

Academic Integrity, Cheating and Academic Performance among University Students GC University Lahore, Pakistan

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Abstract

The present research investigated to find out the relationship among academic integrity, cheating and academic performance of male and female students of different programs of public and private sector universities. 150 students (72 male and 78 female) from public and private universities were recruited through convenient sampling. Results of the Pearson product moment correlation matrix revealed that there is a significant positive correlation between academic cheating and academic performance and whereas there is a no significant negative relationship of academic integrity with academic cheating and academic performance of university students. Results of independent sample *t*-test revealed that males and females differ significantly on academic integrity. Results of independent sample *t*-test also revealed public and private sector university students differ significantly on academic integrity. Results of Analysis of Variance indicated that there is a high significant difference among scores of students belonging to programs of physiotherapy, psychology, public administration, sport sciences and anthropology on academic integrity. Moderation analysis revealed that education level is a significant positive moderator between academic cheating and academic performance. The study showed that academic cheating has a significant role in academic performance. The findings of this study will be beneficial for educational psychologists, educational institutions, teachers, parents and students. It can be also helpful for Government and ministry of education to improve their educational system.

Keywords: *Academic integrity, cheating, performance, public and private sector*

Academic cheating is defined as “the act of giving or receiving unauthorized assistance in academic tasks and assignments or receiving credit for plagiarized work” (Storch, & Storch, 2002, p.248). Integrity is defined as the quality of being honest and having strong moral principle: it can be personal, professional, academic and artistic integrity (Oxford Advanced Learner's Dictionary, p.807).

Academic integrity is defined as “a person's choice to act responsibly and to take responsibility for one's action regarding academic career” (Jones, 2011, p.04). There are limited previous researches to measure academic cheating and academic integrity in relation to different variables. Salleh, Alias, Hamid and Yusoff (2013) examined the academic dishonesty among the university students. This study revealed that there was a significant difference of male and female students on academic dishonesty. The male students were doing more academic dishonesty as compared to female students. This study indicated that there was a significant difference of academic dishonesty in terms of age group.

This research also depicted that there was a significant difference of academic dishonesty among students of different programs.

Batool, Abbas and Naeemi (2011) conducted a study in which they revealed that high level of academic cheating leads to high academic performance. This study also indicated that male students had more tendency of academic cheating as compared to female students. This research depicted that parental pressure can increase in academic cheating. This research also displayed that lack of preparation and involvement in extracurricular activities were significant predictors of academic dishonesty and cheating. Nazir and Aslam (2010) examined the perception of students towards academic dishonesty and penalties for dishonest act of students. The results of this study revealed that students conducted academic dishonesty acts which they believe to be acceptable and their penalties of these acts were also less severe.

Lin and Wen (2007) examined the academic dishonesty in college students of Taiwan. The results of this study displayed that there was high level of academic dishonesty in college students. The findings also showed that the male students had high level of academic dishonesty behavior as compared to female students.

Fion and Frone (2010) examined the relationship of academic performance and academic cheating. The research revealed that cheating is more prevalent among lower achiever when they do not identify with school. The academic performance and academic cheating are moderated by school identification and self-efficacy.

Brown and Choong (2003) examined the academic dishonesty among students of public and private university. The researchers asked the students to rate the level of academic dishonesty practices and their reasons of these practices of academic dishonesty. The findings depicted that both students of public and private university were on equal level of academic dishonesty. Bieliauskaite (2014) examined the relationship between academic integrity and professionalism among the law students. The research revealed that there was a significant relationship between academic integrity and professionalism. The study indicated that academic integrity was very important and significant for the development of professionalism of law student for future. The promotion of academic integrity depends on teachers, institutions, students and as whole society efforts. Ryan, Bonanno, Krass, Scouller and Smith (2009) conducted a study on undergraduate and postgraduate pharmacy students in which the researchers found academic cheating and dishonesty is higher at postgraduate level as compared to undergraduate level. Chen and Macfarlane (2015) examined the relationship of academic integrity and academic dishonesty in universities of China. This study indicated that academic integrity had inverse relation with academic dishonesty.

Rationale

Academic integrity and cheating have always been a challenge in academic surroundings, and advancement in modern technology is used as a source of academic cheating such as internet, smart phones, smart watches, and modern calculators, etc which cause increase in this challenge. Many experts believe that societies have started to accept academic cheating as a norm. Prior literature has tried to investigate academic integrity, academic cheating, and academic performance but that literature does not cover university sample and is very limited with respect to their practicality. So, the current research aims at providing valid and thorough findings in university context. Further, it is evident through literature that university students are indulged in cheating, and they don't feel any hesitation while doing this. They are not at all conscious about their academic integrity that's why they get involved in such acts (Ryan, Bonanno, Krass, Scouller & Smith, 2009). Resultantly, their performance in professional life may get affected later. The current

research will provide a clear picture about the relationship of all these variables. Furthermore, this research will also contribute as indigenous research that attempts to highlight the effect of gender, sector and program enrollment on academic cheating and integrity of Pakistani universities students.

The two main objectives of the present study were to see the influences of gender on cheating behavior and assess if academic dishonesty was different in private and public institutions in Pakistan. A third objective was to determine academic cheating predicted by type of program the students are enrolled in; and finally to explain the relationship between academic integrity, cheating and performance among university students. The following hypotheses were formulated:

- 1) Male students would significantly differ on academic cheating and academic integrity from female students of universities.
- 2) Students from public sector universities will significantly differ on academic cheating and academic integrity from students of private sector universities.
- 3) There is a significant difference of different students in programs of universities in term of academic integrity and academic cheating.
- 4) Academic integrity will have a significant negative relationship both with academic cheating and academic performance.
- 5) There will be a significant positive relationship between academic cheating and academic performance.
- 6) The level of education would work as a significant moderator between academic cheating and academic performance.

Method

Sample

For the current research a purposive sample of 78 female and 72 male undergraduate and post graduate scholars was conveniently drawn from private (77 students) and public (73 students) universities in Lahore and Multan. Age range of the participants from 20 to 45 years ($M = 21.7$, $SD = 3.03$). (See Table 1)

Table 1

Demographic characteristics of the sample (N = 150)

Variables		N (%)
Gender	Male	72 (48.0)
	Female	78 (52.0)
Sector	Public	77 (51.3)
	Private	73 (48.7)
Education Level	Undergraduate	62 (41.3)
	Postgraduate	88 (58.7)

Measures

Attitude towards Cheating (ATC) Scale. Developed by Gardner and Melvin (1988), ATC contains 34 items and measures attitudes towards cheating on 5-point Likert-type scale, ranging from strongly disagree (SD), agree (A), undecided or do not understand (U), disagree (D), and strongly disagree (SD); rating for SA (+2), A (+1), U (0), D (-1), and SD (+2) were respectively done

in this manner, with higher (positive) composite scores reflecting intolerant attitudes towards cheating. The scale had high split-half reliability $\alpha = .82-.83$ and high construct and moderate predictive validities (Gardner & Melvin, 1988)

Academic Integrity Survey (AIS). Developed by Texas Tech University Ethics Center (2014), AIS was used to measure academic integrity. The scale consisted of 10 items with two

subscales, i.e., academic integrity behavior scale and academic integrity values scale. Academic integrity behavior scale was assessed on a 4-point Likert-type rating scale, ranging from 1 (not at all important) to 4 (very important). Academic integrity values scale has also 4-point Likert-type rating scale, which is ranging from 1 (not at all bad) to 4 (very bad). Higher scores on composite and subscales reflected higher academic integrity. The internal consistency of scale was $\alpha = .78$ (Texas Tech University Ethics Center, 2014).

Academic Performance. Academic performance was measured through GPA of students.

Results

Data was analyzed for reliability for ATC ($\alpha = .73$) and AIS ($\alpha = .65$) which was similar to previous studies (Gardner & Melvin, 1988; Texas Tech University Ethics Center, 2014). Results revealed that males ($M = 107.20$, $SD = 12.42$) and females ($M = 106.10$, $SD = 13.34$) did not differ significantly ($p > .05$) on attitudes towards

Procedure

Before data collection, the researchers approached chairs of programs at public and private universities to seek formal permission and then contacted students of the universities to participate in the study with informed consent. They were instructed to be honest while responding to the items of the scales. All participants were thanked at the end of each session, debriefed further about the study, and told that if a publication resulted from the collected data all personal information would be kept confidential and anonymous for this purpose.

academic cheating, however differed significantly on attitudes towards academic integrity, $t(148) = -3.60$, $p < .001$. Male students ($M = 28.50$, $SD = 4.05$) had lower academic integrity compared to female students ($M = 30.97$, $SD = 4.39$) (see Table 2).

Table 2

*Independent Sample t-test on Academic Integrity and Academic Cheating among Males and Females Students of Universities (N = 150) df=148, *p<.001, p=ns*

Gender	Males (n = 72) M(SD)	Females (n = 78) M(SD)	t	CI LL - UL	Cohen's d
Variables					
Academic Integrity	28.5(4.05)	30.97(4.39)	-3.6*	-3.8 - -1.1	0.56
Academic Cheating	107.2(12.42)	106.1(13.34)	.62	-3.1 - 5.2	0.08

Similarly, results revealed students did not differ significantly ($p > .05$) on attitudes towards academic cheating in public ($M = 107.70$, $SD = 12.90$) or private ($M = 105.40$, $SD = 12.84$) sector universities, however attitudes of scholars in private universities ($M = 31.70$, SD

$= 3.68$) were significantly $t(148) = -5.9$, $p < .001$ higher on academic integrity than scholars in public universities ($M = 27.90$, $SD = 4.23$) (see Table 3).

Table 3

*Independent Sample t-test on Academic Integrity and Academic Cheating among Public and Private Sector University Students (N = 150) df=148, *p<.001, p=ns*

Sector	Public (n = 77) M(SD)	Private (n = 73) M(SD)	t	CI LL - UL	Cohen's d
Variables					
Academic Integrity	27.9(4.23)	31.7(3.68)	-5.9*	-5.1 - -2.5	0.95
Academic Cheating	107.7(12.90)	105.4(12.84)	.27	-1.8 - 6.4	0.17

A significant main effect of type of program was revealed for academic integrity $F(4, 145) = 9.47$, $p < .001$. Mean attitude towards academic integrity in physiotherapy students ($M = 31.32$, $SD = 3.04$) was different as compared to psychology students ($M =$

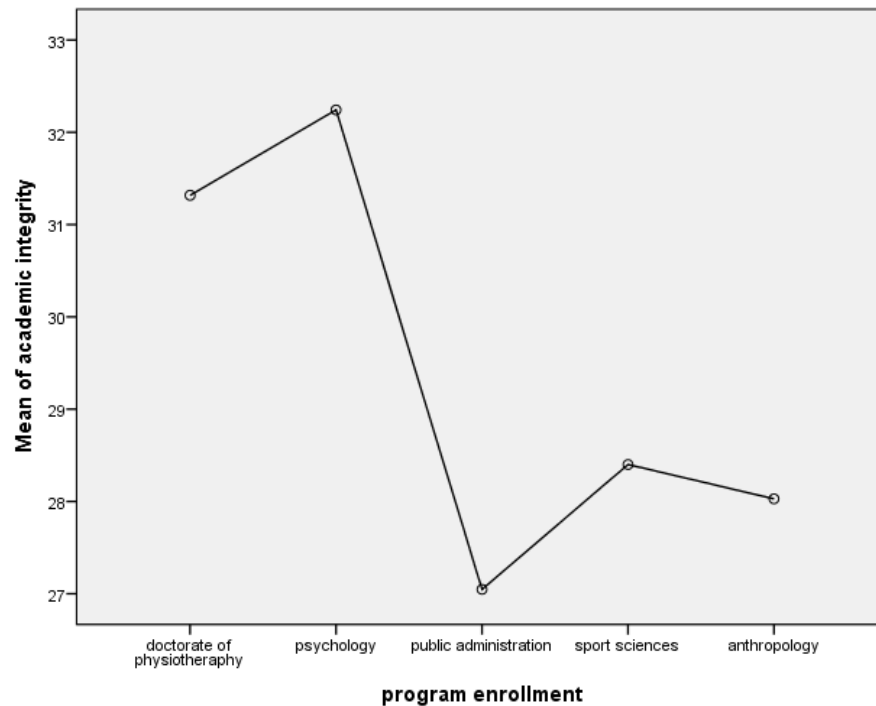
32.24 , $SD = 4.29$), which differed to public administration students ($M = 27.05$, $SD = 4.99$), sport sciences students ($M = 28.40$, $SD = 4.05$) and finally to anthropology students ($M = 28.03$, $SD = 3.90$) (see Table 4). For a figure of means (see Figure 1).

Table 4

*One way Anova for Program Enrollment in term of academic integrity of University Students (N = 150) * $p < .001$*

Variables	Sources of variation	SS	df	MS	F
Academic Integrity	Between Groups	599.17	4	149.79	9.47*
	Within groups	2291.66	145		
				15.80	

Figure 1: Means of Academic Integrity on Program Enrollment of University Students (N=150)



Results of post hoc comparison showed that students who enrolled in program of physiotherapy ($M = 31.32$, $SD = 3.04$) have better scores on academic integrity than the students who were enrolled in program of public administration ($M = 27.05$, $SD = 4.99$), sport sciences ($M = 28.40$, $SD = 4.05$), and anthropology ($M = 28.03$, $SD = 3.90$). The result revealed that students who have enrolled in program of doctorate of physiotherapy ($M = 31.32$, $SD = 3.04$) have comparable scores on academic integrity to students who have enrolled in program of psychology ($M = 32.24$, $SD = 4.29$). The result also demonstrated that students who enrolled in program of psychology ($M = 32.24$, $SD = 4.29$) have better scores on academic

integrity than the students who have enrolled in program of public administration ($M = 27.05$, $SD = 4.99$), sport sciences ($M = 28.40$, $SD = 4.05$), and anthropology ($M = 28.03$, $SD = 3.90$). The result revealed that students who have enrolled in programs of sport sciences ($M = 28.40$, $SD = 4.05$) and anthropology ($M = 28.03$, $SD = 3.90$) have comparable scores on academic integrity to students who have enrolled in program of public administration ($M = 27.05$, $SD = 4.99$). The result revealed that students who have enrolled in program of sport sciences ($M = 28.40$, $SD = 4.05$) have comparable scores on academic integrity to students who have enrolled in program of anthropology ($M = 28.03$, $SD = 3.90$) (see graph 1).

Graph 1:

Means of Academic Integrity on Programs Enrollment of University Students (N=150)

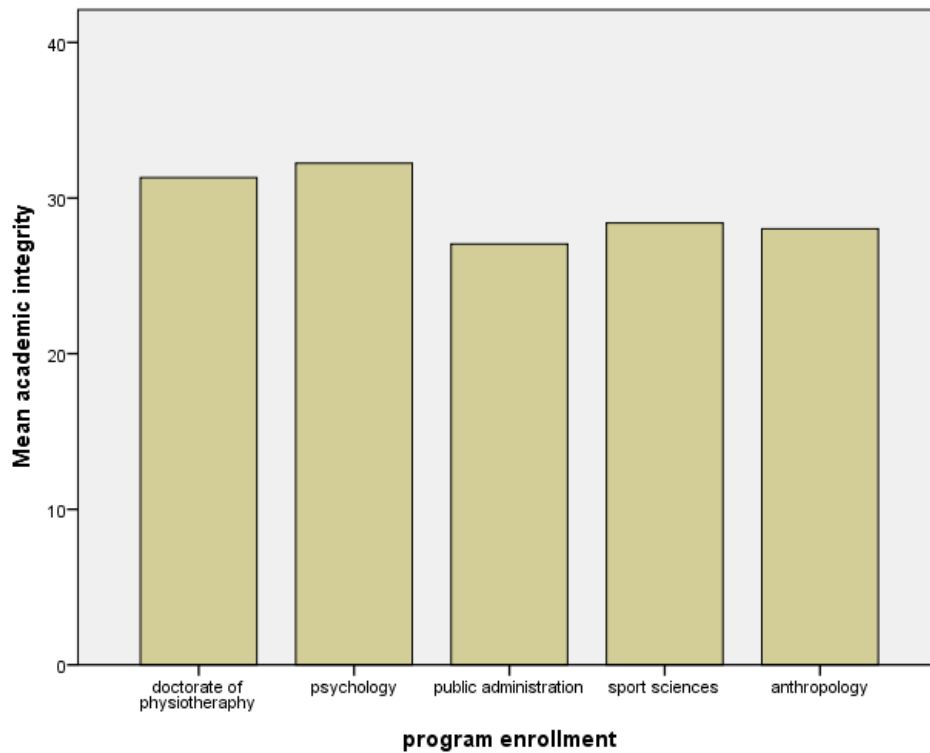


Table 5 indicated that academic cheating is a significant predictor of academic performance, $\beta = .01$, $F(3, 146) = 6.61$, $p < .001$. The value of R^2 (.12) explained 12% variance in the academic performance accounted for by academic cheating. The significant interaction showed that level of education is significant moderator between academic cheating and academic performance, $t = 1.96$, $p < .05$.

Results showed that there is a non-significant negative relationship between academic integrity and academic cheating of university student ($r = -.16$, $p = ns$). There is also non-significant negative relationship ($r = -.06$) among academic integrity and academic performance of university student. Table 6 reveals that there is a significant positive relationship ($r = .20$, $p < .05$) between academic cheating and academic performance of university students (see table 5).

Table 5

Moderation Analysis among Academic Cheating, Academic Performance and Educational Level of University Students (N=150)

* $p < .05$, ** $p < .001$

Predictor	SE	β	t
Academic cheating	.002	.01	2.12*
Educational Level (moderator)	.064	.21	3.28***
Interaction	.004	.01	1.96*
R^2	.12		
F	6.61***		

The results of the present research reveal there is a no significant but negative relationship between academic integrity and

academic cheating of university scholars (see table 6).

Table 6

Correlation Matrix among academic integrity, academic cheating and academic performance among university students (N = 150)
* $p < .05$

Variables	<i>n</i>	<i>M</i>	<i>SD</i>	<i>I</i>	<i>II</i>	<i>III</i>
I Academic Integrity	150	29.77	4.40	-	-.158	-.06
II Academic Cheating	150	106.61	12.88		-	.20*
III Academic Performance	150	3.42	.41			-

Discussion

The results are in line with the research done by Chen and Macfarlane (2015) on academic integrity in universities of China in which researchers found that academic integrity had opposite relation with academic dishonesty. There is also non-significant negative relationship between academic integrity and academic performance of university scholars. The results reveal that there is a significant positive relationship between academic cheating and academic performance of university scholars. This indicates that high academic cheating leads to high academic performance and vice versa. The findings is similar with previous study which was carried out by Batool, Abbas and Naeemi (2011), in which they revealed that high academic cheating leads to high academic performance.

The second purpose of the research was to compare academic integrity and academic cheating among male and female university students. Results revealed that males and females differ significantly on academic integrity. The results depicted that the male students had low academic integrity as compared to female students. Results showed that males and female did not differ significantly on academic cheating. The results revealed that the male students had high level of academic cheating as compared to female students. The result is consistent with the previous studies conducted by Salleh, Alias, Hamid and Yusoff (2013), Batool, Abbas and Naeemi (2011), and Lin and Wen (2007), all these studies indicated that male students had more tendency of academic cheating as compared to female students.

The third aim of the research was to compare academic integrity and academic cheating of students in public and private sectors universities. Results revealed that students differ significantly on academic integrity in term of public and private sector. Results revealed that students of public sector university had low academic integrity and high academic cheating as compared to students of private sector university. This result is inconsistent with the previous research by Brown and Choong (2003) in which result showed that both students of public and private university were on equal level of academic dishonesty. Results of present study showed that students did not differ significantly on academic cheating in term of public and private sector. This result is consistent with the previous research by Brown and Choong (2003) in which result showed that both students of public and private university were on equal level of academic dishonesty.

The fourth objective of the present research was to compare academic integrity and academic cheating of university students in term of program enrolment. Results of present research indicated

Results show that there is a high significant difference among scores of students belonging to programs of doctorate of physiotherapy, psychology, public administration, sport sciences and anthropology on academic integrity. This result indicated that the students of different programs had different level of academic integrity. The different level of academic integrity of students depicted different level of academic dishonesty among students. This result is consistent with the previous research which was conducted by Salleh, et al. (2013) in which the results indicated that there was a significant difference of academic dishonesty among students of different programs.

The fifth aim of the study was to observe educational level, i.e., undergraduate and post graduate as a significant moderator between academic cheating and performance. The results of present study showed that educational level is a significant moderator between academic performance and academic cheating. This finding is consistent with previous study conducted by Ryan, Bonanno, Krass, Scouller and Smith (2009) on undergraduate and postgraduate pharmacy students in which the researchers found academic cheating and dishonesty is higher at postgraduate level as compared to undergraduate level.

Conclusion

It is concluded that academic integrity and cheating have vital role in academic performance of students. The study revealed that academic cheating has a significant relationship with high academic performance. This research also highlights that the students of different programs had different level of academic integrity. This study also reflected that public and private sector universities had different level of academic integrity and educational level is significant moderator among academic cheating and performance.

Limitations and Suggestions

The limitations and suggestions for further researches are mentioned below:

The scales implied to measures academic cheating and integrity were developed in western culture. So it is suggested to use indigenous and adapted versions of these scales in further researches.

The sample size can be increased for further studies.

In present research, only quantitative method is used, another study can be done through qualitative method on these variables.

Implications of Study

This study will be helpful to improve quality of educational and ethical standards. The results will be beneficial to improve the educational norms and system especially on higher level. It will be beneficial for educational psychologist. It will be helpful for educational institutions i.e. colleges and universities. The findings

of the research will be useful for teachers, parents and students. The results of study will be helpful for the Government and Ministry of Education for making better policies and settings to control this challenge and its related issues.

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