TWIST

Exploring the Influence of Distributed Leadership to Teachers Autonomy and Empowerment:

A Mediation Model

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Abstract
In light of ongoing educational reforms and the evolving needs of schools, this study examined the impact of distributed leadership on teacher empowerment and how the autonomy of the teachers gives emphasis on it. As globalization and technological advancements shape educational environments, traditional hierarchical leadership models may fall short. This research highlights how distributed leadership, which decentralizes decision-making and fosters teacher autonomy, enhances teacher empowerment and overall school effectiveness. The findings suggest that educational leaders should prioritize the implementation of distributed leadership practices to create a supportive professional climate. Recommendations include policy makers prioritizing distributed leadership models, school leaders providing continuous professional development, and fostering collaborative systems. Teachers are encouraged to engage in leadership roles and decision-making processes to further enhance their autonomy and empowerment. This approach not only benefits teachers but also contributes to school improvement and student learning outcomes.

INTRODUCTION
The effect of distributed leadership on teacher empowerment in learning environments will be examined in this paper. With an eye toward offering insights into successful leadership practices that encourage teacher involvement, it tries to explore how distributed leadership models influence these outcomes from a leadership perspective (Harris, 2018).

Traditional hierarchical leadership systems can struggle in modern educational settings to satisfy the several needs of teachers and students both. Problems including teacher burnout, little chances for professional development, and compartmentalized decision-making procedures can impair general school effectiveness and prevent teamwork. These difficulties highlight the requirement of different leadership styles that empower educators and create cooperative surroundings fit for the success of the students (Spillane, 2019).

Many schools center on problems with fractured decision-making, inadequate support for teacher autonomy, and a dearth of shared leadership accountability. These elements can lead to teacher disengagement, therefore affecting both the quality of instruction and the results of the students. Dealing with these problems calls for investigating leadership

models that divide tasks among several stakeholders and foster trust, teamwork, and ongoing development (Leithwood et al., 2009).

Distributed leadership, sometimes referred to as shared or cooperative leadership, results from the belief that several people within an organization share leadership rather than one person (Spillane, 2019). This strategy acknowledges that, regardless of their official roles, different stakeholders—from all walks of life—have great influence on the leadership process (Harris, 2018). The fundamental principle of distributed leadership is that it is more about optimizing the knowledge and skills discovered within an organization than about assigning responsibilities. The method encourages shared accountability for leadership tasks (Gronn, 2003). This implies that depending on the environment, task, or scenario, different staff members—from teachers to administrators—can adopt leadership positions, hence generating a more flexible and responsive leadership structure (Harris & Spillane, 2018). This approach runs counter to more conventional, hierarchical conceptions of leadership in which top authority concentrates decision-making. Rather, dispersed leadership is anchored in shared accountability, mutual trust, and teamwork (Prredy et al., 2012).

Distributed leadership as stated by Amels et al (2020), is the outcome of organizational management recognizing the idea that leadership roles and positions should be shared. Distributed leadership encompasses the management of all human resources within businesses, with a particular focus on academic staff who serve as leaders in educational institutions. According to this leadership model, it is essential to cultivate the leadership capabilities of the personnel in schools and ensure that all staff members have equal opportunities and statuses in order to achieve the school's objectives. The fundamental principle behind this approach is to harness collective knowledge and practical judgment by fostering collaboration among organizational staff. This will lead to optimizing organizational effectiveness, productivity, and proficiency, ultimately resulting in the fulfillment and satisfaction of organization members.

Based on several evidence-based research, distributed leadership seems to be the leadership concept fit for modern schools. According to Harris and Spillane (2018) and Harris (2018), three factors explain its present popularity. First of all, distributed leadership is seen as having "normative power" reflecting present changes in school leadership practice; it has resulted in the extension of leadership tasks and responsibilities throughout several school levels. With a larger leadership team, this kind of leadership has replaced the traditional one based much on a leader or small group of leaders. Second, distributed leadership also has "representational power," which stands for other models of school leadership that have evolved because of growing outside influences including globalization, new needs and demands, and competition. Schools were obliged by this trend to reorganize their leadership teams and establish fresh positions to meet evolving needs.

Distributed Leadership in schools, particularly in developed and developing countries, has gained popularity as a post-heroic representation of leadership. This has led to a shift in focus from the attitudes and behaviors of individual leaders, as emphasized in traditional theories of leadership such as trait, situational style, and transformational theories. Leadership in schools, is seen as a collaborative social phenomenon that arises from the interactions of several individuals. In the article titled "Distributed properties: a new architecture for leadership," the concept of distributed leadership is introduced as a possible remedy for the perception of leadership as a solitary endeavor within an organization. The study demonstrates that Distributed Leadership focuses primarily on the relationships and dynamics of leadership practice, rather than being overly preoccupied with the formal positions and tasks typically associated with leaders. Instead, the crucial aspect for achieving better instruction and improved learning outcomes for all learners in schools is the implementation of effective leadership practices. Shava, G. N., & Tlou, F. N. (2018).

Berhanu (2023) looks at the idea of teachers' empowerment inside the classroom, with an eye toward the several factors defining and supporting empowerment among teachers. This study explores the degrees of autonomy, decision-making power, professional growth chances, and supporting organizational structures that enable teachers to carry out their responsibilities. Berhanu clarifies how empowered teachers help to create better instructional practices, higher student results, and a friendly school environment by investigating these factors.

Given the continuing educational reforms, specifically to MATATAG Curriculum and the changing needs on schools, the study is timely. Leadership paradigms have to change as educational environments change with globalization, technological developments, and shifting society needs. A flexible and dynamic structure offered by distributed leadership helps one more skillfully adapt to these changes than by conventional hierarchical approaches.

Investigating distributed leadership in educational environments aims to address significant gaps in understanding how leadership dynamics influence teacher empowerment. This study seeks to explore several key areas: the extent to which current practices in schools distribute leadership potentials concerning adaptability, participatory practice, culture of learning, and decision-making, as outlined in The William and Flora Hewlett Foundation's Distributed Leadership Questionnaire (2016). It also examines teachers' perceptions of their level of empowerment, as measured by the teachers' empowerment scale developed by Berhanu (2023). In recent decades, there has been a contentious global public debate regarding the level of autonomy that instructors should have in their teaching practices. This topic has also garnered increasing scholarly attention, as evidenced by studies conducted by Guo and Wang (2021). The importance of teaching autonomy in understanding good educational practices and its correlation with positive outcomes is undeniable. Teaching autonomy, as an example, cultivates a feeling of possession and empowerment among educators who are dedicated to progressing in their professional journeys and taking on greater duties (Khan, 2019).

Given its significance, it is crucial to enhance teachers' autonomy in the classroom. Therefore, it is important for academics to thoroughly examine and assess the factors that influence teachers' autonomy. Current research on the

determinants of teaching autonomy has primarily concentrated on individual attributes, such as teachers' prior teaching experiences and personal aptitude, while disregarding environmental considerations. The concept of teaching autonomy is influenced by several aspects that are specific to the context in which it occurs. Lin, Q., & Gao, X. (2023)

Figure 1. Research Paradigm
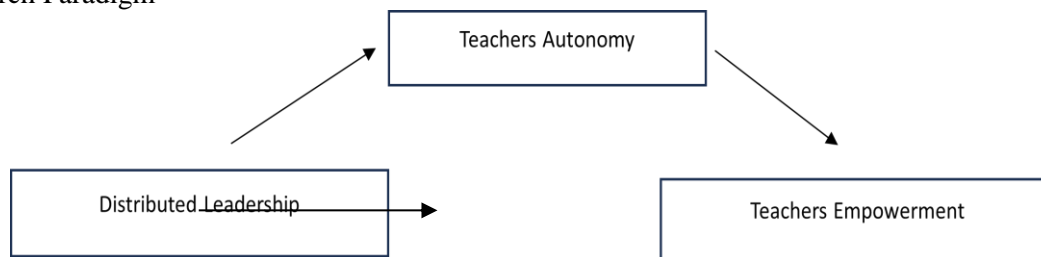
This research paradigm investigates the relationships among teachers' distributed leadership, autonomy, and sense of empowerment. Considered alongside distributed leadership—where leadership duties are shared among teachers and administrators—are teachers' autonomy, or their capacity to make decisions on curriculum, instruction, and assessment. This approach implies that teachers may feel empowered in part by both elements. Teachers who have autonomy and engage in leadership roles are more likely to feel responsible and to be able to make significant decisions in their classrooms. Relevant for educational leadership and teacher development, this paradigm guides the design of professional development initiatives meant to foster teachers' autonomy and leadership capacity.

MATERIALS AND METHODS

The relationship between distributed leadership and teacher empowerment in educational environments is methodically investigated in this study using a quantitative research strategy. About 80 teachers having direct knowledge of distributed leadership techniques chosen using a simple random sampling. Random sampling guarantees that each individual in the target population has an equitable opportunity of being chosen. This process aids in guaranteeing that the sample accurately reflects the characteristics of the population, hence increasing the likelihood of generalizing the findings to the full population (Hayes, 2021).

To guarantee anonymity and confidentiality of answers, the survey will be sent online via safe systems. Along with a data privacy declaration stressing ethical data processing techniques, participants got clear instructions defining the aim of the survey and how to answer it. Descriptive statistics—mean, standard deviation—were used to describe participant responses from the survey. Examining correlations between distributed leadership and teacher empowerment variables and teacher autonomy used inferential statistics including correlation analysis and regression analysis and the mediation analysis using the process macro of Hayes.

RESULTS AND DISCUSSION

Table 1 The Extent of Distributed Leadership Styles, Teachers Empowerment and Level of Teachers Autonomy

Subscales	Mean	SD	Interpretation
Distributed Leadership	3.44	0.40	Moderate Extent
Adaptability	3.52	0.42	Great Extent
Participatory Practice	3.51	0.44	Great Extent
Culture of Learning	3.41	0.46	Moderate Extent
Decision Making	3.31	0.47	Moderate Extent
Teachers' Empowerment	3.54	0.36	Great Extent
Teachers' Autonomy	3.45	0.40	Moderate Extent
Analyzing Decisions	3.47	0.45	Moderate Extent
Curriculum Design	3.25	0.52	Moderate Extent
Instructional Methods	3.58	0.43	Great Extent
Assessment Practices	3.51	0.47	Great Extent

The extent to which distributed leadership practices are observed across different variables. With a mean of 3.52, adaptability is clearly practiced to a considerable degree with somewhat little variation across respondents. With a mean of 3.51, participatory practice likewise exhibits a high degree of implementation and indicates a considerable extent of practice with rather higher variability. Reflecting a moderate degree of practice with reasonable variability, the Culture of Learning has a mean of 3.41. With a mean of 3.31, Decision Making scored the lowest among the factors indicating it is done to a modest degree and demonstrating the most diversity among respondents. The relevance of distributed leadership is particularly evident considering the study conducted by García Torres (2018), which demonstrated a positive correlation between the quality and scope of leadership distribution within the school and teacher development.

As a result of the study of Harris (2019), these are elements of the work environment that can be modified with minimal changes in resources by reducing resource waste. However, improving leadership quality may depend on the difficulty of recruiting and retaining leaders who can enhance work conditions that promote teacher retention. The quality of leadership is a working condition that can significantly influence both teacher job satisfaction and turnover rates in disadvantaged schools.

The results also show that teachers feel quite empowered given a mean score of 3.54. This is in line with results from current research since it implies that most teachers view a great degree of autonomy and influence in their professions. A good school climate and bettering of educational results depend on teachers being empowered in their work. Teacher empowerment is correlated, according to Leithwood, et.al (2009), with higher motivation, work satisfaction, and school goal commitment. This great degree of perceived empowerment might result in more creative teaching strategies and a readiness to participate in group projects, therefore helping the school to grow generally.

With an overall mean of 3.45, teachers seem to have a reasonable degree of professional autonomy. This implies that, on average, teachers perceive themselves as having a substantial degree of authority and autonomy in managing their professional activities and making decisions within their classrooms. Although this number indicates a satisfactory level of independence, it also suggests that there is potential for enhancement. Strengthening the characteristics that contribute to professional autonomy could empower teachers even more, ultimately resulting in increased work satisfaction and effectiveness in their professions. This data can provide evidence indicating that limiting the independence of teachers can diminish their drive (Collie et al., 2016; Gorozidis & Papaioannou, 2014; Piza et al., 2020; Skaalvik & Skaalvik, 2017), result in the emergence of unfavorable emotions (Skerritt, 2019), and potentially hinder their ability to customize instruction based on students' requirements and preferences (Shing & Brod, 2016).

These results imply that although in some cases distributed leadership helps teacher empowerment and autonomy, opportunity for improvement exists. Improving the culture of learning and decision-making procedures inside the leadership structure is therefore absolutely vital to solve this. Furthermore enhancing teachers' autonomy is giving them more chances to participate in curriculum development and evaluation. By means of regular professional development and ongoing assessment of leadership practices, these gains can be supported such that distributed leadership practices satisfy the changing requirements of teachers and foster a more cooperative and empowering school climate (Leithwood et al., 2009).

Table 2 Relationship between Distributed Leadership, Teachers Autonomy and Teachers Empowerment

Effect	Estimate	SE	95% Confidence Interval		t	P
			Lower	Upper		
Direct	.3102	.0741	.1626	.4578	4.1851	.0001
Indirect	.2838	.0664	.1615	.4208		
Total	.5940	.0785	.4376	.7504	7.5623	.0000

Effect	Estimate	SE	95% Confidence Interval		t	P
			Lower	Upper		
Distrib Lead → TAutonomy	.5459	.0939	.3589	.7329	5.8111	.0000
Distrib Lead → TEmpowerment	.3102	.0741	.1626	.4578	4.1851	.0001
TAutonomy → TEmpowerment	.5200	.0746	.3714	.6686	6.9675	.0000
Distrib Lead → TAutonomy → TEmpowerment	.2838	.0664	.1615	.4208		

**. Correlation is significant at the 0.05 level (2-tailed)

Significant links between distributed leadership (Distrib Lead), teachers' autonomy (TAutonomy), and teachers' empowerment (TEmpowerment) are revealed statistically. With an estimate of 0.5459 (SE = 0.0939), and a t-value of 5.8911 (p = 0.0001), distributed leadership clearly has a considerable and statistically significant positive impact on teachers' autonomy. This implies that more teachers' autonomy corresponds with more dispersed leadership practices, in line with results of recent studies stressing the favorable effect of distributed leadership on improving teachers' sense of autonomy (Leithwood et al., 2009).

With an estimate of 0.3102 (SE = 0.0741) and a t-value of 4.1851 (p < 0.0001), distributed leadership similarly had a noteworthy impact on teachers' empowerment. The result of the current study is well proportional to the past studies which have identified two specific methods through which teachers inspire empowerment and innovation: individually and collectively (Torres, 2019; Liu et al., 2021b). Teacher autonomy, often perceived as individuality in the teaching profession, is crucial for fostering teacher creativity by empowering people. Professional collaboration, in contrast, has historically been identified as a kind of collectivism in the field of education and is widely recognized as a crucial means of promoting teachers' networking and cultivating collective innovation. Furthermore, research has shown that principals' distributed leadership can impact teacher autonomy and professional collaboration, as well as serve as mediators for teacher innovativeness (Nguyen et al., 2021).

With an estimate of 0.5200 (SE = 0.0746) and a t-value of 6.9675 (p = 0.0001), the association between teachers' autonomy and empowerment is likewise rather strong. This result was strengthened in which defined tteacher empowerment is the result of the extent to which teachers are receptive to and embrace creative ideas, as well as their active involvement in professional practices connected to innovation (Cohen-Vogel et al., 2016). It is considered the measure of competence and capability to adapt, and it is also a crucial factor in improving teacher performance, student academic success, and organizational growth.

The total effect of distributed leadership on teachers' empowerment is 0.0785, indicating a highly significant mediation effect. These results imply that teachers' autonomy completely mediates the association between distributed

leadership strategies and teachers' empowerment. This suggests that distributed leadership relates to teachers' empowerment essentially by raising their autonomy.

This fits the empirical and theoretical research on teacher empowerment and distributed leadership. Leithwood, et. al (2009) describes that distributed leadership as the sharing of leadership duties and decision-making that directly helps to raise teacher autonomy. The rresearch of Liu, et al (2018) has also found that teachers who possess higher degrees of autonomy, which involves the open sharing of ideas and resources, demonstrate more commitment to their schools.

CONCLUSION

The analysis of the relationship between distributed leadership practices, teacher autonomy, and teacher empowerment reveals several significant findings that underscore the importance of fostering distributed leadership. The results imply that enhancing teacher autonomy—which then results in more teacher empowerment—dependent on distributed leadership strategies. Therefore, educational leaders may concentrate on applying and encouraging distributed leadership approaches to establish a professional climate in which teachers feel competent and autonomous. This strategy helps the teachers as well as the general school improvement and the learning of the students.

First, policy makers may give the application of distributed leadership models—which entail leadership roles and decision-making process first priority. They may create an environment where leaders feel more independent by distributing leadership roles and letting teachers take part in important choices concerning curricular design, assessment techniques, and instructional methods.

Second, school leaders may ought to offer continuous professional development opportunities to help teachers in properly using their autonomy. Programs for professional development may concentrate on enhancing teachers' competencies in domains including instructional strategies and evaluation techniques by means of confidence building in such domains.

Schools may also design systems and procedures that support shared leadership and ease teacher cooperation. Creating professional learning communities and cooperative planning meetings will enable educators to feel more in line and supported in their work.

Lastly, teachers may take advantage of leadership possibilities offered inside their institutions. Teachers who participate in leadership roles and decision-making processes contribute to creating school policies and procedures, therefore enhancing their sense of autonomy and empowerment. Another way to be involved is by accepting responsibilities such committee memberships or organizing leading professional development seminars. Teachers may also help the institution to foster a cooperative and pleasant learning environment. These covers creating an environment where shared learning and ongoing development take the front stage. Participating in professional learning communities or study groups helps one grow personally as well as collectively.

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DECLARATION OF CONFLICT

See 'Author guidelines' for filling this information.

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