Effect of Demographic Factors on Academic Performance of University Students

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ABSTRACT

The relationship of demographic factors and its impact on academic performance has been a topic of interest since a long time. This study was made to examine the link among educational output and the demographic factors identified by Erikson's theory of social development to have effect at different age stages of life. The survey technique was used for the study. The sample comprised of the 2986 university students belonging to different provinces of Pakistan. The multistage cluster sampling was made for the data collection. The tool included 14 demographic factors that could influence the different psychological or social aspects of the students' lives. Cumulative Grade Point Average (CGPA) was taken as the scale of the educational output of the students. The demographic factors used in the study were, gender, age, department, current residence (hostel/home), university sectors, residential area (urban/rural), province, sibling order, employment status, genetic background (inbreeding/crossbreeding), and marital status. SPSS was used for the data analysis. Statistical procedures including chi-square, t-test, and ANOVA were applied on data. The findings of the study showed varying effects of these factors on the academic performance of students studying at the university level.

Keywords: *Academic performance, psychosocial factors, university students, demographic factors, genetic background.*

Introduction

The educational process is meant for restructuring the ethical, psychological and social values of the individuals and to inoculate them in their lives. But in the development plans of Pakistan, education is not getting due priority. Although various reasons lie behind such negligence, it is also a fact that the current system of education itself has failed to reform the teaching-learning process according to the needs of users. The demise of society and education is due to the negligence of the educational planners and managers. Moreover, the effect of learner's background factors, like gender, age, urban/rural background, family size and other life reservations, cannot be denied (Abdullah, Adebayo, & Talib, 2015; Demetrius & Ziehe, 2007; Fuster & Colantonio, 2004; Jabbar, Aziz, Zeb, &

Asfani, 2014; Jejeebhoy & Sathar, 2001). The students living in the village cannot get proper coaching and equal facilities to that of their urban fellows. Similarly, the age factor determines students' maturity, which in turn influence their academic achievements (Jabbar et al., 2014). Innumerable factors influence the students' academic performance, which may affect their academic performance, directly or indirectly (Sommer, 2013). Recognizing such factors may help to sort out those factors which may enhance their performance from those which may hinder their academic performance (Comedis, 2014). Researches showed that these factors include different aspects of their personal life. Some included gender, age, socioeconomic status, social lives, sleeping hours and academic backgrounds

among the most influencing factors (Abiddin & Ismail, 2011; Benn, 2005; Fuster & Colantonio, 2004; Khan, 2012; Pambè, Thiombiano, & Kaboré, 2014). The others declared the study years among the most affecting factors and concluded that in their experiential years of study, the students' performance graph was improved with time, in terms of time management, test anxiety and academic performance (Talib & Sansgiry, 2012).

The gender disparity has long been the point of interest among the researchers. Although the discrimination between both genders has been decreased after the surge of female higher education institutions in Pakistan. Even that the female enrollment at higher education level has been increased than that of the males in the fields of Science, Technology, Engineering, Mathematics and Medicine. (Chaudhry & Lodhi, 2012). Still, there exist different issues with the females in the patriarchal culture of Pakistan, i.e. the females face more family issues like maternity, and family management, etc. than males. Hence, Pakistani females often face difficulty in study or work balance (Khan, Altaf, & Kausar, 2013).

The demographic factors like residential background has become an unavoidable part in the present-day world (Anme et al., 2015; Li, Li, & Li, 2019; Tunstall, Mitchell, Pearce, & Shortt, 2014). Researches reveal that the residential status affects the multiple domains of the students' lives including attachment (Mattanah, Lopez, & Govern, 2011), prosocial behaviors (Nomaan, Hanif, & Rehna, 2016), social relationships (Ghayas & Malik, 2013) and self-efficacy (Fakeye, 2017). This research line takes towards the adjustment and social competence which are further

considered as the precursors of their social lives and academic performance (Charlton, Barrow, & Hornby-Atkinson, 2006).

The concept of endogamy (marriages within the family) versus exogamy (marriages out of the families) was considered as the genetic background. Researches revealed that the endogamy is considered as a fundamental indicator of the group cohesion, and social isolation or racial segregation (Rosenfeld, 2008). This further takes towards either the raised level of education in some families, or very lower educational levels in endogamous stratification (Saad, Elbedour, Hallaq, Merrick, & Tenenbaum, 2014). The concept of consanguinity or endogamy is rarely used in the social sciences (Kaplan & Saccuzzo, 2009; Kerkeni et al., 2006). The previous studies have been working mostly on the relationship between either problem of hostel life, or the academic working of the hostel students. But this unique feature of relating the differential residential status and the developmental stages of Erikson, to the academic performance was not studied before. To address these concerns, the developmental stages, which students undergo the university life, i.e. adolescence (less than 19 years), young/early adulthood (19-39 years), and middle adulthood (above 39 years), on the university students' academic performance were also studied.

Statement of the Problem

The present study was based on continuation to several background studies regarding the relation of background demographic variables with the academic performance of students conducted in different parts of the world. In past, socio-economic status was found to be directly proportional to the academic performance (Abdullah et al., 2015). A systematic

work made by the American Psychological Association review, that the students from the lower, socio-economic status, developed delayed phonological awareness, and slower language skills, which in turn had adverse effects over their academic performance (Honicke & Broadbent, 2016). Moreover, gender has always been a point of interest for many researchers. The study made by Sommer, (2013) demonstrated that girls performed better than that of the boys. But the employment status and parental education showed no association with academic performance (Khan, et. al. 2013).

The aim of the study was also to examine the demographic factors as the indicators of their social attachment and academic functioning (Li et al., 2019) and the coping resources from social Darwinism i.e. family genetic background of inbreeding/crossbreeding in academic performance in higher education in Pakistan. (Taborsky & Oliveira, 2012).

In understudy, the major objective of the study was to explore the multiple factors, which affect university students' academic performance in the background and to determine whether these factors have a significant affect over their academic performance. This study is significant to explore variables in the present age to provide data to educators for focusing attention on improving the academic performance at higher education institutions of Pakistan. Moreover, educators can get guidelines from the results of the study to focus groups that need more attention in the educational process to avoid low academic achievement.

Variables of interest of the study

The independent variables of the study included selected demographic variables that were related to the psychosocial development of the students. These variables included gender, age, department, residential and genetic background, current residence, university sector, provincial status, sibling position, employment and marital status. While the dependent variable was only the academic performance of the students.

Research Questions

1. Which of the demographic factors; gender, age, discipline of study, residential and genetic background, residential background, university sector, sibling position, employment and marital status have a significant effect on the academic performance of university students?

2. Which demographic characteristics positively affect the academic performance of high achievers' group of university students?

3. Which demographic characteristics work behind the academic performance of low achievers' group of university students?

Literature Review

The study was a part of the major research project in which the three major elements i.e. psychosocial factors, social competence and the academic performance of the university students were studied. The conceptual framework of the study was therefore taken from the psychosocial theories and those demographic factors were focused in the study, which relate to the students' social lives and in turn influence their academic performance. These theories included Bandura's (1965) social cognitive theory and Tinto's (1975) attrition model for the university students. Both theories assert the importance of the demographic factors over the students, academic performance or attrition from the

college. These demographic factors indicated by these theorists included, family backgrounds, individual attributes like gender and marital status, that in turn influence the students' attachment to the university or attrition otherwise (Tinto 1975, as cited by Sommer, 2013). Further this theory was supported by Reyes-Baybay (2017), who asserted that the sibling position of the student also is one of the determinants of his personality, and therefore, it was important to his success and failure of life.

Tinto (1975) projected that family contextual, former high school education and person's qualities, affect student educational and social relation towards university and that each characteristic "has direct and indirect impacts upon performance in college" (p. 94). The educational and social combination of students, in turn, effects their level of goal and official obligation towards university. That is, the developed their incorporation to the university setting, the advanced is their level of obligation. Learner's obligation to completing their objectives and their university, then, regulates if learner is likely to continue or leave. He further stated that "subsequent determination needs that persons make the change to college and become merged into the continuing societal and logical life of the college" (p.126).

On the other hand, the second theory of Bandura (1999), included that the genetic background was a solid element of the students' self-regulation, and inspiration, towards academic achievement. He called these aspects as the supremacy of intervention, which according to him was the invention of his personal and situational factors. Mutual interaction of these aspects fixes man's achievement or disaster of life. In the agentic socio-cognitive view, people are self-organizing, practical, self-reflecting, and self-regulating, not just reactive organisms shaped and shepherded by external events. People have the authority to affect their own movements to crop firm consequences. The dimensions to workout control over one's thinking developments, inspiration, affect, and deed activates through mechanisms of special activity. Human intervention has been hypothesized in at least three diverse ways–as either self-directed intervention, automatically sensitive intervention or growing collaborating intervention.

Personal factors are very much intricate in adaptable procedures, graphic processing of involvements, memory representation and rebuilding, brain constructed enthusiasm, feeling initiation, psychobiologic working and the usefulness with which reasoning and interactive capabilities are performed in the dealings of normal life. They comprise mental, emotional and organic actions, communicative forms, and conservational happening that are unified/interdependent to each other. The situational factors include environmental influence over man, which is further divided into the imposed, selected and constructed environment. Thus, the demographic factors taken in the present study were gender, age, sibling position, marital status, residential and genetic background.

The incorporation of mutual ideas stated above, originate in the learner incorporation model by Tinto & Cullen, (1975) cited by Scommer (2013) which stress significance of the educational and societal mixing into the university environment and provide a complete

outline to describe the students, determination or failure behavior. The model supports the place that students' academic performance at university is influenced by their level of capability and that the psychosocial issues influence their socialization process and academic performance.

Tinto & Cullen, (1975) developed a hypothetical framework to describe and forecast learner' failure behavior at university. His model, places standing on how learners network with their atmosphere. His idea of mixing bonds educational and societal incorporation and emphasize that both are significant for a learner to remain in an organization i.e. if a learner is educationally better but, less socially skilled, cannot feels relaxed with institute. As a result, he may decide to leave, failure or migrate to other university and vice versa. Tinto further proposed that certain demographic factors (such as social or economic status, family background, previous or current institutional experience, gender, and personality etc.) also effect students' academic and social integration towards university effects their performance. The concept of Tinto was further extended by Bean (1985), who suggested the importance of psychosocial and environmental aspects upon the students' determination or failure behavior at university. He argued that the psychosocial factors (i.e. goal achievement, self-efficacy, and self-regulation), environmental factors (such as socio-economic status), influence the students' socialization process at university, which in turn effect their academic performance. He further indicated that the psychosocial factors are likely to positively influence both official adjustment, and obligation. Ecological aspects are likely to harmfully impact the official adjustment and obligation as well as dropout (Bean 1985, as cited by Sommer, 2013).

The practical provision for the hypothetical concepts in Tinto and Bean's model diverse (Torney, Cabrera, Roohr, Liu, & Rios, 2015). Their examination further signposted that contextual features, as well as psychosocial and ecological aspects are likely to have an secondary effect on sucess or failure, refereed through behavioral purposes to leave or continue at the organization.

Material and Methods

The study was descriptive in nature which was conducted in different universities in Punjab. The data collection was made over two years between spring 2017-2019. The population of the study comprised of all the students enrolled in the regular university programs of Punjab province of Pakistan (short courses and diplomas were excluded). Sample of the study was selected from universities situated in seven district head cities in the Punjab including private/ semi government and Public sector. Sampling was done by multistage cluster sampling process. At last stage only available students in the universities were selected in sample following the convenience sampling process of sampling on the day of data collection. The study tool was self-prepared questionnaire in a very simple way, that included a list of demographic information related items. Items were semi closed type. Items regarding age of respondents and CGPA were open ended in nature while osther all demographics like marital status, order of sibling, number of siblings, genetic background, type of university for study, residential area, job status, discipline of study,

province were close ended questions in nature. The self-reported academic performance was also included in the tool, in the form of previous CGPA. The data collection was made during the sessions in Spring 2017-2019. Respondents were requested to fill in data regarding their demographics on the questionnaire and write their CGPA in last semester honestly. Purpose of the study was explained to sample before collection of data. It was explained to respondents that provided data could be verified from office records of their university. For data analysis, SPSS was used on computer. Chi-Square, t-test and ANOVA were applied on data to find out the results of study.

Formation of groups for academic achievement comparisons

The data collected from the respondents of study regarding their CGPA in successive semester (open ended item) was arranged in descending order (in SPSS sheet) and labelled as high achievers, average achievers and low achievers following the subsequent scheme

1. Low achievers (falling in the group having CGPA less than 2.33)
2. Average achievers (falling in the group having CGPA 2.34-3.33)
3. High achievers (falling in the group having CGPA above 3.34 and above)

Formation of groups based on age comparisons

The question included in the questionnaire regarding the age of respondents was also open ended. Respondents wrote their age in years on given place. For the analysis of data to compare academic achievement, following groups were defined on the basis of age of respondents in years.

1. Adolescents (under 19 years old)
2. Early Adulthood (19-39 years old)
3. Old adulthood (above 39 years)

Results and Findings
Descriptive Measurements of Student's Academic Performance

The proportion of the university students for different demographic variables with respect to the number and percentage was measured. The results of the study are discussed under following tables.

Table 1

Frequency and percentages of the Personality Related Variables

	Below Average (CGPA=0-2.33)		Average (CGPA=2.34-3.33)		Above Average (CGPA=3.34-4.00)		Total	p-value
Groups	No.	%	No.	%	No.	%	No.	Chi-Square
Male	100	5.5%	1078	59.0%	650	35.6%	1828	.000
Female	24	2.1%	542	46.8%	592	51.1%	1158	
Age								
Adolescents (Under 19years)	4	1.2%	154	47.5%	166	51.2%	324	.00
Early Adulthood (19-39 years)	120	4.5%	1460	55.2%	1064	40.2%	2644	
Late Adulthood	0	0.0%	6	33.3%	12	66.7%	18	

N= 2986 — *Gender*

(Above 39 years)

Sibling Position									
Last	16	3.4%	256	54.5%	198	42.1%	470	.01
Middle	38	3.3%	658	56.9%	460	39.8%	1156	
First	58	5.6%	552	53.4%	424	41.0%	1034	
Only	12	3.7%	154	47.2%	160	49.1%	326	
Marital Status									
Unmarried	120	4.2%	1550	54.4%	1178	41.4%	2848	.43
Married	4	2.9%	70	50.7%	64	46.4%	138	
Genetic Background									
Crossbreeding	64	3.7%	936	54.5%	718	41.8%	1718	.40
Inbreeding	60	4.7%	684	53.9%	524	41.3%	1268	
Total	124	4.2%	1620	54.3%	1242	41.6%	2986	

The table shows the distribution of the students' academic performance over different demographic variables. The cross-sectional percentage of the data revealed that the females were aggregated at higher performance (above average 51.1%), while the males' majority was greater at average performance (59.0%). Similarly, the age distribution revealed that the adolescents (51.2%), and late adults were at greater percentage at high performance level (66.7%, above average group), while the early adults were aggregated at average performance level 55.2%). Out of the sibling position, the children holding the single-child position were concentrated at high achievement level (49.1%), while the others standing at First 53.4%), Middle (56.9%) and Last position (54.5%) were greater at mediocre level. The marital status had no significant difference to that of the academic performance. It revealed a general trend that the irrespective to their marital status, students were greater in number at mediocre level. Similarly, the genetic backgrounds (i.e. inbreeding with their parental marriage within the family or crossbreeding with their parental marriage out of the family) had no significant difference with that of the academic performance. Here too, the general trend was followed that the students with both genetic make-ups were in greater percentage at mediocre level.

Table 2

Frequency and percentages of the Study Related Variables

Groups	University Sector							
	PCGPA						Total	p-Value
	Below Average (CGPA=0-2.33)		Average (CGPA=2.34-3.33)		Above Average (CGPA=3.34-4.00)			
	No.	%	No.	%	No.	%	No.	Chi-Square
Private	20	6.8%	206	70.1%	68	23.1%	294	
Public	104	3.9%	1414	52.5%	1174	43.6%	2692	.00
Department								
Technology	48	4.0%	732	60.4%	432	35.6%	1212	
Mind Sciences	0	0.0%	2	25.0%	6	75.0%	8	
Social Sciences	40	11.0%	176	48.4%	148	40.7%	364	
Natural Sciences	34	3.4%	486	49.0%	472	40.7%	992	.00
Humanities	0	0.0%	4	22.2%	14	77.8%	18	
Accounting	0	0.0%	10	100.0%	0	0.0%	10	

Literature	2	0.5%	210	55.0%	170	44.5%	382	
Employment Status								
Unemployed	118	4.3%	1532	55.5%	1110	40.2%	2760	
Employed	6	2.7%	88	38.9%	132	58.4%	226	.000
Residential Status								
Urban	96	4.3%	1234	55.5%	894	40.2%	2224	.03
Rural	28	3.7%	386	50.7%	348	45.7%	762	
Province								
AJK	0	0.0%	12	100.0%	0	0.0%	12	
Islamabad	18	9.7%	122	65.6%	46	24.7%	186	
Baluchistan	26	9.2%	134	47.2%	124	43.7%	284	
Sindh	0	0.0%	32	80.0%	8	20.0%	40	.000
KPK	2	6.7%	20	66.7%	8	26.7%	30	
Punjab	78	3.2%	1300	53.4%	1056	43.4%	2434	
Total	124	4.2%	1620	54.3%	1242	41.6%	2986	

The table describes distribution of the students' academic performance over different study related demographic variables. These variables included university sector, department, employment status and residential area. The results revealed that among the high achiever's group, 43.6% students were from the public sector universities, and 23.1% from the private universities. Among low achiever's group, 70.1% were from the private universities, and 52.2% from public sector universities, and at low achieving group, 6.8% from the private, and 3.9% were from public sector universities. Department wise statistics also revealed significant difference at academic performance i.e. the natural science group had highest result ratio (77.8%). Accounting students were very low in number and all were found among the mediocre group. And the social sciences were highest in number at low achiever's group (3.4%), although their ratio was also very low.

Table 3

Mean Difference of the Students' Academic Performance, based on Gender, Employment, Marital Status, Residential & Genetic Backgrounds, and University Sectors (t-test)

		Gender							
		Descriptive Statistics				**Independent Sample t-test**			
		N	**Mean**	**Mean Difference**	**SD**	**F**	**Df**	**t**	**Sig (2-tailed)**
Academic Performance (CGPA)	**Male**	1828	2.30	-.19	.57	7.66	2984	-9.08	.00
	Female	1158	2.49		.54				
	Employment Status								
	Employed	226	2.56	.20	.55	.01	2984	5.10	.00
	Non-employed	2760	2.36		.56				
	Marital Status								
	Married	138	2.44	.06	.55	.053	2984	1.29	.20
	Un married	2848	2.37		.56				
	Residential Background								
	Urban	2224	2.36	-.06	.56		2984	2.48	.12
	Rural	762	2.42		.56				
	Genetic Background								

Inbreeding	1268	2.36	-.01		.57	.641	2984	-.71	.48
Crossbreeding	1718	2.38			.56				
University Sector									
Public	2692	2.40	.23		.56	104.35	2984	6.82	.00
Private	294	2.16			.52				

The table shows the difference of students' achievement based on the gender, employment, marital status, residential and academic backgrounds, and university sector. The results showed that a significant difference (p = .000) between the academic performance of males and females, employed and non-employed (p = .00), and public and private sector university students (p = .00). However, the difference was not significant between the performance of the married and unmarried (p = .20), urban and rural (p = .12), inbreeding and crossbreeding students.

Table 4

Difference Between Students' Achievement Based on Age, Department, Province, and Sibling Positions (ANOVA)

Dependent Variable: Academic Performance (CGPA)									
Age									
Descriptives				**ANOVA**			**LSD Analysis**		
Groups	N	Mean	SD	Df	F	Sig.	Mean Diff.		Sig.
Adolescents	324	2.50	.52				Adolescents vs middle adulthood	+/-.14	.00
Early adulthood	2644	2.36	.57	2	11.82	.00	Early adulthood Vs middle adulthood	+/-.31	.02
Middle Adulthood	18	2.67	.48				middle adulthood vs adulthood	+/-.17	.22
Total	2968	2.37	.56						
Department									
Technology	1212	2.32	.54				Technology VS Natural Sciences	+/-.12	.000
Social Sciences	364	2.30	.66				Technology VS Humanities	+/-.46	.001
Natural Sciences	992	2.44	.56				Technology VS Literature	+/-.12	.000
Humanities	18	2.78	.43	6	9.50	.00	Social Sciences VS Natural Sciences	+/-.14	.000
							Social Sciences VS Humanities	+/-.48	.000
Literature	382	2.44	.51				Natural Sciences VS Humanities	+/-.34	.011

	N	Mean	SD	df	F	p	Comparison	Mean Diff	Sig
Total	2968	2.37	.56				Humanities VS Literature	+/-.34	.012
Province									
Punjab	2434	2.40	.55				Punjab VS KPK	+/-.20	.05
KPK	30	2.20	.55				Punjab VS Sindh	+/-.20	.02
Sindh	40	2.20	.40				Punjab VS Islamabad	+/-.25	.00
				5	9.72	.00			
Baluchistan	284	2.34	.64				Punjab VS AJK	+/-.40	.01
Islamabad	186	2.15	.57				Baluchistan VS Islamabad	+/-.19	.05
AJK	12	2.00	.00				Baluchistan VS AJK	+/-.34	.04
Sibling Position									
Only	326	2.45	.57				Only VS First	.10	.00
First	1034	2.35	.58	2982	2.82	.04	Only VS Middle	.09	.01
Middle	1156	2.37	.55						
Last	470	2.39	.55						
Total	**2986**	**2.37**	**.56**						

The table showed the difference of the students' performance based on the age, department, province, and sibling positions. Results showed a significant difference among the different age groups (p = .00), departments (p = .00) and the students' positions in the family based on birth order (p = .04). Further post-hoc analysis revealed that the students age under 19 years (adolescents), and the more mature students of 39+ (middle adults), were performing better than the early adults of 19-39 years age.

Discussion

The study revealed the impact of different important demographic variables that could affect students' performance like gender, age, residential area, marital status and family genetic backgrounds. Here is given a brief discussion of the findings of the study in the line of various researches. A significant difference among the male and female students was found in the study. The female students were showing better performance than that of the male students. This was supported by the study made by Jabbar et al.. (2014). Their study also revealed that females attain better scores than males. Probably this is because of the reason that females in Pakistan perform duties at home as well in workplace in case of professional. Female students also perform household duties along their studies. This inculcate a sense of hard work and motivate them to work with zeal when they are allowed to especially be a student of higher education institution. This is also a fact that only a limited group of females can attend university. This situation motivates female students of universities to be more loyal and consciously utilize time of study in better way. In past, study made by Marcenaro, Lopez, & Ropero (2018) on Gender Difference and academic achievement, showed that the female

students performed better than their male counterparts, although males were found more sensitive towards their family status. A very past study from a Turkish university also showed that females performed better than males due to different factors like better class attendance, study skills and motivation (Dayıolu & Türüt, 2004). This overview clues that female in different areas of the world successively compete men in academics.

Another aspect of the study was age. Taking the concept of age division of the Erikson, the university students were divided into three age stages i.e. adolescents, early and middle adults. The results revealed that the adolescents (below 19 years) and the middle adults (39+ years) were in greater percentage at high achievers' group, and the early adults (19-39 years) at mediocre level. These findings were supported by the study made by Mlambo (2012), who proposed that the mature students had to face more difficulties of practical life, along with the demands of learning. Therefore, the young students showed better performance. Abiddin & Ismail (2011) also proposed same opinion, that the young students (under 20 years of age) appeared to perform better than those of the adults. They asserted that the peak stage of cognitive development and slower rate of psychological development, and less involvement in social activities of youngsters were main causes of their better academic scores.

However, Carvalho, (2016), made a study on examining relationship between age and gender of elementary school students, indicated that age was directly proportional to their mathematics performance. Similarly, Ebenuwa-Okoh

(2010) also assumed that older students would perform better. These studies suggested that the mature students, despite their life reservations, had better learning and life management skills, with which they could cover up the course content in better ways. Next finding of the study was based on the students' birth order or sibling positions among their families. It was revealed that the students occupying only position in their families were excelling the others. This difference was not much obvious for the students at first and last sibling positions in their families. However, the students at middle family position were standing behind. The student lying at last sibling position were at excellent scoring level, only child and last sibling position were at good scoring level; and the first, and middle were lying at low scoring position. On the other hand, contrary results were observed in the study made by Reyes-Baybay (2017). They made their study on the second-year college students and concluded that birth order had no significant effect over the academic performance, and the students having middle position in their families were little bit excelling others.

Marital status was another demographic variable in the study. It was revealed that married students were greater at high achievers' level, although the difference was not much significant. However, the results revealed three different aspects i.e. (1) the married students with small families (children number less than 3) were performing better than those with larger families (more than 3 kids), the married with no children were performing better than those of the unmarried students. However, no study was found in support of these results. As for example, study made by

Juraqulova, Byington, & Kmec, (2015), showed that the married students were overburdened and performing lesser than that of the unmarried students. Next variable of the study was consanguinity (parental cousin marriage). The relationship between the consanguinity and the academic performance was found insignificant. However, the crossbreeding students scored bit higher than that of the inbreeding's. The consanguinity has been a point of interest among the social biologist, like Darwin, Catell, and Weber etc. in the concept of Darwinism, and social Darwinism, which state that the consanguineous marriages result in the less intellectual children. However, no other research in this regard was found to find out such relationship (Kaplan & Saccuzzo, 2009).

The university sector showed as significant effect over the academic performance. The public sector university students scored higher than that of the private sector students. Department wise results also indicated a significant effect over the academic performance. The highest ratio of humanities students at excellent performance, literature and natural, social sciences at mediocre level; and technology and social sciences at below average/ lowest performance. This study also pointed out that average scores of public sector university was better than of the private sector and number of high achievers were more in comparison to the high achievers of students studying in private sector universities. On the other hand, average achievers and low achievers were more in number from private sector universities than of the public sector universities. Although, this difference is probably because of any difference of evaluation process of private and public

sector universities. Therefore, a further investigation to confirm the reality behind this finding. But, the result of present study has conformity by the data received from the world university ranking 2019, "Best universities in the world" by Times Higher Education (2019), in which they showed the university ranking data based on the results. They showed five public sector universities in the top ranking, and then at 6th rank, a private university was pointed out by them. The other factors included employment status, and provincial backgrounds, both of which showed significant results. The difference was very odd i.e. the employed students were observed to be gathered at high achievement. This was also attributed towards the greater sense of responsibility, as was observed in the age, and marital status of the students. Among, the provincial background, although significant results were found, yet the data obtained from each province was not equal. This could differ the results otherwise. However, from the obtained data, the high achievers belonged to Punjab and last one was from the Sindh and KPK. Regarding the factor residence type of students this study explored that, the rural area students attained better average scores and among the high achievers, rural area students were more in number than of the urban area students. Moreover, among the mediocre, urban area students were more in number than of the rural area students. A reason for this could be that students living with deprivations in rural areas more motivate students to work hard when provided better facilities in universities that are situated in urban areas.

Conclusions

The results of the study indicated that marital status and genetics background

have no significant effect whereas gender, age group, sibling position, university sector, discipline of the study, employment and residential area have significant effect on the academic performance of university students. Mean score of university students belonging to middle adulthood of age, female, employed, married, rural, cross breeding genetic background and public sector groups was better than their competitor groups. Among the toppers of high achievers' groups; female, late adulthood, single sibling, public cadre of the university, humanities group of study, having the employment, belonging to rural area, Baluchistan and Punjab residency were greater in number. Among the low achievers, boys, unmarried, inbreeding genetics, early adulthood, eldest child, technology discipline related students, urban area, Islamabad residents and private sector university students were majority in number.

Recommendations

Results of the present study indicated that boys, unmarried, inbreeding genetics, early adulthood, eldest child, technology discipline related students, urban area and Islamabad residents private sector students were majority in number among the low

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achievers' group of university students. Therefore, educators should focus attention to motivate these groups to study hard.

Data of the present study was based on analysis of scores reported by students although were verified from official records where possible. It was observed that every university and discipline had different criterion to award scores to students and this make a clue to analyze the scores of groups awarded on same criterion. Therefore, a sample of same university representing all demographic characteristics investigated in the study should be taken in the future study for comparisons for confirmation of results. Data from different subgroups compared in this study were unequal. In future, equal groups for comparison should be taken in sample at large scale. Removing this effect, could also help to explore new results. The study accumulated a vast variety of the important demographic factors, which ranged from the education to social biology as well. However, the further research in this regard could open new horizons towards the Social Darwinism and its impact in Pakistan.

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