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### An investigation of Inflation in Grades in Higher Education: A Longitudinal Analysis of Learners' Performance

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#### Abstract

Grades are standards and indicators to reflect student learning effects in institutes around the world. Grades play an important role in considering a student's performance while recruiting or admitting learners to higher educational institutional. However, current researches in educational system have showing an extensive procedure of Inflation in grades that lays a straight pressure on integrity and liability of university's values of superiority and their leaners. Key objective of this investigative study was, therefore, to examine presence of Inflation in grades in higher educational institutes. To accomplish the goal of this study, descriptive research strategy was used by the researcher. The quantitative technique sustained by qualitative data collecting practice was used to gather data. For the determination of presence of inflation in grades, two ways were implemented. First, longitudinal investigation of tendencies in learners' grades was carried out. Secondly, variance between learners' achievement in teacher made test [TMT] and researcher made test [RMT]. For this purpose, firstly, the record of learners acquiring accepted CGPAs and consistent grades of 36 departments of BS-4 year's programs of five sessions (i.e. 2012-2016) of 3 Universities of Punjab were gathered from Controller of Examination office. Secondly, the information of learner's grades received from the scores in teacher made test [TMT] and researcher made test [RMT] in 14 departments of Bahauddin Zakariya University Multan was collected. The collected data was analyzed by percentage and t- test is used to find the difference in TMT and RMT. Findings of study revealed that the overall longitudinal investigation of trend in student's final grade, A and B grades being awarded more than C grade, increased CGPAs and percentage alteration in level of high grades of A, B and C in 36 departments of three different universities of Punjab is indication of usual high inflation in grades. Better scores in RMT as related to TMT exposed a significant difference among the mean scores and also clearly seen that inflation in grades existed in both groups at university level.

Keywords: Grades, Cumulative grade points, Longitudinal analysis, Inflation.

#### 1. Introduction

Simon (2012) explains that people create certain standards for themselves and measure their worth according to these standards. These standards can generally be called grades. Similarly,

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Brookhart (2016) argued that grading refers to clear standards that accurately measure student progress and performance, or numbers assigned to grades that evaluate student work. Macgowan and Wong (2017) define score as a score or number that shows the student's performance. Kotchen and Love (2010) stated that grades form the basis for teachers to evaluate learners' work and for learners to evaluate teachers. Additionally, Pattison (2013) explained that grades are related to learners and learning. Hutt and Schneider (2014) argue that it is important to see grades as inevitable and fixed, without evolution and beginning.

Additionally, scores may predict future academic problems that require immediate intervention (Bowers, Sprott, and Taff, 2013). Therefore, according to Cliffordson and Thorsen (2012), grades help learners to apply and get admittance into higher education. Airasian and Gullickson (1994) also stated three purposes of grades: (i) Grades are a source of motivation for learners to do their best; (ii) Grades indicate the student's standing relative to other learners in the class. (iii) Grades provide learners with appropriate feedback on their learning, progress and performance. Schools should consider transcripts as a source of information and make informed choices.

Schinske and Tanner (2014) stated that current grading systems are constantly changing and evolving, which leads to inflation in grades in teaching institutes. Most scholars interpret Inflation in grades as an increase in grade point average and grades over time due to changes in grading ideals and performs, even if there is no change yet in quality of the learner work (Hurwitz and Lee, 2018; Love & Kotchen, 2010) Some investigators, like Cizek (1996) and Kohn (2012) do not accept the use of the term grades inflation and prefer the term grades density. Therefore, according to Rosovsky and Hartley (2002), the grade compression level emerged at the upper limit of the distribution. Grades may lose its ability to differentiate from ability and become an informational skill that benefits High achievers from the low achievers (Abbas & Ashiq, 2017; Ostrovsky 2003; Rojstaczer & Healy, 2012). Although the indication supporting the existence of inflation in grades seems irresistible, not everyone agrees with it. Adelman (2004) states that although today's average scores are higher than in the past, this phenomenon is exaggerated. While Kohn (2002) suggested that today's college learners' higher grades may be due to the fact that they are smarter and more active than previous learners. Kohn also noted that previous empirical studies claiming to confirm the existence of inflation in grades were based on learners' self-reported data, which were unreliable and unrepresentative.

### 2. Background of the study

Research on the inflation in grades of Learners in higher education is important because test scores are required for course selection, course retention, and international selection. The organization relies on qualified individuals with knowledge, good education and talent to build a smart and strong country and the level of their grades leads to the knowledge about their performance (Ashiq et al., 2020). For learners, employers and universities, both external and internal grades have lost their distinctiveness and value as indicators of competence and qualification effort. Grades provide graduates with false information about their performance (Chowdhury, 2018; Muneeb et al., 2023; Pattison, 2013). According to the researcher's knowledge and critical literature review, there is no research on higher education level in Pakistan except the research conducted by Noureen (2014). This background shows that the inflation in grades exists, but all these studies do not provide detailed and comprehensive information about the existence of the inflation in grades, so findings that the inflation in grades exists at university level is needed to be examined.

### 3. Objectives of the study

The objectives of any research represent short statements that summarize the detailed nature of the research question (Parahoo, 2014). The goals of the study were;

- 1. To investigate the presence of inflation in grades at university level.
- 2. To determine whether there are consistent trends in university learners' academic performance over time.
- 3. To analyze the existence of inflation in grades by finding difference between learners' performance in teacher made test [TMT] and researcher made test [RMT].

### 4. Research Methodology

The key purpose of the study was to inspect the presence of inflation in grades in campuses of Pakistan. To attain this goal, two means were used to investigate the examination of trends in grades at university level and presence of inflation in grades. Firstly, longitudinal investigation of tendencies in learners' grades, Secondly, variance among learners' performance in teacher made test [TMT] and researcher made test [RMT]. Two types of surveys were employed to collect data - longitudinal and cross-sectional survey (Best & Kahn, 2006). Trend study of longitudinal survey which study changes over time (Gay, 1996) was employed to analyze trends in student's grades and cross-sectional survey which focuses on a single point in time was used to conduct TMT and RMT.

### i. Selection and Collection of Data for Longitudinal Investigation

To inspect the presence of inflation in grades, longitudinal investigation of tendencies in learners' scores was completed in three means. Firstly, the presence of inflation in grades was inspected by examining inclinations in CGPAs of learners. Secondly, examine percentage of the grades gotten by learners in (CGPAs) Cumulative Grade point Average and then, percentage-wise alteration during degree of grades over specific time 2012-2016 of three universities was examined. In this study, for the examination of inflation in grades through the learners' grades among the five sessions (2012-2016) three universities i.e. UOP, Lahore, BZU, Multan and UOS, Sargodha were reserved as sample of the study because these Universities started BS programs in 36 departments through the year 2007. To study the presence of inflation in grades and for analysis of numerical data, the numerical data collected in the study were (CGPAs) Cumulative Grade point Average and consistent grades of learners of BS programs of five sessions (2012-2016) of 36 departments of universities of Punjab. For this reason, (CGPAs) Cumulative Grade point Average of learners of BS program, those get grades from A to C, aided as learners' numerical data of grades were gathered from Office of Examination cell. Total number of BS learners 8898 during the sessions 2012-2016, present in study, in which, there were 2556 from 13 different departments in Bahauddin Zakariya University Multan, 4336 were from UOS, Sargodha and 2002 were from 12 departments of UOP, Lahore.

### ii. Selection and Assortment of Data for Learners' Enactment in RMT and TMT

To scrutinize the presence of inflation in grades, for the numerical analysis of difference among learners' enactment in (Teacher Made Test) TMT and (Researcher Made Test) RMT through the 2016-2020 semesters at Bahuddin Zakariya University, Multan, Pakistan was examined. Due to this purpose persistence, a (Teacher Made Test) TMT for the course of English was conducted by (Researcher Made Test) RMT from the similar learners. Total An investigation of Inflation in Grades in Higher Education: A Longitudinal Analysis of Learners' Performance

population in 13 departments (both sciences and social sciences groups) of Bahuddin Zakariya University which presented the English during the year (2016-2020) was 1153. Out of 1153, 689 learners were accessible at the time of conduction of test. From these 689 learners, 315 learners were from social sciences and 373 learners were from sciences group. The researcher gets the list of learners from Departments of sciences and social sciences of BZU Multan.

### 5. Analysis of the data

The data was analyzed in two sections by employed the percentage wise and t-test techniques. First, the presence of inflation in grades was observed by inspecting percentage of the grades earned by learners in CGPAs during the 2012-2016 (5 sessions). Second, finding the Inflation in grades by examine the difference among learners' enactment in Teacher Made Test (TMT) and Researcher Made Test (RMT) through the Year (2016-2020) at BZU, Multan.

## Part I: Longitudinal Investigation of Trends in Learners' Grades to Inspect the Presence of Inflation in grades

This part shows the data to examine the distribution of learners' grades in universities of Punjab. For this reason, the grades, received by BS 4-years programme learners through the years 2012-2016, were selected. The information of learner's grades got in 36 courses of BS 4-years programms of universities of Punjab were gathered. Average and percentage were used for analysis of data. The presence of Inflation in grades was inspected by examining trends in CGPAs of learners during 2012-2016(5 sessions).

# Longitudinal Investigation of Percentage of Grades Gotten by University Learners during the 2012-2016(5 sessions)

To examine the presence of inflation in grades, this segment offers the longitudinal investigation of percentage of grades received by learners of universities of Punjab. In this segment, the information was examined by the method of percentage and by average. For clarity, both A and A+ grades have been combined into a single A grade. The number of grades (A to C) was converted to percentage. They are more useful for comparison and easy interpretation of notes of 36 courses. (BZU, Multan, UOP, Lahore, UOS) BS-4 years program from three universities of Punjab.

Table 1 shows the percentage of grades of learners of 12 departments of BZU, Multan from years

2012-2016.

#### Table 1

Longitudinal Investigation of Perccentage of Grades	s Gotten by Learners at Bahaudd	in Zakariya
University, Multan.		

Departments															
	2012 %		201	3 %		201	14 %		201	15 %		201	6 %		
	Α	В	С	Α	В	С	Α	В	С	Α	В	С	Α	В	С
	0			0	0.4	1.4	0	0.5	-	0	100	0	2	07	2
Chemistry	0	94	6	0	84	16	0	95	5	0	100	0	3	97	3
English	0	87	13	0	90	10	0	95	5	3	97	0	5	91	3
Philosophy	0	30	70	0	67	33	0	67	33	5	53	42	0	71	31
Psychology	0	93	8	0	86	14	0	93	8	0	97	3	7	95	1
Finance &	0	53	47	0	90	10	6	69	26	2	80	17	3	77	23
Accounting															
Computer	0	58	43	13	42	45	0	70	30	7	72	20	9	77	13
Science															
Sociology	0	69	31	0	71	29	0	89	11	0	77	23	0	83	16
Education	0	56	44	0	43	57	0	73	27	0	85	15	5	86	9
Mathematic	0	87	13	0	70	30	0	62	38	8	62	31	0	83	17
Economics	0	65	35	0	62	38	0	64	36	0	81	20	0	81	19
Physics	0	53	47	0	63	37	0	74	26	0	87	13	3	91	5
Statistics	0	67	33	0	59	41	0	41	59	0	74	26	2	78	17
Botany	Ő	88	13	Õ	88	13	Õ	92	8	9	88	6	8	92	0
Dotally	Ŭ	00	15	0	00	15	0	/2	U		00	0	0	/2	Ū
% of Grade at BZU	0	68	32	2	69	29	0	77	24	5	80	16	4	85	11

Table 1 clearly shows that the percentage of grades received by learners in 2012 was lower than the percentage of grades received by Learners in 2016. While this rate was 0% in 2012 it increased to 1% in 2013. 2016. It was 0% in 2013, 0% in 2014, 05% in 2015, and 04% in 2016. Similarly, the percentage of B grades received by learners in 2012 was lower than the percentage of B grades received by graduates in 2016. While this rate was 68% in 2012, 69% in 2013 and 77% in 2013 81% in 2014, 80% in 2015 and 85% in 2016. Additionally, the percentage of Learners who passed the exam and received a C grade in 2012 was higher than the percentage of university Learners who passed and received a C grade in 2016. While this rate was 32% in 2012, 30% in 2013, 24% in 2014, 16% in 2015 and 11% in 2016. Therefore, all results show the percentage of those graduating with an A grade BS level improved from 2012 to 2016, while C grade decreased during the same period. Therefore, from the longitudinal analysis of the percentages, it can be determined that the level of inflation exists in these offices.

Further, the table 2 shows the percentage of scores of learners of 11 departments of UOP, Lahore, from years 2012-2016.

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U		0				0			0						
		Year	8												
Departments	201	12 %		201	13 %		201	4 %		201	15 %		201	6 %	
_	А	В	С	Α	В	С	Α	В	С	Α	В	С	Α	В	С
Botany	0	84	16	0	58	42	0	88	13	0	76	24	0	89	11
Commerce	0	93	7	0	93	7	0	95	5	0	97	3	0	100	0
Computer Science	0	67	33	0	39	61	0	75	25	0	93	7	0	88	13
Chemistry	0	100	0	0	96	4	0	92	8	0	88	12	0	100	0
Psychology	0	100	0	0	100	0	0	100	0	6	89	6	0	100	0
Education	0	0	0	0	0	0	0	50	50	0	75	25	0	82	18
Philosophy	0	0	0	0	0	0	0	0	0	0	45	55	0	38	63
Physics	0	80	20	0	90	10	0	88	13	0	88	12	0	87	1
Mathematic	6	67	28	0	79	21	5	67	29	0	88	13	8	80	12
Statistics	0	40	60	0	63	37	0	78	22	0	31	69	4	92	4
Sociology	0	68	32	0	95	5	0	77	23	0	91	9	0	79	21
% of Grade at UOP	1	66	17	0	66	17	0	75	18	1	80	20	2	84	13

Longitudinal Investigation of Grade Percentage Gotten through Learners at UOP, Lahore.

Table 2.

Table 2 clearly shows that the percentage of marks obtained by Learners in 2012 was lower than the percentage of marks obtained by Learners in 2016. While this rate was 01% in 2012 and 0% in 2012, 0% in 2013, 2014, 01% in 2015 and 02% in 2016. In 2016, this rate was 62%, increasing to 66% in 2012, 66% in 2013, 75% in 2014, 80% in 2015 and 84% in 2016. The rate of Learners who were graduated in 2012 and received C was higher than the Learners who graduated in 2016 and received C. While this rate was 17% in 2012, 17% in 2013, 18% in 2014, 20% in 2015, and 13% in 2016. The results show that from 2012 to 2016, the percentage of Learners receiving As and Bs increased, while the percentage of Learners receiving C grades decreased during the same period. Therefore, it can be concluded that there is inflation in these services, as can be seen from the longitudinal percentage analysis.

Further, table 3 clearly shows that the percentage of marks obtained by learners in 2012 was lower than the percentage of marks obtained by learners in 2016. This percentage was 0% in 2012, and 0% in 2013. It increased by 0% in 2014, 0% in 2015, and only 01% in 2016. Similarly, the percentage of B grades received by learners in 2012 was lower than the percentage of B grades received by graduates in 2016. The rate, which was 37 percent in 2012, 42 percent in 2013, 38 percent in 2014, 50 percent in 2015 and 58 percent in 2016. The percentage of learners who graduated with C grade in 2012 is greater than the percentage of university learners who passed with C grade in 2016. While this rate was 44% in 2012, 50% in 2013, 52% in 2014, 50% in 2015 and 38% in 2016. The results therefore show that the percentage of learners achieving Bs and Cs: grades rose from 2012 to 2016, while A levels rose slightly over the same period. Therefore, it has been determined that there is a level of inflation in grades these programs, as can be seen from the longitudinal examination of the percentage level.

Table 3 shows the grade percentage learners of 11 different at University of Sargodha from Years 2012-2016.

Table 3.

Longitudinal Investigation of Percentage of Grades Gotten by Learners at UOS.

_	Y	ears													
Departments	2012 %			201	13 %		20	14 %		201	5 %		20	16 %	
_	Α	В	С	А	В	С	Α	В	С	Α	В	С	Α	В	С
Botany	0	54	46	0	63	37	2	57	38	0	60	40	3	67	30
Chemistry	0	74	26	0	75	25	0	83	17	0	84	16	0	84	16
_															
Computer	0	27	73	0	26	74	0	28	72	0	46	54	1	61	38
Science	0	10	<b>5</b> A	0	<b>7</b> 1	40	0	4.1	50		<b>()</b>	25	2	<b>7</b> 1	10
Economic	0	46	54	0	51	49	0	41	59	I	62	35	3	51	46
Education	0	0	0	0	36	64	0	22	78	0	22	78	0	52	48
Mathamatia	0	11	57	0	11	56	Ο	11	56	0	57	12	Ο	17	52
	0	44	15	0	44 57	42	0	44 00	10	0	71	45	1	4/	11
Zoology	0	85	15	0	57	43	0	82	18	0	74	20	1	88	11
Statistics	0	42	58	0	48	52	0	47	53	2	54	47	3	63	35
Sociology	0	0	0	0	0	0	0	0	0	0	51	48	2	71	27
F 1' 1	Ő	10	51	0	10	0.1	0	10	00	1	20	(1	-	4.4	= -
English	0	46	54	0	19	81	0	10	90	1	38	61	2	44	55
Commerce	0	26	74	0	47	53	0	29	71	0	42	58	0	48	52
Physics	Ő	15	85	Ő	21	79	Ő	21	79	Õ	23	77	Ő	26	74
1 Hysics	0	15	05	0	21	1)	0	21	1)	0	25	,,	0	20	/ 4
% Of Grade at	0	37	44	0	42	50	0	38	52	0	50	50	2	58	38
Sargodha															

Table 4 illustrate the percentage grades gotten by the university learners of 37 departments from years 2012-2016.

Table 4.

Longitudinal Investigation of Grade Percentage Gotten by University Learners.

U		U				0			•	•					
TT ' '.'	2012 %			2013 %			2014 %			2015 %			2016 %		
Universities —	А	В	С	А	В	С	А	В	С	А	В	С	А	В	С
University of Sargodha	0	38	45	0	41	51	0	39	53	0	51	49	1	59	40
Zakariya University University	0	69	31	1	70	29	0	76	24	3	81	17	3	85	12
of Punjab, Lahore	1	66	17	0	66	17	0	75	18	1	80	20	2	84	13
Overall % age of Grades	0.33	57.66	31.00	0.33	59.0	32.33	0	63.33	31.67	1.33	70.67	28.67	5	76	21.67

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Table 4 shows the presence and rate of inflation in grades in BS-4 classes over the years 2012-16 in three universities in Punjab, according to the percentage change in grades of learners. In the statement, it is clearly seen that the percentage of total grades received by learners in 2012 was lower than the percentage of grades received by graduates in 2016. While this rate was 0.33% in 2012 and 0.33% in 2012, 0% in 2012, 0% in 2013, 0% in 2014, 1.33% in 2015 and 2% in 2016. Similarly, the total percentage of B grades received by learners in 2012 was lower than the percentage of B grades of those who graduated in 2016. This rate, which was 48.3% in 2012, increased to 57.66% in 2012 and 2013. It was 59.0% in 2014, 63.33% in 2014, 70.67% in 2015 and 76% in 2016. While this rate was 32.67 percent in 2012, it increased to 31.00 percent in 2012, to 32.33 percent in 2013, to 31.67 percent in 2014, to 28.67 percent in 2015, and to 20 percent in 2016. It dropped to 21.67. At the end of the period, it was 28.67 percent in 2015, 21.67% in 2016. While BZU Multan University has slightly more learners in the sixth form than UOS and UOP, the percentage of UOP learners who got B grades in every subject last year is higher than BZU and UOS. There has also been an increase in C grades of UOS learners in the last 6 semesters compared to BZU Multan and UOP Lahore, indicating that A and B grades have increased in schools. Therefore, all results show that the percentage of learners receiving A and B grades increased from 2012 to 2016, while the percentage of learners receiving C grades decreased in the same period. Therefore, based on the longitudinal analysis of degree percentages in universities in Punjab, it can be concluded that there has been an increase in inflation of grades.

## **Part-II: Investigation of Inflation in grades by Inspecting the Difference among Learners' Performance in TMT and RMT**

This segment examined the information for investigation of Inflation in grades by investigating the difference among learners' performance in (TMT) and (RMT) through year (2016-2020) at Bahauddin Zakariya University, Multan, Pakistan. To obtain this objective, a (Teacher Made Test) TMT in the second course of English was conducted with the help of (Researchers Made Test) RMT from the learners. Total population in (13 departments of both sciences and social sciences groups of Bahauddin Zakariya University), which presented the English course in 2<sup>nd</sup> semester through year (2016-2020) was 1153. Out of 1153, 689 learners were from social sciences and 373 learners were from sciences group. The researcher gets the list of learners from Departments of sciences and social sciences of BZU Multan, Pakistan. The data was analyzed by using independent sample t-test.

## Investigation of Difference among Learners' Enactment in TMT and RMT in the different Subjects of Social Sciences

This portion shows the variance among Learners' enactment in TMT and RMT in social sciences through the 2<sup>nd</sup> semester at Bahauddin Zakariya University, Multan. An independent sample of t-test was used on the sample of 315 learners in 08 social sciences subjects of Bahauddin Zakariya University, Multan for finding either there is difference in performance of learners in scores of RMT and TMT.

Table 5 shows difference among Learners' enactment in TMT and RMT in 07 subjects of social sciences.

Difference among Learners' Performance in TMT, RMT (Social Sciences)											
Subjects	Test type	Mean	Ν	SD	t	df	Sig(2-tail)				
Applied Psychology	TMT	64.00	45	13.151	10.26	44	< 001				
	RMT	42.62	45	10.196	10.20	44	<.001				
Commerce	TMT	60.02	62	14.111	8.03	61	< 001				
	RMT	42.65	62	11.778	0.05	01	<.001				
Economics	TMT	64.08	87	19.942	14 53	86	< 001				
	RMT	30.28	87	10.144	14.55	80	<.001				
Education	TMT	60.84	37	17.965	2 72	26	0.010				
	RMT	52.97	37	10.787	2.12	30	0.010				
English	TMT	61.72	47	6.871	5 75	16	< 001				
	RMT	45.49	47	17.626	5.75	40	<.001				
Philosophy	TMT	42.50	2	12.021	1 9/	1	0.217				
	RMT	25.00	2	1.414	1.04	1	0.517				
Sociology	TMT	63.08	36	20.799	6 19	25	< 001				
	RMT	39.44	36	9.229	0.40	55	<.001				
Over all	TMT	63.29	316	15.394							
	RMT	41.39	316	12.844	18.82	315	<.001				

Table 5 shows that in all social Sciences subjects, learners' mean scores on the TMT were higher than their mean scores on the RMT. In the statement, it was stated that p values for all social disciplines except the Department of Philosophy were less than 0.05. This shows that learners achieved higher scores in TMT compared to RMT. This shows that there is a large difference between the averages of the two groups of scores. Also, the overall test showed that the student's TMT score (M = 63.29, S.D = 15.39) was related to the student's RMT score (M = 41.39, S.D = 12.84, t (18.82) = 315 shows that there is a noteworthy difference between TMT scores and RMT scores of second semester (2016-2020) social sciences learners at Bahauddin Zakariya University Multan. Moreover, the results for the study show that there are differences in learners' performance on TMT and RMT test scores, indicating the existence of the inflation in grades atBahauddin Zakariya University Multan.

### Investigation of Difference among Learners' Enactment in TMT and RMT in the Subjects of Sciences.

This portion shows the variance among Learners' enactment in TMT and RMT in sciences subjects through second semester at Bahauddin Zakariya University, Multan, Pakistan. An independent sample of t-test was used on 373 learners in the 07 sciences subjects of Bahauddin Zakariya University, Multan, Pakistan for finding either there is difference in performance of learners in scores of TMT and RMT.

Table 6 shows difference between learners' enactment in TMT and RMT in 07 subjects of sciences through the at BZU, Multan.

Table 5

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Subjects	Test Type	Mean	N	SD	t	df	Sig(2-tail)
Botany	TMT	73.81	43	3.781	10.409	40	< 001
	RMT	37.91	43	11.662	19.408	42	<.001
Chemistry	TMT	87.39	76	94.550	1 (7)	75	< 001
·	RMT	35.50	76	8.740	4.0/0	15	<.001
Computer Science	TMT	72.93	45	9.006	0 020	4.4	< 001
•	RMT	55.51	45	11.104	8.830	44	<.001
Mathematics	TMT	77.05	55	4.774	16.051	51	< 001
	RMT	55.27	55	10.287	16.051	54	<.001
Physics	TMT	76.29	65	7.506	21 (12	61	< 001
	RMT	45.72	65	10.307	21.015	04	<.001
Statistics	TMT	54.02	45	12.609	2 077	4.4	< 001
	RMT	44.31	45	9.515	5.977	44	<.001
Zoology	TMT	72.60	43	8.748	17 172	40	< 001
	RMT	36.56	43	9.106	1/.1/2	42	<.001
Overall	TMT	74.86	372	44.115	12 625	270	< 001
	RMT	44.10	372	12.660	12.035	512	<.001

Difference among Learners' Enactment in TMT and RMT (Science Courses)

Table 6

Table 7

Table 6 shows that in all Sciences subjects, learners' mean scores on the TMT were higher than their mean scores on the RMT. In the statement, it was stated that p values for all science disciplines were less than 0.05. This shows that learners achieved higher scores in TMT compared to RMT. This shows that there is a large difference between the averages of the two groups of scores. Also, the overall test showed that the student's TMT score (M = 74.86, S.D = 44.11) was related to the student's RMT score (M = 44.11, S.D = 12.660), t (12.63) = 372, P <.05 displays that there is a noteworthy difference among TMT scores and RMT scores of second semester (2016-2020) social sciences learners at BZU Multan. Moreover, the results for the study show that there are differences in learners' performance on TMT and RMT test scores, indicating the existence of the inflation in grades at BZU Multan.

Table 7 Shows difference among Learners' performance in TMT and RMT in 14 subjects of sciences and social sciences.

and Science	es subjects).						
Groups		Mean	Ν	SD	t	df	Sig(2tail)
Social	TMT	63.28	315	16.384	19 777	214	< 001
Sciences	RMT	41.33	315	13.744	18.727	514	<.001
Soionoo	TMT	75.76	371	43.115	12 725	272	< 001
Science	RMT	43.20	371	13.660	12.755	512	<.001
Overell	TMT	68.08	678	34.935	19 679	697	< 001
Overall	RMT	41.41	678	13.436	10.070	007	<.001

Overall Investigation of Difference among Learners' Enactment in TMT and RMT (Social Sciences and Sciences subjects).

Table 7 shows that learners' mean scores on TMT were higher than their RMT scores in all courses in social and natural sciences. The results show that the p value was less than 0.05 for all subjects in both groups. This shows that learners achieved higher scores on the TMT compared to

the RMT, indicating a significant difference in the content of the two sets of scores. Both test groups compared with the student's TMT score (M = 69.09, SD = 34.83) and the student's RMT score (M = 42.40, SD = 13.33) t = 18.66 = 687, showed that there is difference between RMT scores and TMT scores in all science subjects in the second semester of BZU BS 4-year course in Multan. In addition, the average TMT and RMT scores of the learners in the science group were significantly higher than the TMT and RMT averages of the learners in the social sciences group. Therefore, it shows that inflation in grades exists in both sciences and social science departments of BZU Multan.

### 6. Conclusion

Created from the examination of the data, the subsequent conclusions are drawn. From the results of the study, it is shown that in 2012 A and B grades were given less and C grades were given more to the learners while in 2016 A bad B grades were increased however C grade reduced by the passage of time. The longitudinal analysis Consequences also exposed that inflation in grades occurs because the CGPAs of learners were increased it is shown from the longitudinal investigation of CGPAs of learners. The grades of 37 departments from three universities of Punjab provide evidence that there is inflation in grades of learners. A regular rise in achievement of learners in terms of number progressively created inflation in grades.

Second, the investigation showed that learners achieved less scores in RMT as compared to TMT; this shows that there is a significant difference in the average of the two score groups. It is clearly seen that because science subjects were emphasized by the university therefore scores of sciences subjects are increasing rapidly. This shows that there is an increase in the level of grades at university level in both groups (social sciences and sciences). Third, overall consequences about the perception of teachers and administrators recommended that Inflation in grades moderately exists in their departments. The majority of teachers (80.80%) agree that inflation in grades occurs in their departments. Moreover, they also displayed that inflation in grades exist to the extent of 57.7% in their institutes.

### 7. Recommendations

The following are the recommendations:

It is suggested that universities focus on generating policies for common grading between universities and departments. For effective and efficient grading, specific rules, clear standards, objectives, procedures and detailed instructions should be established. A student survey should be conducted to understand their views on grading standards and other issues affecting grading in Pakistani universities. Similar studies should be conducted from time to time in all universities in Pakistan and the findings should be related and shared with other universities, society, teachers and administrators. The study found that most learners scored high on the TMT but were inadequately prepared for the RMT and scored lower on certain tests. More research on the emotional and psychological effects of these tests is needed to improve learning and performance.

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