A Longitudinal Study to Investigate the Persistence of Grading Leniency at Public Universities (2011 to 2016)

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Abstract

Recent researches in the educational system have exposed a widespread phenomenon grading leniency that puts a direct strain on the credibility and accountability of academia's standards of excellence and their graduates in the universities of Pakistan. Grading leniency is the giving of higher grades to the undeserving students. Higher grades or grade-point averages (GPA) over the time is not linked with the high performance and quality of the university students' work. In this situation major objective of this analytical study was, thus, to determine the persistence of grading leniency through a quantitative and longitudinal research analysis of the trends in university students' final CGPAs record from three public sector universities of Punjab. In order to achieve the study objectives, descriptive research design was employed. To quantify the persistence of grading leniency, data was majorly collected from the students of BS program (4 years). Students CGPAs and corresponding grades were collected from the finals of last six academic sessions (2011 & 2016). Major data was collected from approximately 37 departments of the three public universities of Punjab, Pakistan i.e., UOP, Lahore, BZU, Multan and UOS, Sargodha. Students of BS program securing passing grades (A, B, and C) were collected from the university Controller office of Examination. The collected data was thus examined through calculated frequencies and mean values with the help of SPPS version 22.

Key Wards: Grading Leniency, persistence, longitudinal analysis, Trends, CGPAs

Introduction

Awarding grades to the university students has been become phenomenal issue for decades in universities, not only in Pakistan but all over the world' mainstream media (Nikolakakos, Reeves & Shuch, 2012; Caruth & Caruth, 2013; Baker, 2018). It has been reported that academic institutions from many countries are giving unduly higher grades to the students, and the trend is even higher today as compared to their predecessors for the same quality of work and performance (Tucker & Courts, 2010). According to Kohn (2002) specified that grading leniency can be described as an undue increase in the average grade-point of any student. As the rise in CGPA is not linked with their academic achievement or performance. Same was suggested some other researchers that awarding higher grades with zero increase or improvement in the student's cognitive abilities and skills (Jaschik, 2009 & O' Grady, 2009).

According to some researchers (Love & Kotchen, 2010; O'Halloran & Gordon, 2014; Kostal, et al., 2016; & Hurwitz & Lee, 2018) ratio of awarding higher grades by the time couldn't established a link with the amendments in grading standards and practices of students' quality work. Ziomek and Svec (1997) however, claimed that an increase in grades lacking of any improvement in performance and skills happens when grades are skewed negatively, and this is categorized by an upsurge in A or B grades. Lastly, according to Milton, Pollio and Eison (1986) grading leniency is a scenario that befalls when grades are less severe than it should be and teachers become biased or give baseless and incorrect feedback (Mullen, 1995; Zirkel, 1999). Hence, a student's grade can be termed exaggerated grade, if it does not represent a true picture of students' capabilities, knowledge and skill (Popov & Bernhardt, 2013; & Ray, 2014). Furthermore, grades are exaggerated when students' scores increases but their skills and capacities does not correlate with the scores on the distribution scale (Nordin, Heckley & Gerdtha, 2019).

Interestingly, some of the researchers (Cizek 1996; & Kohn, 2011) rejected the terms, grading leniency or grade-inflation, rather, they preferred to apply the term 'grade compression'. In their opinion increase in GPAs or grades is a different matter, unlikely the price inflation, grade inflation or tendency to award higher grades squeeze the distribution scale toward the high end. Whereas, price-inflation is a different phenomenon, unlike the price inflation, still, the grades cannot go beyond an A grade. Thus (Rosovsky & Hartley, 2002) a grade compression only occurs

at the upper end of distribution, and Score/grades or CGPAs may lose their discrimination power among various skills and capabilities, thus, becoming incapable to draw significant differentiation between high and low performers, that will help weak students at the cost of high performers (Ostrovsky & Schwarts, 2003; Rojstaczer & Healy, 2012).Therefore, an rise in GPAs cannot be attributed to the students registering in tertiary education as more skilled and prepared students than of previous sessions (Baker, 2018). Grading leniency may adversely impact the general productivity of the society. Besides, it is an unacceptable and unjust activity because it has an advantage for the undeserving students (Nordin et al., 2019).

Although, researcher started taking interest in grading leniency long ago, particularly in America, it gained popularity since past 40 years. A rapid rise in the GPA and deterioration in achievement at every level of educational institutes was seen in Europe and Canada. Research studies conducted by Juola (1980), Kuh and Hu (1999), Caruth and Caruth (2013) and Nordin et al., (2019) and many more, declared the persistence of grading leniency. A grade given at high schools raised up to 26% (Levine and Cureton, 1999; & Kuh and Hu, 1999) study whereas, grades at colleges on the average increased upto 3.34% (Levine and Cureton, 1999; & Kuh and Hu, 1999). O' Grady (2013) grade-inflation continued over the period, however, shown its presence first time across the world during the year 2005. Bello and Valientes (2008) tried hard to find out the factors effecting grade- inflation through data about grading of economics courses in the University of Philippines from 1998-2005. The study testified a skyward trend of grades in 10 out of 18 courses.

Grading leniency, according to Caruth and Caruth (2013), was existed more and increased more in the public universities of United States. A researcher (Rojstaczer, 2015) studied that grading leniency ratio at private school was enlarged 25 percent to 30 percent, while the CGPAs was calculated 0.3 points more than public universities. Likewise, some other researchers (Bergovec, Kuzman, Rojnic and Makovic, 2003) examined that the grades of 2,861 students from the years 1920 – 1990, had a skyward trend in almost every academic session. Additionally conducted study, (Lee, 2018) composed data from US high schools during the years 1998 to 2016, found that the ratio of students being awarded with higher grades and marks increased up to 39% to 47%, however, the SAT scores (Scholastic Assessment Test) reduced at the same time. A constant growth in the grades/percentages/marks have been marked in many countries like UK, Sweden and France (Bamat, 2014; Wikstrom & Wikstrom, 2005)

Nevertheless, evidence-based research studies supporting the existence of grading leniency seems tempting, yet the claim not accepted by many. It is claimed (Adelman, 2004) that increase in the grades today is a false accusation. Kohn (2002) argued that the factors effecting the rise of grades can be the smartness of the students and their hard-work. The present era students can be the best performers than the students in previous years. Besides the researcher further argued upon the fact that previously drawn data for grade inflation was taken only from the students through self-reporting surveys, which could be wrong. Hence, the credibility of the result is questionable. A study (Adelman, 1995) inspected the official report cards of the students (from the years 1980 to 1990) over 3,000 institutions from U.S.A only, and detected rather a trivial deterioration in the grades than an increase. Later on another study (Adelman, 2004) was conducted to investigate grade-inflation, and testified 'no significant increase in students' average grades has been seen'. Mullen (1995) refuted the presence of grade-inflation. Mullen discovered that there was an optimistic connection between GPA and A.G.T (American college testing) scores at both lower and higher level. Mullen (1995) corelated students' higher percentages with well-prepared students and highly characterized admission criteria rather than with leniency in grading practices. Likewise, Gooblar's study (2014) declared that there was no sufficient convincing evidence to prove that higher grades are connected with low quality performance.

According to Hurwitz & lee (2018) Schwager (2012) and Ziomek & Svec (1997) grading leniency had a very bad impact on students' motivation to work hard and satisfaction level. As a result of grades usually flattened at the higher end, thus, making no difference between hard working and ineligible students, demotivates the hard-working students, and gradually decreases their interest into investing more efforts in studying (Moore & Trahan, 1998; Babcock, 2010; Franz, 2010; Aton & Penaluna, 2019).

Grading leniency consequently tend to poor knowledge, skills and incapability to complete given tasks in the students (Yang & Yip, 2003; Caruth & Caruth, 2013; Franz, 2010). Inadequate grading system can bombard the society with incompetent and unskilled graduates, such students can bring havoc in their jobs and professional life after the completion of studies (Schwager, 2012; Caruth &Caruth, 2013; Marquis, 2013).

Statement of Problem

It was revealed through literature review that rare studies were conducted to discover grading leniency at public universities of Pakistan, henceforth, it was unavoidable to conduct such study to observe the prevailing circumstances dominant in universities of Pakistan. The following research study was conducted to determine the persistence of grading leniency at higher level.

Objectives

- To detect and examine the persistence of grading leniency trend over the time in universities of Punjab at BS level.
- To examine the amount of persistence in grading leniency in the final CGPAs of the BS students from University of Sargodha, University of Punjab, Lahore and Bahauddin Zakariya University, Multan.

Research Question

What is the amount of grading leniency in the final CGPAs of BS students throughout the six academic sessions (2007-2011 to 2012-2016) from three public universities of Punjab?

Research Methodology

In order to identify the persistence of grading leniency at universities, which was the major objective of the following study, longitudinal research was conducted to asses the trends in the final CGPAs of the students. Gay (1996) declared that longitudinal survey research for a Trend Study exemplifies changes of diverse samples from a population whose participants may change with the passage of time, henceforth, the researcher applied longitudinal analysis to investigate trends in the final grades of the students. To inspect the presence of grading leniency for the quantitative analysis, the data was grouped in this research in terms of CGPAs and alike grades of only final year passed out students of BS program from the years 2011 to 2016. The three selected universities i.e. BZU, Multan, UOP, Lahore, and UOS, Sargodha were considered the study sample as these were the universities which initiated BS program (4 Years) at 37 departments in 2007. The three selected universities also offered 4-year BS program in the same departments.

For this purpose, BS final year Students' CGPAs were collected from the Controller of Examination office. Students securing grades only A, B, and C in their finals were served as a major study data. To avoid unnecessary complexity of comparisons, only final semesters' grades were added. Total figure of Bs program varied yearly, total 8895 students acquired final grades, during the academic sessions (2011 to 2016). However, students included in the study from thirteen departments of BZU,

Multan were 2559, 2001 students from twelve departments of Punjab university, Lahore and 4335 students from Sargodha university. The researcher individually visited Controller of Examination office to gather students final CGPAs data.

Data Analysis and Results

The collected-data was analyzed through percentages and frequencies. SPSS version 22 was used to calculate mean values. Primarily, the mean CGPAs of the students was analyzed through Arithmetic mean (Manikandan, 2011; Cohen, Maniion, & Morrison, 2007). In order to have a clearer understanding of the trends in students' grades, cumulative data was computed at university level, and mean value of CGPAs of students was computed, arranged and compared distinctly department-wise.

Analyzing Trends in Final CGPAs of the Students at Public Universities From 2011 to 2016

The persistence of grading leniency was observed by evaluating trends in final CGPAs of the university students from 2011 to 2016 (total 6 academic sessions). The mean CGPAs of the students was calculated, which was collected from 37 departments of three well recognized public universities of Pakistan; BZU, Multan, Punjab University, Lahore and Sargodha university. Table 1 represents the data gathered from BZU university.

Table 1: Longitudinal Analysis of Trends in the Grading Of students at Punjab university, Lahore

Departments	2011	2012	2013	2014	2015	2016
Botany	3.07	3.26	3.13	3.30	3.36	3.42
Chemistry	3.37	3.60	3.58	3.61	3.53	3.54
Commerce	3.41	3.50	3.51	3.57	3.47	3.61
Computer Science	2.93	3.17	2.91	3.20	3.25	3.35
Education	-	-	-	3.02	3.02	3.34
Mathematic	3.09	3.23	3.40	3.43	3.51	3.55
Philosophy	-	-	-	-	2.95	3.07
Physics	3.09	3.22	3.32	3.38	3.49	3.48
Psychology	3.37	3.71	3.74	3.52	3.70	3.70
Sociology	3.20	3.23	3.33	3.33	3.50	3.44
Statistics	3.16	3.22	3.29	3.34	3.63	3.52
Zoology	3.21	3.39	3.40	3.40	3.35	3.62
CGPA UOP	3.17	3.35	3.36	3.37	3.40	3.48

Mean value (3.17) presented in Table 1 evidently shows that overall CGPAs of the students gathered from 12 departments of the Punjab University, Lahore in 2011, was lesser than overall mean value (3.48) of the gained CGPAs of the students during 2016. The average CGPAs of 3.17 (2011) enlarged to 3.35 in 2012, then up to 3.36 in 2013, 3.37 in 2014, 3.40 in 2015 and to 3.48 in 2016. The table clearly gives indication of an increase in CGPAs of students during the last six academic sessions of BS students. Consequently, outcomes revealed that grading leniency persist as the CGPAs of the students had a clearer upsurge in the years 2011-2016 at UOP, Lahore. Also, manifested from the longitudinal analysis of CGPAs of students. Figure 2 helps the results of final CGPAs of UOP, Lahore students from 12 departments for the academic sessions 2011 to 2016.

Figure 1 Exhibits departmental Longitudinal assessment of trends in the CGPAs of final semester students from UOP, Lahore for academic sessions 2011-2016.

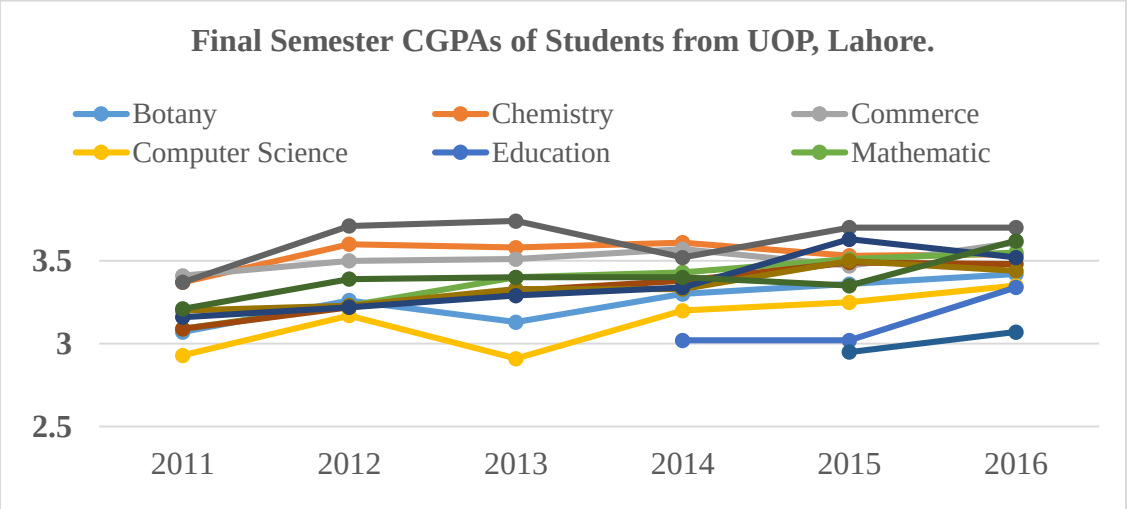

Table 2: Longitudinal Analysis of Trends in the Grading Of students from BZU, Multan

	Academic Sessions 2011-2016 BZU Multan					
Departments	***2011***	***2012***	***2013***	***2014***	***2015***	***2016***
Computer Science	*2.84*	*3.08*	*3.10*	*3.21*	*3.32*	*3.34*
Mathematic	*3.09*	*3.09*	*3.17*	*3.18*	*3.23*	*3.43*
Philosophy	*2.88*	*2.88*	*3.10*	*3.10*	*3.16*	*3.35*
Psychology	*3.58*	*3.54*	*3.58*	*3.54*	*3.66*	*3.63*
Statistics	*3.00*	*3.00*	*3.09*	*3.09*	*3.18*	*3.25*
Physics	*2.68*	*2.68*	*3.09*	*3.23*	*3.37*	*3.39*

Botany	*3.21*	*3.31*	*3.31*	*3.44*	*3.35*	*3.44*
Economic	*2.92*	*3.25*	*3.14*	*3.19*	*3.31*	*3.28*
Education	*2.96*	*3.14*	*3.06*	*3.27*	*3.50*	*3.51*
Commerce	*3.04*	*3.00*	*3.20*	*3.22*	*3.29*	*3.32*
Chemistry	*3.21*	*3.48*	*3.34*	*3.41*	*3.59*	*3.58*
Sociology	*3.09*	*3.20*	*3.24*	*3.40*	*3.31*	*3.45*
English	*3.22*	*3.41*	*3.33*	*3.37*	*3.45*	*3.51*
CGPA BZU	*3.05*	*3.16*	*3.21*	*3.28*	*3.36*	*3.42*

Table 2 demonstrated that average value of the total CGPA of the students from thirteen departments of BZU was calculated 3.5 in 2011. However, a constant and gradual increase in the mean value of CGPAs can be witnessed from the year 2011 to 2016. The mean CGPA of 3.05 in 2011 increased up to 3.42 in the year 2016. The table 1 clearly indicated that grading leniency was persistent through all the six academic sessions as the CGPAs of the students were continuously increasing every year.

Figure 2 Exhibits departmental Longitudinal assessment of trends in the CGPAs of final semester students from BZU, Multan for academic sessions 2011-2016.

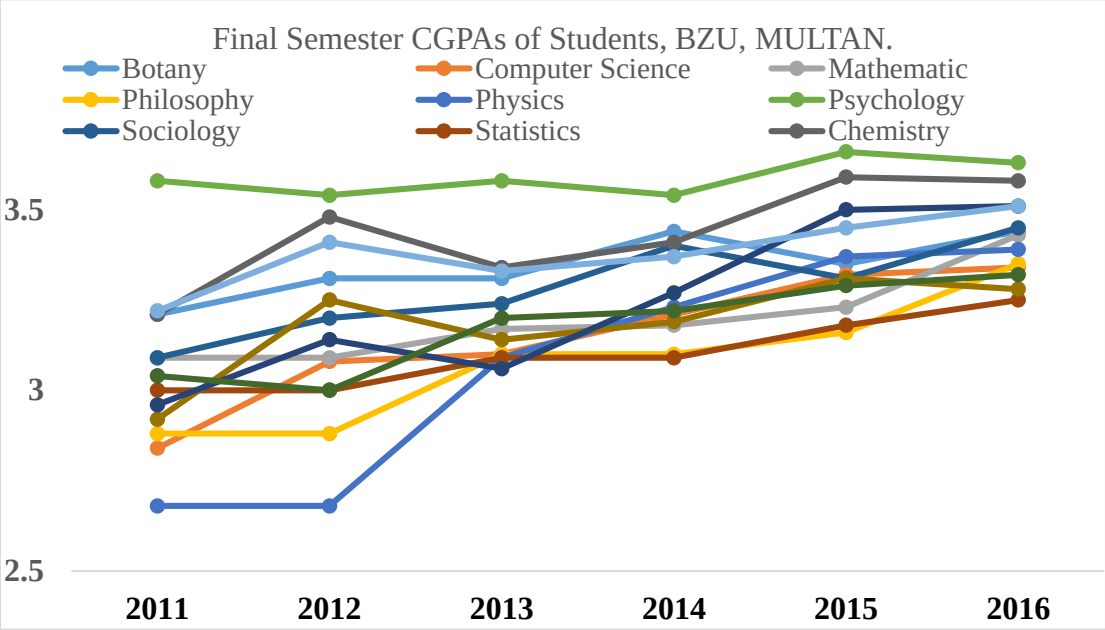

Table 3: Longitudinal Analysis of Grading Leniency Trends in the Final CGPAsOf students at Sargodha University, Sargodha

	Academic Sessions 2011-2016 University of Sargodha					
Departments	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Chemistry	3.13	3.21	3.27	3.27	3.33	3.33
Computer Science	2.65	2.74	2.68	2.78	2.96	3.23
Commerce	-	2.79	2.90	2.80	2.95	2.95
Economic	2.89	2.93	2.96	2.84	3.15	3.31
English	2.92	2.89	2.63	2.69	2.95	3.05
Mathematic	2.86	2.95	2.87	2.89	3.01	2.97
Physics	2.61	2.60	2.69	2.66	2.69	2.79
Sociology	-	-	-	-	2.97	3.03
Education	-	-	2.80	2.76	2.79	2.98
Botany	-	3.05	3.11	3.18	3.04	3.30
Statistics	-	2.94	2.96	2.94	3.02	3.19
Zoology	3.11	3.33	3.08	3.21	3.17	3.35
CGPA	2.88	2.94	2.90	2.91	3.00	3.12

Table 3 also identifies the tendency to increase as the mean value (2.88) of overall CGPAs of the students of 12 programs going on at UOS during 2011, is smaller (3.12) than overall mean CGPAs of students in 2016. The mean CGPA gradually increased from 2.88 to 2.94 in 2012, then 2.90 in 2013, 2.91 in 2014, and 3.00 in 2015 and to 3.12 in 2016. The table indicates an upsurge in the CGPAs of students from last six academic sessions of the BS students from university of Sargodha. Resultantly, it was concluded that grading leniency occurred since the CGPAs of students had increased during the years of 2011-2016, which is also obvious from the longitudinal analysis of the students.

Figure 3 presents the results of final CGPAs of students of 12 departments of UOS, for academic sessions 2011-2016. Figure 03 presents the results of departments- wise longitudinal analysis of trends in final CGPAs of students at UOS, for academic sessions 2011-2016.

Figure 3 Exhibits departmental Longitudinal assessment of trends in the CGPAs of final semester students from UOS, Sargodha for academic sessions 2011-2016.

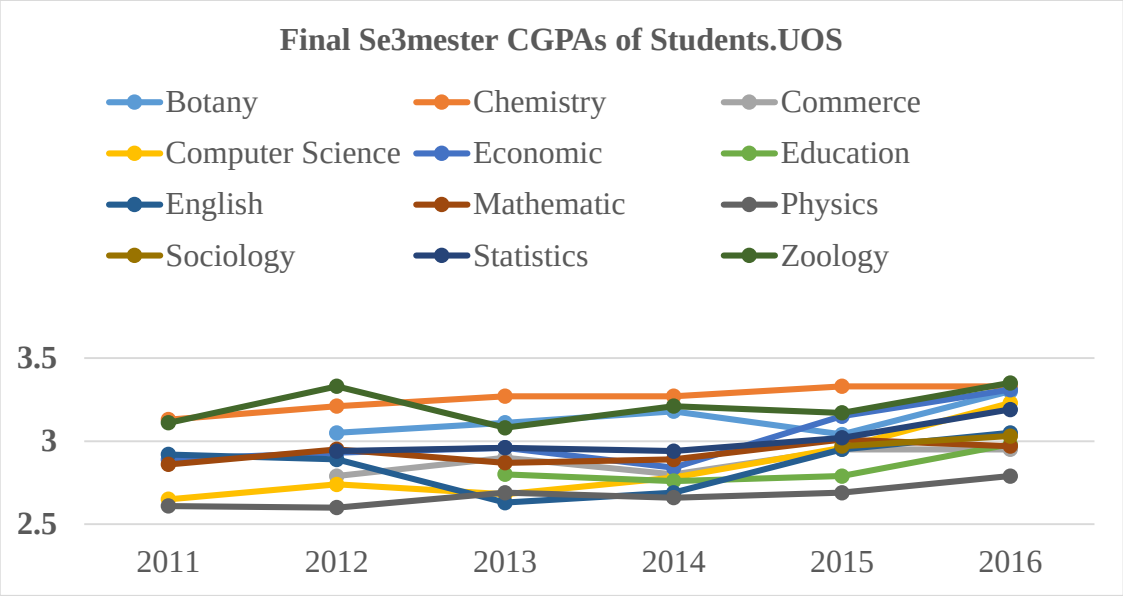

Table 4: Longitudinal Analysis of Grading Leniency Trends in the Final CGPAs of Students at University level.

Academic Sessions 2011-2016 of three Universities						
Universities	2011	2012	2013	2014	2015	2016
University of Punjab, Lahore	3.17	3.35	3.36	3.37	3.40	3.48
Bahaudin Zakariya University, Multan	3.05	3.16	3.21	3.28	3.36	3.42
University of Sargodha	2.88	2.94	2.90	2.91	3.00	3.12
Overall	3.03	3.15	3.15	3.18	3.25	3.34

Table 4 explicitly demonstrates the fluxes and nature of grading leniency in the CGPAs drawn from the previous final year students (BS-4) from the years 2011-2016. Table has clear indications that total CGPAs of the students with the mean value (3.03) in 2011 was smaller than mean value in 2016 (3.34) in 37 departments of three public universities of Punjab. It means there was a gradual but consistent increase year by year. The mean CGPA in 2011 increased to 3.15. then in 2012 increased to 3.15, then 3.18, 3.25 and finally to 3.34 in 2016. The table warns a constant increase in the CGPAs of the students through the 6 academic sessions. Furthermore, there was difference in the increasing trend among the three universities, the CGPAs of past final years at UOS was slightly increased than BZU, Multan and UOP, Lahore, whereas the CGPAs of past final year students from UOP, increased drastically in every session at BS level as compared to BZU and UOS. Thus, the results revealed that grading leniency was persistent as the CGPAs of the students were

increased from the years 2011-2016, the longitudinal analysis of the CGPAs also proved the existence of grading leniency.

Figure 4 Exhibits comparison among public universities (e.g., UOP, Lahore, BZU Multan, UOS, Sargodha) From 2011 to 2016.

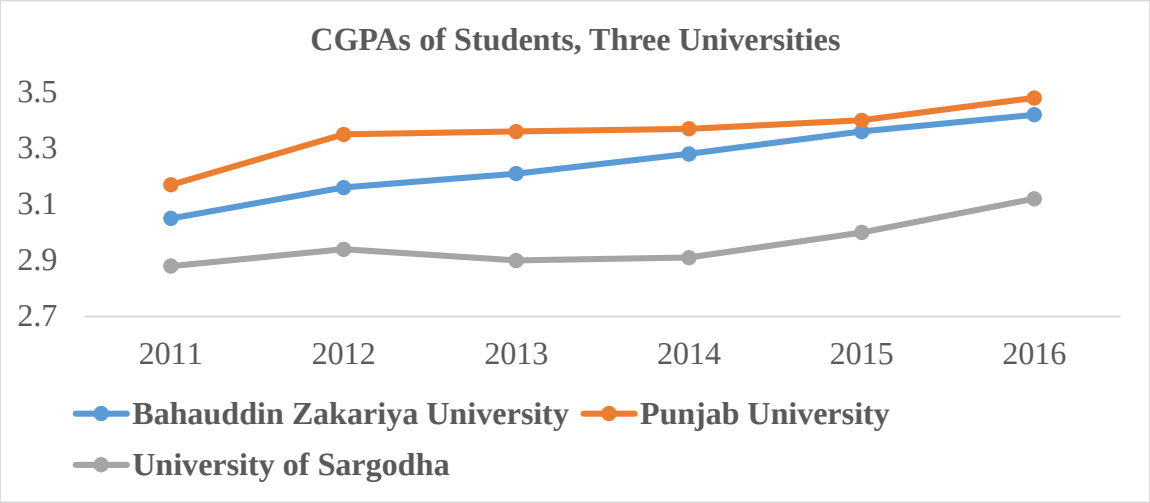

Figure 4 clearly indicated constant rise of CGPAs of previous final year students that characterize the nature and intensity of grading leniency in BS program from the years 2011 to 2016, from three public universities of Punjab, Pakistan. The above figure also highlighted that the mean value of total CGPAs of the students in 37 departments, was 3.03 during the year 2011, which is far lesser than the overall mean CGPAs of the students in the year 2016 (i.e,3.34). Besides, the overall CGPAs of the Sargodha university students, of the last 6 academic sessions was increased gradually. However, the rise in CGPAs was comparatively slow and lesser than the universities of BZU, Multan and University of Punjab, Lahore. Whereas, BZU and UOP has dramatic increase in the CGPAs of the students every year. University of Punjab, Lahore had higher trend of grading leniency in CGPAs than the other two universities of Punjab. Resultantly, it was revealed that grading leniency was persistent in the CGPAs of the university students.

Discussion

Through data-analysis of all the 37 departments of the universities from public sector, it was found that undergraduate students were wrongly graded from the year 2007 to 2016. Six academic sessions were the proof of inadequate grading system in public universities. Undoubtedly, the study also highlighted that normal grade-curve have been fixated at the higher end, which is logically not possible. Unfortunately, in Pakistan, there are no serious concerns shown over the matter of grading leniency, nor any fruitful researches have been conducted to bring amendments in grading system. The following research study, through careful analysis of the data drawn from six academic years illustrated that grading leniency is a constant factor in our education system. The issue of persistent inadequacy in grading system was somewhat explored by some other researchers in their studies to measure the fluctuations and trends in grading system at schools, colleges and universities (Ridley & Summerville, 1999; Anglin & Meng, 2000; Nelson, 2002; Ostrovsky & Schwarts, 2003; O'Grady, 2009; Love & Kotchen, 2010; Rojstaczer & Healy 2012; O'Halloran & Gordon, 2014; Ali et al., 2016; Ayyappan et al., 2017; Blum, 2018; Nordin et al., 2019).

Recommendations

1. The study strongly recommends to develop effective policies regarding unified grading system in education at every level.
2. Policies should be designed with set standards, clearer resolutions, processes and comprehensive rules are required to ensure the implementation of unified grading system.
3. University should come forward to take serious steps to advertise those policy guidelines to the shareholders. Not only by conducting workshops, official meetups, discussions and seminars but also by distributing manuals, booklets, and brushers before the start of every academic session. Teachers particularly, be familiarized with the new norms through which students' performance will be accurately evaluated and graded by the teachers.
4. There is a dire need to develop a 'Rakenal' scale in accordance with the content guiding principle and study outcomes to subside the inadequate grading system.
5. The research study also established the fact that majority of the teachers were not clear about grading system due to complex rating points and structure. Hence, a clearer, well-defined, and easily adopted system for grading must be designed for teachers.

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