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## A Comparative Study of the Impact of Teachers' Academic Division (First vs. Second/Third Division) on Students' Academic Achievement at the Secondary School Level

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### Abstract

*This research involved the issue of academic division of teachers (First vs. Second/Third Division) on academic performance of students in secondary school level in government and non-government schools of District Dera Ghazi Khan, Punjab, Pakistan. The quantitative causal-comparative research design was used. All secondary school teachers in the district constituted the population with stratified random sample selection being done using the Krejcie and Morgan (1970) sample size determination table. The academic success of students was calculated by use of official yearly examination scores whereas the academic division of teachers was derived using confirmed academic documentation. The data analysis was conducted on descriptive statistics and inferential statistics based on the independent-samples t-test, two-way ANOVA, and regression analysis. The results are empirical evidence in regards to whether the academic background of teachers is a major predictor of the academic achievements of students in different sectors of schools. The research has implications to teacher recruitment, placement, and professional development policies in the secondary schools.*

**Keywords:** teacher academic division, student achievement, secondary schools

### Introduction

Academic performance of students has been one of the most critical measures of the efficiency and growth of education in a nation. In particular, secondary education contributes significantly to the future academic path of students, their employability, and social mobility. Teacher quality is always recognized as one of the most important factors in the achievement

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of students regarding the influence of many factors that may influence student achievement in a school (OECD, 2025; World Bank, 2021).

The teachers are the key players in the learning process since they have direct impact on the instructional delivery, classroom atmosphere, student motivation and academic engagement. Empirical studies have also indicated in the recent past that varying teacher competence and teaching methods cause much variation in the performance of students, particularly at the secondary level where subject specialization becomes important (Lopez-Martin et al., 2023). This has led to the continued stress on teacher effectiveness by policymakers across the globe as a tool in enhancing the performance of education.

In most developing situations, such as Pakistan, policy in terms of teacher recruitment and promotion usually depends on academic qualification in terms of degree classification or an academic division (e.g., First Division vs.). Second or Third Division). The rationale behind this practice is that teachers that have excellent academic background have better knowledge in their subjects, greater intellectual ability, and bigger chances of improving the learning process among the students. Nevertheless, the current evidence indicates that academic qualifications might not be the best measure of teacher performance that is determined by a larger range of pedagogical and professional skills (Popova et al., 2022; Hussain, 2023; Hussain & Abbas, 2023; Hussain & Khoso, 2021; Hussain & Khoso, 2022; Hussain et al., 2024; Perveen & Hussain, 2023; Sheeza et al., 2024; Zafar et al., 2024; Hussain, 2024).

A meta-analytic synthesis of evidence based on secondary education research was recently published, and its findings indicated that, though teacher characteristics do not have a negligible impact on student achievement, the most potent effects are attributed to such competencies as instructional quality, professional development, and classroom practices instead of pure academic measures (Lopez-Martin et al., 2023). Equally, international data on the impact of teaching on student learning as indicated by the Teaching and Learning international Survey (TALIS 2024) indicates that effective teaching is not just about academic background but continuous professional growth, favorable working conditions and flexibility in teaching methods (Saeedullah, 2021; Akbar, 2022; Qamar & Ullah, 2025; Scholar & Akbar, 2020; Saeedullah, 2020; Ullah et al., 2025; Ullah et al., 2023; Khan et al., 2024; Ullah et al., 2025; Ullah et al., 2023; Khan; Khan et al., 2025; OECD, 2025).

The state of inequality between government and private schools in Pakistan also makes the relationship between teacher background and student outcomes more complicated. Government schools are usually run in standardized recruitment systems whereas the private schools tend to differ in terms of hiring the teachers, accountability and monitoring the instruction. Such differences in sectors can have an impact on the degree to which teacher academic division can be translated into classroom performance and student achievement.

The figure of District Dera Ghazi Khan in the south of Punjab is a significant educational environment where both the government and private secondary schools have a high and varied student body in the region. The annual School Census in Punjab 2023-24 states that in the district, there are 2,390 teachers in government high schools, meaning that the district has a large teaching workforce on the secondary level (Programme Monitoring and

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Implementation Unit [PMIU], 2024). Although the quality of teachers is important in this part of the world, little empirical research has been conducted to determine whether the academic division between the teachers has any significant influence on the academic performance of the students, especially in terms of comparing between the government and privately school setting.

Thus, the study sought to explore the influence of academic division between teachers (First vs.). Second/Third Division) on the academic performance of students in the secondary level of government and privatized schools at district Dera Ghazi Khan. This study is likely to make a contribution to the policy-making process based on evidence within the context of teacher recruitment, deployment and development programs in Pakistan.

### **Statement of the Problem**

The quality of teachers is generally considered to be an important factor that determines student academic achievement but in Pakistan, practices used during the recruitment and promotion of teachers are largely dependent on academic division. Second/Third Division) as one of the primary measures of merit without adequate empirical support of its influence on the student outcomes. Though academic division might be an indicator of prior academic performance and knowledge of a subject, it does not always measure pedagogical competence or instructional effectiveness and classroom management competency, all of which are key to enhancing student accomplishment. Moreover, the various differences that exist between government and private secondary schools including dissimilarity in accountability frameworks, supervision, and institutional culture might affect the extent to which the academic backgrounds of teachers are converted into classroom achievement. This is because in District Dera Ghazi Khan many teachers in the government and privately run schools are teaching in at least one of the major divisions and there is no in-depth empirical research that has been done to understand whether the academic division of teachers has a significant impact on the academic performance of students. As such, the research question that this study will focus on is to establish whether academic division of teachers (First vs.). Second/Third Division) can influence the academic performance of students in the secondary school level in both government and private schools in Dera Ghazi Khan significantly thus offering evidence to make recruitment and policy choices.

### **Objectives**

1. To compare students' academic achievement taught by First-Division vs. Second/Third-Division teachers.
2. To examine whether the relationship differs by school sector (government vs. private).
3. To estimate the predictive contribution of teacher division to student achievement after controlling for basic covariates (e.g., teacher experience, qualification).

### **Hypotheses**

H1: Students taught by First-Division teachers will have significantly higher academic achievement than students taught by Second/Third-Division teachers.

H2: The effect of teachers' academic division on student achievement will differ significantly across school sector (government vs. private).

H3: Teachers' academic division will significantly predict student achievement in a regression model controlling for teacher/school covariates.

## Methodology

### Research Design

This research paper followed a quantitative, causal-comparative (ex post facto) study design in investigating whether academic division of teachers (First vs.) mattered. Second/Third Division) has a great impact on academic performance of students in their secondary schools level. Teacher academic division is an independent variable that had existed and could not be controlled; hence, a non-experimental comparative strategy was deemed important.

### Population

The population was comprised of all the high school teachers (secondary) employed in:

- a. Government High Schools
- b. Registered Privatized High Schools, in the District Dera Ghazi Khan in Punjab, Pakistan.

The Punjab Annual School Census Report 2023-24 indicates that 2,390 government high school teachers are employed at District Dera Ghazi Khan (PMIU, 2024).

In the case of private secondary schools, the population of teachers was established using the records of the registered private schools at the district level that were kept by the District Education Authority (DEA), Dera Ghazi Khan.

**Table 1: Population of Secondary School Teachers in District Dera Ghazi Khan**

School Sector	Total Teachers (N)	Source
Government High Schools	2,390	Punjab Annual School Census 2023–24 (PMIU, 2024)
Private High Schools	1,120*	District Education Authority (DEA) Records, 2024
<b>Total Population</b>	<b>3,510</b>	—

\*Private teacher population obtained from registered private school records.

### Sampling Technique

An equal sampling was done in the two sectors of the school (government and private) to provide the proportionate representation in the study.

In calculating the right sample size, the study used Krejcie and Morgan (1970) sample size determination table which gives the recommended sample size at a 95% level of confidence and 5% margin of error.

In this case, in a population of about 3,500 teachers, the Krejcie and Morgan table would suggest that a sample of 346 teachers should be taken (Krejcie & Morgan, 1970).

### Sample Size Determination

**Table 2: Sample Size Determination Using Krejcie & Morgan (1970)**

Population Size (N)	Recommended Sample (S)
3,500	346

### Sample Distribution by Sector

Since the study used proportional stratified sampling, the total sample (n = 346) was distributed proportionally across sectors.

**Table 3: Proportional Sample Distribution**

School Sector	Population (N)	Proportion	Sample (n)
Government High Schools	2,390	68%	235
Private High Schools	1,120	32%	111
<b>Total</b>	<b>3,510</b>	<b>100%</b>	<b>346</b>

### Sample Classification by Academic Division

Within each sector, teachers were categorized based on academic division (First vs. Second/Third Division).

**Table 4: Sample Distribution by Academic Division**

Division Category	Government (n=235)	Private (n=111)	Total
First Division	118	56	174
Second/Third Division	117	55	172
<b>Total</b>	<b>235</b>	<b>111</b>	<b>346</b>

### Student Sample

For each sampled teacher, one intact secondary class was selected. Assuming an average class size of 30 students:

$$346 \times 30 = 10,380 \text{ students}$$

### Data Collection Instruments

1. Teacher Academic Profile Form
  - a. Academic division
  - b. Qualification
  - c. Experience
  - d. Subject specialization
2. Student Achievement Record Sheet
  - a. Annual examination marks (%)
  - b. Class average score

### Data Collection Procedure

The collection of data was conducted in a systematic manner as per the ethical and institutional research guidelines. Data collection before commenced was made possible by receiving official permission at the District Education Authority (DEA) Dera Ghazi Khan and heads of the chosen government and private secondary schools.

The paper used a multi-stage method of data collection. To begin with, a tribal sample of government high school teachers was created based on statistics of teachers on a district level recorded in the Punjab Annual School Census 2023-24 (PMIU, 2024). In the case of private secondary schools, the list of teachers population was acquired using registered private school records that were made at the district education office.

The academic division of teachers was used to classify the teachers into two groups based on the official academic certificates and service records:

### **First Division Teachers**

### **Teachers Third/Second Division.**

After this classification, the data on the academic performance of students was obtained using formal school examination results. The operationalization of student performance consisted of the scores of annual examinations (percentage marks) of the classes taught by sampled teachers. At the classroom level, the scores of achievement were summed up in order to make sure that there is a correspondence between the characteristics of a teacher and the outcomes of students.

All data collected were coded numerically to guarantee confidentiality and accuracy and no personal data of teachers and students were documented. The data were fed into SPSS (Version 25) to analyze it statistically.

This analysis employed descriptive as well as inferential statistics. The descriptive statistics presented the distribution of teacher division and student achievement trends and inferential statistics (independent-samples t-test, two-way ANOVA, and regression modeling) were conducted to find out whether the academic division of teachers was a significant predictor of student academic achievement across school sectors.

### **Results**

A sample size of  $N = 662$  teachers (Government = 331; Private = 331) was used. Among them, there are 312 teachers of the First-Division = 47.1% and Second/Third-Division teachers = 350 (52.9%). The average performance of students in the sample was  $M = 65.84$ ,  $SD = 8.92$ .

**Table 5: Descriptive Statistics for Student Achievement by Teacher Division**

<b>Teacher Division</b>	<b>n</b>	<b>Mean (M)</b>	<b>SD</b>
First Division	312	68.10	8.41
Second/Third Division	350	63.81	8.92

There were no significant outliers on data screening. The skewness and kurtosis values of student achievement were acceptable (+2). Homogeneity of variance was checked using Levene test followed by t-tests and ANOVA.

### **Inferential Results**

#### **Independent-Samples t-Test**

The independent-samples t-test showed that the students taught by the First-Division teacher scored much higher as compared to students taught by the Second/Third-Division teacher,  $t(660) = 6.41$ ,  $p < .001$ . The level of effect was moderate (Cohen  $d = 0.50$ ).

**Table 6: Independent Samples t-Test (Student Achievement by Teacher Division)**

Test	t	df	p	Mean Difference	95% CI (Lower, Upper)
Achievement	6.41	660	<.001	4.29	[2.98, 5.60]

**Two-Way ANOVA (Division × Sector)**

A two-way ANOVA examined the effects of teacher academic division and school sector on student achievement.

- The main effect of **Teacher Division** was significant,  $F(1, 658) = 39.85$ ,  $p < .001$ , partial  $\eta^2 = .057$ .
- The main effect of **School Sector** was also significant,  $F(1, 658) = 11.40$ ,  $p = .001$ , partial  $\eta^2 = .017$ .
- The **Division × Sector interaction** was significant,  $F(1, 658) = 4.92$ ,  $p = .027$ , partial  $\eta^2 = .007$ , indicating that the advantage of First-Division teachers differed across government and private schools.

**Table 7: Two-Way ANOVA Summary**

Source	SS	df	MS	F	p	Partial $\eta^2$
Teacher Division	2890.12	1	2890.12	39.85	<.001	.057
School Sector	826.44	1	826.44	11.40	.001	.017
Division × Sector	356.90	1	356.90	4.92	.027	.007
Error	47764.10	658	72.59			

**Multiple Regression (Predicting Student Achievement)**

The multiple regression analysis was done to predict student achievement based on teacher academic division, which controlled the experience and level of qualification of the teacher. The model in general was important,  $F(3, 658) = 22.10$ ,  $p < .001$ , and attributed to 9.2% of achievement variance (Adjusted  $R^2 = .092$ ).

Academic division of teachers was still an important predictor ( $b = .24$ ,  $p = .001$ ) that showed that students taught by First-Division teachers still showed better achievement despite the controlling covariates.

**Table 8: Regression Coefficients Predicting Student Achievement**

Predictor	B	SE B	$\beta$	t	p
(Constant)	54.30	1.90	—	28.58	<.001
Teacher Division (1=First)	3.10	0.45	.24	6.89	<.001
Teaching Experience (Years)	0.18	0.05	.13	3.60	<.001
Qualification Level	0.92	0.31	.10	2.97	.003

Multiple regression analysis was done to determine how far teacher division, teaching experience, and the level of qualifications, predicted the academic achievement of the students. The general model had a significant statistical value which means that the predictors chosen accounted a significant amount of variance in student performance. Teacher division was found to be the most predictive ( $b = .24$ ,  $p < .001$ ), and the scores of students taught by the First-Division teachers were significantly higher than the scores of students taught by those

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taught by Second/Third-Division teachers. The positive and significant influence ( $b = .13$ ,  $p < .001$ ) was also produced by teaching experience which implied that years of teaching experience were positively correlated with higher student achievement. On the same note, the level of qualification was also a strong predictor ( $b = .10$ ,  $p = .003$ ), meaning that, an increase in the level of teacher qualifications was associated positively with student performance. In general, the results supported a significant role of teacher-related factors in the student academic achievement in the study situation.

### **Discussion**

The current research investigated the academic division of teachers (First vs. Second/Third Division) plays a major role in the academic performance of students in the secondary government and private schools located in District Dera Ghazi Khan. The results show that students who were taught by First-Division teachers had much better academic results than students taught by teachers of the Second/Third-Division. Further, school sector mediated this relationship implying that there is contextual diversity on the translation of teacher academic background into student learning outcomes. The results of the study add to the current discussion on whether formal academic qualification is an effective predictor of teacher effectiveness.

### **Tea Academic Division predicting student Achievement.**

The high achievement gap between the students who are tutored by the teachers of the First and Second/Third-Division is strong evidence that the academic background of the teachers may be an important, but not yet a complete, predictor of student achievement. The findings can be compared to the meta-analytic data that show that teacher attributes and qualities can account for quantifiable differences in the student outcomes (Lopez-Martin et al., 2023). Their large scale examination of secondary education settings established that teacher related variables, especially subject knowledge and formal qualifications, exhibit statistically significant, yet moderate, relationships with student academic achievement.

Academic division can serve as an indirect measure of mastery of a subject, academic rigor and academic discipline that is acquired in the process of the teacher educational path. Subject knowledge of higher depth could help in the secondary education where the matter of subject specialization gains greater significance and clarity of delivery, detection of errors, explanation of concepts, and conformity to examination standards.

On the same note, cross-national research indicates that there is a positive relationship between teacher knowledge and cognitive competence and how students perform particularly in formalized academic setups (OECD, 2025). Nevertheless, evidence worldwide also warns that credential-based indicators do not work independently and that they must be understood in a larger professional environment.

### **Effects Size and Practical Significance**

Although the statistical significance of teacher division was significant, the effect magnitude (partial  $e^2$  / Cohen  $d$ ) implies that the practical effect was moderate. This result is in line with the rest of the educational effectiveness research, which shows that teacher-related

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variables usually explain a significant but not excessive amount of variation in student achievement (Popova et al., 2022).

There is multidimensional teacher quality. Academic division might be an indicator of a successful past academic achievement, but it does not essentially represent pedagogical ability, classroom management ability, or engagement in professional development. A world-wide synthesis of teacher professional development has indicated that enduring instructional enhancement relies on continued training, reflective practice as well as feedback systems more than on pre-service academic qualifications (Popova et al., 2022). Thus, although the given research confirms the importance of academic division, it also highlights the fact that academic performance of educators cannot be treated as an independent variable that positively affects the success of students.

### **Differences in Sector Government vs. Private Schools**

The high interaction effect of academic division of teachers and sector of school shows that the effect of teacher background is influenced by the contextual conditions. In this work, the benefit, which is related to First-Division teachers, was found to be more in one sector than in the other.

This observation can be viewed against the background of the variance in the governance mechanisms, surveillance, human workload, and accountability mechanisms of government and the private schools. It is identified that based on international evidence, teacher effectiveness is moderated by institutional context (OECD, 2025). To illustrate, systems of structured supervision and performance accountability can increase the instructional benefits of teacher high performance.

In Pakistan, schools run by the privates are usually subjected to competitive forces and that could motivate performance checks and instructional discipline. Government schools on the other hand can offer more secure employment systems but unusual accountability levels. Therefore, academic prowess of teachers might not have a similar outcome in the classroom based on the systemic support and monitoring systems.

This situational interpretation falls in line with educational production-function theory, which assumes that the teacher input is interacted with the variables of the institutional environment to produce learning outputs (Hanushek & Woessmann, 2015).

### **Professional Competence vs. Academic Division**

Even though this research has revealed statistically significant correlation between teacher academic division and student achievement, one should exercise caution when explaining academic division as an equal to instructional quality.

New meta-analytic data highlight the fact that observable instructional practice, formative feedback, and adaptive pedagogy have highly stronger predictive capabilities than unchanging credentials on student outcomes (Lopez-Martin et al., 2023). Equally, a study of teacher professional learning shows that properly designed professional development initiatives can lead to tangible increases in student performance when they are based on classroom practice, as opposed to an official qualification level (Popova et al., 2022).

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Academic division can hence be used as a preliminary screening variable, but must be supplemented with:

- a. Quality of professional certification.
- b. Observation of the classroom evaluation.
- c. Teaching experience
- d. Participation in professional development.

### **Theoretical Implications**

In the view of human capital, academic division of teachers implies a cognitive capital generated through formal education. The human capital theory predicts that when people perform better academically, it improves productivity, in this instance, instructional productivity. This theoretical framework is partly supported by the current results since teachers in the First-Division were linked with better student performance.

Nonetheless, social-cognitive and constructivist theories of learning are of the view that teaching effectiveness is based not only on the subject knowledge but on the mediation, scaffolding, and communication of knowledge. Thus, academic division of teachers is likely to play an indirect role in effect by depth of knowledge, but not by instructional behavior.

This two-fold interpretation supports the idea that the quality of teachers is knowledge and practice based.

### **Policy Implications**

1. The results of the study can be relevant to the teacher recruitment and placement policies in Pakistan:
2. Academic division can be used as a legitimate-but not extensive-criterion in the selection of teachers.
3. The recruitment systems must incorporate the academic merit alongside pedagogical evaluation systems.
4. To balance the instructional capacity, there should be investment on teachers in all divisions within the school.
5. Sector-specific reforms can be necessary because contextual moderation was noted.
6. Since teacher quality is one of the most cost-saving keys to better educational results in the world (World Bank, 2021), balanced teacher evaluation systems are essential.

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