist them in accomplishing the task.
- Universities should educate students about academic integrity through policies, courses, workshops and other means available to them. Our evidence shows that universities show lack of readiness or commitment in this regard.
- Professors should take it upon them to educate students about the value of academic integrity. Based on survey results, students show limited understanding of academic integrity.
- As need to get higher grades and scholarship received high percentages of agreement among students as potential reasons for unethical purchase of papers, professors should try to make the learning process less competitive and explain the real value of learning and its outcomes to students.
- Professors should ensure that students have available up-to-date literature to write their papers.
- The ministry and universities should consider developing a research methods and academic writing course at universities both for students and the faculty. Methodical manuals seem to be insufficient.
- Universities and professors should consider obtaining software that checks originality of submitted papers. Higher Qualification Commission might help in getting such software reportedly used for checking the originality of dissertations written in the Armenian language.

5.2. Limitations

It was not possible to reach an equal sample distribution within each level of study. Most of the undergraduate respondents were in their third year of study at the university. There were almost twice as many first year graduate students as second year students.

Because of procedural constraints and a big number of departments in public universities, it was not possible to include faculty and students from more departments and disciplines to reach a more representative sample.

Another limitation is related to the translation of the survey questionnaire. The “neither agree nor disagree” option in the questionnaire was translated as “I don’t know” in Armenian. This might have

misguided some of the students. However, as the answer choices were presented in the agreement scale of 1-5, this difference in translation may not have affected the survey results dramatically.

We found some inconsistencies in the students' responses to similar items in the survey. Examples include reported frequencies of obtained papers by type, source, and total. These inconsistencies are not dramatic as to indicate careless responding, and we attribute them to students' inability to recall these facts accurately. Anyway, all the suspected outliers have been removed from the data. Accordingly, the data related to self-reported purchase of papers shows minimum numbers.

5.3. Delimitations

The results of this study should be delimited to the targeted fields of study: Social Sciences and Humanities, Science and Engineering, and Economics. They should also be delimited to undergraduate and master's level students at public universities only.

In terms of instruments, most of the questions and items defined academic dishonesty as submitting to professors purchased academic papers or those obtained for free. Other forms of academic dishonesty were not considered in this study.

5.4. Suggestions for Further Research

As many of the interviewees mentioned that the culture of academic dishonesty probably comes from school years, it may be useful to examine the cases of that phenomenon and its reasons in Armenian schools. We would also add that this culture could be explored from the family perspective too.

A replication study could also be valuable for being able to compare results across the two studies. This would allow us to evaluate the reliability and generalizability of the results of this study.

NOTE: The content of this report may not coincide with the views of the Open Society Foundations-Armenia. Views and opinions expressed in this analysis belong to Kristine Goroyan, Narine Gevorgyan, Lilit Manvelyan, Sona Budaghyan, Sirush Vardazaryan and Hasmik Bisharyan who are responsible for the content of the document. The views expressed reflect those of the authors and are not endorsed by the Open Society Foundations-Armenia or its Board, and consequently, do not reflect the positions or views of the Open Society Foundations-Armenia. This report was made possible through the full financial support of Open Society Foundations-Armenia, under its Education Programs, grant number N18727.

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Appendix A: Interview Questions for RA Ministry of Education and Science

1. Is there any provision relating to academic dishonesty in the legislation?
2. If yes, how are academic dishonesty and its types defined there? Have there been attempts to publicize it?
3. If no, do you think that academic dishonesty, particularly the dishonest purchase of academic papers, is an issue that should be included in the legislation?
4. Who controls the discovery of cases of academic dishonesty? Does the Ministry control the existence and implementation of points related to academic dishonesty in the regulations of the Universities?
5. Have you ever been informed about cases of academic dishonesty, particularly purchase of academic papers in universities? What measures have been taken?
6. Are you aware about the existence of individuals, centers and online services that sell academic papers? Have any measures ever been taken in this respect?
7. If respective changes are made and measures are taken on the Government level, to what extent will it change the situation?
8. In your opinion, what are the main reasons of dishonest purchase of academic papers among students of public universities of Armenia?
9. How can the culture of academic integrity be encouraged in the universities?

Appendix B: Interview Questions for National Center for Quality Assurance Foundation

1. What type of cooperation is there between the National Center for Quality Assurance Foundation and the Government?
2. Do you make clear-cut requirements to universities regarding the inclusion of mechanisms to deal with academic dishonesty in their regulations?
3. Does the responsibility for ensuring academic integrity lie only on the universities' shoulders, or does NCQA also bear some responsibility?
4. Are you aware about the existence of individuals, centers and online services that sell academic papers? What should be done about them?
5. In your opinion, what are the reasons of dishonest purchase of academic papers among students?
6. How can the culture of academic integrity be encouraged in the universities?
7. Should regulations be developed only on the university level or on the Government level as well?

Appendix C: Interview Questions for University Faculty and Administrative Staff

Warm-up questions

1. In your opinion, what are the underlying reasons of academic dishonesty (cheating, buying papers, etc.) in the public universities of Armenia?
2. Have you ever been informed about cases of academic dishonesty? Do the faculty handle these cases themselves? Should they? Do our universities have policy to deal with it?

3. Who is responsible for promoting academic honesty in universities - government, universities, faculty members, students?

Factors influencing students' motivation

4. What are the factors that influence the students' motivation to write the academic papers themselves
5. Do the students choose the topics of academic papers themselves or are they assigned them? Are those topics limited? What about those students who are not quick decision makers and need more time to choose
6. What do you think, are there any alternative tasks that could be assigned to students instead of papers
7. How often do the students receive tasks for which they do not have literature available to them (literature is outdated or is in foreign language)? Have you noticed that these tasks are more plagiarized

Students' awareness and professor-student interaction

8. How well are the students prepared for writing academic papers? Do they get information about summarizing, synthesizing, quoting, citing?
9. Would the students' understanding of academic integrity policies influence cheating behavior?
10. What do you do in case you find plagiarized content in the students' academic papers? How do you try to find out whether the paper has been written by the student?
11. Do the students receive only a final grade for the academic paper, or does the grade have several components? Do students and professors meet frequently to discuss progress?

Faculty awareness of the sources of purchase

12. Are you aware that there exist individuals and centers that sell academic papers? What do you think about the phenomenon? How can this kind of business be controlled?

Perceived peer behavior

13. Do you think that honest students may be encouraged to cheat as they see that the dishonest ones (students or even faculty themselves) remain unpunished and get higher grades/positions? Do you have any suggestion about this? "Will cheater-students become cheater-employees tomorrow"?

The functions of Codes of Ethics

14. How well do the codes of ethics or regulations work?
15. To what extent can the honor codes prevent academic dishonesty?

Different reasons underlying cheating

16. In your opinion, is this type of academic dishonesty gender-related, age-related, or department-related? Do the undergraduate students purchase more academic papers than the graduate ones?
17. What do you think, is there any connection between our religion/culture and academic dishonesty?

Promoting the culture of academic honesty

18. How can we promote the culture of academic honesty in Armenian universities?
19. Do you take any steps for the students to realize the importance of their own work? E.g. the opportunity to publish the work in different journals.

Sum-up

20. To sum up, what main steps should be taken to prevent the dishonest purchase of the academic papers by the students?

Appendix D: Interview Questions for Specialized Centers

1. Who are your customers (female or male students, undergraduate or graduate students, students from Humanities and Social Sciences, Economics or Science and Engineering)?
2. How many customers do you have per day/week/year?
3. What are some of the conditions for writing the papers? E.g. will the writer make changes if the students get feedback from the professor?
4. Who are the writers? What are they specialized in?
5. What sources and materials do they use?
6. Does your center function legally? Is it registered?

Appendix E: Questionnaire Survey for Students

Dear participant, please, fill in the survey below which addresses the problem of dishonest purchase of academic papers in state universities of Armenia. Dishonest purchase of academic papers is a form of cheating whereby a student acquires or orders a paper for his/ her academic assignment from an individual or business for money.

This survey is part of a faculty-student collaborative research project which is sponsored by Open Society Foundations - Armenia. The surveys are ANONYMOUS. Thank you for your honest opinion.

SECTION 1:

1. Age: _____
2. Gender: Female ___ Male ___
3. Marital status: Single ___ Married ___
4. Children: Yes ___ No ___
5. What culture do you identify yourself with?
 Armenian ___ Yezidi ___ Iranian ___ Other (please specify): _____
6. Your academic program: _____
7. Year of study: Undergraduate 1 ___ 2 ___ 3 ___ 4 ___ 5 ___
 Graduate 1 ___ 2 ___
 Other (please specify): _____
8. What has been your employment status throughout your current academic study?
 Mostly full-time ___ Mostly part-time ___ None ___

SECTION 2:

9. Which of the points mentioned below best describe academic integrity in your opinion? (circle all that apply)

- a) Performing academic work presenting another person’s words or ideas as your own
- b) Caring about the University and its students
- c) Performing academic work without cheating and fabrication
- d) Actively participating in University life

Please, read the statements below and mark them based on the following Likert scale:

- 5 – Strongly Agree
- 4 – Agree
- 3 – Neither Agree nor Disagree
- 2 – Disagree
- 1 – Strongly Disagree

10. My fellow students understand what academic integrity means.	5	4	3	2	1
11. I understand what academic integrity means.	5	4	3	2	1
12. My fellow students follow the values of academic integrity when they write academic papers.	5	4	3	2	1
13. What are the main reasons for unethical purchase of academic papers?					
a. Models of dishonest academic behavior among peers	5	4	3	2	1
b. Low awareness about policies on academic integrity in universities	5	4	3	2	1
c. Need to get higher grades	5	4	3	2	1
d. Need to get a scholarship	5	4	3	2	1
e. Lack of skills to write academic papers	5	4	3	2	1
f. Lack of available literature	5	4	3	2	1
g. Unreasonable academic load	5	4	3	2	1
h. Unreasonable deadlines	5	4	3	2	1
i. Lack of guidance from the professor (supervisor)	5	4	3	2	1
j. Limited choice of topics	5	4	3	2	1
k. Assignment of the topic by the professor	5	4	3	2	1
l. Heavy involvement in non-academic activities (work, family, etc.)	5	4	3	2	1
m. Lack of interest towards the chosen profession/course	5	4	3	2	1
n. Laziness	5	4	3	2	1
o. Desire to learn	5	4	3	2	1
p. Low admission score	5	4	3	2	1

q. Lack of more practical tasks	5	4	3	2	1
p. negligible consequences for cheating	5	4	3	2	1
14. Based on my observations, dishonest purchase of academic papers is more common among:					
a. Female students	5	4	3	2	1
b. Male students	5	4	3	2	1
c. Undergraduate students	5	4	3	2	1
d. Graduate students	5	4	3	2	1
e. Students of Humanities and Social Sciences	5	4	3	2	1
f. Students of Science and Engineering	5	4	3	2	1
15. My university professors, administration and other state officials are good role-models for students to follow the values of academic integrity.	5	4	3	2	1
16. There is nothing wrong about submitting a purchased academic paper to my instructor.	5	4	3	2	1
18. In my university, students regularly meet, discuss and get helpful feedback from their professors in the process of writing academic papers.	5	4	3	2	1

SECTION 3:

22. How many fellow students who have purchased academic papers do you know? Please write a number starting from 0 (zero).

_____ fellow students

23. How many times have you submitted to your instructor an academic paper written by another person during your study? If you are unwilling to admit, feel free to skip this question.

Never _____ Once _____ Twice _____ Three times _____ More than three times _____

If you answered “Never” to question 23 above, skip to question 26. Otherwise, proceed to Question 26.

24. How many times have you obtained academic paper(s) free or for money from the following sources. Write a number starting from 0 in the empty cells. If you are unwilling to admit, feel free to skip this question.

	Paid	Free
A special center (shop) that sells such academic papers		
Internet		
A professor		
Another student		
Other (please specify) _____		

25. How many times have you obtained academic paper(s) free or for money for the following assignments? Write a number starting from zero in the empty cells. If you are unwilling to admit, feel free to skip this question.

	Paid	Free
Literature review for a course		
Term Paper		
Capstone for BA program		
Capstone for MA program		

26. According to your information, **how much does it cost** to acquire the academic papers mentioned below?

Paper	Price
Literature review for a course	
Term Paper	
Capstone for BA program	
Capstone for MA program	

26. If you have anything else to write on this topic, please write in the space below:

Thank you for your response!