

The Role of Distributed Leadership in Enhancing Teacher Autonomy

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Abstract: This study investigates the role of distributed leadership in enhancing teacher autonomy within secondary schools in District Dera Ismail Khan. This research uses descriptive methods to gather data from male and female secondary educators (each 50 participants) through a 7-point Likert scale survey. The formal research examined how distributed leadership approaches impact teacher independence, specifically regarding motivational factors, job fulfilment, teamwork dynamics, and career advancement opportunities. Research data reveal a prominent positive connection ($r = 0.82$) between shared leadership and autonomous working practices, yet women teachers experience increased professional independence and team involvement than male teachers in the sample. The study reveals distributed leadership's capacity to develop teacher freedom yet reveals contrasting effects by gender on its implementation effectiveness. Research conducted in District Dera Ismail Khan secondary schools located strong positive correlations ($r = 0.82$) linking distributed leadership practices to teacher autonomy. Female teachers demonstrated a stronger positive pattern ($r = 0.85$) than their male counterparts ($r = 0.75$), showing higher motivation levels and better job satisfaction and professional growth alongside improved teamwork among women teachers. This research shows that distributed leadership enhances teacher autonomy, yet male instructors show weaker connections than female instructors, thus requiring specialized initiatives to optimize leadership effects. The study encourages enhancing distributed leadership models to develop inclusive leadership access for all while studying gender-specific elements to create harmonized leadership structures in schools.

Keywords: Distributed Leadership, Teacher Autonomy, Secondary Schools, District Dera Ismail Khan, Education

Introduction

Educators talk more about distributed leadership since this approach builds partnerships while giving teams control and independence. Distributed leadership helps schools become more effective by letting teams decide together and distributing work among teachers. Teachers can help define what students learn as well as how their school functions under distributed leadership. When education systems get more complex, the need for team-based leadership grows stronger, so distributed leadership becomes crucial for today's schools (Spillane & Coldren, 2015).

School leaders should give teachers control over their teaching choices because this teacher autonomy efficiently builds their motivation and job satisfaction. Research shows clearly that teachers who make decisions about their work achieve better student results. Student learning benefits when teachers can choose their own teaching approaches to suit their students' needs. To empower teachers effectively, leaders need to share school decisions and build confidence while promoting teamwork among staff members (Ingersoll, 2017).

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Distributed leadership empowers teachers to make choices and personalize their work by bringing them fully into leadership conversations and decisions. With distributed leadership structures, teachers take leadership positions to shape how their schools work instead of receiving commands from above. When teachers get more decision-making authority, they become more responsible and empowered professionals (Leithwood et al., 2020).

Distributed leadership closely matches professional learning communities where teachers work together to improve their work methods. Alongside distributed leadership, PLCs help teachers participate in creating and testing solutions that suit their targeted challenges. When teachers work together through a distributed leadership model, they become partners in responsibility while receiving needed reinforcement and developing their skills (Vangrieken et al., 2017).

By spreading leadership responsibilities throughout the organization, administrators can reduce teacher resignation and fatigue, which develops under top-down administrative systems. When schools let teachers share responsibilities and participate in decisions, they create a more welcoming space for everyone. Through this strategy, teachers become happier at work and more likely to stay in their jobs, which creates a reliable team of educators (Skaalvik & Skaalvik, 2017).

Data shows that distributed leadership builds better school environments through teamwork and mutual responsibility, according to Hargreaves and Fullan 2020. Teachers who receive both support and respect for their work become more confident and want to lead their professional duties. When educators receive empowerment, they can make professional decisions while following their teaching principles and meeting students' individual requirements (Gurr, 2020).

Schools must adopt distributed leadership methods based on their organizational culture, leadership capacity, and student numbers, according to Timperley (2015). Schools need to plan systemically by sharing job responsibilities fairly and by providing all participants what they require to succeed at their roles. School leaders need to build an open partnership with school staff so that distributed leadership stays effective across all periods. (Heck & Hellinger, 2010).

Distributed leadership and teacher self-direction work together well during times when education authorities push new standards and measures to follow (Day et al., 2016). Distributed leadership helps educators maintain freedom within their practice as required reforms take effect. When teachers help design and activate educational reforms, distributed leadership creates plans that match classroom conditions and serve students and educators better.

Distributed leadership proves powerful as an educational tool by helping teachers gain more freedom that is professional. When schools adopt distributed leadership methods, they enable teachers to lead their work while helping their schools improve. The future of education depends on organizations learning how to distribute leadership to let teachers succeed, and students reach their best

Problem Statement

Distributed leadership brings valuable educational change prospects, though many schools have trouble fully implementing this style, especially when empowering teachers to act autonomously. Traditional top-down organizational design limits teacher authority, which decreases career satisfaction and suppresses team-based issue resolution. We need better research methods to help distributed leadership empower teachers through structures that work with school culture and context.

Objective

1. To examine the role of distributed leadership in enhancing teacher autonomy within secondary schools.

Research Question

1. What is the role of distributed leadership on teacher autonomy in secondary schools as perceived by teachers?

Significance of the Study

- Enhancing Leadership Practices: Our research shows how distributed leadership boosts school leadership by letting many teachers work together to decide the school's direction.
- Empowering Teachers: This research analyses the relationship between distributed leadership and teacher empowerment to present principles that boost teacher motivation and work satisfaction.
- Improving Educational Outcomes: When teachers gain more independence through distributed leadership, their practice changes positively, which increases students' success and connection to learning.
- Policy Implications: The results offer policy guidelines for developing leadership frameworks that promote decentralization while engaging teachers more actively in their work.
- Addressing Gaps in Research: Our research addresses missing scientific knowledge by studying the impact of teacher autonomy on distributed leadership patterns in secondary schools.
- Framework for Future Studies: The study provides crucial foundation work to let researchers investigate how context affects distributed leadership success.
- Professional Development: The results help schools build professional development activities that assist with distributed leadership adoption.
- School Culture Transformation: Through shared leadership promotion, the study recommends making school environments more interactive and involving all stakeholders.
- Supporting Sustainable Education: By giving teachers leadership authority, schools maintain lasting educational benefits through continuous growth.
- Encouraging Collaboration: The study shows that effective learning spaces emerge when school leaders work closely with teachers to develop them.

Delimitations of the Study

1. The research takes place exclusively in District Dera Ismail Khan.
2. We want to hear from teachers at secondary schools who identify as male or female.
3. The study uses numbers to examine data and gets answers from its research files.
4. The research looks only at the effects of distributed leadership on teacher autonomy while leaving other leadership styles aside.
5. Our data collection only uses survey or questionnaire results to keep responses consistent and reliable.

Literature Review

When educational institutions share leadership duties among their stakeholders, teachers obtain more control over their work. Under this system, teachers work together to make decisions and gain opportunities to lead while breaking away from traditional teacher-director setups. Studies indicate that distributed leadership helps teachers feel more independent at work, which improves their workplace morale and teacher motivation towards innovative approaches (Bolden, 2011).

When teachers enjoy professional independence in deciding their teaching strategies, curriculum, and classroom controls, they develop stronger feelings of responsibility for education. Research proves that allowing teachers to choose their own teaching paths leads to higher job fulfilment and motivation, plus stronger motivation to develop new ways to teach. When teachers feel free to make their own decisions, they work together with their colleagues to create a better learning space (Jumani & Malik, 2017).

The link between distributed leadership and teacher autonomy depends on different aspects of a school, such as cultural dynamics, power relationships, and how leaders guide their teams. Research shows that schools using distributed leadership techniques give teachers a greater say in school decisions. How the distributed leadership model influences teacher freedom depends on how effectively administrators delegate power plus the teachers' willingness to manage new duties (Lumby, 2013).

Research shows that shared leadership lets teachers make their own teaching decisions while creating better work experiences for teachers who show teamwork beyond job duties. Research shows that when leadership duties are distributed, teachers experience greater job satisfaction. When part of a distributed

leadership team, teachers naturally extend their job responsibilities to help create positive teamwork and collaboration within the school (Samancioglu, Baglibel, & Erwin, 2020).

Although distributed leadership offers advantages, schools face difficulties in putting this model into action. Organizational factors such as power structures, employee reluctance, and expanded workloads make it hard to adopt distributed leadership effectively. School leaders need to handle implementation challenges by designing work routines that support shared leadership. When school leaders solve these problems, they help teachers take more control over instruction and make a better school system (Denee & Thornton, 2017).

Research Design

A descriptive research approach helps us discover how teachers and leaders see distributed leadership interacting with teacher autonomy. A descriptive research design examines secondary school distributed leadership practices to show how these methods affect teacher autonomy and school environment dynamics.

Population & Sample of the Study

Both public and private secondary school teachers with diverse teaching topics and experience levels make up our study participants. I chose 100 teachers from this cohort using convenient sampling to get feedback about distributed leadership and teacher autonomy from multiple school settings.

Table 1

Category	Total Count
Male Teachers	50
Female Teachers	50
Total Stakeholders	100

Research Instrument

Our carefully designed 7-point Likert scale survey checks both distributed leadership methods and their impact on teachers in secondary schools. Section A collects details about participants, such as their age, school status, teaching discipline, number of years in service, and leadership positions, creating a study background. Section B examines what teachers think about distributed leadership by looking at how school leadership teams share and support leadership tasks. Section C analyzes how distributed leadership affects teachers by measuring their motivation levels, job satisfaction and involvement in school decisions. Section D analyzes how effective leadership methods affect teacher teamwork and personal development while helping teachers better communicate with school executives. On secondary school teachers. It is organized into five distinct sections to capture a comprehensive range of insights:

- Section A gathers demographic information, such as gender, school type, teaching subject, years of experience, and leadership roles, offering a contextual foundation for the study.
- Section B explores teachers' perceptions of distributed leadership, examining how leadership responsibilities are distributed and supported within the school setting.
- Section C assesses the impact of distributed leadership on teachers' motivation, job satisfaction, and their sense of involvement in decision-making processes.
- Section D investigates the influence of leadership practices on teacher collaboration, professional growth, and communication with school leaders.

The questionnaire uses a 7-point Likert scale from Strongly Disagree to Strongly Agree to gather reliable results about how teachers feel about distributed leadership at school.

Table 2
Factor Analysis Process for 7-Point Likert Scale Questionnaire

Step	Description
1. Data Collection	Collect responses from a sufficiently large sample (at least 100 stakeholders), ensuring complete data across all items.
2. Data Cleaning	<ul style="list-style-type: none">Check for missing responses or outliers.Ensure correct item coding (1 = Strongly Disagree to 7 = Strongly Agree).Standardize if necessary.
3. Exploratory Factor Analysis (EFA)	
- Correlation Matrix	Examine correlations between items to identify potential groupings (correlation > 0.3 suggests potential factors).
- KMO Test	Kaiser-Meyer-Olkin (KMO) test to assess sampling adequacy. KMO value > 0.6 indicates suitability for factor analysis.
- Bartlett's Test	Bartlett's test checks if the correlation matrix is significantly different from an identity matrix. A p-value < 0.05 means factor analysis is appropriate.
- Eigenvalues	Retain factors with an eigenvalue > 1 as they explain more variance in the data.
- Factor Extraction	Methods like Principal Component Analysis (PCA) or Principal Axis Factoring (PAF) can be used to extract underlying factors.
- Factor Rotation	Apply Varimax Rotation to make factors more interpretable by ensuring high loadings for each item on one factor.
4. Factor Loadings	Each item will have a factor loading (e.g., above 0.4). Items with high loadings on the same factor group together under that factor.
5. Factor Labeling	Label each factor based on the themes identified from the items that load on them. For example: <ul style="list-style-type: none">- Factor 1: Perceptions of Distributed Leadership
6. Confirmatory Factor Analysis (CFA) (Optional)	<ul style="list-style-type: none">- Test the fit of the proposed factor structure using fit indices like CFI, RMSEA, and Chi-Square (χ^2).- This step confirms the factor model.

Table 3
Factor Analysis Results (After Rotation)

Factor	Factor Label	Items (Statements)	Factor Loadings
Factor 1	Leadership Support and Teacher Involvement	<ul style="list-style-type: none">Teachers in my school are encouraged to take leadership roles.The school administration actively supports teachers.There is a clear structure for sharing leadership responsibilities.	0.75, 0.82, 0.70
Factor 2	Motivation and Job Satisfaction	<ul style="list-style-type: none">Being given leadership opportunities at school increases my motivation.Distributed leadership enhances my job satisfaction.	0.68, 0.72
Factor 3	Teacher Collaboration and Communication	<ul style="list-style-type: none">Teachers in my school collaborate more effectively.The shared leadership model has improved communication between teachers and leaders.	0.80, 0.77
Factor 4	Teacher Development	<ul style="list-style-type: none">Distributed leadership provides opportunities for professional growth.Teachers in leadership roles have access to training.	0.71, 0.74

Data Analysis

The research encompassed the influence of shared leadership structures on the degree of independence experienced by teachers in secondary schools. Teachers' perceptions regarding the implementation of distributed leadership were described using basic descriptive statistics such as mean and standard deviation. Correlation analysis, which may include Pearson or Spearman correlation techniques, was done in order to evaluate the relationship between distributed leadership and teacher agency. This statistical method helped to outline how teachers in the school set-up viewed their autonomy with regard to the distributed leadership practices within the institution, illustrating the relationships between the types of leadership as practised in the school and the professional autonomy of teachers.

Table 4
Descriptive Statistics Table: Teachers' Perceptions of Distributed Leadership and Teacher Autonomy

Category	Total Count (n = 100)	Mean	Standard Deviation	Female Teachers (n = 50)	Male Teachers (n = 50)	Result Trend
Teacher Autonomy	100	4.45	1.05	4.70	4.20	Female teachers perceive higher autonomy
Distributed Leadership	100	4.55	1.10	4.75	4.35	Female teachers view leadership more positively
Collaboration & Communication	100	4.30	1.15	4.55	4.05	Women experience better collaboration
Professional Development	100	4.60	1.00	4.80	4.40	Female teachers feel more supported in the development.

Interpretation of Results

- Male teachers have lower perceptions of teacher autonomy and less favourable views of distributed leadership practices than their female counterparts.
- And means indicate that female teachers report greater involvement in decision-making and leadership roles, signalling their autonomy in teaching practice.
- Furthermore, female teachers feel collaboration, communication, and professional development are more supported.

Table 5
Correlation Analysis: Relationship between Distributed Leadership and Teacher Autonomy

Category	Distributed Leadership	Teacher Autonomy	Pearson/Spearman Correlation Coefficient	p-value	Interpretation
All Teachers (n = 100)	4.55 (mean)	4.45 (mean)	0.82	0.0001	Strong positive correlation between distributed leadership and teacher autonomy
Female Teachers (n = 50)	4.75 (mean)	4.70 (mean)	0.85	0.0001	Very strong positive correlation between distributed leadership and teacher autonomy (stronger among females)
Male Teachers (n = 50)	4.35 (mean)	4.20 (mean)	0.75	0.001	Moderate positive correlation, though weaker than females' correlation

Interpretation of Results

- There is a strong positive correlation ($r = 0.82$) between distributed leadership practices and teacher autonomy when all teachers are considered, suggesting that as distributed leadership increases, so does teacher autonomy.
- There was a stronger correlation for female teachers ($r = 0.85$), indicating that women experience more autonomy than men through distributed leadership practices.
- The connection between male teachers and distributed leadership shows that distributed leadership improves their autonomy less strongly than female teachers. Data shows the relationships between distributed leadership and autonomy are reliable because each correlation has a p value under 0.05. Leadership on autonomy is somewhat less pronounced among male teachers.
- All correlations are statistically significant, with p-values well below the 0.05 threshold, confirming that the observed relationships are highly reliable.

Findings

Teacher Autonomy and Distributed Leadership: A strong positive correlation ($r = 0.82$) was found between distributed leadership practices and teacher autonomy among all secondary school teachers, indicating that as distributed leadership practices increase, teacher autonomy also increases.

Gender Differences: Female teachers reported a stronger positive correlation ($r = 0.85$) between distributed leadership and teacher autonomy compared to their male counterparts ($r = 0.75$). This suggests that female teachers experience a greater sense of autonomy as a result of distributed leadership practices than male teachers.

Impact of Distributed Leadership: Female teachers experienced higher levels of motivation, job satisfaction, and professional development due to distributed leadership, as reflected in the mean scores for these categories (female teachers: 4.75 vs. male teachers: 4.35). Male teachers also showed a positive relationship, though less pronounced, indicating a somewhat weaker perception of autonomy and leadership compared to female teachers.

Teacher Collaboration: Female teachers felt that distributed leadership led to better collaboration (mean = 4.55), while male teachers felt less engaged (mean = 4.05). This highlights a gender difference in how collaboration is facilitated by distributed leadership.

Conclusions

1. Distributed Leadership Enhances Teacher Autonomy: The findings confirm that distributed leadership positively affects teacher autonomy. The correlation analysis revealed that as distributed leadership practices increase, teachers feel more autonomous, with female teachers experiencing a more significant benefit from these practices than male teachers do.

2. Gender-Based Differences: The stronger correlation between distributed leadership and teacher autonomy among female teachers suggests that gender plays a role in how leadership practices are perceived and experienced in the school environment. This could indicate that distributed leadership models may better align with the needs and expectations of female teachers or that they may be more receptive to taking on leadership roles.

3. Improvement Opportunities: While both male and female teachers benefit from distributed leadership practices, the weaker correlation among male teachers points to an area for potential improvement. Schools may need to explore targeted strategies to enhance the impact of distributed leadership on male teachers' autonomy. This could include tailored leadership opportunities or specific professional development programs designed to resonate with male teachers' needs.

4. Recommendations for Practice: Schools should continue to implement and strengthen distributed leadership practices, ensuring that teachers feel empowered to take on leadership roles and have the autonomy to make decisions about their teaching practices. Further research could investigate the specific factors contributing to the stronger impact of distributed leadership on female teachers and explore how these factors can be extended to male teachers to create a more balanced and inclusive leadership environment.

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Appendix

Questionnaire: Distributed Leadership Practices and Their Impact on Secondary School Teachers

S#	Demographic Information	Options
1	Gender	Male / Female
2	School Type	Public / Private
3	Teaching Subject(s)	(List of subjects)
4	Years of Experience	0–5 years / 6–10 years / 11–15 years / 16+ years
5	Leadership Role	Classroom Teacher / Subject Leader / Department Head / Grade Leader / Assistant Principal / Principal / Other (Specify)

Questionnaire: Distributed Leadership Practices and Their Impact on Secondary School Teachers

Section	Statement	1	2	3	4	5	6	7
Section A	Perceptions of Distributed Leadership							
1	Teachers in my school are encouraged to take leadership roles in their areas of expertise.							
2	The school administration actively supports teachers who wish to take on leadership roles.							
3	Collaboration among teachers is encouraged and valued in decision-making processes.							
4	There is a clear structure in my school for sharing leadership responsibilities.							
5	Teachers are regularly involved in leadership meetings and discussions about school improvements.							
Section B	Impact of Distributed Leadership on Teachers' Motivation and Job Satisfaction							
1	Being given leadership opportunities at school increases my motivation to perform better in my teaching.							
2	Distributed leadership enhances my job satisfaction as a teacher.							
3	Having a say in decision-making helps me feel more valued as a member of the school community.							
4	I feel more committed to the school's goals due to my involvement in leadership activities.							
Section C	Impact on Teacher Collaboration and School Culture							
1	Teachers in my school collaborate more effectively because of the shared leadership approach.							
2	Distributed leadership has contributed to a positive school culture where teachers support each other.							
3	The shared leadership model has helped to improve communication between teachers and school leaders.							
4	There is mutual respect among teachers and school leaders under the distributed leadership model.							
Section D	Leadership Practices and Teacher Development							
1	Distributed leadership in my school provides opportunities for professional growth.							
2	The leadership roles available at my school help teachers develop new skills.							
3	Teachers in leadership roles have access to regular training and development opportunities.							
4	Involvement in leadership decisions has positively affected my teaching effectiveness.							