

Academic Dishonesty among Iranian Students

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Abstract

Recent years have witnessed a growth in academic dishonesty of different kinds in Iran. The cases of fraud, plagiarism, cheating etc. have been so frequent that some people in Iran have tried to restore international credibility to the Iranian academia. We believe academic dishonesty will have negative impact not only on the academia, but also on the society, and one way to tackle it is to study different factors related to it. Therefore, we conducted a study on students in three faculties at University of Tehran. Participants were 300 BA university students (female = 182, male = 118) ranging in age from 17 to 34 years ($M = 20.55$ and $SD = 2.04$) from three faculties at University of Tehran: Faculty of Psychology and Educational Sciences, Faculty of Management and Faculty of Social Sciences. Although we found small differences among students in three faculties, we found great differences among students from different years of study as regard to their perceptions of professors' academic dishonesty, their classmates' academic dishonesty, and righteousness of being academically dishonest.

Each participant in this study was briefed about the nature of research and was assured about his/her anonymity. Only after getting participant's informed consent, we delivered the questionnaire.

Academic Dishonesty among Iranian Students: A Comparative Survey on Three Faculties at University of Tehran

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Abstract. Recent years have witnessed a growth in academic dishonesty of different kinds in Iran. The cases of fraud, plagiarism, cheating etc. have been so frequent that some people in Iran have tried to restore international credibility to the Iranian academia. We believe academic dishonesty will have negative impact not only on the academia, but also on the society, and one way to tackle it is to study different factors related to it. Therefore, we conducted a study on students in three faculties at University of Tehran. Participants were 300 BA university students (female = 182, male = 118) ranging in age from 17 to 34 years ($M = 20.55$ and $SD = 2.04$) from three faculties at University of Tehran: Faculty of Psychology and Educational Sciences, Faculty of Management and Faculty of Social Sciences. Although we found small differences among students in three faculties, we found great differences among students from different years of study as regard to their perceptions of professors' academic dishonesty, their classmates' academic dishonesty, and righteousness of being academically dishonest. **Keywords:** Iran; Academic Dishonesty; Plagiarism; Exam Cheating; University of Tehran

Introduction

Academic dishonesty and misconduct has been one of the main issues that academia. Being too tough on it will disperse students (clients?) and overlooking it will likely culminate in debacle. This is why the

majority of universities take a middle stance which is more likely inclined towards loosening monitoring and measures. Therefore, whether it is in the form of plagiarism, ghost authorship, cheating or fabricating data, etc., academic dishonesty or misconduct is prevalent all over the world. The advent of Internet has been a double edge sword. On one hand we can now track and find instances of academic dishonesty across languages and cultures, and on the other hand, the very nature of Internet has made it much easier to become a successful but unethical academician. This is not simply about the "copy-paste" capability of electronic resources or even "automatic paraphrasing" which make it almost impossible to track-down and hunt instances of plagiarism, but about a complex set of social, economic, political, and maybe racial factors that now govern the industry of academic writing and publishing. For example, as the prosperous world is now connected to the third world in a "high speed" manner, intellectual works are now easily and openly outsourced to the third world researchers (see for example Kapoor ; Havens & Lotz), and therefore tracking them down has become complicated.

One major concern in the academia has always been student academic dishonesty. Students are the future of the science and educating and correctly evaluating them is vital in continuity of scientific flourishing. This is why universities continuously update their terms of academic conduct, particularly in regard to utilizing new communication technologies, though this does not stop here. Now, rules are increasingly extended to other related fields like professors' relationships with students, receiving money in return for educational-research work, or self-plagiarism (see for example Roig ; Roig ; Pellegrini and Shahghasemi & Akhavan).

Iran is known as a culture in which "knowledge" has a special place. For centuries, Iranian and Persian literature has been full of poems, admonitions and advices that the human life is worth nothing without knowledge, and in our time, Iranians are eager to show off by acquiring academic degrees. Today, about 4.5 million Iranians are studying in Iranian universities while another 100 hundred thousands are studying abroad. It's a big figure for a country of 80 million population with economic difficulties and limited international relations. Anyway, this bubble growth has entailed negative consequences including replacement of quality with quantity (see for example Varij Kazemi and Dehghan Dehnavi for detail). As a result, this seemingly bright profile has been racked in the last decade by several international debacles. First, Declan Butler from the famous journal *Nature* , accused several Iranian officials of plagiarism and academic misconduct, and after that, Iranians were frequently cited by bodies like *Plagiarism Watch* and others as more instances of plagiarism were identified. It was a great defamation for Iranian academia and many professors and students have been expelled by authorities and university deans in reaction; moreover, some Iranian scholars initiated a website named *Professors against Plagiarism* to monitor academic publishing work by Iranian scholars and whistle blow plagiarized papers when are published in international journals.

We believe that the issue of academic dishonesty should be tackled but we don't think expelling cheaters or whistle blowing is enough. We rather think providing an education which is rigorous and help students to become aware of what ethical writing and publication is and how to do it, is a vital and practical step in removing two main causes of academic misconduct in Iran –namely, lack of education about academic misconduct, and lack of fear of punishment. Certainly, when students are aware of what academic dishonesty is, professors will become more cautious not to cross red lines of ethical writing. Doing research on this subject will help us bring more light on this problem and authorities will probably be forced to "do something" about it.

Review of Literature

Some researchers (for example Shahghasemi & Akhavan , Ataie-Ashtiani , Hadji, et al. , Shahghasemi , Varij Kazemi & Dehghan Dehnavi , and, Saberi-Karimian, et al. among others) have recently taken up the topic of academic misconduct and dishonesty in Iran and published papers in international journals. Since these papers are in English and therefore accessible to readers of this journal, in this section we only include

those studies which have been published in Persian journals. We found at least 24 of these studies but here we include only 5 of them which are more or less representative of the results of others.

Nakhaei & Nikpour conducted a research to assess the prevalence of research cheating among medical students. They employed an all-inclusive sampling method and all 104 final year medical students at their university participated in their study. They designed a questionnaire which examined seven main kinds of academic misconducts based on methodology books and focus groups they had carried out with some researchers. Students were asked to assess relative frequency of each kind of academic misconduct and rate their own opinions on a Likert scale. Based on their analysis, students reported 37% of all students fabricate data while 40% of all students manipulate the data in order to produce the desired results. Also, participants estimated that between 25 to 50 percent of theses use plagiarized materials. Nakhaei and Nikpour concluded that if their results was generalizable to the whole country, we should take this as a serious problem in our educational system.

Zamani, Azimi & Soleymani conducted a study to find how students in Espahan University ranked effective factors in plagiarism. They employed an applied descriptive-survey study and their sample was consisted of 300 university students. Their instrument was a researcher-made questionnaire which after analysis revealed that their participants ranked credentialism and motivation to have better scores as the main factors predicting student plagiarism, respectively, followed by lack of self-effectiveness feeling, lack of proper mechanisms to detect and punish plagiarism, sociocultural factors, insufficient education as to how to write academically and ethically, indifference of professors about plagiarism, lack of fear of being punished for plagiarism, etc.

Jamshidi Boroujeni, Saeidi, & Heydari studied level of awareness of students about examples of plagiarism and factors influencing it. They conducted a survey using a researcher-made questionnaire. Their statistical society was all graduate students in Shahid Chamran University of Ahvaz, and using Morgan table, they picked up 354 students by random sampling. Jamshidi Boroujeni and her colleagues found that there was a more or less moderate awareness of plagiarism among students. Moreover, they found that plagiarism was mainly due to educational, economic, technological, social, and cultural factors. They also found that the main reason for plagiarism and academic dishonesty was incompetency in doing research, economic ability to pay a ghost author, credentialism, failing to do one's academic assignments, procrastination and lack of good education about the proper way of paper writing, are among the most important reasons why graduate students turn to plagiarism.

Abedini, Khezzadeh, & Zamani investigated the relationship between students' religious orientation, awareness of the consequences of academic dishonesty and their attitudes toward plagiarism and academic achievement. Their statistical population included students of the Espahan University and Espahan Medical Science University. They used Categorical Randomized sampling method to select 263 students. Their results showed that there was a significant difference between female and male attitudes towards Plagiarism. Based on students' major, there were also differences between the consequences of the Plagiarism and students' attitudes towards Plagiarism. In this study there was a strong relationship between religious orientation and students' attitudes towards plagiarism, and this is why Abedini and her colleagues recommend that empowering religiosity of the students would play an important role in reducing academic dishonesty.

Hemati Alamdarloo, Shojaee, Salimi, & Arjmandi compared plagiarism and its risk factors among talented and ordinary students at Shiraz University. Their statistical population included all students at Shiraz University and their sample size was consisted of 156 students (78 talented students and 78 ordinary students). The behavior of plagiarism questionnaire and effective factors on plagiarism questionnaire were used to measure plagiarism and its effective factors. Using multivariable analysis of variance, they revealed that talented students were far less likely to commit different kinds of plagiarism and academic dishonesty. They also found that attitude on plagiarism, self-efficiency, credentialism, lack of education on academic dishonesty, and lack of fear of punishment were among the most effective factors which contribute in plagiarism prevalence among students.

Method

Participants

Participants were 300 BA university students (female = 182, male = 118) ranging in age from 17 to 34 ($M = 20.55$ and $SD = 2.04$) from three faculties at University of Tehran: Faculty of Psychology and Educational Sciences, Faculty of Management and Faculty of Social Sciences. Requirements for participation were as follows: (a) being currently enrolled as a BA student; (b) having no history of psychological disorders; and (c) not identified as supper senior or expelled student. Table 1 represents participants' demographic information.

Table 1. Demographic characteristics of sample

Variable		Gender		
		Male	Female	Total
Year	First	38	84	122
	Second	27	49	76
	Third	25	24	49
	Fourth	28	25	53
Faculty	Psychology	34	56	90
	Management	51	69	120
	Social Sciences	33	57	90
Age category	< 20	30	81	111
	20 to 30	88	100	188
	> 30	0	1	1

We used proportionate stratified sampling to reach greater precision, guard against an unrepresentative sample, and to ensure that we obtain sufficient sample points to support a separate analysis of any subgroups . About 85 percent of sample approached agreed to participate in the study and others either did not meet the criteria of inclusion, refused to participate, or returned an incomplete questionnaire. Data were collected in classrooms, lobbies, or food courts where students were briefed, agreed to participate and received the form. We made it clear that participation was completely optional and their answers would not affect their grades or anything else. Given the sensitivity of our subject, the students were assured that the whole procedure would remain anonymous so they could comfortably answer our questionnaire. Generally, it is compulsory that studies that include humans as research participants, provide an IRB certificate to show that academic ethics has been well regarded. We, unfortunately, don't have such things in Iran. But, as we described above, all measures of ethical research have been observed here.

Measure

Research instrument was a self-report 22-item Questionnaire, which included five demographic questions and 17 items directly asking how much the respondents had experienced or witnessed academic dishonesty (hereafter AD) in their immediate academic environment; the respondents were also asked to what extend they themselves participated in AD of any kind. Respondents scored each item either on a 5-point Likert scale, ranging from 1 = *completely disagree* to 5 = *completely agree* , or on a 4-point scale ranging from 1 = *never* to 4 = *always* . Initial pool of items was gathered by scanning the literature and reported instruments in similar studies. We refined the order, content and response range of items through an interaction with

masters and professors of the field to reach the last version. Some items were meaningful and could reflect an important aspect of our interest (such as: *I know social problems that are related to my major*). While some others were computed to represent a wider significant concept (such as: *self-reported AD* or *exam cheating*).

Results

In this study we aimed at exploring the perceptions of academic dishonesty (AD) committed by students and professors. We also asked questions to estimate the degree to which students were concerned about social problems and to realize how they perceived their special discipline as an instrumentally important in solving those problems. In addition, demographics were used as factors to explain variance among perceived AD. Prior to main analyses, we conducted an exploratory analysis to diagnose outliers and verify normality of distributions. Univariate and multivariate outliers, considering leverage, Cook's D, and Mahalanobis distance indices, were limited to the edge of normal range .

Prevalence of AD

A set of frequency distributions is presented in Table 2. Rows represent answers range for each component of AD. Chi-square tests were used to diagnose any nonrandom difference between expected and observed frequencies.

Table 2. Frequency distribution and chi-square test for each item

item	answers				
knowing current problems in major	com agree	agree	no idea	disagree	com disagree
Observed N	72	191	27	7	2
χ^2	410.816	df: 4			
sig	.000				
witnessing_classmate_exam_cheating	never	once	sometimes	always	always
Observed N	7	10	121	162	162
χ^2	247.120	df: 3			
sig	.000				
Prevalence_of_professors' AD	com agree	agree	no idea	disagree	com disagree
Observed N	70	53	148	28	0
χ^2	229.478	df: 4			
sig	.000				
classmate_AD	never	once	sometimes	always	
Observed N	150	32	98	16	
χ^2	155.135	df: 3			
sig	.000				
self_AD	never	once	sometimes	always	
Observed N	245	26	22	6	
χ^2	520.010	df: 3			
sig	.000				
classmate_Plagiarism	never	once	sometimes	always	
Observed N	142	30	97	25	
χ^2	129.102	df: 3			
sig	.000				
self_Plagiarism	never	once	sometimes	always	
Observed N	214	36	45	4	

item	answers				
χ^2	358.298	df: 3			
sig	.000				
cheating_favorability	com agree	agree	no idea	disagree	com disagree
Observed N	34	58	88	62	57
χ^2	24.696	df: 4			
sig	.000				
context_support_for_Cheating	com agree	agree	no idea	disagree	com disagree
Observed N	22	66	118	65	29
χ^2	97.167	df: 4			
sig	.000				
unfair_Scoring	never	once	sometimes	always	
Observed N	57	31	181	23	
χ^2	221.699	df: 3			
sig	.000				
unfair_Article_evaluation	never	once	sometimes	always	
Observed N	79	68	71	95	
χ^2	210.136	df: 3			
sig	.000				
plagiarism_in_Articles	com agree	agree	no idea	disagree	com disagree
Observed N	21	68	71	95	44
χ^2	53.291	df: 4			
sig	.000				
plagiarism_no_referencing	com agree	agree	no idea	disagree	com disagree
Observed N	11	52	65	126	45
χ^2	118.241	df: 4			
Sig					
hope_to_have_contribution	com agree	agree	no idea	disagree	com disagree
Observed N	119	133	36	6	5
χ^2	256.301	df: 4			
Sig	.000				
knowledge_instrumentality	com agree	agree	no idea	disagree	com disagree
Observed N	83	132	47	33	5
χ^2	160.600	df: 4			
Sig	.000				
CV_importance	com agree	agree	no idea	disagree	com disagree
Observed N	91	124	49	27	9
χ^2	147.800	df: 4			
Sig	.000				

Com.: completely

In the first item, we asked the degree to which students are aware of current problems related to their major. Responses were significantly gathered in 'agree' and 'completely agree' ($\chi^2 = 410.816$, $df = 4$, $p < .001$). Many students thought they would have a contribution in their society ($\chi^2 = 256.301$, $df = 4$, $p < .001$) and perceived their special knowledge as helpful ($\chi^2 = 160.600$, $df = 4$, $p < .001$). For a significant number of students, having a rich CV and publication record was important ($\chi^2 = 147.800$, $df = 4$, $p < .001$).

Students reported frequently witnessing exam cheating by their classmates ($\chi^2 = 247.120$, $df = 3$, $p < .001$). Many students reported prevalence of academic dishonesty (AD) among professors ($\chi^2 = 229.478$, $df = 4$, $p < .001$). In contrast, most of them reported they had 'never,' or only 'once' cheated in exam(s) ($\chi^2 =$

155.135, $df=3$, $p<.001$). Students reported more AD by their classmates ($\chi^2=155.135$, $df=3$, $p<.001$) than by themselves ($\chi^2=520.010$, $df=3$, $p<.001$). In addition, they perceived their classmates ($\chi^2=129.102$, $df=3$, $p<.001$) plagiarizing more than they themselves do ($\chi^2=358.298$, $df=3$, $p<.001$).

Some students thought that cheating in exams is acceptable, or they had no idea about it (completely agree= 34, agree= 58, and no idea= 62). Although, most answers were cumulated in disagree and completely disagree points ($\chi^2=24.696$, $df=4$, $p<.001$), but that number of agreeing or completely agreeing with cheating acceptability is considerable and could be an index of what exists in the society. In the same way, many students had no idea of contextual support for cheating or AD in their faculties ($\chi^2=97.167$, $df=4$, $p<.001$). Surprisingly, many others agreed (66 persons) or completely agreed (22 persons) with perceiving the existence of contextual support for cheating. Most students disagreed or completely disagreed they had copy-pasted from Internet ($\chi^2=53.291$, $df=4$, $p<.001$) or used others' writings without citation ($\chi^2=118.241$, $df=4$, $p<.001$). Nevertheless, the number of agreeing or even completely agreeing students is not ignorable (copy-pasting from Internet= 89 and copying without citation= 63).

Students thought their professors evaluate their works unfairly ($\chi^2=221.699$, $df=3$, $p<.001$). They also complained about unfair article evolution by agreeing with 'my professors do not read the articles in order to score' ($\chi^2=210.136$, $df=3$, $p<.001$).

Demographics and AD

In this research we included male and female students from different levels and groups (years and faculties). Here are our results for gender, major and level as factors. We used multivariate analysis of variance (MANOVA) to compare self_AD, classmate_AD, professors' AD, contextual_AD, and plagiarism across these groups. Table 3 shows means separated by gender.

Table 3. Means separated by gender

variable	Gender	Mean	Std. Deviation	N
self_AD	man	5.622	1.691	111
	woman	4.947	1.501	169
classmate_AD	man	7.819	2.277	111
	woman	7.136	2.182	169
professors' AD	man	7.451	1.463	111
	woman	7.497	1.622	169
contextual_AD	man	24.712	3.558	111
	woman	24.557	3.264	169
plagiarism	man	6.459	2.044	111
	woman	6.846	1.939	169

Before applying multivariate F-test, we reviewed its statistical presumptions to make sure that our data allowed MANOVA to produce reasonable results. Dependent variables (self_AD, classmate_AD, professors' AD, contextual_AD, plagiarism) correlated significantly ($R: -.154$ to $.612$, $P<.01$). Box's Test proved equality of covariance matrices (Box's $M=11.934$, $F_{15, 222035.970}=1.496$, $P=.097$). Levene's Test showed that error variances of all dependent variables were equal among groups (self_AD: $F_{1, 278}=2.571$, $p=.110$; classmate_AD: $F_{1, 278}=3.151$, $p=.077$; professors' AD: $F_{1, 278}=1.643$, $p=.201$; contextual_AD: $F_{1, 278}=.661$, $p=.417$; plagiarism: $F_{1, 278}=.160$, $p=.690$). Table 4 includes both multivariate and between subject tests to examine mean differences between male and female respondents.

Table 4. Multivariate and between subject tests to examine mean differences between male and female

	Multivariate test	Multivariate test
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Effect	Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Gender	Pillai's Trace	.043	2.455	5	274	.034	.043
	Wilks' Lambda	.957	2.455	5	274	.034	.043
Source	Dependent Variable	Test of between subject Type III Sum of Squares	Test of between subject df	Test of between subject Mean Square	F	Sig.	Partial Eta Squared
Gender	self_AD	30.514	1	30.514	9.357	.002	.033
	classmate_AD	31.319	1	31.319	7.077	.008	.025
	professors'_AD	.145	1	.145	.060	.807	.000
	contextual_AD	1.620	1	1.620	.142	.707	.001
	plagiarism	10.018	1	10.018	2.551	.111	.009

Multivariate F was statistically significant ($F_{5, 274} = 2.455$, $p = .034$) with an effect size of .043. This showed there was at least one mean difference (of the five dependent variable) between male and female. In order to examine difference source, we applied between subject test which runs univariate F-test for each dependent variable. As shown in the table, men (5.622) scored higher in self_AD than women (4.947) did ($F = 9.357$, $p = .002$, Eta Squared = .033). Men (7.819) outscored women (7.136) in reported classmate_AD ($F = 7.077$, $p = .008$, Eta Squared = .025), too. The Effect size was too small for both differences. There were no significant difference between men and women in terms of professors'_AD ($F = .060$, $p = .807$), contextual_AD ($F = .142$, $p = .707$), and plagiarism ($F = 2.551$, $p = .111$).

Table 5. Mean separated by education by years

variable	Year	Mean	Std. Deviation	N
self_AD	first	4.625	1.606	112
	second	5.222	1.680	72
	third	5.532	1.977	47
	fourth	6.180	1.945	50
classmate_AD	first	6.384	1.847	112
	second	7.444	1.971	72
	third	8.404	1.963	47
	fourth	8.640	2.028	50
professors'_AD	first	7.036	1.530	112
	second	7.958	1.551	72
	third	7.596	1.690	47
	fourth	7.600	1.340	50
contextual_AD	first	23.268	3.049	112
	second	25.167	3.411	72
	third	25.702	3.747	47
	fourth	25.800	2.603	50
plagiarism	first	6.661	1.966	112

second	6.806	1.990	72
third	6.745	2.080	47
fourth	6.620	2.029	50

Table 5 represents means of self_AD, classmate_AD, professors'_AD, contextual_AD, and plagiarism for groups with different level of education by year. We wanted to find out if there was a change in students' attitudes on AD across years. Again, MANOVA test was used, but this time with year as variance source. Covariance matrices were not significantly different (Box's M= 52.885, $F_{45, 101352.373} = 1.132$, $P = .252$). Error variances of all dependent variables were equal among groups: self_AD: $F_{3,277} = 2.113$, $p = .099$; classmate_AD: $F_{3,277} = 1.396$, $p = .244$; professors'_AD: $F_{3, 277} = .870$, $p = .457$; contextual_AD: $F_{3, 277} = 1.869$, $p = .135$; plagiarism: $F_{3, 277} = .061$, $p = .980$.

Table 6. Multivariate and between subject tests to examine mean differences between students with different education by year

Effect	Effect	Multivariate test Value	Multivariate test F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Year	Pillai's Trace	.249	4.987	15	825.000	.000	.083
	Wilks' Lambda	.760	5.242	15	754.034	.000	.087
Source	Dependent Variable	Test of between subject Type III Sum of Squares	Test of between subject df	Test of between subject Mean Square	F	Sig.	Partial Eta Squared
Year	self_AD	90.252	3	30.084	9.783	.000	.096
	classmate_AD	240.045	3	80.015	21.454	.000	.189
	professors'_AD	39.878	3	13.293	5.664	.001	.058
	contextual_AD	350.925	3	116.975	11.426	.000	.110
	plagiarism	1.383	3	.461	.115	.951	.001

Multivariate F confirmed difference among groups ($F_{15, 825} = 2.455$, $p = .034$) with a small but statistically significant effect size of .083. That is, students in different levels of education by year reported different levels of perceived AD, at least in one component. We subjected the data to a univariate F-test to see where the difference was.

Univariate F-value was significant for self_AD ($F = 9.783$, $p = .000$, Eta Squared= .096), classmate_AD ($F = 21.454$, $p = .000$, Eta Squared= .189), professors'_AD ($F = 5.664$, $p = .001$, Eta Squared= .058), and contextual_AD ($F = 11.426$, $p = .000$, Eta Squared= .110). Perception of plagiarism was not different among students with various educational level ($F = .115$, $p = .951$, Eta Squared= .001).

Further considerations using multiple comparisons for means showed that first year students (4.625) perceived significantly less self_AD than their third (5.532) and fourth (6.180) year peers did. Second year students

(5.222) expressed almost the same level of perceived self_AD as first year students. Perceived classmate_AD was also different among students. Students' level of belief in prevalence of AD grew significantly as they went from year one (6.384) to year two (7.444), from year two to year three (8.404), and from year three to year four (8.640). Interestingly, the changes in all three transformations are statistically significant. Students' reported levels of AD among professors grew significantly from the first (7.036) to the second year (7.958). It returned a bit back to a distance which was not significantly different from the first year (third= 7.596 and fourth= 7.600). In the case of contextual_AD which implies the degree to which students perceived their academic environment justified AD, we also have an interesting finding. Student's belief in existence of a somehow support for misconduct grew significantly up from the first (23.268) to the second year (25.167) and stayed almost flat (with a very slow positive slop) through the third and the fourth years.

Table 7. Multiple comparisons for mean between students with different education by years

Dependent Variable	(I) Year	(J) Year	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound
self_AD	first	second	-.597	.265	.150	-1.301
		third	-.907	.305	.019	-1.716
		fourth	-1.555	.298	.000	-2.348
	second	third	-.310	.329	1.000	-1.183
		fourth	-.957	.323	.020	-1.816
		fourth	-.648	.356	.420	-1.595
classmate_AD	first	second	-1.060	.292	.002	-1.836
		third	-2.020	.336	.000	-2.912
		fourth	-2.256	.328	.000	-3.129
	second	third	-.959	.362	.051	-1.922
		fourth	-1.196	.355	.005	-2.140
		fourth	-.236	.392	1.000	-1.278
professors'_AD	first	second	-.923	.231	.001	-1.537
		third	-.560	.266	.218	-1.267
		fourth	-.564	.261	.187	-1.257
	second	third	.363	.287	1.000	-.401
		fourth	.358	.282	1.000	-.391
		fourth	-.004	.311	1.000	-.831
contextual_AD	first	second	.564	.261	.187	-.128
		second	-1.899	.483	.001	-3.183
		third	-2.434	.556	.000	-3.912
	second	third	-2.532	.544	.000	-3.978
		fourth	-.535	.600	1.000	-2.130
		fourth	-.633	.589	1.000	-2.190
	third	fourth	-.098	.650	1.000	-1.825

Further we went on to examine how students from different faculties (Social Sciences, Management, and Psychology) differed in terms of self_AD, classmate_AD, professors'_AD, contextual_AD, and plagiarism. Descriptive table (Table 8) summarizes the condition. We could see some differences, but were they big enough to be mentioned as a systematic variance? Let's review MANOVA test to find out.

Table 8. Mean separated by faculty

Variables	Faculty	Mean	Std. Deviation	N
self_AD	Social sciences	5.272	1.782	81
	Management	5.426	1.987	115
	Psychology	4.847	1.622	85

classmate_AD	Social sciences	7.877	2.221	81
	Management	7.435	2.031	115
	Psychology	6.882	2.089	85
professors'_AD	Social sciences	7.642	1.316	81
	Management	7.661	1.566	115
	Psychology	7.035	1.721	85
contextual_AD	Social sciences	25.469	3.062	81
	Management	24.357	3.109	115
	Psychology	24.141	3.855	85
plagiarism	Social sciences	6.975	1.968	81
	Management	6.252	1.964	115
	Psychology	7.059	1.960	85

Box's test showed no significant difference between covariance matrices (Box's $M = 41.763$, $F_{30, 288737.406} = 1.355$, $P = .093$). Error variances for all dependent variables were equal among groups from three faculties (self_AD: $F_{2, 278} = 1.065$, $p = .346$; classmate_AD: $F_{2, 278} = .351$, $p = .704$; professors'_AD: $F_{2, 278} = 2.153$, $p = .118$; contextual_AD: $F_{2, 278} = 1.466$, $p = .233$; plagiarism: $F_{2, 278} = .050$, $p = .952$).

Table 9. Multivariate and between subject tests to examine mean differences between students from different faculties

Effect	Effect	Multivariate test Value	Multivariate test F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Faculty	Pillai's Trace	.094	2.728	10.000	550.000	.003	.047
	Wilks' Lambda	.908	2.720	10.000	548.000	.003	.047
Source	Dependent Variable	Test of between-subject Type III Sum of Squares	Test of between-subject df	Test of between-subject Mean Square	F	Sig.	Partial Eta Squared
Faculty	self_AD	16.870	2	8.435	2.535	.081	.018
	classmate_-AD	41.303	2	20.652	4.661	.010	.032
	professors'_-AD	22.644	2	11.322	4.717	.010	.033
	contextual_-AD	85.858	2	42.929	3.849	.022	.027
	plagiarism	40.141	2	20.070	5.203	.006	.036

As multivariate F-test shows, there was a significant difference ($F_{10, 550} = 2.728$, $p = .047$) with a small effect size of .047 among groups. Univariate F clarified that classmate_AD ($F = 4.661$, $p = .010$, Eta Squared = .032), professors'_AD ($F = 4.717$, $p = .010$, Eta Squared = .033), contextual_AD ($F = 3.849$, $p = .022$, Eta Squared = .027), and plagiarism ($F = 5.203$, $p = .006$, Eta Squared = .036) differed in different faculties, although, self_AD was not different among students from various faculties ($F = 2.535$, $p = .081$, Eta Squared = .018).

Multiple comparisons for means showed that Psychology students (6.882) perceived significantly less classmate_AD than Social Sciences students did (7.877). Management students perceived fairly the same level of classmate_AD (7.435) as Social Sciences students did. Their mean distance from Psychology students was not significant, too. Psychology students (7.035) scored less than Social Sciences (7.642) and Management students (7.661) in perceived AD among professors. Management and Social Sciences students had almost the same attitude towards AD among professors. Students from Faculty of Social Sciences (25.469) reported more contextual_AD than their peers from Faculty of Management (24.357) and Faculty of Psychology (24.141). Management and Psychology students perceived equal levels of contextual_AD. Students' belief in the existence of plagiarism was different between Management (6.252) and Social Sciences students (6.975), and between Management and Psychology students (7.059). Means were near between psychology and Social Sciences students.

Table 10. Multiple comparisons for means among students from different faculties

Dependent Variable	(I) Faculty	(J) Faculty	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Lower Bound
classmate_AD	Social Sciences	Management	.442	.305	.447	-.294
		Psychology	.994	.327	.008	.207
professors'_AD	Management	Psychology	.552	.301	.203	-.173
	Social Sciences	Management	-.019	.225	1.000	-.560
		Psychology	.607	.241	.037	.027
	Management	Psychology	.626	.222	.015	.092
contextual_AD	Social Sciences	Management	1.113	.484	.067	-.054
		Psychology	1.328	.518	.033	.079
	Management	Psychology	.215	.478	1.000	-.935
plagiarism	Social Sciences	Management	.723	.285	.035	.037
		Psychology	-.083	.305	1.000	-.818
	Management	Psychology	-.807	.281	.013	-1.483

Age, Perception of Effectiveness for One's Major, and DA

In this section we will review correlation of age and perception of effectiveness of one's major (operationalized by knowledge of current problems in students' major, students' hope to have a contribution, perceived knowledge instrumentality, and perceived CV importance) to various types of AD. We used Pearson's moment coefficient to examine possible associations. Table 11 represents the zero-order correlation coefficients.

Table 11. Correlation coefficient matrix

	1	2	3	4	5	6	7	8	9
1.age									
2.knowing_--									
current_-									
prob-									
lems.in_-									
major									
3.hope_-	.072	.041							
to_have_-									
contribu-									
tion									

4.knowledge176**		.119*	.386**					
instru- mental- ity								
5.CV_im- portance	.179**	-.027	.196**	.372**				
6.self_ AD	.259**	-.035	.203**	.157**	.047			
7.classmate_ AD	.366**	-.089	.137*	.174**	.080	.596**		
8.professors' AD	.072	-.073	.063	.093	.039	.169**	.286**	
9.contextual AD	.234**	-.087	.032	.109	.068	.217**	.612**	.562**
10.plagiarism	.067	-.030	-.112	-.088	.000	-.281**	-.154**	-.078

Age was positively related to knowledge_instrumentality ($r = .176$, $p < .01$), CV_importance ($r = .179$, $p < .01$), self_AD ($r = .259$, $p < .01$), classmate_AD ($r = .366$, $p < .01$), and contextual_AD ($r = .234$, $p < .01$). There was not significant association between age and knowing_current_problems_in_major ($r = -.093$, $p > .05$), hope_to_have_contribution ($r = .072$, $p > .05$), professors'_AD ($r = .072$, $p > .05$), and plagiarism ($r = -.067$, $p > .05$).

Knowing_current_problems_in_major was not significantly related to self_AD ($r = -.035$, $P > .05$), classmate_AD ($r = -.089$, $p > .05$), professors'_AD ($r = -.073$, $p > .05$), contextual_AD ($r = -.087$, $p > .05$), and plagiarism ($r = -.030$, $p > .05$). Hope_to_have_contribution was positively correlated to self_AD ($r = .203$, $p < .01$) and classmate_AD ($r = .173$, $p < .05$). Professors'_AD ($r = .063$, $p > .05$), contextual_AD ($r = .031$, $p > .05$), and plagiarism ($r = -.112$, $p > .05$) were not significantly associated with hope_to_have_contribution.

Knowledge_instrumentality with the same pattern correlated positively to self_AD ($r = .157$, $p < .01$) and classmate_AD ($r = .174$, $p < .05$), but not to professors'_AD ($r = .093$, $p > .05$), contextual_AD ($r = .109$, $p > .05$), and plagiarism ($r = -.088$, $p > .05$). CV_importance was not significantly related to self_AD ($r = .047$, $p > .05$) and classmate_AD ($r = .080$, $p > .05$), professors'_AD ($r = .039$, $p > .05$), contextual_AD ($r = .068$, $p > .05$), and plagiarism ($r = .000$, $p > .05$).

Conclusion

Beside the fact that our results showed more or less similar results with those found earlier by other researchers, we found other interesting results. For example, when we asked our participants about the prevalence of AD among their professors, only 7 of our 300 participants (about 2 percent) accepted to choose "never." This low trust in university system must have some implications for university authorities, though one good future study could be carried out on the effect of general distrust in the wider society on student distrust in academic righteousness. Another interesting finding of this study is that half of our respondents admitted they had witnessed classmates' AD while only 16% said they themselves had committed AD; this means participants in this study were not honest when reporting their own AD.

As some previous studies show (see for example Aiken , Davis, Grover, Becker, & McGregor , Tibbetts , Hensley, Kirkpatrick, & Burgoon among others), female students are generally less likely to commit Ad, and this is what our study has revealed. We should note, however, that some scholars recommend the possibility of men more inclined to report self_AD should also be studied, or said the results of gender differences in AD in relation to gender should be scrutinezed more closely before making general claims .

Another important finding of our study is that by accumulating experience and shared understating of the academic environment, students more believe in the existence of some kind of "dirty world" in the academia. Every year students become more confident that academia is a place in which cheaters become more successful. Of course some of them might become tempted not stay behind.

Plagiarism, which as we said earlier has really damaged the reputation of the Iranian academia in the last decade, has not been taken seriously by our participants. Plagiarism (which Miguel Roig takes to be sometime "the most serious form of research misconduct," is prevalent in Iran and our experience, our present survey, and our review of literature show is suffer deeply from lack of awareness. Not only students, but also many professors in Iran are unaware of rules of using other people's work.