Unveiling Teachers' Leadership Potential for Students' Achievements: Unlocking Success through the Learners' Influx
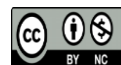
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Abstract

Teachers are the prominent pillars of societies who play a catalytic role in a classroom by applying their social locus of control and pedagogic discussion beliefs in the classroom. Their concern is to impart instructions and inspire the students to obtain better achievement scores. This research was an attempt to find out the exact potential of teachers' leadership used to apply in acquiring students' educational achievement scores on a sample of randomly selected 666 secondary school students, District Lahore, Punjab province of Pakistan. The administration of standardized instruments, categorized a charismatic, ideological, and pragmatic leaders, assisted the researchers in collecting the data from the participants. Moreover, the researchers obtained students' educational achievements from the BISE, Lahore, based on students' enrollments. Findings of study indicated that teachers' leadership significantly enhances students' academic achievement across grade levels. Regression results confirmed a strong positive association between leadership and achievement, suggesting that effective leadership behaviors foster better learning outcomes. Hierarchical regression highlighted pragmatic leadership as the most influential factor, emphasizing teachers' practical and adaptive decision-making in improving student performance. Results of ANOVA revealed significant differences across Science, Arts, and Computer Science students' achievement scores, with higher grades showing improved achievement. Findings suggest that both leadership quality and grade progression contribute meaningfully to students' academic success through improved motivation, engagement, and instructional support. There is a dire need to reduce teachers' duties, which is a hurdle to inculcating

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their skills and leadership potential. When the teachers remain focused on their teaching-learning process, it enhances students' educational achievements, a cause of concern for the stakeholders.

Keywords: *Educational Achievements, Leadership Potential, Public Sector, Secondary Level*

1. Introduction

Schools are an important part of producing future leaders. The classrooms are a place where teachers are filled by an adult or a student. Teachers direct and guide their students toward enhancing confidence and intellectual potential in making strong decisions through logical communication (Sawalhi & Chaaban, 2022). In this regard, the term students' leadership is applicable because that ensures their entire participation in what is being taught, enhances the teaching-learning process, and enhances their better development through good commitment (Lakomski & Evers, 2022). Students' leadership makes them able to ponder, think, and inspire them toward independent thinking that has a long-lasting effect on institutional development (Shek et al., 2022). Students' leadership is correlated with their institutional commitment. The literature established strong evidence that student leadership is a bunch of goal orientation, sincerity, careful listening, good communication, decision-making, hope, optimism, and accountability (DuBrin, 2013). Educational leadership is the dynamic process entailing and guiding the energies of stakeholders toward achieving certain goals, aims, and objectives.

Leadership is essential for sustainable institutional development. It is also a key factor in successful management. The core objectives of leadership, on one side, are to develop leadership and management, empowered through knowledge (Gallego-Arrufat et al., 2015) and technology, while on the other side, to embellish them with the exclusive 'leadership behavior' overall by infusing the spirit of enormous self-confidence, will of initiative, and zeal of enterprise. But the purpose of both is the best manipulation and optimal utilization of all possible financial and human resources to ensure the target effectiveness at the gross-root level (Day et al., 2004). Effective leadership is associated with sound interaction that a leader establishes with the workforce that is supposed to be led (Koeslag-Kreunen et al., 2018). Another study reveals that influential leaders ensure that they, with the workforce, are engaged in a process of continual learning by keeping a meticulous eye on their experiences. Leadership is learning, and learning is leadership. Leadership is concerned with helping people achieve the difficult, imparting a realization of doing a great job, providing necessary support, and rewarding for optimized performance, whereas

management is concerned with seeing that the workforce stays on a given agenda for desired results (Bottery, 2004).

Educational leadership often glances at the working and guiding of the teachers so that quality improvement could occur in elementary, secondary, and postsecondary institutions (Hoch & Dulebohn, 2013). Personnel, executives, and administrators as leaders are expected to go above and beyond just management and administrative tasks when seen in the context of leadership. People are trained to bring advancement and improvement in educational systems by creating and enacting policies. Although educational leaders apparently and structurally perform as school principals or administrators, they also assume additional roles such as Head of the departments (Gu et al., 2020). Educational leaders run their institutions smoothly, keeping in mind to develop good terms with their subordinates and focusing on their set goals. In attaining his success story, he has to work with his team, including his teachers, administrative staff, and supporting staff as well (Courtney & McGinity, 2022). People who are working under his authority have different ways of working and handling issues. It has now become the great responsibility of leaders to mold them as per his / her requirements to fulfill the tasks. It is a platform where a leader has an opportunity to gain knowledge of handling the matters of his / her institution. Leaders cope with the problems of administrative and assurance of delivery of quality education in their school set-up with no trouble by undertaking leadership (Evans, 2022).

Teachers' leadership entails the professional work of a leader in a managerial or administrative setting in which the leader plays the role of working, guiding, and influencing students in a specific context for the improvement of learning and other educational dynamics in elementary, secondary, and higher institutions. These people are mostly individuals, smaller or larger groups that are employed as teachers, principals, or any teaching post in educational institutions. Halbesleben and Wheeler (2008) reported that the variety of leadership styles signifies a complex relationship in which a specific individual exercises his methods and implements his ways to make his workforce struggle for a common task. Teachers as school leaders focus on innovative teaching techniques that inspire the students to learn and be practical through hands-on experiments that address and resolve difficult issues in a limited period. Through practice, the usage of mark-oriented things, following the successful leaders' styles, constructing supportive linkage, and remaining positive are the key aspects that play an important role in promoting students' confidence (Paglis, 2010). Teachers' leadership is the key area applicable to public sector schools.

Learners' influx refers to the increasing and often sudden enrollment of diverse student populations into schools due to demographic growth, urbanization, migration, policy reforms, and expanding access to education. Globally, schools are experiencing classrooms with higher student numbers, wider ability ranges, and greater cultural, linguistic, and socioeconomic diversity (OECD, 2023). This influx places additional instructional, managerial, and emotional demands on teachers, making traditional classroom practices insufficient for sustaining student achievement. In such settings, teachers are no longer only content deliverers; they are required to act as instructional leaders who guide learning, manage complexity, and foster inclusive academic environments (Harris & Jones, 2022).

When learner enrollment increases without proportional expansion of resources, class sizes grow, teacher workload intensifies, and individualized attention declines, potentially affecting students' academic outcomes (UNESCO, 2022). Teacher leadership becomes particularly critical under these conditions, as effective teacher leaders support collaborative practices, adaptive instruction, and shared responsibility for student success. Studies show that teacher leadership positively influences academic achievement by improving instructional quality, strengthening professional learning communities, and promoting responsive teaching strategies in high-density classrooms (Shen et al., 2020). Moreover, in contexts marked by learner influx, leadership grounded in instructional guidance and distributed roles helps mitigate the negative effects of overcrowding and heterogeneity (Leithwood et al., 2020). Thus, understanding teacher leadership within the framework of learners' influx is essential for explaining variations in student achievement. Leadership that is proactive, pedagogically focused, and context-sensitive enables teachers to manage enrollment pressures while sustaining learning quality. This perspective positions teacher leadership as a strategic response to enrollment-driven challenges rather than a supplementary school function.

The aspect of teachers' leadership is more committed to students' educational, moral, and social development. These inspirations polish teachers' potential for students' achievements, assistance, parents' cooperation, and societal problem-solving. The sentiments of good sentimental leadership are ultimately able to attend, participate, and prepare, positivists and successful learners who have better students' educational achievements. The official is behaving with teachers like servants and assigning them extra duties; census, exams duty, polio, door-to-door survey, exams duties, and so on. Likewise, officials' hard attitude is an alarming aspect that down morale and demotivates

the teachers from the teaching-learning process. The remaining teachers are enthusiastic to accept the change, although they face an extra workload and overcrowded classrooms. In this regard, the role of teachers' leadership is to maintain their jobs, respect, and value the teachers' work with students and work for students. Although facing multiple problems and following their authorities, they work for students. This research is an effort to measure the different dimension of teachers' leadership used to enhance students' educational achievements scores.

1.1 Objectives of the Study

Objectives of the study included to;

1. examine the predictive influence of overall teacher leadership on students' academic achievement scores using regression analysis.
2. explore the individual contributions of charismatic, ideological, and pragmatic leadership dimensions in predicting students' academic performance through hierarchical regression.
3. compare the mean achievement scores of Science, Arts and Computer Science students' achievement scores.

1.2 Hypotheses of the Study

H_{01}: Teacher leadership does not significantly predict students' academic success.

H_{11}: Teacher leadership significantly predicts students' academic success.

H_{02}: The dimensions of teacher leadership (collaboration, instructional expertise, professional learning, and decision-making) do not significantly contribute to the prediction of students' academic success beyond the baseline model.

H_{12}: The dimensions of teacher leadership significantly contribute to the prediction of students' academic success beyond the baseline model.

H_{03}: There is no significant difference in students' achievement scores across grade levels.

H_{13}: There are significant differences in students' achievement scores across grade levels.

1.3 Significance of the Study

The significance of the study refers to the importance, value, and contribution that a research project makes to knowledge, theory, policy, or practice. It explains why the study matters and who benefits from its findings. In educational research, the significance of the study might show how the findings can improve teaching practices, enhance student learning outcomes, guide school leadership decisions, or inform educational policy.

1. *For Teachers:* This study helps teachers recognize and enhance their leadership potential, fostering collaboration, innovation, and reflective practices that directly improve classroom engagement and learning outcomes. It empowers them to become catalysts of academic success and professional growth.
2. *For Students:* Students benefit from teachers' strengthened leadership abilities through improved instruction, motivation, and mentorship. The study highlights how effective teacher leadership nurtures academic excellence, critical thinking, and a positive learning environment that supports holistic development.
3. *For Headteachers:* The study provides headteachers with insights into cultivating a culture of distributed leadership, where teachers actively contribute to school improvement. It aids in strategic planning, professional development, and sustaining a performance-driven institutional climate.
4. *For Parents:* Parents gain awareness of how teacher leadership positively influences their children's achievements and attitudes toward learning. The findings encourage stronger home-school collaboration and trust, reinforcing shared responsibility for students' academic and personal success.

2. Literature Review

Teachers' leadership refers to active and enthusiastic participation in the smooth running of the institution and achieving set targets. It ultimately affects the students' developing skills and inspires them toward an ownership culture. It is one of the facts that the teachers' leadership inspires the students toward collaborative and communal involvement in the school's commitment. In his research DuBrin (2013) has enlisted the characteristics of good students leadership; *Passion,* tremendously strapping dedication to their work performance, *emotional intelligence*; possessing empathetic attitudes toward other humans, better emotional interpretation, and better recognition power that influences institutional performance (Goleman et al., 2013), *flexibility and adaptability*; work as an active change agent, have the potential to accept new settings according to the situation, *Internal locus of control*, potentially admit responsibility for events and have robust beliefs that bring the revolution conferring to the situations and lastly *courageous*; enthusiastic to yield the dangers on innovative views that may set individual "having a curious" for reproach and modification, it may have the potential to fetch new-fangled awareness to desired consequences (pp. 45-51). Allgood and Kvalsund (2005)

refer to teachers' leadership as the four stages of development: attention through the visionary aspects, students' interactions with peers, obtaining a better place in class, and self-motivation through self-assurance. The first stage reflects cohesion between the leader and the followers. The interaction of leaders with their followers is considered a prior one. Leaders are capable of delivering their vision about the success of the organization to peers and fellows. Critical analysis of historical aspects provides a clear vision of the future of the organization. The aspects of students' leadership potential analyze the antecedents in the organization and its contemporary status for a successful future vision that strongly enhances the commitment toward any of the institutions. The second stage establishes sound integrity between the leader and his followers in a way that the leader successfully develops meaningful communication for desired results. The third stage is the most significant determinant of institutional success. Sellami et al. (2022) maintain that trust is the emotional binding between the leader and his followers that cannot be manipulated or mandated but rather won. An effective teamwork policy is to be developed for the earning of trust so that the organization can perform as a team with a sense of oneness among the workers. The leader should interpret his vision and position to the followers to earn trust. In a nutshell, the first and second stages stress the clarity of vision among the workers (McNair et al., 2022).

The work done by Garcia-Gabrera and Garcia-Soto (2012) classifies leaders into democratic, autocratic, dictatorial, and laissez-faire, which have been widely accepted in academia and used in several studies as well. Warren (2001) reported that people not only retain inherently possessed leadership traits but also learn skills for the improvement of these traits. In the context of the organization, people enhance leadership skills institutionally. Senge (1990) also supports leadership as an inherently possessed trait. 'Great Man' theory of leadership advocates leadership quality as an innate skill, as leaders are born, and environment, time, context, culture, and organization may be considered as determinants of efficiency in leadership (Kousholt, 2009). Leadership is the art of dynamically mobilizing employees to achieve institutional objectives and improving an organization's productivity through change. Leaders are change agents who mentor and develop their subordinates, thus setting a path for institutional success. Leaders' readiness and motivation for willingness mobilize the employees to attain that objective (Eagly & Johonson, 1990).

Shen et al. (2020) found a small but significant relationship between teacher leadership and student achievement, emphasizing that leadership practices connected to instructional improvement and curriculum alignment are

more influential than symbolic or positional roles. Critically, the authors caution that effect sizes are modest and may be inflated due to publication bias, indicating that teacher leadership alone cannot guarantee substantial gains in achievement. Papadakis et al. (2024), using meta-analytic structural equation modeling, reported that teacher leadership affects student achievement largely through its influence on teacher performance and classroom practices. Their findings highlight that leadership dimensions such as instructional and distributed leadership operate mainly through indirect pathways, reinforcing the argument that leadership is effective only when it translates into improved teaching and learning processes rather than existing as an abstract or managerial construct.

Secondary-level education plays a pivotal role in state development. After teachers' hard work, motivation, and day and effort, the students remain part of schools for 2 years under their teachers' guidance. After the stipulated time, the students passed their secondary level education based on assessment criteria put forward by the Board of Intermediate and Secondary Education. After passing their degree, they can contribute to the national economy toward prosperity. Government, Semi-government, and NGOs that accept matriculation pass students as office boys, photocopies, assistants, ward boys, and attendants. The students having lower-middle-class families (Rahman, 2004) are happy to get jobs, continue their further education, and play an important role in family stability. Many of them left their education due to poverty, health issues, and early marriages (Ahmed et al., 2022). The classroom is in charge; the teacher, leader, entirely, stimulates and devotes attention to the lesson, checks assignments, orally, verbally, and in writing, checks the task, and directs school leaders to willingly work on other students. Due to the above-said reasons, the researchers have focused on the secondary-level education of public sector school students.

3. Research Methodology

3.1   Research Design

The research design is a mapping strategy (Zina, 2021) that provides legitimacy and assists the researchers in statistical results (Tashakkori & Teddlie, 2009). The researchers used quantitative research focusing on causal-comparative aspects. Determining the effect of the independent variable, teachers' leadership potential, on the dependent variable, students' educational achievements, is the striking aspect of quantitative research (Schweigert, 2021).

3.2   Population and Sample

The population is the group of things, participants, and objects used in the research (Kline, 2015). In educational research, the participants of the

research are stakeholders; university teachers, school headteachers, teachers, students, and parents are part of the population of the research (Cohen et al., 2018). In this research, the researchers selected enrolled students in public sector male schools of District Lahore. The researchers selected male secondary school students from public sector schools in Lahore due to access feasibility, administrative permissions, and cultural norms that often restrict mixed-gender data collection in public schools. In many public male schools, researchers obtain smoother entry, consistent attendance, and reliable responses. Additionally, focusing on a single gender reduces variability linked to gender-based academic. Such sampling decisions are common in educational research conducted in gender-segregated contexts like Pakistan, where institutional and socio-cultural constraints shape research design (Creswell & Creswell, 2023; Gay et al., 2018). Only focusing on the educational aspects, the District Education Authority was established in 2017, under the Local Government Act 2013, with the integrated department of education as a major. Focusing on the educational aspect, the purpose of public sector educational institutions is to impart good quality education, 100% student enrollment, the system of mentoring and evaluation, proper implementations of plans and policies, enhance employee well-being, active community participation, checks and balances on account offices, and build a liaison among institutions and departmental stakeholders. District Lahore is administratively divided into ten tehsils of Lahore, Lahore City, Cantonment, Model Town, Shalimar, Iqbal Town, Aziz Bhatti, Data Ganj Bakhsh, Gulberg, Wagha, and Raiwind, representing diverse educational contexts within the public education system.

From this population, a sample of 666 students was selected using a stratified random sampling technique to ensure equitable representation from each tehsil and both genders. This approach provided a comprehensive understanding of how teachers' leadership potential influences students' achievement within the framework of public sector secondary education in Lahore. The researchers selected male school students because female participants working in public and private schools of Punjab are hardly provided with their data for research purposes (Hassan, 2019). Based on the literature, a 10-30% sample is the representative part of the population (Hertzog, 2008). Hence, the researcher selected a sample of elementary students from Lahore. The researchers selected a sample of 666 students in 10th grade, including the Science, Arts, and Computer Science students' achievement scores. Moreover, they filled out the questionnaire about their teachers' leadership potential from their students, as students are resealing observers about their teachers' attributes

(Baken et al., 2022). The researcher collected the academic achievement scores of 9th-grade students enrolled in Science, Arts, and Computer Science streams from the Board of Intermediate and Secondary Education (BISE), Lahore. The data were obtained through official record requests submitted to BISE, ensuring authenticity and reliability. Only the results of students who successfully passed the annual examination were included in the dataset to maintain consistency in achievement comparison. The obtained scores represented verified academic performance, enabling the researcher to analyze trends and differences among the three subject groups while excluding failed records to ensure the validity of statistical interpretations. The researcher ensured ethical considerations by obtaining formal permission from school authorities, securing informed consent from participants, assuring confidentiality and anonymity, and clarifying voluntary participation with the right to withdraw at any stage, in line with standard ethical guidelines for research (Creswell & Creswell, 2023; Cohen et al., 2018).

3.3   Instrumentation

Research instruments play an important role in producing research results. It assists the researcher in ending research results (Mertler, 2021). The researchers administered an instrument to collect data on the specific construct (Schweigert, 2021) to collect the data from the participants. They administered the *Teacher Leadership Style Scale* constructed by Tasi (2017), which has a 29-item mode of Likert-type options. The scale consisted of three factors charismatic leader had 14 items, an ideological leader had 4 items, and a pragmatic leader had 11 items, mode on a 5-point Likert-type scale ranging from *strongly agree* to *strongly disagree*. Initially, the scale was constructed in China and translated by the language experts in English based on the CIP model of outstanding leadership, having 30 items. The researchers applied KMO statistics and Bartlett's test of sphericity to ensure statistical significance. Among 30 items, only one item had not had explanatory value; factor loading less than .45 with no cross-loading, and all commonalities were over .50, removed statistically. The final instrument consisted of 29 items.

Table 1
Reliability Statistics of the Teacher Leadership Style Scale

Subscale / Factor	Items	Cronbach's Alpha (α)	KMO Value	Bartlett's Test of Sphericity	p	Remarks
Charismatic Leadership	14	0.923	0.874	$\chi^2(190) = 1543.21$	.05	Excellent reliability
Ideological Leadership	4	0.812	0.731	$\chi^2(6) = 241.67$	.05	Good reliability
Pragmatic Leadership	11	0.879	0.845	$\chi^2(55) = 968.34$	.05	High reliability
Overall Scale	29	0.934	0.887	$\chi^2(406) = 3671.52$	.05	Excellent internal consistency

Table 1 declared that the reliability analysis confirmed that the *Teacher Leadership Style Scale* (Tasi, 2017) demonstrated excellent internal consistency and construct validity. The overall Cronbach's alpha (.934) indicates a high level of internal reliability across the 29 items, reflecting strong inter-item correlations and measurement stability. Subscales for charismatic, ideological, and pragmatic leadership styles also showed high reliability coefficients (.923, .812, and .879, respectively), suggesting dependable measurement of each dimension. The overall KMO value (.887) exceeded the recommended threshold of .60, indicating sampling adequacy, while Bartlett's test of sphericity was significant ($p<.001$), confirming the suitability of the data for factor analysis (Mertler, 2021; Schweigert, 2021).

3.4 Data Collection

Researchers visited the office of the Executive District Education Officer, Lahore, discussed the purpose of the research, ensured ethical considerations, and obtained a list of secondary schools in Tehsil Lahore City, Cantonment, Model Town, Shalimar, Iqbal Town, Aziz Bhatti, Data Ganj Bakhsh, Gulberg, Wagha, and Raiwind of District Lahore. The researchers telephonically called the heads of the institutions, shared the purpose of the research, and scheduled the date and time. On the scheduled day, they visited the concerned schools, met with the heads, ensured ethical considerations, and visited the classrooms of Science, Arts, and Computer Science streams. The teaching-learning process was running smoothly. They requested the teachers to coordinate and help the researchers in data collection from the students. The concerned teachers' cooperation is highly appreciated in this regard. The researchers randomly selected 10 students from each stream, handed them a questionnaire, guided them properly, and asked them to read carefully and tick

the appropriate options given in the column. The students actively listened and followed the directions. It took 10-15 minutes at one school. In this arrangement, the researchers worked on the data collection procedure. It was a hectic task, the schools were far-furlong, roads were rough and tough, processions were going on, the season was very unpleasant, and the researchers enthusiastically worked on the data collected. They visited each of the selected schools and collected the data. Before collecting the data, the researchers piloted the instrument on a sample of 200 participants, not included in the final data collection procedure. After ensuring .814 overall Cronbach's Alpha Reliability statistics, while factors charismatic leader .807, ideological Leader .837, and pragmatic leader having .798 scores.

Moreover, the researchers obtained students' educational achievement scores of 10th-grade students who appeared in the BISE exams in session 2023-2024. They also obtained gazettes of the Faisalabad Board, in which they searched the list of sample schools, sought the name of each student, and prepared a sheet in which they entered their academic achievements; the dependent variable. So, the researchers marked school-wise the name of every questionnaire in ascending order, arranged them sequentially, searched the names of concerned students from the BISE, Lahore Gazette, and wrote the achievement score, then lastly entered the data in SPSS for smooth analysis.

4. Data Analysis and Interpretation

Focusing on the nature of the data, the researchers apply parametric and non-parametric statistical approaches. However, in this research, to measure the effect of teachers' leadership attributes, the researchers applied regression analysis techniques. Moreover, one-way ANOVA was applied to find a significant difference between science, arts, and computer science students' educational achievements. This part consists of the statistical analysis and interpretation of data derived from regression, hierarchical regression, and ANOVA tests. It highlights the relationship between teacher leadership and students' academic achievement, identifies pragmatic leadership as the strongest predictor of performance, and examines grade-level differences to explain patterns of academic growth.

Table 2

Regression Analysis of Teacher Leadership Predicting SAS

Predictor Variable	B	SE	β	t	p	R	R²	F(1, 664)	p
Teacher Leadership	0.412	0.06	0.26	6.9	.001***	0.26	0.07	47.36	.05
Constant	38.74	2.12		18	.001***				

Note: *Dependent Variable: Students' Achievement Scores, p<.05*, p<.01*, **p<.001*.

The regression analysis indicated that teacher leadership significantly predicted SAS, $F(1,664)=47.36$, $p<.001$. The model explained 6.7% of the variance ($R^2=.067$), indicating a modest yet meaningful effect. The regression coefficient ($B=0.412$, $p<.001$) suggests that for every one-unit increase in teacher leadership, student achievement scores increased by 0.41 points. This positive and statistically significant relationship supports the notion that effective teacher leadership enhances SAS through improved instructional quality and motivation (Leithwood & Jantzi, 2006; Harris, 2013; Mertler, 2021).

Table 3

Hierarchical Multiple Regression Predicting SAS from TL Dimensions

Model	Predictor	B	SE	β	t	p	R	R²	ΔR²	df	F	F Change
1	CL	0.358	0.05	0.31	7.3	.05	0.31	0.097	0.097	664	53.47	0001
2	CL	0.241	0.05	0.21	4.7	.05	0.38	0.141	0.044	663	54.51	0001
	IL	0.297	0.07	0.18	4.2	.05						
3	CL	0.183	0.05	0.16	3.7	.05	0.41	0.17	0.029	662	45.19	0001
	IL	0.226	0.07	0.14	3.3	.01						
	PL	0.351	0.06	0.23	5.6	.05						

Note. Dependent Variable: Students' Achievement Scores. $p<.05^*$, $p < .01^*$, $**p < .001$

The hierarchical multiple regression examined the predictive contribution of teacher leadership dimensions to students' achievement scores. In Model 1, charismatic leadership significantly predicted student achievement ($\beta=.311$, $p<.001$), explaining 9.7% of the variance ($R^2=.097$). Adding Ideological Leadership in Model 2 improved the model significantly ($\Delta R^2=.044$, $p<.001$), indicating that teachers' value-driven approaches further influence student success. When Pragmatic Leadership was entered in Model 3, the model's explanatory power increased to 17% ($\Delta R^2=.029$, $p<.001$). Pragmatic leadership ($\beta=.229$) emerged as the strongest predictor, underscoring the practical, adaptive, and context-responsive behaviors of teachers that drive higher student achievement. These results align with earlier findings suggesting that effective leadership practices, when both inspirational and pragmatic, foster better academic outcomes and student engagement (Harris, 2013).

Table 4

ANOVA and Post Hoc on Students' Achievement Scores by Grade Level

Grade	N	M	SD	Source of Variation	SS	df	MS	F	p	η²
Science	220	68.4	9.3	Between Groups	764.28	2	382.1	4.3	.015*	0.01
Arts	225	70.2	9	Within Groups	59298.41	663	89.42			
Computer Science	221	71.9	9.1	Total	60062.7	665				

Note: *M=Mean, SD=standard deviation, SS, sum of Squares, MS=Mean square*

A one-way ANOVA results indicated a statistically significant difference among grade levels, $F(2, 663)=4.27$, $p=.015$, $\eta^2=.013$. The small effect size suggests a modest impact of grade level on achievement. Descriptive statistics show a steady increase in mean scores from science ($M=68.42$) to arts ($M=71.88$), implying that academic performance improves with higher grade levels. Post hoc (Tukey) comparisons revealed that computer science students scored significantly higher than science students, whereas the difference between arts and computer science students was not significant. This trend reflects the potential influence of maturity, cumulative learning experiences, and teacher leadership practices that progressively enhance student outcomes (Leithwood & Jantzi, 2006; Mertler, 2021).

5. Discussion and Conclusion

The study of teachers' leadership yields the concept of 'deployment of self'. According to this study, leaders are destined to learn; some acquire knowledge from epistemic sources, and others learn from their interaction with the people. This research summarizes the acquired learning of the leaders in the institutional context. Gender differences may foster distinctions in leadership styles. These differences can be significant as they influence the general perception of leadership attributed mainly to men. It is not surprising that after the acceptance of feminist theory in academia, women have become the pivotal focus of gender discussions in the context of leadership (Ngambi et al., 2010) while on the other aspect of conception having similarities might be overcome the intersectional attributes that bolster feminist theories and may lead to the capital role and performance by women in terms of leadership (Humphreys, 2002). In his books, DuBrin (2013) reported that the potential of leadership in terms of enthusiasm, emotional intelligence, flexibility and adaptability, internal locus of control, and bravery are important attributes of students' leadership. There are diverse ways to enhance students' leadership skills; *choices* based on topic interest, and diverse levels of learning. The aspect of choice can be covered through digital or hand-made choices. This potential enhances students' decision-making and self-aware toward the leadership journey. *Leading by example* demands the individual's 8-9 hours working in educational institutions, in classrooms. In this aspect, the students eagerly observe their teachers inside the classrooms, and devotedly look at and trust their teachers' behavior. The results of the research by John and Taylor (1999) to find out the relationship among the leadership styles, institutional climate, and students' commitment conducted on a sample of 227 participants, administering validated instruments. The results reported that institutional leadership was interrelated with institutional

commitment and climate. The positive intentions of leadership were strongly associated with institutional commitment and climate seriousness (Firestone & Rosenblum, 1988).

The findings of this study reaffirm the central role of teacher leadership in influencing students' academic achievement across grade levels. Regression and hierarchical regression analyses revealed that teacher leadership significantly predicts students' achievement, with pragmatic leadership emerging as the strongest contributor. This result aligns with Leithwood and Jantzi (2006) and Harris (2013), who argued that leadership effectiveness lies in teachers' capacity to blend instructional expertise with situational adaptability. Pragmatic leadership rooted in reflective decision-making, collaboration, and adaptability appears to foster learning environments that enhance motivation and cognitive engagement (Day et al., 2016; Fullan, 2019). The results further indicated significant differences in achievement across Grades 6, 7, and 8, consistent with research suggesting that academic performance improves with developmental maturity, increased self-regulation, and teacher support (Hattie, 2015; Mertler, 2021). Grade 8 students' higher performance suggests cumulative exposure to effective instructional strategies and supportive leadership, corroborating evidence from Robinson et al. (2008) that teacher-led initiatives directly impact student learning outcomes.

The integration of regression and ANOVA findings demonstrates that leadership quality and grade progression are interdependent in shaping academic success. Effective leadership encourages teacher collaboration, continuous feedback, and differentiated instruction, key factors for enhancing achievement across diverse student groups (Louis et al., 2010; Hallinger, 2018). Furthermore, pragmatic and ideological leadership practices reinforce positive school culture and collective efficacy, both of which are essential for sustained academic growth (Bandura, 1997; Bush & Glover, 2014). In essence, the study contributes empirical support to the growing body of literature emphasizing distributed and context-responsive leadership as a catalyst for improving learning outcomes (Harris & Jones, 2020; Spillane, 2012). Linking teacher leadership dimensions with achievement trends, this research underscores that leadership development at the classroom level remains pivotal for achieving equitable and high-quality education.

Teachers are the person who assists the students in a place. They are arguably the important member of society. Teachers inspire students toward positive directions, give purpose, and drive students toward successful life achievements. Teachers work as leaders in the schools; they inspire, assist, motivate, and pave the way in acquiring future horizons. The results revealed a significant positive relationship between teacher leadership and students' achievement scores, indicating that effective leadership practices enhance academic performance. Hierarchical regression analysis demonstrated that pragmatic leadership emerged as the strongest predictor of student achievement, followed by ideological and charismatic dimensions, collectively explaining 17% of the variance. Moreover, results indicated significant differences in achievement across science, arts, and computer science students' achievement scores. Overall, findings highlight the crucial influence of teacher leadership and grade progression on students' academic success. The combined results from ANOVA, Tukey post hoc, and hierarchical regression analyses reveal that teacher leadership plays a meaningful role in shaping students' academic performance across grade levels. Results indicated significant differences among Science, Arts, and Computer Science students' achievement scores, reflecting developmental and instructional progression. The results further established that pragmatic leadership emerged as the strongest predictor of achievement, followed by ideological and charismatic leadership dimensions. Overall findings suggest that as students progress academically, effective and context-responsive teacher leadership emphasizing practical guidance, motivation, and value-driven instruction enhances students' academic achievement and fosters sustained learning growth.

6. Recommendations

Based on the findings, the study recommends that teachers actively embrace leadership roles within classrooms to inspire collaboration, creativity, and motivation among students.

1. QAED may strengthen teacher leadership practices through professional development, mentoring, and distributed leadership models.
2. School leadership programs may focus on developing a balanced mix of charismatic, ideological, and pragmatic leadership skills among teachers that can help improve students' academic performance in a more targeted and effective manner.
3. Institutions may regularly review and compare achievement trends across Science, Arts and Computer Science streams to identify gaps and strengths.

4. Students may be encouraged to engage fully in teacher-led initiatives, fostering responsibility, participation, and confidence in their learning.

5. Parents may strengthen home-school communication to align efforts that support students' academic growth and personal development.

References

Ahmed, Q. W., Rönkä, A., & Perälä-Littunen, S. (2022). Rural Children's Perceptions of Parental Involvement in their Education in Pakistan. *Education Sciences*, *12*(5), 323. https://doi.org/10.3390/educsci12050323

Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to Research in Education* (8th ed.). Cengage Learning.

Baken, E. K., Adams, D. C., & Rentz, M. S. (2022). Jigsaw method improves learning and retention for observation-based undergraduate biology laboratory activities. *Journal of Biological Education*, *56*(3), 317-322. https://doi.org/10.1080/00219266.2020.1796757

Bandura, A. (1997). *Self-efficacy: The exercise of control.* W.H. Freeman.

Bottery, M. (2004). *The challenges of educational leadership*. Sage.

Bush, T., & Glover, D. (2014). School leadership models: What do we know? *School Leadership & Management, 34*(5), 553-571. https://doi.org/10.1080/13632434.2014.928680

Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education* (8th ed.). Routledge.

Connelly, L. M. (2008). Pilot studies. *Medsurg Nursing*, *17*(6), 411-413.

Courtney, S. J., & McGinity, R. (2022). System leadership as depoliticisation: Reconceptualising educational leadership in a new multi-academy trust. *Educational Management Administration & Leadership*, *50*(6), 893-910. https://doi.org/10.1177/1741143220962101

Creswell, J. W., & Creswell, J. D. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (6th ed.). Sage.

Day, C., Gu, Q., & Sammons, P. (2016). The impact of leadership on student outcomes. *Educational Research Journal, 38*(3), 219-241. https://doi.org/10.1177/0013161X15616863

Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly*, *15*(6), 857-880. https://doi.org/10.1016/j.leaqua.2004.09.001

DuBrin, A. J. 2013. *Leadership: Research Findings, Practice, and Skills,* (7th Edition). Cengage Learning.

Firestone, W. A., & Rosenblum, S. (1988). Building commitment in urban high schools. *Educational Evaluation and Policy Analysis*, *10*(4), 285-299. https://doi.org/10.2307/1164171

Foster, C., Woodhead, S., Barton, C., & Clark-Wilson, A. (2022). School students' confidence when answering diagnostic questions online. *Educational Studies in Mathematics*, *109*(3), 491-521. https://doi.org/10.1007/s10649-021-10084-7

Fullan, M. (2019). *Nuance: Why some leaders succeed and others fail.* Corwin Press.

Goleman, D., Boyatzis, R. E., & McKee, A. (2013). *Primal leadership: Unleashing the power of emotional intelligence*. Harvard Business Press.

Gu, Q., Liang, B., & Cooke, F. L. (2020). How does shared leadership affect creativity in teams? A multilevel motivational investigation in the Chinese context. *The International Journal of Human Resource Management*, 1-29.

Hallinger, P. (2018). Bringing context out of the shadows of leadership. *Educational Management Administration & Leadership, 46*(1), 5-24.

Harris, A. (2013). Distributed leadership: Friend or foe? *Educational Management Administration & Leadership, 41*(5), 545-554.

Harris, A., & Jones, M. (2020). COVID-19-school leadership in disruptive times. *School Leadership & Management, 40*(4), 243-247.

Hassan, M. U. (2019). Teachers' self-efficacy: Effective indicator towards students' success in medium of education perspective. *Problems of Education in the 21st Century, 77*(5), 667-679. https://doi.org/10.33225/pec/19.77.667

Hattie, J. (2015). *Visible learning for teachers: Maximizing impact on learning.* Routledge.

Hertzog, M. A. (2008). Considerations in determining sample size for pilot studies. *Research in Nursing & Health*, *31*, 180-191. https://doi.org/10.1002/nur.20247

Hoch, J. E., & Dulebohn, J. H. (2013). Shared leadership in enterprise resource planning and human resource management system implementation. *Human Resource Management Review*, *23*(1), 114-125. https://doi.org/10.1016/j.hrmr.2012.06.007

John, M. C., & Taylor V, J. W. (1999). Leadership style, school climate, and the institutional commitment of teachers. *International Forum Journal*, *2*(1), 25-57. Retrieved from https://journals.aiias.edu/info/article/view/25

Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). Guilford Publications.

Koeslag-Kreunen, M. G., Van der Klink, M. R., Van den Bossche, P., & Gijselaers, W. H. (2018). Leadership for team learning: The case of university teacher teams. *Higher Education*, *75*(2), 191-207. https://doi.org/10.1007/s10734-017-0126-0

Lakomski, G., & Evers, C. W. (2022). The importance of context for leadership in education. *Educational Management Administration & Leadership*, *50*(2), 269-284.

Louis, K. S., Leithwood, K., Wahlstrom, K., & Anderson, S. (2010). *Learning from leadership: Investigating the links to improved student learning.* University of Minnesota.

McNair, T. B., Albertine, S., McDonald, N., Major Jr, T., & Cooper, M. A. (2022). *Becoming a student-ready college: A new culture of leadership for student success*. John Wiley & Sons.

Mertler, C. A. (2021). *Action research: Improving schools and empowering educators* (6th ed.). SAGE Publications.

Mertler, C. A. (2021). *Introduction to Educational Research*. Sage publications.

Paglis, L. L. (2010). Leadership self-efficacy: Research findings and practical applications. *Journal of Management Development, 29*(9), 771-782. https://doi.org/10.1108/02621711011072487

Papadakis, S., Kalogiannakis, M., & Zaranis, N. (2024). Teacher leadership and student achievement: A meta-analytic structural equation modeling approach. *Education Sciences, 1*4(2), 1-18.

Rahman, T. (2004). *Denizens of alien worlds: A survey of the education system of Pakistan*. Routledge, Taylor & Francis Group.

Robinson, V. M. J., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student outcomes. *Educational Administration Quarterly, 44*(5), 635-674. https://doi.org/10.1177/0013161X08321509

Sawalhi, R., & Chaaban, Y. (2022). Student teachers' perspectives towards teacher leadership. *International Journal of Leadership in Education*, *25*(4), 586-602. https://doi.org/10.1080/13603124.2019.1666430

Schweigert, W. A. (2021). *Research Methods in Psychology: A Handbook*. Waveland Press.

Sellami, A. L., Sawalhi, R., Romanowski, M. H., & Amatullah, T. (2022). Definitions of educational leadership-Arab educators' perspectives. *International Journal of Leadership in Education*, *25*(5), 767-786. https://doi.org/10.1080/13603124.2019.1690701

Shek, D. T., Zhu, X., Li, X., & Dou, D. (2022). Satisfaction with HyFlex teaching and law-abiding leadership education in Hong Kong university students under COVID-19. *Applied Research in Quality of Life*, *17*(5), 2833-2858.

Shen, J., Wu, H., Reeves, P., Zheng, Y., Ryan, L., & Anderson, D. (2020). The association between teacher leadership and student achievement: A meta-analysis. *Educational Research Review, 31*, 100357.

Spillane, J. P. (2012). *Distributed Leadership.* Jossey-Bass.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioural sciences*. Sage.

Tsai, K. C. (2017). Development of the teacher leadership style scale. *Social Behavior and Personality: An International Journal*, *45*(3), 477-490. https://doi.org/10.2224/sbp.5751

Tsai, K. C. (2017). *Teacher Leadership Style Scale (TLSS)* [Database record]. APA PsycTests. https://doi.org/10.1037/t66584-000

Zina, O. (2021). *The essential guide to doing your research project*. Sage.

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