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Career Advancement of Female Principals in Public Schools in China

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Abstract	Article Info
<i>This article reports on the factors that promote and support the career advancement of six female principals in public schools in a city on the southeastern coast of China. A qualitative research approach, through semi-structured interviews and document analysis, was adopted to explore those factors and obtain comprehensive and in-depth information. Data was coded and analyzed thematically through content analysis. Social identity theory and self-categorization theory provide the theoretical framework for this study, guiding data collection, analysis, and interpretation. The findings suggest five major factors: government policies, progressive outlook in the region, relationship building, support from mentors and family, and strong human capital. These five considerations build towards two overarching themes: deconstructed gender power relations and identity depersonalization. This study concludes with theoretical and practical implications, and future research recommendations for gender and educational leadership and management.</i>	Article History: <i>Received:</i> January 23, 2025 <i>Accepted:</i> July 3, 2025 Keywords: <i>Female principals, career advancement, public schools, China.</i>

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Introduction

Research on gender and educational leadership is dominated by Anglo-American societies (Wilkinson et al., 2021) and lacks consideration of developing countries (Fuller et al., 2021). The need to provide diversity of the global knowledge base on gender and educational leadership calls for more research from Asia.

In Chinese school settings, international understanding of female leadership is scarce. In a review of English language-based empirical research on female school leadership from 1990 to 2024 (the year 1990 was chosen because this was the decade in which the first empirical study on the Chinese school context appeared), only six sources were located. Those studies focus on three research strands: reasons for gender inequality in management (Coleman et al., 1998), leadership preparation (Qin et al., 2019), and leadership practice (Law, 2013; Li, 2014; Pisapia & Lin, 2011; Zhong & Ehrich, 2010). There appears to be no research that specifically examines factors that facilitate women's career advancement. That is, research on factors that facilitate female principals' principalship in Chinese school settings shows a theoretical, contextual, and literature gap. The study reported in this paper sets out to explore the factors that promote and support the career advancement of female principals. Specifically, what factors reflected the deconstruction of gender power relations, and what qualities developed by women support them to become school principals?

Literature Review

International literature on gender and educational leadership (e.g., Coleman 2001; Fuller, 2009; Chan et al., 2016) identified a number of factors that promote and support the career advancement of women as school principals. Those identified factors provide a frame of reference to understand and explain women's career advancement in principalship. As leadership is context-sensitive, this study attempts to find out whether those factors remain drivers for women in the Chinese context in view of different social, contextual, and political environments. The selective presentation of those identified factors is bounded by the research objective and theoretical framework.

This section reviews the literature on factors that reflect the deconstructed gender power relations and identity depersonalization. The themes guiding the presentation are derived from the literature. All examples of empirical studies are drawn from school settings.

Government policies

Although government policies are criticized as limited in promoting gender equality (Coleman and Fitzgerald, 2008), they have still released some positive signs in helping women achieve leadership positions. Government policies enable women who may face issues of discrimination to have more equal opportunities in assuming leadership positions. Coleman (2007) positively comments on the UK government's efforts, based on a report provided by Flexibility Limited (2006), suggesting that the equal opportunities legislation and 'family-friendly' policies played a positive part in increasing the number of women in educational leadership positions. In Uganda, government regulations requiring every coeducational school to have one female head teacher or female deputy head teacher, to provide a

safer and more conducive study environment for adolescent girls, benefited women's advancement into leadership positions (Sperandio, 2010). However, there is currently no empirical research on the role of government policies in promoting women as school leaders in international and Chinese school settings.

Geographic advantage

Regional variation in women's representation in headship positions suggests geographical advantages for women becoming school leaders (Coleman, 2001, 2007; Fuller, 2009). Empirical evidence shows that areas with good economic development are more conducive for women to become school leaders. Consciousness-raising on gender equality issues at the local level provides women with greater opportunities to attain leadership positions.

Coleman's survey in England suggested the "London effect" (Coleman, 2007, p. 386), meaning that "London and the metropolitan areas are statistically favourable" for women to become educational leaders (Coleman, 2002, p. 48). The reason for this difference was speculated to be the legacy of equal opportunity policies committed and invested by the former Inner London Education Authority (IELA), which contributed to people's psychological acceptance of women as leaders (Edwards & Lyons, 1994). In addition, there exists an urban/rural split for women's representation in leadership positions. In New Zealand, benefitting from education reform in 1989, there was an increase in participation of minority groups (including women, Māori, and Pasifika) in school leadership, particularly in urban schools where students were predominantly people of colour (Fitzgerald, 2003). In Chinese school settings, Coleman et al. (1998)'s study in Shaanxi province showed that there were relatively more female primary principals in urban schools than in rural schools, although no

female secondary principals were found in the research area. The reasons for the differences were not provided. Therefore, the extent to which geography influences the career advancement of Chinese female school leaders warrants further investigation.

Networking

Networking refers to individuals' active action and behaviour to build and maintain relationships with others who demonstrate the potential to help them achieve career promotion and improve work performance (Forret & Dougherty, 2004). Literature informs that networking impacts women's career advancement through mentoring, access to promotion opportunities, and skills building. By using mixed methods, Karamanidou's (2017) study on women principals in Cyprus primary schools suggested that networking was a platform for them to interact with other female principals and that the insights gained informed their management of work-life balance. In China, especially in Chinese government organizations, good relationships with superiors and colleagues have become one of the promotion criteria, helping people to achieve "what otherwise may be difficult to secure" (Cooke, 2005, p. 158). However, there is a paucity of studies investigating the impact of networking on female school leaders. Given that education in China is a sub-branch of, and supervised by, the government (OECD, 2016), how networking impacts the career advancement of female school leaders requires further investigation.

Family support

Empirical evidence shows that family support varies in forms and plays an important role in enabling women to reduce work-family conflict, manage career advancement demands, and maintain career continuity.

Sharing childcare responsibility is regarded as significant by respondents to Coleman's (2001) survey of women secondary headteachers in England and Wales. Her findings suggested that husbands/partners' support was important for them to achieve headship, especially with those who were married with children. Family support can also be reflected in emotional, spiritual, and material aspects. Female principals of post-primary educational sectors in the Republic of Ireland revealed that material and emotional support from their family members (including husbands, partners, and parents) increased their career opportunities (Cunneen & Harford, 2015). A similar finding was found in Chan et al.'s (2016) study of eight female principals in Hong Kong, suggesting that their husbands played important roles by persuading or nudging them to apply for promotion and principal positions. However, no studies have been found to investigate the impact of family support on female school leaders in mainland China.

Mentor support

A mentor is usually an influential, experienced senior member who is willing to share knowledge and experience with new and young members of the organization (Mathews, 2003). The positive role of mentors for mentees is widely recognised as helpful for career and psychosocial development (Kram, 1983), which eventually helps identity construction of leaders (Moorosi, 2014). Mentoring women who have been undervalued helps them reduce the skill gap and enhance promotion opportunities, as supported by empirical studies in global and Asian school contexts.

Coleman's (2001) survey of female secondary headteachers in England and Wales showed the significant role of former headteachers, senior managers, and even colleagues in encouraging them to pursue career

promotion. These survey findings are supported by a qualitative study conducted by Chan et al (2016) in Hong Kong. By using the life history method, eight female principals indicated that their career advancement was facilitated by mentoring and encouragement from their former heads, who recognized their diligence and dedication, identified their potential, and nurtured their skills. However, in mainland China, there is a paucity of studies on how mentoring influences the career development of female school leaders.

Role models

Role models are those individuals whose lives, actions, and activities influence others in certain aspects (Quimby and DeSantis, 2006). Several scholars (e.g., Coleman, 2002; Shakeshaft et al., 2007) claim the encouraging role that role models play in helping women obtain senior leadership positions. Role models demonstrate viable pathways to career success and provide practical strategies and stronger motivation for women to overcome challenges. This is supported by a study conducted by Sperandio and Polinchock (2015) on female elementary school principals aspiring to the school district superintendency in the USA. By utilizing mixed methods, their findings suggested that having role models to emulate (e.g., supervisors, colleagues, family members) fostered their aspirations for advancement and helped them to attain leadership positions (Sperandio & Polinchock, 2015). However, in mainland China, there is a paucity of studies to reveal the impact of role models on female school leaders.

Personal agency

Agency is the ability to manage and control one or more aspects of one's own life (Smith, 2011). Being conscious of the need for control

and personal development leads women to cultivate the qualities, skills, and qualifications needed for promotion.

Being active in career planning, in terms of enhancing education and attending training, was found important to the career advancement of eight women primary school principals in Hong Kong (Chan et al., 2016). The useful and transformative knowledge and skill from education or training transcended their humble background and entitled them to further promotion (Chan et al., 2016). Ambitions, together with self-confidence and self-motivation, were reported by Smith's (2011) qualitative research on 40 female secondary school teachers in England. These qualities formed strategic approaches, which allowed women teachers to take their initial steps and exert their agency to seek career goals (Smith, 2011). Diligence in helping women's career success has empirically yielded mixed results. Several studies have shown diligence's positive effect on female principals' careers by taking on extra duties (Chan et al., 2016) and working long hours (Chan et al., 2016; Coleman, 2000). However, Fuller's (2009) study challenged this by suggesting that fewer women secondary headteachers attributed their career success to diligence. In mainland China, few studies report the influence of agency on female school leaders.

Political orientation

China is run by a single party, the Communist Party of China (CPC). This political environment demonstrates the dominant power of the government in managing education, including school principals. It is therefore important for aspiring school leaders to demonstrate correct political orientation.

There is growing recognition of the impact of party membership on one's career advancement. Wang and Shirmohammadi's (2016) view that pursuing political education is a means of career advancement in state-owned organizations has been recognized by aspiring employees. Xue and Bush's (2024) research on one training program for new and aspiring high school principals in a Southwest province of China showed that the participating male and female high school principals and vice principals were all party members. This finding suggests that whether female school principals consider pursuing political education and party membership as a means of advancing their careers requires further investigation.

In summary, a variety of factors are identified as important to the career progression of female school leaders, globally and in the few Chinese studies. However, those factors seem to be fragmented and lack a framework to integrate them. Coleman (2011) integrated facilitating factors of women's career success into three categories: social capital (e.g., through networking), human capital (e.g., through agency), and organizational support (e.g., through policy). However, her integration is not based solely on female school leaders.

Theoretical Framework

This study adopts Social Identity Theory (SIT) and Self-Categorization Theory (SCT) to construct a theoretical framework. SIT proposes that a low-status group member can cross the group boundary to become a higher-status group member. This perspective helps to analyse the experience of female principals crossing the gender boundary from teaching positions to typically male-dominated principal positions.

SIT is proposed by Tajfel and Turner (1979), while SCT is developed by Turner and his colleagues (Turner et al., 1987). SCT has been seen

as a significant complementary concept of extended social identity theory (Hogg & Terry, 2000). By extracting and synthesizing the relevant assumptions and propositions, intergroup relations and self-identity are thematized to form the theoretical framework to guide the data collection, data presentation, and discussion.

Intergroup relations

Intergroup relation is the core feature of SIT (Hogg, 2016). SIT proposes that society is comprised of different social groups with hierarchical power and status relations (Abrams & Hogg, 1990; Hornsey, 2008). Gender is an important factor in constructing power relations (Watkins, 1989). As argued by Eagly and Karau (2002) that men and women are respectively located in the high and low power hierarchy in society because of traditional role definition, with men as breadwinners and women as homemakers. Such gender power relations constitute a society in which women are responsible for the majority of family responsibilities (Coleman, 2001; Lumby, 2015) and women are naturally and psychologically categorized as outsiders of male-dominated leadership groups (Schmuck, 1996). Therefore, society, workplaces, and home may be observed as places filled with gender power relations. As women have successfully reached principal positions, such gender power relations are likely to be deconstructed in various dimensional contexts, hence they can cross the gender boundaries to become principals. This perspective is used by this study to identify factors that reflect deconstructed gender power relations experienced by female principals in their career advancement.

Self-identity

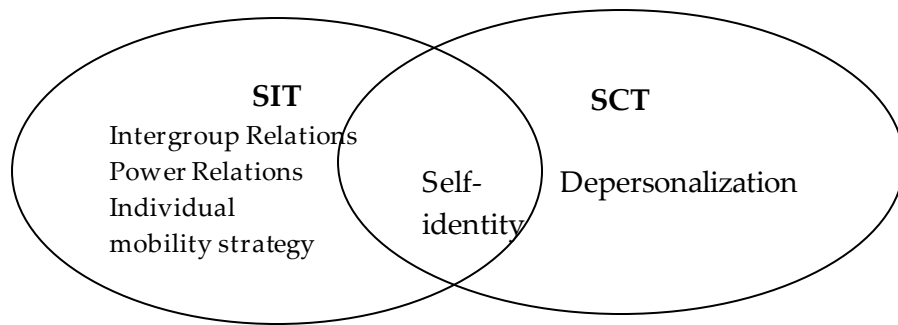
SIT proposes that individuals' intrinsic motivation to pursue positive distinctiveness can enable them to take individualistic mobility strategies to gain access to other higher status social groups, conditional on the perceived permeability of group boundaries (Tajfel & Turner, 1979). This helps aspiring female leaders to depersonalize identity from teacher to principal.

Identity depersonalization occurs when the process of self-categorization takes place, as proposed by SCT. Enabling the self to cognitively assimilate context-dependent in-group prototypes, which are fuzzy sets of interrelated attributes (e.g., beliefs, values, behaviors) that capture similarities within groups and differences between groups (Hogg & Terry, 2000), self-categorization leads to a "cognitive redefinition of self"-depersonalization (McGarty, 1999; Turner, 1984, p. 528). Such prototype-based depersonalization is dynamic and orients individuals towards social identity instead of personal identity (Tajfel & Turner, 1986). That is, when an aspiring female leader's salient self-category is to become a member of a particular principal group, she tends to assimilate with members of that leadership group (Haslam et al., 2011). Given that men dominate leadership positions, women may consciously or unconsciously build and display male leadership qualities to increase their suitability for principal roles. This perspective is used by this study to identify the male leader qualities developed by female principals in their career advancement.

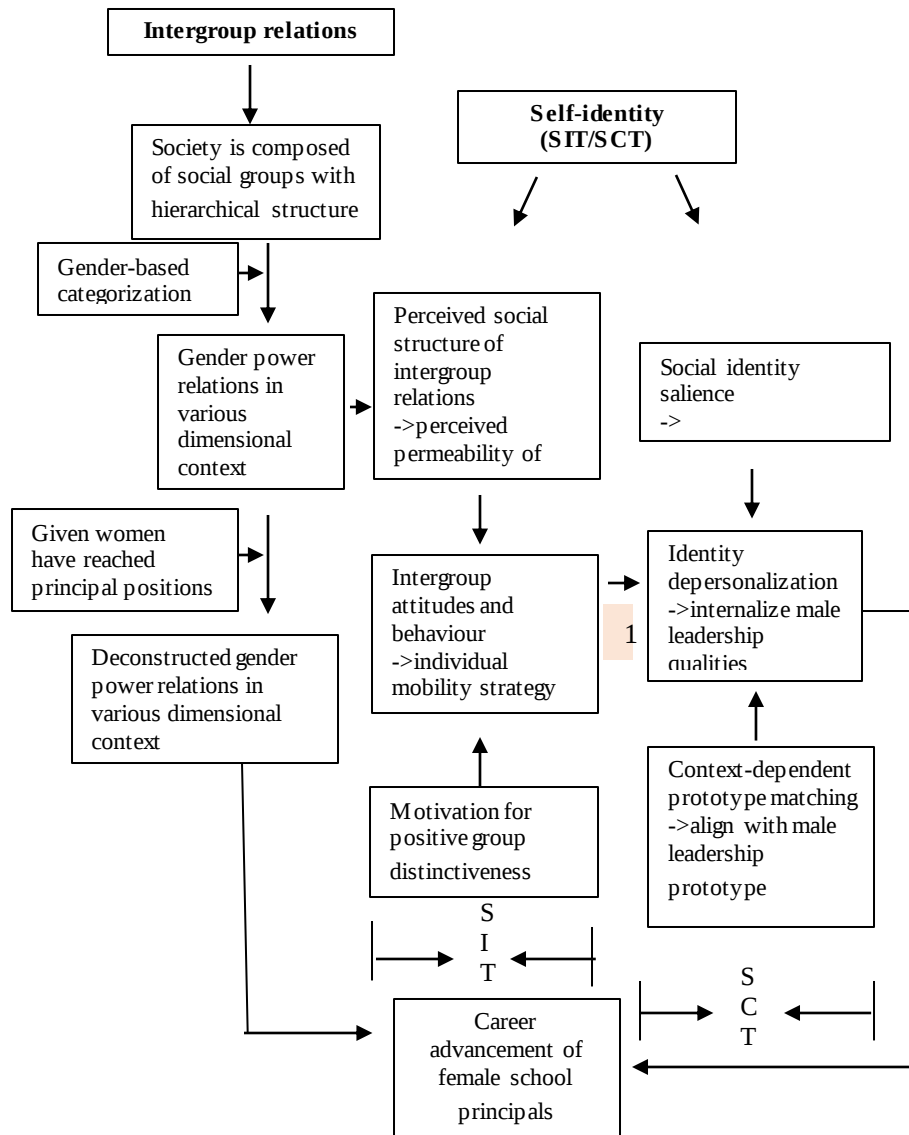
According to the assumption proposed by SIT or SCT, a model was developed to demonstrate the relationship between theories, theoretical concepts, and factors related to women's career advancement, as shown in Figure 1.

Figure 1

A theoretical model to investigate the career advancement of female school principals



Continued in the next page



Note on 1. Self-identity derives from both SIT and SCT.

In SIT, individual mobility strategy shifts one's behaviour from acting "as an individual in terms of interpersonal relationships" to acting "as a group member in terms of intergroup relationships" (Turner and

Reynolds, 2001, p. 135). Such a behaviour shift, as extended by SCT, can be explained by the distinction between personal identity and social identity (Turner and Reynolds, 2001). The basic idea is that “self-perception or self-conception varies between personal and social identity and that as one moves from defining self as a person to defining self in terms of a social identity, group behavior becomes possible and emerges” (Turner and Reynolds, 2001, p. 135).

Methodology

A qualitative approach is adopted to explore the factors that promote and support the career advancement of six female principals in six public schools in a city on the southeastern coast of China. The exploratory nature of this study requires in-depth data collection, so qualitative research is preferred (Creswell & Poth, 2018).

Sampling

Six female leaders were purposively selected to participate in this study: three female principals and three female vice principals. They worked in six different public schools: three primary, one combined (primary school and junior secondary school), one junior secondary, and one vocational. The background of participants is shown in Table 1. Pseudonyms were used to protect the anonymity of participants (Cohen et al., 2017). VP6 has experience as a vice-principal in two schools.

Table 1
Backgrounds of the interviewed participants

Interviewed participants	Years as teachers and middle leaders	Years as vice principal	Years/months as principal
P1	17	10	5 months
P2	18	10	2 years and 5 months
P3	13	10	8 months
VP4	16	10	
VP5	16	12	
VP6	8	6 (1 st experience)	
	6	8 (2 nd experience)	

Positionality and reflexivity

The researcher's positionality (e.g., gender, education, experience) may introduce biases to research (Berger, 2015). To help minimize the influence of positionality, the researcher took reflexivity through constant evaluation and self-reflection throughout the research process (Berger, 2015; McGhee et al., 2007). A hybrid position (McGhee et al., 2007) was embraced in this study. On one hand, the researcher was familiar with the research areas and embraced the role because of some understanding of the topic under study through reading and lived experience (McGhee et al., 2007). On the other hand, the researcher was not familiar with the female leaders and their schools (McGhee et al., 2007). This helped the researcher to build a rapport with participants to obtain more information, and meanwhile present their perspectives rigorously (Berger, 2015).

Data collection

Before data collection, ethical approval was sought and received from the University Ethics Board in December 2020. All principals provided written informed consent before participating in this study.

Semi-structured interviews and document analysis were chosen as the research methods. Semi-structured interviews were used as a major research instrument because of the exploratory nature of this study. Semi-structured interviews often consist of several key questions, with a few sub-questions and possible probing questions (Coleman, 2012). Such a structure is flexible, enabling the researcher to ask probing questions for a particular response, aiming to seek more comprehensive and in-depth information (Coleman, 2012). All interviews were carried out on a one-by-one basis and lasted between 40 minutes and one hour. The main interview question was determined by the aim of this study, and the two sub-questions were generated based on the theoretical framework and literature review:

What are the factors that facilitate and promote female leaders as school principals in Chinese public schools?

- What factors reflected the deconstruction of gender power relations in various dimensional contexts (e.g., society, organizations, family) that support you to become a school principal?
- What qualities have you developed and displayed that enable you to become a school principal generally dominated by men?

Document analysis of the 'Provisional measures for the management of primary and secondary school leaders' (MOE, 2017) was also carried out. Interpreting and analysing this document were intended to understand the criteria and procedures set by the government for

selecting school leaders, enabling triangulation and corroboration of information obtained from semi-structured interviews (Fitzgerald, 2012).

Data analysis

Data analysis contains two approaches, namely, deductive analysis and inductive analysis. Deductive analysis was guided by the theoretical framework and used to set the boundaries for data analysis and frame the findings of this study. Inductive analysis relied on the data of interviews and documents framed by interview questions and a theoretical framework. The specific procedure is explained below.

Data collected from interviews and documents were thematically analyzed through content analysis. Content analysis was used to examine patterns by categorizing texts from interviews and documents systematically (Cohen et al., 2017). The basic principles of analysis adopted the data analysis spiral presented by Creswell and Poth (2018, p. 186). All interviews were transcribed verbatim and organized into 6 Word files, and then analyzed simultaneously with documents. Scanning the text from these two data sources was first conducted to gain a general sense of data, and meanwhile, ideas and concepts that came to mind were recorded. This is followed by coding, a process of 'winnowing' the data, selecting relevant and discarding irrelevant text information based on the aim of this study. Coding aggregated transcribed interviews and documents into small categories, and then into broad units of information to form fewer themes and subthemes. Those codes, sub-themes, and themes were identified deductively, based on predetermined concepts guided by a theoretical framework and literature review, and inductively, emergent from research data related to the topic of this study. They were improvisational and open to revision and were structured

logically, coherently, and hierarchically by using constant comparative methods (Lincoln & Guba, 1985). At this stage, cross-analysis was carried out to cluster themes and sub-themes into similarity, to build links and patterns, and to distinguish differences, with the aim of making comparisons. Throughout the entire analysis, interpretation ran through the process of generating codes and themes, abstracting and making sense of data, by linking to personal experience and perspectives, and insights and concepts from literature developed by others (Creswell & Poth, 2018).

Findings

Female principals' career progression follows a step-by-step ascent, from teachers, middle leaders, vice principals, and finally to principals. Factors that promote and support them to reach principalship are categorized into five major themes: government policies, progressive outlook in the region, relationship building, support from mentors and family, and strong human capital. They are shown in the following sub-themes.

Government policies

Government policies tend to promote an equal playing field for men and women to enter and advance into leadership positions. However, on the impact of government policies on their career development, female principals demonstrate mixed perspectives, either positively or negatively.

Positively, the reserve cadre examination (open to middle-level school leaders, regardless of gender, aiming at selecting reserve talents for future principals), initiated and organized by the government, provided female principals with an equal opportunity to excel as their male counterparts, laying the foundation for their further

advancement in leadership positions. Based on the recommendations from their respective schools, three female leaders (P1, P3, VP6) took and passed the exam. Following a series of evaluations and assessments, they were then identified and selected into the principal reserve talent pool. As recalled by P3, 'I submitted my resume, honours and achievements gained, followed by the exam, and then an interview'. This style of selecting principal candidates, as they believed, was vital for their progression to current leadership positions. VP6, for example, who has two experiences as a vice principal and has taken the examination twice in both her previous school and school 6, made it clear that:

The promotion system was open and fair to men and women. This exam made me stand out . . . I was promoted to the vice principal position for a few years. I did not feel that being a woman gender was a barrier to my promotion to school leader. (VP6).

In 2017, MOE issued an official document, namely, 'Provisional measures for the management of primary and secondary school leaders' (MOE, 2017), to clarify selection criteria and procedures for promoting school leaders (including middle leaders, vice principals, and principals), without any indication of gender preference for any leadership position. This downplayed the apparent impact of gender on women and benefited two principals (P1, P3) in their promotion to principal positions. For example, P3 articulated that:

Our education system in the local district gave women an equal chance as men. It didn't mention that I cannot do certain things because I am a woman. The social environment like this was very helpful. (P3).

Negative perspective came from female principals P2, VP4, and VP5. Their initial promotion path was not through the reserve cadre

examination. The lack of uniform standards for their promotion to the positions of middle leaders and vice principals indicated the lag in promotion policies. This, therefore, prevented them from seeing any benefit of government policies on their career advancement.

Progressive outlook in the region

All six female leaders mentioned the importance of the region in which they worked in helping them achieve their current leadership positions. The region is located in an important port city on the southeastern coast of China, with good economic development.

The rapid economic development bred and cultivated the open-mindedness among residents who valued girls' education and were willing to send their daughters to receive an education. Such broad-mindedness created opportunities for females to obtain better education, as addressed by P2 and VP4. Meanwhile, the accumulated and continued broad-mindedness also created opportunities for females to be tolerated and accepted by men as leaders. This enabled six female principals to advance to their current leadership positions. Regarding the above two points, VP4 mentioned in her own words below:

Through education, women become better and better. So, they can be assigned a challenging job, like me. (VP4).

Regarding the specific groups that accepted and tolerated them as leaders, female principals mentioned two general types, namely, local community and school leaders.

Relationship building

Networking was in an open state. Female principals did not encounter any joining restrictions and can freely choose whether to participate or

not. As directly mentioned by P2, “it is not a problem anymore”. However, their perception of the relationship between networking and their career progression presented mixed information. Several female principals (P1, P2, P3, VP5, VP6) who saw its convenience actively developed and expanded their relationships within and outside of schools. They employed two main approaches to build and expand their networking: work-related aspects and personal-related aspects. Work-related aspects included task-based problem-solving (P2) and frequent work contacts (VP6), while personal-related aspects included women’s own charisma (P1), femininity (P3), and personality (VP5). The people whom those female principals targeted and chose to establish relationships with were the leaders of their respective schools and the superiors of the educational bureau. Those established relationships helped them obtain and secure visibility and favorability during their promotion to their current leadership positions. VP6, for example, her perception of the difficulty of getting further advancement into a principal position confirmed the importance of networking for women’s career success: “If someone had helped me, I would have become the principal long ago”.

Compared to networking, VP4 had a different view and claimed that her career promotion depended on herself, not others. As she informed, it was her capability and diligence demonstrated in her work that earned her the appreciation of one former female principal, who recognized her potential and promoted her to the current position of vice principal. Regarding this point, VP4 made a clear explanation:

I had no social circle. I felt that I had risen to where I am because I was willing to endure hardship and invest time and energy in my work. (VP4).



Support

Support includes mentor support and family support, which are reported separately.

Mentor support

All female principals agreed on the importance of former principals to their career advancement. They were given opportunities to develop and advance their career. They were mentored by their former male and/or female principals in terms of nurture and recognition (Kram, 1983). Nurture was reflected in the development of management knowledge and skills, for instance, problem-solving skills, teacher management, instructional management, organizing activities, and delegating tasks; and in building them, the values and norms for leadership roles, for example, school running philosophy.

Recognizing their leadership potential took the form of recognizing their abilities, promoting them to middle leadership, and recommending them to be vice principal and/or principals. The benefit of mentors in both nurture and recognition was mentioned by P2, who was mentored by two former principals:

They were all well-known principals and had their own management style. The first one was really respected, nurtured, and cultivated me, and led by example . . . The second one was the principal in the xx school and was very avant-garde in terms of ideological and educational philosophy, and in line with international standards. They promoted me to a management position and also influenced my way of leading the school. (P2).

Family support

All female principals showed strong agreement on the impact of family support on their careers. By family, they included their own parents, husbands, and/or in-laws. The role of female principals in the family has been redefined, and they have been allowed to enter the public sphere. Whether as students or married women, they received support from their family members. When they were students, their parents invested in their education, which prepared them with the initial academic qualification for further learning and future career development. When they got married, sharing childcare responsibility with in-laws (VP4, VP5, VP6) or husbands (P1, P2, P3) provided them with the space and time needed for promotion, in terms of work focus and work overtime. As confessed by VP4, without the help of in-laws to take care of her child, she would not be able to do anything. Meanwhile, female principals also expressed gratitude for the emotional and spiritual support provided by their respective husbands. Encouragement and freedom given to them in seeking career development released them from the feeling of guilt of not spending time with their families. Regarding this, P1 deeply remembered what her husband said to her, "It's fine if you get the position. Don't worry if you can't get it".

Strong human capital

Human capital is broadly "defined as the stock of knowledge, skills, and other personal characteristics embodied in people that help them to be more productive" (OECD, 2022, p. 6). Strong human capital found from the findings of this study suggests that female principals are active in building, negotiating, and shaping themselves to possess the qualities expected of school leadership roles, a necessary and

significant process in depersonalizing their identity from teacher to principal. This is shown in the following sub-themes.

Expertise in teaching

In school, preference for men as leaders was still pervasive, and this put women at a disadvantage in advancing into leadership positions. As mentioned by female principals that although women had gained increasing recognition, the rarity of men in the field of education gave men an advantage over women in advancing to principal positions. For example, P3, taking a middle leader man who held the director of general affairs as an example, elaborated how the Education Bureau might 'bend' the rule to promote men:

Even if the male teacher was not as good as the female teacher in terms of teaching, if this position indeed needed him, and if he did a good job, he was likely to become the next principal. Many male teachers in schools around us grew up in this position. (P3).

Awareness of perpetuated leadership stereotypes made female principals realize that they had to show a certain level of superiority over men to be seen and valued. Being strong instructional leaders was unanimously recognized as a useful avenue for them to shine. Their expression covered two levels of effort they put into improving their teaching expertise. First, from the level of personal achievement, they won awards through active participation in various teaching competitions. Second, from the level of classroom teaching, they improved students' academic performance and made good and effective management of administrative affairs (e.g., managing the "most chaotic" class and organizing teaching activities). They also showed strong commitment and dedication to classroom teaching (e.g., good working attitude, strong sense of responsibility, and selfless

work). Their expertise in teaching had earned them recognition from their principals in schools and superiors in the Educational Bureau. P1, for example, had a deep understanding of her effort to become an English subject expert and how this helped her rise to the principal position:

Of all the career fields, teaching has the most serious PK . . . People who were able to come out should have exceptional excellence . . . Generally, those with excellent and exemplary teaching will be promoted to principals. (P1).

Adherence to the CPC

All female principals understood the affiliation between education and politics, e.g., “the party manages and leads us, which means the party and administrative work are not two different things” (P2). The nature of education with a focus on serving politics determined the government’s dominant position in social values, which may be ‘imposed’ on schools to fulfil the intentions and values of the government (Bush, 2008, p. 277; Bush and Glover, 2014). Awareness of such a role of schools drove female principals to act and behave in accordance with government values, aiming to gain promotion opportunities. As informed by several female principals (P1, P2, P3, VP5), being a party member increased their chance of being promoted to current leadership positions. However, party membership was not a prerequisite for promotion to become school vice principals. VP4 and VP6 were not party members but were still given the opportunity to serve as vice principals. Meanwhile, to make their appointment effective, all female principals needed to accept the promotion recommendation arranged by the Education Bureau. The accepted arrangement included ‘reallocation’ (P1, P2, P3) and ‘internal promotion’ (VP4, VP5, VP6).

Masculinity

Coleman (2011) argues that gender stereotypes may lead to the assumption that successful women need to possess and demonstrate masculine qualities. Awareness of such assumptions influenced female principals in this study. Ambition and diligence were seen as the two main masculine features that they attempted to establish.

Ambition was significant and expressed by all six female principals. It allowed them to see the meaning of seeking principalship and played a role as a prerequisite and primary driving force for them to initiate and actively climb the career ladder. Female principals expressed ambition for positions of influence, which was reflected in school changes and personal desire. School changes manifested as a high level of ambition, specifically, realizing educational ideals (P1, P3), and contributing to education in terms of “leave something for the school” (P2) and “shoulder responsibility as an educator” (VP5). Personal desire was shown in autonomy in the position (P1), paving the way for her child (VP4), and pursuing freedom and achievement (VP6). Those ambitions fuelled female principals’ agency and framed other qualities, including determination, active career planning, motivation, and diligence, in their pursuit of principalships. The forms of diligence, they reported, were mainly reflected in working long hours, in terms of working overtime and sacrificing sleep, and being able to withstand pressure and heavy workloads, e.g., “if I did not do something well, I would not sleep and cannot sleep as well” (VP5). The diligence they put in was beneficial to their careers and rewarded them with high work performance and promotion opportunities.

Discussion

Five major factors emerge from the research as important to promote and support female principals' promotion to principalship. They are government policies, progressive outlook in the region, relationship building, support from mentors and family, and strong human capital. Linked to the theoretical framework, these five factors were discussed under the theme of deconstructed gender power relations and identity depersonalization.

Deconstructed gender power relations

Government practices may disturb the hierarchical gender order and create more equal gender power relations in the national context (Coleman, 2007). Government policies tend to mitigate overt discrimination against women and promote an equal playing field for women and men to compete for leadership positions. Reserve cadre examination, and the clarification of the selection criteria and procedures for school leaders, helped the studied female principals to advance into their current leadership positions. This finding on the active role of government policy in female principals' career advancement is consistent with several researchers' positive comments on the government's efforts in promoting gender equality in the UK (Coleman, 2007) and in Uganda (Sperandio, 2010). However, government policies also received negative reviews in the current research. The lag in policies and lack of uniform standards for promotion to middle leaders and vice principals precluded several leaders (P2, VP4, VP5) from seeing the benefits of government policies for their career progression. The mixed information found in this study regarding the impact of government policies on women's career advancement is new, and to what extent it can be replicated requires further investigation.

A progressive outlook may transform the perceptions of local people and challenge the traditional hierarchical gender power relations in regional contexts (Coleman, 2001, 2007; Fuller, 2009). The strong economic status in the studied region and a high education level among the residents have led to a shift towards more open and less discriminatory attitudes towards women. Growing tolerance and acceptance of women as leaders given by local community and school leaders enabled these female principals and vice principals to leverage favourable external and internal forces to move up their career ladder. This geographical advantage for women's career development, to some extent, may mirror the concept of 'London effect' (Coleman, 2007, p. 386) and urban/rural split (Coleman et al., 1998; Fitzgerald, 2003), suggesting that women are more likely to emerge as leaders in areas with good economic development.

Women's freedom of choice to build networking with superiors and school leaders may reflect deconstructed gender power relations in the context of the Education Bureau and schools. However, female principals' perceptions of the impact of networking on their career advancement are mixed. Those female principals who saw its benefits actively built and expanded their relationships within and outside schools. The relationships built with superiors of the Education Bureau or leaders in schools, through work-related or personal links, helped them to secure visibility and favorability. The importance of networking found in this study is consistent with Karamanidou's (2017) research, but there are differences in the persons to whom female principals develop relationships. Female principals of this study were targeted at individuals with higher power hierarchy (including superiors of the Education Bureau and school principals), rather than peers (other female principals) reported by Karamanidou

(2017). However, networking is not a 'panacea'. Aligning with the principal's preferences can create more influential effects than networking. Capability and diligence helped VP4 gain appreciation and support from her former female principal, who guided her and recommended her to the current vice principal position. The mixed message about the impact of networking on women's career advancement found in this study is new, and the extent to which it can be replicated needs further investigation.

Gaining mentor support may indicate growing deconstructed power relations between leaders and employees, men and women in the schools (Coleman, 2004, 2007). Female principals in this study were mentored by male and/or female principals in nurturing for leadership positions and promotion, and in recognizing their leadership potential. This nurture and recognition helped female principals to internalize leadership identities and advance into principal positions. This finding echoes previous studies (Coleman, 2001; Chan et al., 2016), suggesting the role of the former principals in nurturing and recognizing aspiring female leaders.

Supportive family practices may suggest relatively equal gender power relations between men and women in the family (Coleman, 2001, 2002). Women's traditional family roles have been redefined, and female principals are supported in receiving education and seeking career advancement. Parents' financial support for education and families sharing childcare responsibility provided female principals with the initial academic qualifications and ensured the space and time required for promotion. Their respective husbands' emotional and spiritual support eased female principals' guilt for not spending time with their children while seeking career mobility. These results align with previous studies, showing the importance of families sharing

childcare responsibility (Coleman, 2001), emotional, spiritual, and material support (Chan et al., 2016; Cunneen and Harford, 2015) to female principals' career advancement.

Identity depersonalization

Female principals develop strong human capital by actively responding, negotiating, and shaping themselves in qualities expected of school leaders. Awareness of the perpetuated masculine leadership stereotypes and the role of schools in fulfilling government values leads female principals to build and internalize three qualities: teaching expertise, masculinity, and adherence to the CPC.

Developing expertise in teaching, from the level of personal achievement and classroom teaching, enabled female principals to gain recognition from their principals and superiors in the Education Bureau, and to stand out in school contexts that currently favour male leadership. Requiring female principals to demonstrate higher levels of competence than men, as found in this study, indicates double standards for competence, in that gender can be a basis for stricter and higher standards being applied to women (e.g., Foddy & Smithson, 1999; Foschi, 2000).

Masculinity, in terms of ambition and diligence, increases women's suitability for male-stereotypical leadership (Coleman, 2011). Aiming for positions of influence, through determination, active career planning, motivation, and diligence, underpins female principals' agency to seek career development. This finding is in line with a previous study (Smith, 2011), suggesting the role of ambitions in helping women acquire other qualities and increasing their agency to seek career advancement. In particular, diligence, including working long hours and being able to withstand pressure and heavy workloads,

allowed female principals in this study to gain high work performance and win promotion opportunities. This finding is consistent with previous studies, showing the importance of diligence in terms of taking extra duties (Chan et al., 2016) and working long hours (Chan et al., 2016; Coleman, 2000) for women to become principals, but contrary to Fuller's (2009) study, which suggested diligence's less effect on women's career success.

Adherence to the CPC, by pursuing and joining party membership, and accepting recommendations for promotion arranged by the Education Bureau, establishes their political identity and adjusts to the nature of education with a focus on serving politics. This finding is significant as there is a paucity of research linking gendered leadership and political affiliation. However, being a party member is not a must-have qualification to become school vice principals, as shown in the case of VP4 and VP6, who were promoted without party membership. This finding contradicts the research by Xue and Bush (2024) in the Southwest province of China, where male and female high school principals and vice principals were all party members. The difference may be due to the different research contexts. The extent to which these findings can be replicated requires further investigation in other parts of China.

Conclusion

This study explores the factors that promote and support the career advancement of six female principals in public schools in a port city on the southeastern coast of China. Deconstructed gender power relations and identity depersonalization are key to promoting and supporting female leaders as principals in public school settings.

One of the limitations of this study is the small sample size, which may affect the generalizability of the research findings. However, given that it is the first English language-based study investigating factors that support female leaders as school principals in the Chinese school settings, this study enriches the global knowledge on female leadership and provides a reference framework to understand Chinese female school leaders. Therefore, it demonstrates significant theoretical and practical implications, and meanwhile allows us to propose recommendations for future studies.

From a theoretical perspective, this study uses an alternative theoretical framework, which can be seen as complementary to other theories used in gender studies, for example, intersectionality theory (e.g., Moorosi et al., 2018) and the management route model (e.g., Tangonyire et al., 2022). Given that this theoretical framework is introduced, the extent to which it can work in other contexts and whether it can generate similar findings requires further investigation. Meanwhile, this study emerges with some new understanding compared with existing literature and research. Mixed findings from networking and government policies, and new themes that have emerged (including teaching expertise, adherence to the CPC, and networking with individuals with higher power hierarchy), provide new insights into factors that promote women's career advancement. However, the extent to which these themes are replicable requires further research in other parts of China.

From a practical perspective, this study suggests that masculine leadership remains pervasive. Policy makers and practitioners (e.g., male principals in schools and superiors in the education bureau) can provide professional development training that directly focuses on men's and women's ways of leading and managing, and aims to

reduce prejudice about female leadership (Coleman and Fitzgerald, 2008). Aspiring female leaders themselves can also have a better understanding of their position, providing a direction for them to effectively plan their careers.

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The School Principal's Motivating Discourse and Its
Implications: Some Insights into Leader-Followers
Relations

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Abstract	Article Info
<i>The current study sought to identify the characteristics of "motivational language" and the roles of this language used by successful school principals, and its effect on teachers' organizational commitment. The research was based on semi-structured interviews, observations, and document analysis in ten elementary school principals (the "cases"). Participants were selected through "Purposeful sampling in which a large amount of rich data was collected on a single case, which helped in understanding the phenomenon being studied revealed unique characteristics and roles of the motivational discourse: Characteristics such as listening, the principal's expression of respect and gratitude to his teachers, an emphasis on partnership and dialogue, and a personal example. In addition, roles were revealed that are not mentioned in the research literature on the motivational discourse of school principals with their teachers: visible roles (such as training, guidance, documentation, and feedback) and hidden roles (e.g., empowerment, interest in teachers, understanding, inclusion-as a respectful, non-demeaning discourse). That is, this motivational discourse has consequences that helped educational work, such as eliminating objections and spreading positive</i>	Article History: Received: December 27, 2024 Accepted: September 7, 2025 Keywords: Leadership, motivating language, discourse, and principalship communication.

feelings and a relaxed atmosphere to promote the educational work. On the applied level, research insights may contribute to the primary education system, to school principals, to institutions for training school principals, and to the supervision and professional development system of the Ministry of Education. Also, they can expand and deepen the definition of the role of the school director, as well as the training and guidance required for this complex leadership management position.

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Introduction

Motivation is perceived as one of the most important factors in human behavior since it provides an answer to the question of why people act the way that they do (Back, 2000). The word, 'Motivation', is a derivative of the Latin word, 'Motivus', which means "a driving force", and is described as "the overall forces that influence a person – from within and without – and clarify, to a certain extent, the redistribution of effort for achieving certain goals" (Middlemist & Hitt, 1988, p. 144). Motivation, in its organizational context, is described as "the processes in a person which cause a behavior and redirect it to the benefit of the organization" (Miner, 1988, p. 158), while motivation at work is described as the readiness to put in a lot of effort for the purpose of achieving organizational goals, which is conditioned by the employee's ability to satisfy a certain need (Mahmoud et. Al., 2020).

This paper focuses on the functions and effects of one of the strategies that school principals use to motivate their teachers: "A Motivating Language", which is a principal's discourse that motivates employees to increase effectiveness and productivity at work (Mayfield et. Al., 2021). Mayfield and Kopf (1998), who coined the term "Motivating Language", argued that its significance comes from the fact that much of the principal's work is in having a discourse, and that this discourse needs to be academically addressed. The reason why communication with managers is important for motivating employees is that 66%-77% of a manager's time is spent on discourse (Geddes, 1995) that we tend to ignore.

The assumption underlying the study was that the school constitutes an organizational arena with unique characteristics and that the unique professional context in which school principals operate can lead to the identification of factors and methods of motivational discourse that differ from those that have emerged in the research literature on employee motivational discourse in organizations. This is because this context combines several essential components that create the difference: Unlike business organizations where the work, goals, objectives, and connections between the manager and employees are clear, the school organization is characterized by loose connections (Weick, 1976): Multiple, and sometimes even contradictory, goals, a loose connection between the actions teachers take in the classroom and the results, a lack of interaction between teachers, both due to their individual work behind closed doors and due to division into different age groups, etc. (Humphreys & Rigg, 2020). This difference between the school and other organizations emphasizes the need to explore a motivational dialogue between the principal and his teachers distinctly.

Unfortunately, there has been little reference to this specific kind of Motivating Language in studies of emotions among school principals. To fill this gap, the paper explores the uniqueness of the use of Motivating Language among elementary school principals for the purpose of motivating teachers to perform their duties more efficiently, and the role of discourse and its implications. Specifically, this paper poses three questions: (1) How do principals, their staff, and teachers perceive the nature of the Motivating Language in the school's unique context? (2) What is the purpose of Motivating Language in the eyes of the principals, administrative staff, and teachers? (3) What are the implications of using Motivating Language, among school principals, on the pedagogical organization, according to the perception of principals, administrative staff, and teachers?

While the extent of research in the field of discourse between principals and teachers is relatively limited, the amount of evidence concerning the importance of such discourse in organizations is growing (Mayfield et al., 2021). This study contributes to the literature about principal-teacher relations and teacher motivation since, according to the study's findings, one can more efficiently redefine the component of the principal's discourse and teacher motivation as an inseparable part of the principal's job and the implications of such discourse (Gaziel, 1995; Holmes, 2012).

Literature Review

"Discourse" is not just about the transfer of information; it has many functions and interactions, such as values, stances, beliefs, and emotions that merge with functions that are not linguistic (Arvaja & Hämäläinen, 2021). Regarding Motivating Language, the one who is responsible, in most cases, for the course of discourse, its many interactions, orientation, and final wording, is the principal. Studies

from the field of business organizations refer to this linguistic element (Alev, 2024). These studies see communication as the center of the principal's work, and that leadership and discourse are intertwined. Meaning, the ability to achieve organizational goals through discourse is regarded as one of the most important skills (Mayfield & Mayfield, 2017). This is because the strategic use of discourse as motivating, by leaders, increases employees' satisfaction and significantly improves behavior and performance (Bogotch & Roy, 1997).

The literature that deals with administration and business administration coined, as previously mentioned, the term "Motivating Language" to a discourse that helps work motivation among principals who spend most of their time at work discussing with their employees. This is a discourse that increases efficiency, output, and work productivity, as a discourse that grants both personal and professional confidence (Alev, 2024).

The Characteristics of Motivating Language and Its Functions

The researchers: Mayfield, Mayfield and Kopf (1998), coined the term "Motivating Language" for a discourse that helps managers achieve their goals, and this discourse includes several styles of discourse:

Empathic discourse and its functions: First, an empathic discourse that motivates due to the strong emotional bonds that are formed between the principals and their employees is required (Mayfield & Mayfield, 2017). This is helpful and reliable communication that acknowledges the value of others, and this is because the professional and social interaction between the people of the organization stirs emotional responses and requires acknowledgment and coping (Crawford, 2009). For example, principals can address their employees and say: "I know what you are going through because I went through

something similar" (Mayfield & Mayfield, 2017). That is, the role of such communication is to grant a humane aspect to the organization (Berkovich & Eyal, 2015).

Clear discourse and its functions: Beyond empathy, discourse researchers emphasize the importance of a clear discourse (Mayfield & Mayfield, 2017) that is expressed in the giving of simple and complete information to comprehend the work: instructions that clarify roles, values and expectations, information during changes, explanations for problem solving, priorities, goals and rewards (Mayfield et al., 2021). This clear discourse has several functions, such as: "qualifying in modern knowledge, and granting a pedagogical meaning, reducing the employee's uncertainty, lack of confidence, and mistakes, and helping in proper decision making (Alev, 2024).

Meaningful discourse (vision) and its functions: Motivating Language has another component: a significant discourse (vision), as an ethical discourse for conducting the organization's activities (Holmes, 2016), and as an inspiring discourse that outlines the way for carrying out the job (Holmes et. al., 2024; Mayfield & Mayfield, 2017). That is, the purpose of the vision is to formulate the values and principles that will guide the organizational goals, purposes, and activities for the creation of an ideal future reality.

Transparency of discourse and its functions: This is communication that informs, shares, and consults processes that occur in the organization, and is of crucial importance to the sense of belonging to the organization. Transparency of discourse is expressed in honest communication that is open to discussion and criticism by brainstorming and sharing (Mayfield & Mayfield, 2017). The employees feel that they constitute a significant part of what happens within the organization, such as the setting of goals and purposes, and

decision-making. That is how transparency allows employees to make decisions for the betterment of their performance. Likewise, the purpose of transparency is to reduce ambiguity and to stimulate discussion that helps to improve and leverage organizational growth (Baltzley & Lawrence, 2016). The employees are part of the process and understand the larger picture of the organization's activity, which allows a mobilization of an upward-downward communication without the apprehension of reporting mistakes (Oulasvirta et. al., 2014).

Framing events: Discourse researchers highlight the importance of framing an occurrence in a different and inspiring way. Framing is like the work of a photographer who points his camera to highlight whatever he wants to be seen. This way, the act of framing provides an ethical interpretation of the job that helps employees overcome daily challenges (Holmes, 2016; Holmes et. al., 2024; Holmes & Parker, 2020). For example, Steve Jobs indicated that the business is a journey when he tried to defend a strategic decision he made (Heracleous & Klaering, 2014). That is, he used a metaphor to explain the decision to make changes, and for his "journey," he even used a "road map" (Ibid.).

Actions that overlap with discourse: Action-overlapping discourse is also required. This is communication in which there is a match between the leader's statements and his actions. The reason for this is that employees interpret the leader's words in a behavioral context. If the leader does not act accordingly, employees tend to rely on his actions and ignore his words. Therefore, demonstrating ethics and integrity through the leader's actions increases employee trust in the leader. Likely, leaders who do what they say and practice what they preach will be seen as more genuine and authentic by their employees (Mayfield & Mayfield, 2017).

Holistic discourse: The researchers emphasize that all the elements of this Motivating Language are intertwined and inseparable, which creates a holistic discourse (Holmes et. al., 2024; Mayfield et. al., 2015). Humes, a language and leadership professor at the University of South Colorado and the speechwriter of four presidents, calls this communicative discourse "art" (Madalina, 2016). According to him, the leader's discourse is the art of communication.

The Implications of Motivating Language

The holistic Motivating Language of the principal toward his teachers has motivating implications, because each component of this language has the potential to motivate employees to carry out their jobs more efficiently. This element is essential to employee motivation, especially in the 21st century, due to psychological gaps between employees and their employers and the employees' expectations to meet their demands (Vardi & Weitz, 2016): The empathy expressed in this kind of language leads the employee feel appreciated and, in turn, increases his or her sense of support, trust, loyalty, satisfaction, commitment to job and improvement of performance (Hills, 2015). This is because it strengthens relations between the manager and the employee to promote future success.

The language's clarity also motivates, and that is because employees realize what they need to do very clearly, and, therefore, a positive work environment that focuses on tasks is formed (Mayfield et al., 2021). The vision expressed in the employer's discourse also has a positive aspect, as it motivates the employees towards a significant future ideal and the acquisition of a strong collective duty (Mayfield et al., 2015). This, alongside the transparency of the employer's discourse

with his employees, causes employees to realize that they are being included, trusted, and informed, and are part of the decision-making, and here lies the motivation for the optimal execution of their duties (Mayfield & Mayfield, 2017).

Furthermore, the reframing of emotions or perspectives in the discourse improves organizational outcomes since discourse's original and inspiring emphasized values help to overcome challenges and translate them into actions (Gatti, 2021). Finally, the leader's expression of ethics through actions creates trust, commitment, and motivation among employees (Nkemdili, 2019).

Study of Motivating Language in School

Despite Motivating Language's popularity in business organization studies, the subject has rarely been explored in the educational field, and these studies are mostly quantitative, which have examined the relationship between motivational language and the increase in motivation and pedagogical successes of teachers in educational institutions (Alev, 2024). Therefore, this study relies, in part, on research and theories of Motivating Language that were conducted in organizations that are not part of the education system. Yet, this study relies, in part, on research and theories of Motivating Language that were conducted in organizations that are not part of the education system. In fact, a large degree of school management is achieved through discourse: discourse in meetings, in random meetings in the school corridor, on the phone, in the media, and more. Therefore, the ability of managers to influence and manage depends on their ability to communicate in a variety of ways with different people on any given day, and with the schoolteachers responsible for the educational work.

In fact, from reviewing these scarce studies about Motivating Language in educational organizations (Holmes, 2020; Yakut & Maya, 2022), it is indicated that the core of the principal's work is verbal communication. However, unlike business organizations, a school principal has reciprocal relations with many different groups: teachers, students, parents, the community, and authorities. In addition, it is highlighted that in the characteristics of the principal's Motivating Language as holistic, the characteristics mentioned above, are also intertwined in an organization like a school which include, for example: empathy, clarity in instructions and expectations, informative and process-consulting transparency, meaningful vision, and "action-matching discourse" - with the principal being true to his words (Ozeren et. al., 2020).

In the professional context of the school principal, his unique roles are emphasized, such as: promoting teaching and educational programs that help students, developing the school culture, maintaining relationships with teachers, students, parents, authorities and the Ministry of Education - all of these are related to an optimal dialogue with the teachers: principal's Motivating Language (Alev, 2024). This context includes several essential components that create the difference between the characteristics of the principal's language and its functions and the language's characteristics of the organization managers. It was assumed that this unique context may lead to the recognition of the various characteristics and functions of the principal's Motivating Language than those that were indicated in studies about employees' Motivating Language in organizations.

In addition, the school is an organizational arena with unique characteristics. The organization of the school is characterized by loose connections (Oplatka, 2024), for example, multiple goals, and

sometimes even contradicting each other, a loose connection between the activities that the teachers implement in the classroom, and the products, and limited cooperation between the teachers (Humphreys & Rigg, 2020; Weick, 1976).

In this article, we will uniquely reveal the characteristics of the school principal's unique motivational discourse with his teachers and his roles, as emerged from the research.

Finally, studies on the discourse of the school principal with his teachers (e.g., Alev, 2024; Yakut & Maya, 2022) are quantitative and few, and are mostly based on the "Motivating Language" model from the business world. Our research as a "case study" uniquely revealed specific characteristics of this school discourse and its roles in the educational field. The present study has a twofold contribution: at the theoretical level, the present study contributes to the research field in the fields of organizational behavior and educational administration to expand the conceptualization of ways to motivate employees in general, and in the school arena as an educational organization in particular, through the principal's discourse.

In the field of educational administration, the study sheds additional light on the elementary school as an organization and the role of the principal's dialogue with his teachers from angles that have not yet been explored, and supports the claim that management and leadership are equally necessary for the organization.

Methodology

The manager's motivational discourse contains several relevant variables that interact with each other, without an adequate conceptual framework to describe the characteristics and functions that influence these variables in the manager's motivational language. This situation

has prompted the need to study the motivational language of school principals using the tools of "multiple case studies" (Yin, 2013) to produce versatile information about this phenomenon, defined as a "case": the principal's motivation for school language for teacher motivation. Below are the reasons for adapting the qualitative paradigm and the multiple case study to the present study, the method of selecting the cases (school principals and staff), the research tools (interviews, non-participant observation, and documents, the research process, and the researcher's place in the study and validity issues, The reliability and ethics relevant to the present study.

Sample and Participants

To produce rich data about the characteristics of principals' Motivating Language and its functions as motivating, ten elementary schools, from the State Education System, were chosen for this study, according to a "targeted sample" (Stake, 2013) as a homogeneous group. Note, however, that the case under investigation is the school principal rather than the school itself. While the schools selected in this study provide the context in which the study was conducted, the primary focus of this study is the principals' motivating language.

The selection of schools was done in accordance with the "criterion sampling" (Cohen et. al., 2018). The researchers had to locate the subjects through informed selection in order to strengthen the validity of the findings and prevent coincidences as much as possible. Therefore, participants were selected according to a "purposive sample," and this research method collected a large amount of rich data on a single case, which helped in understanding the phenomenon being studied: the school principal's discourse. Case studies do not represent the world in its broadest sense, but rather the case itself, so that it is both a unit of analysis and a final product (Stake, 2013). Yet,

one can try to shed light on it and find evidence more broadly and comprehensively.

Based on the literature about Motivating Language in organizations, we assumed that this kind of language is likely to be found among principals who have constructed good relations with teachers, students, and parents. Consistent with snowball sampling (Parker et al., 2019), we selected the principals using informants (e.g., school supervisors and colleagues) and asked them to recommend potential schools based on four criteria: (1) the principals' seniority (5 years and more of running a school), (2) good relations (e.g., principals who is sitting with their teachers at the teacher lounge, having conversations, celebrating successes, encouraging social bonds and more). (3) Principals who are personal models (e.g., having respectable discourses, personal talks, participating in meetings and trips, and providing support when needed). (4) Principals who aspire to enthusiasm in the school (e.g., including the principal in talks about study subjects, empowering strengths, and having conversations about students). When a certain principal met these criteria in the view of our informants, we contacted him or her. A staff member or teacher was then contacted at the principal's recommendation, using the snowball method, as suggested by Parker et al. (2019).

During the research, 30 semi-structured interviews were conducted with three staff members in every school: the school principal, an administration member, and a teacher.

This way, the school's staff member group that was chosen included eight female principals and 2 male principals, ages 40-55, with a seniority of 5-14 years. Nine of them have M.A.s and one has a PhD, and they come from various districts of the Ministry of Education in Israel: North, Central, Tel Aviv, and South. Alongside them,

administration staff members with a combined experience of 2-18 years, and teachers with a combined experience of 2-12 years were interviewed. Five of the schools serve a middle-upper-class population, three of them serve a lower-class population, and the rest serve a middle-class population.

All ten principals are from elementary schools that belong to the formal state education system in Israel and include unique teaching methods: two schools that deal with communication (optimal discourse: listening, receiving, and speaking or speaking, influencing, and listening), three anthroposophical schools, and four schools. Those that emphasize respect and empathy: a school that emphasizes 'mutual respect' (won the Education Award), a 'Heart Center' school (won a national competition in education), a green school that focuses on a respectable atmosphere, a school that 'grows personal social leadership', which emphasizes mutual respect, and a school that adopted the 40 model; 40; 20, learning in courses to cultivate an independent learner (focusing on the learning process, products and diverse teaching styles), as a change process led by the manager in a motivating discourse. The criteria for choosing the ten schools are criteria for schools that will give a broad picture regarding the characteristics of the discourse as a motive, the causes and consequences as an 'ideal', and not a complete picture.

In order to preserve the ethical aspects of this qualitative study, the interviewer explained the study goals to the interviewees and guaranteed them and their school full anonymity: classification of the school's name; every interviewee received a fake name, and all their identifications were taken off the interview printout. Moreover, the interviewer abstained from criticizing the interviewee's words or harming them in any way.

Data Collection and Analysis

Studying this case is contributory due to its being comprehensive and reliant on an abundance of data from various and versatile sources to reflect the totality of this language (Merriam & Tisdell, 2015) through semi-structured interviews. This strategy, of choosing a semi-structured interview, is derived from the unique characteristics of such an interview, which is characterized by an open discourse about the principal's Motivating Language and by offering the interviewee a broad range of references to the subject at hand, which allows them to express freely (Merriam & Tisdell, 2015). The interviewer could ask for explanations about the topics that were brought up and, in this way, receive information about things that are not directly predictable, while also tracing the characteristics of the principal's language as motivating and its other uses (Stake, 2013).

The strategy to analyze the language's characteristics, its roles and implications through interviews followed the four steps described by Marshall and Rossman (2014): "organizing data", "category, theme and pattern creation", "examination of every hypothesis brought up", and "looking for alternative explanations". The goal of this kind of analysis was to detect major themes in the data, to search for experiences, feelings, and repetitive stances to be able to code, narrow down, and fuse together different categories of major themes. The coding process was based on the principles of "comparative analysis" (Strauss & Corbin, 2008), which includes comparing every coded element of categories and sub-categories created during the process. To increase the level of reliability and credibility of the research, the analysis was clarified using structured analysis and peer reviews (Marshall & Rossman, 2014). This was done to create common categories and unique criteria (Stake, 2013) to describe the principals' Motivating

Language and advancement of pedagogical outcomes with their teachers, alongside the discretion the principals use with such language.

Finally, a comparison was made between the themes that came up from the interviews and the literature that was reviewed, to build a new theoretical concept that was based on findings and theory. The findings of this analysis will be presented further along.

Findings

The findings section focuses on the role of the manager's Motivating Language and its consequences. We will briefly present the characteristics of the "motivating discourse of the school principal", according to the interpretation of the interviewees, such as listening, guiding, trusting, documenting, providing written and oral feedback, expressing respect, and the positive consequences of this discourse.

The Characteristics of the Principal's Motivating Discourse

The interviewees revealed six major intertwined characteristics: listening, thanks, respect, dialogue, support, and personal example. This part will deal only with the first characteristic as a unique finding of the research: Discourse is not only words, but also the first listening.

Most of the interviewees emphasized that one of the significant elements of the "motivational discourse" is that beyond the principal's ability to express himself in discourse, his ability to listen to his teachers is seen as important, such as: the principal's availability to his teachers, sometimes despite the workload, out of interest in what the teachers say, detailed answers to questions and support in work processes. Listening was also revealed in observations of teachers' meetings. For example, the answers of two teachers from different

schools to the question "what characterizes the principal's discourse with the teachers":

Listening. She has a million things on her mind, but always listens... when I want something, things that pop up. I could call in the evening and she is with you, and she explains, and she listens... and you will see that she is with you, smiling, this is art. (school 7, teacher)

I tell the manager everything... including personal things... he is always attentive, always gives good advice. He is always inclusive... amazing, absolutely amazing... this week I had a segment... I called him, I talked to him, and he listens, he listens, he understands the situation, he understands the complexity... he is an inclusive person, and I think that many of them feel this way. (school 2, teacher)

This listening is expressed by the manager's explicit statement: "I am attentive to you" or by the manager's promise to check the things that were raised, examine, accompany, or follow up. As we can see from the following quote:

Interviewer: What are the characteristics of your conversation with your teacher?

Principal: *I am very, very attentive to every voice: The voice of a student... the voice of the teachers, the voice of the parents. The attitudes, preferences, feelings, values... I can also say things like: "I listen to you", "I will check", "I will get back to you", "Let me accompany it", "We will follow these things". (school 8, principal)*

The principal listens to the teachers' voices and even encourages them to speak, as was observed in a teachers' assembly. The principal, through dialogue with the teachers, motivates them to express their



feelings in a challenging period, such as: asking his teachers to refer to a picture showing an exciting situation related to a problem, to develop a fruitful dialogue about a frustrating situation related to educational work, as can be seen in the following quote and in Attachment 1.

Manager: Today we will dedicate the plenary session to... A post that went up about 20 hours ago (Attache 1) touches our tender stomachs...

Teacher: When we return to routine we will forget: "What is this".

Manager: "What is what", what will we forget?

The teacher: What does it mean to hug and get close?... (Watching a meeting of teachers with the principal of school 10).

Table 1.

Listening: The principal listens to his teachers



Be available - The principal's ability to listen despite being busy shows an interest in what the teachers have to say.



An explicit statement: "I am attentive to you, and promise to examine, accompany or follow".



Detailed answers to questions.



Support in the educational work process.



Encouraging teachers to express feelings about educational situations and difficulties and to listen to them.

The Functions of Motivating Language. In addition to the characteristic of listening and other characteristics of Motivational Discourse, the interviewees emphasized the apparent functions of the principal's Motivating Language that deal with instructing teachers, guiding them, documenting school activities and the hidden functions of such language as forming respect and positive emotions.

The functions: the three functions that are related to instruction, guidance and documentation were revealed. In addition, the way it is carried out was brought up using examples from daily life, which is open for interpretation by the interviewees, principals, administration staff and teachers.

Instruction: in a compatible manner to the academic literature that was described in the introduction, it is revealed, through interviewees' interpretation, that the role of the principal's Motivating Language is to instruct in a way that forms a vision and promotes pedagogical subjects. In fact, it was highlighted that the vision creates a consensus that instructs teachers about norms, values, and theories to motivate work, which is based on futuristic, detailed description that is then made real by carrying it out. In fact, it is the responsibility of the principal to reveal the vision and make it real, and since a "language"



is also a dialogue – it is more reasonable to extract it from the teachers and form it into a unanimous vision. As is indicated by the next quote:

Interviewer: how do teachers and other employees know what is expected of them?

Principal: *I let teachers form a vision. It needs to have three components: educational, emotional and spiritual... I didn't tell them: "guys, from now on the vision is this and that... but that they are an integral part of it"... afterwards, we did a brainstorming with the whole team and got to a vision... they feel that they are a part of it... it hangs in the teachers' lounge, written in large letters.* (school 2, Principal)

Moreover, the interviewees perceived that the role of the principal is also to instruct teachers in pedagogical matters to provide them with clear information. As one teacher detailed in one of the interviews when they were asked, "How do teachers know what is expected of them?":

The instructions are very clear... There are personal talks, regular talks, and teachers' lounge talks... they are never misunderstood... There are preparation days, there are meetings on Mondays, and there are e-mails... they even tell you what refreshments will be served... and we have many indicators: wall indicator, what should be in every class, the national anthem, birthdays, and the meanings of the months. (school 1, teacher)

Table 2.

Instruction in discourse - how?



Instructions for teachers to formulate their own vision of school norms, values, and theories. When the teachers formulate the vision, this is part of them.



Teacher training on pedagogical issues - providing clear information

Guiding: From the interviews, it emerged that the role of the discourse is to guide the teachers at the beginning of their journey as part of a "support basket package": guiding the new teachers in professional ways (watching lessons, following conversations and instructions). This, along with instructions regarding orientation at school (how to solve a problem, who to contact, etc.). We learn about this guiding role, for example, from the following quote, as an answer to the question of how teachers and teachers with positions in the school know what is expected of them:

New young teachers receive "pedagogical guidance" with observations in the lesson and conversations afterwards, and instructions... they know what is expected of them in this respect. They can help, ask, and observe themselves in other classes... and there is also "internal support", i.e., "how do I solve this problem", "who do I turn to with this problem"... personal things and orientation. (school 3, teacher).

However, the role of the principal's discourse as a guide is related not only to beginning teachers but to all teachers. For example, the director cultivates educational activity with a guiding discourse and clear

instructions through conversations, regular meetings, presentations, indicators, and clarifying expectations, even in training regarding healthy refreshments at meetings. In response to the question "How do the teachers know what is expected of them?", the following teacher explained in the interview as follows:

The instructions are very clear... there are personal conversations, there are continuous conversations, and there are conversations in the teachers' room, she says... there is no way we won't understand her... first of all, there are preparation days, and there are meetings on Mondays, and there are emails... for example, instead of a parents' meeting, she decided that each child would present his personal work to all the parents, and she would send us a presentation to guide us. There are preparation days on Monday, Friday, and meetings - she explains what level the refreshments will be, it will be healthy refreshments, no cakes. (school 1, teacher)

Moreover, the role of the principal's discourse is, beyond pedagogical guidance, to also guide the behavior of the teachers in various situations in the school. For example, teacher training on the subject of "parent teachers" communication, as the following director answered in response to the question of how teachers and officials know what is expected of them:

On the subject of "parental communication," I invest very, very, very much in the guidance of the teachers... I always tell the teachers, "Don't rush to answer". If a parent writes a WhatsApp like this... thirty, forty lines, and describes in detail what happened, do not rush to answer, send me this WhatsApp, we will read it together... I tell the teacher: "I recognize that she's really, really angry", "get back to her"... each case individually, but we try to solve it together... in terms of the parents' communication. (school 2, principal)

Table 3.

Guidance in discourse



A discourse that guides the teachers to get to know the school space and directs an appreciative spotlight to the unique work of the teachers as examples that aim at desirable work and aim at full partnership at work.



Training new teachers in pedagogical issues, along with familiarization with the way the school is run.



Clear instructions for all teachers regarding events at the school by conversations, meetings, presentations, and metrics sent to email, and clarification of expectations. Includes clear guidance on how to behave in different school situations.

Written and verbal documentation and feedback: the third apparent function of the principal's Motivating Language is attributed to written and verbal documentation and feedback as a repeating motif that comes up from the analysis of the interviews.

Written documentation and feedback: interviewed principals, administrative staff, and teachers, all emphasized the documentation of school activities in e-mail, WhatsApp, and social networks as an expression of the principal's appreciation of teachers' work, their enrichment, and even as a motivation to do things, such as from "envious rivalry among scholars". In their perception, teachers need

appreciation as part of Maslow's Hierarchy of Needs, as highlighted in the next interview that refers to the principal's Motivating Language as documenting in writing, and as publicly grateful to the pedagogical work:

In an e-mail, I review everything that has been done this week. That is how the appraisal, empowerment, and encouragement thing was born: "team D has made a ceremony... They had an interesting activity". It was something that has elevated the school's reputation and, therefore, deserves to be on the weekly e-mail... people had started to anticipate it... as part of Maslow's Hierarchy of Needs, what a person needs are: appreciation, visibility, to be seen... This is "envious rivalry among scholars"; it feeds itself and enriches. (school 4, principal)

Another function of the documented and written discourse was tied to interviews of procedure memorization, through the refreshing of known procedures for the purpose of clarifying work routine due to abnormal situations that have occurred. As can be deduced from the quote below, as an answer to the question 'how do teachers know what is expected of them?':

I, as a principal, always refresh procedures...: a kid has fallen, and the other kids have carried him while the teacher did not pay attention... thus... (in WhatsApp) ... I demand to refresh the safety procedures in the yard: "teachers on duty need to... do their duty effectively. Please watch and circle the corners". (school 2, principal)

Verbal documentation and feedback: the interviews indicate that the function of the principal's Motivating Language is to also provide feedback about work that will mirror school reality. For example, principals escort their teachers and evaluate them in an "open door"

policy. To do so, principals regularly have personal talks with their teachers. For instance, at the beginning of a year, a month after school has started with new employees, as well as in the middle and end of a school year, personal talks with old tutors alongside new ones are taking place, where the past half school year is being discussed. Dedicating such time is valuable to the teachers: they are being heard and seen, as the next part indicates:

Interviewer: how do teachers and other employees know what is expected of them?

Principal: *personal talks – to the point that it is being scheduled. A month into the new school year, all the new teachers, assistants, and people... already know to tell you about the difficulties, arrangements, what was witnessed, what is new, what I can do to assist... Again, it comes from the place of being heard and seen. In the middle of the school year, I meet up with all the tutors, old or new... where I listen about what's happening in the classroom... where the teachers can spill their hearts out... and we discuss the first half of the school year that has passed. Personally, me and them.* (school 9, principal)

Table 4.

Written and verbal documentation and feedback



Documenting the school activity by email, WhatsApp and social networks as an expression of the principal's appreciation for the teachers' work, empowerment, encouragement, educational enrichment and even motivation to do things.



Refreshing known procedures for the purpose of mentioning the work routine through reporting on WhatsApp about unusual situations that occurred during the day - and what is the procedure for preventing this unusual situation.



Feedback on work that reflects school reality through personal conversations with their teachers in an orderly manner throughout the year. Such dedication of time is valuable to teachers: they are heard and seen.

Hidden discourse functions: despite all of this, the interviewees emphasized that the functions which were mentioned so far cannot exist without referring to the notion that the Motivating Language has additional hidden functions. Thus, many of the principals stated how the function of the Motivating Language is to interweave respect for the teacher with positive emotions and promotion of work. For example, using the words for understanding and acceptance: "I understand", "I see you". For instance, putting together a "school dictionary" with respectful words and sentences written by the principal, and about which he spoke in an interview:

Interviewer: How do you express empathy?

Principal: *this is really a language that we have created... we created a school ABC... which is part of our language: "I understand" ... "I'm there", "I see" ... about forty students came to visit us for the principal course... and I said: "let's do this list so we can convey it". These are words of 15 years, and every time we add more... like a password: ... That everyone is loved, needed, can – which is "me" in Hebrew: Loved, needed, able: A.N.Y ... (Including a sign posted at the entrance to the school, Attached 2, O.G) (school 1, principal)*

The second hidden function, according to the interviewees, principals, administration staff, and teachers one is related to the Motivating Language as inducing a relaxed atmosphere. Meaning, the Motivating Language is to instruct the teacher to do proper work using a positive and non-offensive language, out of sensitivity, even when there's

criticism for the teacher's work. For instance, it should be done in the principal's office and not in the teachers' lounge or hallway, and not in front of the students to avoid shaming. As can be learned by the next segment, which depicts a principal's reply to the question "what things would you avoid telling teachers?":

There were times when I had to call a teacher. Inside my office... I can say things very harshly... unambiguously. But, not in the teachers' lounge, not in the hallway, not in the classroom, not in front of the students... these people have feelings, and just like I would not want to be offended... I know that teachers... appreciate the fact that it is done inside the office... it is me and you, and from here we try to see how we solve issues. (school 3, principal)

A third hidden function, a recurrent finding in the interview according to most principals, is that the language is supposed to set an example for teachers who are using it as an educational model for students. The principals instruct their teachers to have a respectful conversation while avoiding the use of disrespectful phrases. As stated in the next segment that refers to the question mentioned above:

I retain a completely clean language... I ask the same to be applied with students, parents, and among themselves... as saying to a student: "shut up" is, in my eyes, unacceptable... we set an example... Even if teachers really irritate me bad... I cannot tell them something that would hurt them. (school 1, principal)



Table 5.

Hidden discourse functions



The motivating discourse contains respect for the teacher and positive feelings for the advancement of the work. For example, using words for understanding and acceptance: "I understand", "I see you".



The motivating discourse creates a relaxed atmosphere. Using positive and non-offensive language, out of sensitivity, even when there is criticism of the teacher's work.



The principal's discourse as an example for teachers and as an educational model for students, as a respectful and positive discourse, and avoiding the use of disrespectful expressions.

Finally, the role of the discourse is Document and summarize the work at school, and the work that must be done in writing (in emails, in the school WhatsApp group, on social networks, in certificates and letters of thanks) and orally (in meetings, in personal conversations or in front of external parties), and all this to optimize the educational work.

Discourse implications: Motivating Language's implications, according to the interviewees, were found to be motivating teachers to work. The main implications that were mentioned are linked to the removal of any opposition, which, in a "domino effect", creates a positive atmosphere and, thus, motivates pedagogical work: the teachers are not forced to work. They want to.

Removal of opposition – to motivate for work: in a unique manner to the study, according to the interviewees, it was revealed that the Motivating Language affects the removal of teachers' opposition, in advance, and even when it is about to occur.

Preventing opposition in the first place: to remove opposition, principals allow their teachers, in small quantities and at times when everything is calm and not during crises, to say whatever is on their minds to find a solution to problems, as an education to a language that seeks solutions. As indicated in the interview, for instance, by the vice principal, as an answer to a question that dealt with the implications of the Motivating Language:

We promote respectful language... If there is a need for one, we schedule an appointment... we hear the complaints and try to fix... in the teachers' lounge, we always talk about it, so there would not be any talk behind people's backs or congregations. "If you have an issue, come. Tell me about it". And we use this strategy in times when things are good. Not necessarily during crises. (school 1, vice-principal)

In addition, principals try to get insights from the language, to which they try to aspire. Meaning, when these insights "are born", the result is the removal of any opposition: the teachers do not oppose – they are

part of these insights. As is described in the following quote, as an answer to the question mentioned above:

When there is a seminar about an "ethical code", for example... There is a role play... afterward, we got out to work in groups... thus, it is "born" from them... therefore, if this is the case, I cannot oppose. I am (the teacher, O.G.) part of this thing. (school 9, principal)

Moreover, the principal's language affects and reduces teachers' opposition, even in the case of assimilating a new program. The principal ensures that the teachers will hear about the change in a calming language that accompanies the move, to remove any opposition that might pop up due to a fear of the process. As is highlighted in the following quote, which is an answer to the question: "What are the implications of the Motivating Language?":

If there is something new ... I would rather they hear it directly from the principal... There was one case when a teacher... was very frustrated...: "It's very demanding"... I could ignore it and say: "... These are the demands"... I decided to gather the teachers: ... "I get that there are doubts. It makes sense. And everything is all right... it is like taking a pin and blowing up a balloon. They thanked me...: "thank you. It calmed us down". (school 7 principal).

Calming down opposition: to remove oppositions that already "arise" about controversial subjects, according to the interviewees, the principal can recognize those who would oppose and knows how to "soften" them with a private conversation, in the perception that every teacher has a life story. This realization increases the chance of removing the teacher's opposition. As is indirectly indicated by the implications of the Motivating Language, from the following quote

about which words principals use when teachers oppose their requests:

Wherever there are people, there's also opposition. But they have this ability... to recognize and know where opposition might come from... they learned to recognize the individuals as well... and how to soften them: ... private meeting, to better listen and understand those who tend to object. They succeed... in reducing opposition... You know: a teacher has a life beyond school. Once you understand ... You can harness them. (school 6, teacher)

From positive emotions to recruiting teachers for motivation of pedagogical work: alongside the hidden function of the language as interweaving positive emotions, the interviewees revealed that, according to their perception, this function becomes an apparent projection: the distribution of positive emotions, like loyalty and the will to assist, for the motivation of work.

The Motivating Language affects their emotional loyalty and, therefore, their ability to give for the school. That is, this emotional loyalty forms a will to assist principals in things like participating in school social activities and "not letting them down." As can be attested by the following segment, as an answer to a question: "Can you state the implications of the Motivating Language, according to you?":

I, and most of the teachers that are close to me... really adore her... she is inspiring... I really want to please her and not let her down. So that she would be happy... and be able to work in peace. (school 1, teacher)

That is, the implications that were mentioned so far lead, in fact, to the main and significant implication of the Motivating Language: recruiting teachers to efficiently do their job. When there is no time



wasted on conflicts, and the language leads to a good feeling among the teachers, the workplace prospers, teachers are not forced to work, and they see it with a sense of purpose. As mentioned in the following segment, which is an answer to the question that dealt with the implications of the Motivating Language:

She harnesses everyone that way... when you understand someone, they want to come and help you... That is what this language brings. Really. It causes the team to go hand in hand with the principals. If there is any problem... I will give you an example: ... During Covid... there were more yard duties than usual, but teachers understood that. In a different time, and perhaps with another principal, it would have created a catastrophe. (school 7, deputy principal)

Table 6.

Discourse implications



Motivational discourse - creates a positive atmosphere and motivates teachers to work - when it is good for the teachers, it is good for the educational work.



Preventing resistance in the first place.



Implementation of a new educational program easily by a soothing discourse that accompanies the process.



Calming objections on controversial topics in advance - by knowing how to "soften" the teachers who object in a private conversation.



Awakening positive emotions, such as loyalty and a desire to help the manager, motivates the work and meet his expectations.

Meaning, a respectful language of the principal, on all its characteristics, recruits the teacher for pedagogical work. The teacher is willing to do whatever it takes to meet the principal's expectations.

Discussion

When examining the voices of interviewees, principals, and teachers alike, it is indicated that the Motivating Language interaction has unique characteristics and functions for the promotion of pedagogical programs, school culture, teacher, parent, and student relations, and is, therefore, different from the characteristics and functions of the Motivating Language in other organizations (Yakut & Maya, 2022). This context leads school principals to use a special language with their teachers that is adjusted to the administrative complexity, and the findings indicate several major intertwined insights:

The first one relates to the Motivating Language as a way for interpersonal and professional bonding. This is similar to studies about Motivating Language at school (Alev, 2024, for instance), which present Motivating Language as empathic and clear for personal and emotional bonding – as a language that grants raises for the staff's efforts, forms a significant vision for their job, grants a "personal example" and contributes a humane aspect to the school, as well as forming satisfaction and commitment. Interpersonal and professional connection is primarily created by listening to teachers, because any expression of authentic empathy requires listening, which paves the way for teacher guidance. Listening as a mandatory element in this process is a unique characteristic that stood out in the current qualitative research and had not been indicated in the past research on

the motivating language in organizations (e.g., Holmes, 2020; Mayfield et al., 2021).

The second insight, unique to the study - which is not emphasized in the literature on Motivating Language (Holmes & Parker, 2020; Mayfield et al., 2021) that based on interpersonal and professional bonding, mentioned above, it is fitting that, according to the findings, the Motivating Language will consider the inclusion of teachers in the planning and implementation processes as a dialogic discourse that emphasizes inclusion, as a central strategy to motivate teachers. And this is because teachers experience inclusion as a recognition of their professionalism (Onuma, 2016), like including teachers in the pedagogical discourse of school decisions, by inviting them to express their opinions, as one principal asked in a meeting: "come and share a little. Each one from their own perspective..." or an inclusion which documents schoolwork in e-mail, WhatsApp or social networks as feedback on their work and as an inclusive, emotional power that expresses the principal's appreciation for the teachers' work, its improvement, and even for motivation, as "envious rivalry among scholars". In fact, from this study, it is possible to create a new conceptualization: "a motivating, feedback-providing, and emotionally inclusive language". The attention, feedback, and inclusion of the Motivating Language improve teaching skills and grant teachers an influence over school activity. As one principal said: "For almost everything that happens in school, a team is created... they are the spokespersons".

The third insight, also unique to the study - which is not emphasized in the literature on Motivating Language (Holmes et al., 2024; Mayfield & Mayfield, 2017) which stems from the two additional insights mentioned above, due to the school being an educational institution

that teaches values and modesty, the principals themselves express modesty to motivate the teachers at the school, as a unique organization. To motivate teachers at school, as a unique organization, principals use a language in which inclusive leadership aspects are highlighted in the characteristics and functions, such as expressing mutualism for the purpose of achieving goals attained by equally redistributing the authority between administration and staff, and by hiding administrative authority. This goes alongside emphasizing emotional leadership aspects, which integrates emotional aspects within the organization and strives for the achievement of closer interpersonal relations (Ashkanasy & Dorris, 2017). Such leadership styles nurture positive feelings as part of the positive implications of the Motivating Language, since teachers perceive this language as showing faith and appreciation for their professionalism. By doing that, their commitment to their job intensifies, any opposition subsides, and the most important thing: it motivates teachers to do their job the best they can.

Finally, we assume that these insights about the Motivating Language, in one way or another, are accepted by most people who engage in education. These are aspects which contribute to the betterment of the job, not less than the principals' commitment to the instructions of the Ministry of Education, teachers' advanced studies, or diversification of teaching methods, which cannot harness teachers who are not emotionally available for their job. If it is so, how come some of the interviewees (teachers) reported their former principals who used to shout their instructions? Is it possible to imagine that the principal is not required to use an inclusive, emotional, Motivating Language in a "practice what you preach" sense?



Practical and research implications

When dealing with further research, it is best to conduct a similar study among high school principals to create a more expansive knowledge foundation about Motivating Language, and a quantitative survey research that examines the connection between the principal's use of Motivating Language and the level of pedagogical achievements of the school. A quantitative study will allow the research of the phenomenon in larger samples and will allow us to point out the unique requirements for the training and professional development of principals' Motivating Language for the enhancement of teachers' commitment to performing their pedagogical jobs more effectively.

When dealing with practical recommendations, there is room for the consideration of a more intelligent use of principals whose language expresses an "emotional, inclusive, feedback-providing, and Motivating Language" as instructors – to assist new principals; Since these principals have many more insights about language as a tool for running the school – and as an ability to contribute to new principals – and as a result, they can benefit the educational system and its administration. It is suggested that to the teaching experience component (Practicum), a built-in division (practical and theoretical) will be added, which will focus on these aspects and include reference to the Motivating Language as part of the leadership and teachers' motivation.

Limitations of the study

Although the study relies on observations and documents, it is primarily based on semi-structured interviews that present the subjective perceptions of interviewees, focused on school teams from elementary schools, rather than on any objective reality, as well as on

a small sample focused on examining the phenomenon of the principal's discourse with teachers as a motivator. Moreover, the study concentrated on a homogeneous group and does not include comparisons or examinations of other schools characterized by poorer labor relations and productivity, which could provide a broader knowledge base regarding the principal's discourse as a motivator. Furthermore, the selection criteria for the ten schools aimed to provide a broad picture of discourse as a motivator, rather than a circular one. For these reasons, the ability to generalize our findings to other cultural, social, and organizational contexts is limited. Therefore, it is advisable that further research investigates the validity of generalizing these findings among additional populations and sectors within the education system, thereby creating a broader knowledge base concerning the principal's discourse as a motivator.

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Appendix

Attachment 1: Opening a Zoom meeting that encourages emotional dialogue and the principal's listening to his teachers (School 10)





Gamerman & Oplatka (2025). The school principal's motivating discourse and its implications:
Some insights into leader-followers relations.

Attachment 2: A vision on a road sign.

Initial letters in Hebrew: Loved, Needed and Able (School 1)



Distributed Leadership and Student Engagement in Ethiopia: The mediating role of Teacher Self-Efficacy

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Abstract	Article Info
Engagement significantly contributes to student learning and academic success; it has preventive benefits against dropout and disruptive behavior. This study examines how principals' distributed leadership strategies affect student engagement with teacher self-efficacy as a mediator in the secondary schools of the state of Amhara, Ethiopia. Accordingly, a cross-sectional survey design was employed to achieve this objective. The quantitative data analysis involved 714 valid and completed data of teachers selected from a multistage random sample from five zones. A questionnaire was used as a tool for data collection. Before the actual study, the measurement tools were validated through a pilot study, and statistical assumptions were made. To achieve the specific objectives of the study, one-sample t-test, Pearson correlation, and structural equation modeling were employed. Low levels of distributed leadership practice, moderate student engagement, and high levels of teacher self-efficacy were all identified in the research. Additionally, the study found a strong positive correlation between student engagement, teacher self-efficacy, and distributed leadership practice. The connection between distributed leadership and student engagement was also significantly partially mediated by teacher self-efficacy. Hence,	Article History: Received: January 13, 2025 Accepted: August 1, 2025 Keywords: Distributed leadership practice, teacher self-efficacy, Secondary schools, student engagement.

the study concluded that principals' distributed leadership significantly contributed to student engagement through teacher self-efficacy. The results suggest that when school leadership responsibilities are distributed more broadly, teachers' sense of efficacy is enhanced, improving student engagement in the learning process. Thus, the study's findings have practical, theoretical, and policy implications.

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Introduction

The first idea of pupil engagement was to comprehend school dropouts (Fredricks et al., 2004). This concept has attracted the interest of scholars since the mid-1990s due to its positive correlation with students' overall development throughout the educational process (Coates, 2005). The primary causes of the increase in pupil engagement in research were determined by Fredricks et al. (2016). It has preventive benefits against dropout and disruptive behavior, and it is malleable to changes in interventions. The worldwide emphasis on improving student engagement has led to a systematic search for its antecedents and significant outcomes (Lei et al., 2018). Advanced levels of student engagement are therefore linked with favorable learning outcomes, including good academic success, as evidenced by empirical research (Ali & Hassan, 2018; Archambault et al., 2009; Karacabey et al., 2022). The primary focus of engagement is on how actively students participate in educational activities. This encompasses intricate concepts such as how students engage in educational activities that result in behavioral, emotional, and cognitive outcomes (Ben-Eliyahu

et al., 2018; Fredricks et al., 2016). Regular attendance, a positive attitude toward learning activities, and active involvement in class and extracurricular activities are all examples of behavioral engagement in students (Fredricks et al., 2016). According to Lawson and Lawson (2013), cognitive engagement includes students' time and effort put into academic assignments or attitudes toward schooling, the use of metacognitive abilities and learning techniques, and the appreciation of learning. Appleton (2006) states that emotional involvement includes kids' affective and emotional connection, reactions to school and educational activities, psychological attachment or sentiments toward their school and learning, and relationships with instructors and classmates.

There are significant factors that determine students' engagement in their learning activities, such as parent, friend, and education institution-related factors (Audas & Willms, 2001; Ejigu & Belay, 2022; Sahil, 2010). Leadership practices can impact student engagement and learning. School leadership provides a supportive school climate for student engagement by offering academic leadership, resource provision, and effective communication (Trowler, 2013). Similarly, collaborative and shared leadership can create conducive environments that promote students' learning (Kezar, 2005).

In this regard, DL is linked with students' engagement and effective learning (Leithwood & Jantzi, 1999; Trowler, 2013). An empirical evidence review showed that the dispersal of leadership to many individuals had a more significant influence on schools and students through improving teacher capacity, work conditions, motivation, and commitment, which in turn improved student learning outcomes (Ross et al., 2016). There are different models of DL. Spillane's Framework (2006), for instance, characterizes DL as a dispersed activity encompassing leaders, followers, and the circumstance. It

emphasizes the procedure of leadership rather than particular characteristics or jobs. Harris and Muijs's (2004) Model of DL 2004 promotes emergent, lateral, and socially distributed leadership with the intent to nurture professional learning communities along with capacity within schools. Contemporary studies, such as Galdames-Calderón (2023), emphasize the critical significance of customizing DL models to local socio-cultural and institutional contexts. The present study followed Hulpia et al.'s (2009) model of DL. Hulpia et al.'s (2009) identified several constructs or key elements of DL: collaboration within the leadership team (which involves mutual support and encouragement), leadership support (focused on defining and promoting the school's vision while inspiring and motivating teachers), leadership supervision (entailing the observation and management of teachers), and the active involvement and influence of teachers in the decision-making process.

DL is increasingly favored and has garnered scholarly attention around the globe in general and in the Ethiopian secondary schools context in particular, compared to earlier leadership theories, which emphasize the attributes of a single leader to school effectiveness, for several reasons. Primarily, policy reforms have demanded increased leadership accountability and improved student achievement, which require shared leadership responsibilities (Gumus et al., 2018). Second, the heroic (a single individual) leadership approach failed to address the contemporary schools' complexity and dynamism (Harris, 2008). Third, school principals possess multiple responsibilities, which make it difficult for a single individual to perform (Bush, 2023; Ross et al., 2016). Fourth, the trends of decentralized educational management necessitated stakeholders' involvement in school decisions (Gumus et al., 2018). Evidence also revealed that the distribution of leadership practices had positive school-level, teacher-level, and student-level

outcomes (Printy & Liu, 2021; Tian et al., 2016). Thus, this research investigation examines DL as a theoretical construct and an empirical method for improving educational performance in Ethiopian schools. Teachers can employ a wide range of techniques to affect students' engagement in their education, which is the other school-related component. According to empirical data, one of the key elements influencing students' learning engagement was their instructors' encouragement and support (Fredricks et al., 2016; Sahil, 2010). Furthermore, according to Ali and Hassan (2018), teachers play an important role in encouraging student participation by organizing and carrying out pertinent activities. Since teachers have authority over classroom education, it has potential as a means of improving student engagement (Turner et al., 2014; Thien & Chan, 2022; Zee & Koomen, 2016).

Teacher efficacy has three dimensions such as instructional strategies (ability to employ different teaching methods), teacher efficacy in student engagement (belief in inspiring and energizing students to learn), and teacher efficacy in classroom management (belief in preserving classroom order) (Tschannen-Moran & Hoy, 2001; Liu et al., 2021). Consequently, this influences how involved students are in educational activities (Thien & Chan, 2022; Klassen et al., 2011).

Teacher self-efficacy can be influenced by leadership practices (Harris, 2008; Thien & Adams, 2021; Tian et al., 2016). Moreover, leadership practices influence teacher efficacy (Leonard & Maulding Green, 2018). Likewise, it was revealed that school leadership influences teacher self-efficacy through shared decision-making, instructional feedback, and opportunities for collaboration (Muthiah et al., 2019; Nelson, 2018). Moreover, teachers' self-efficacy is more likely to increase when the school leadership team works collaboratively, provides strong support, and involves teachers in decision-making

(Arbabi & Mehdinezhad, 2016; Paletta et al., 2020). Hence, these practices are associated with DL (Bolden, 2011; Spillane, 2006). DL practices have significantly affected teachers' self-efficacy (Hulpia et al., 2009; Thien & Chan, 2022). In the present study context, in Ethiopia, there have been efforts to broaden the participation of teachers, students, and parents in the structures and processes of school leadership. Thus, the country's education and training policy and reforms have pledged to democratize and decentralize educational management (Berhanu, 2023a; Berhanu & Gobie, 2023; Ministry of Education, 2023). Furthermore, Ethiopian secondary schools have implemented structures that may encourage DL. For instance, there are principals, assistant principals (s), department heads for each subject taught, unit leaders, school management teams, homeroom teachers, and coordinators of co-curricular activities. Each teacher has additional leadership roles and responsibilities beyond their actual teaching duties (Mitchell, 2017; Berhanu, 2024). This suggests some form of structure and practice of leadership distribution to utilize school communities' knowledge, skills, experiences, and viewpoints to improve school performance (Berhanu, 2023b).

Reviewing international and local studies, the researcher identified the following significant gaps that this research intended to address. First, theoretically, most previous studies were focused on the challenges and practice of DL. Moreover, the available empirical evidence that shows the effects of DL on teacher self-efficacy was contextually established in a Western context (Clifton, 2017; Harris, 2014; Liu et al., 2021). For instance, a systematic review published between 2010 and 2022 on DL found contextually in Europe (32.5%), North America (29.1%), and Asia (26.7%) (Mifsud, 2023). However, an international data set of 32 countries showed that context influences DL practices (Printy & Liu, 2021). However, unlike many Western cultures, several

African cultures, including Ethiopia, are greatly collectivist (Baker & Campbell, 2013). Collectivist cultures prioritize relationships, shared responsibilities within the group, and maintaining interpersonal harmony (Hofstede et al., 2010). Hence, leaders of highly collectivist cultures see themselves more as group members, and group decisions obtain more acceptance than single principles. Moreover, empirical evidence on DL in the Ethiopian context is required to enlarge the globalized understanding of the construct and its cultural adequacy. Local studies, on the other hand (Asrat, 2017; Dejene, 2014; Misgana, 2017; Shimelis, 2018) were conducted on the practice and challenges of DL in primary schools, Addis Ababa University, Hadiya zone, and Aksum town public secondary schools, respectively. They have failed to determine how leadership distribution affects teachers' and students' related variables.

Second, in terms of methodology, most studies were small-scale, either case studies or included two or three schools as a sample, which might lessen the generalizability of the study or may not be significant to large-scale interventions. Third, local studies mainly focused on principals' sole role in distributed leadership, neglecting other school leaders' (vice principals, unit leaders, department heads, and other teachers) roles. Fourth, previous studies lack consistency and comprehensiveness; they did not investigate the combined effects of DL and self-efficacy on student learning engagement. The impact of DL on student outcomes, like engagement and achievement, has shown inconsistent results. Some of them indicated leadership practices had a direct effect on student engagement (Harris & Muijs, 2004; Leithwood & Jantzi, 1999). The others showed the influence of leadership on students' learning and engagement indirectly through improving work conditions and teacher-level variables (Leithwood & Jantzi, 2008). In the Ethiopian context, where teacher motivation and

student participation are ongoing concerns, the relationship between DL, teacher self-efficacy, and student engagement remains underexplored. Therefore, the general objective of the study is to examine the contribution of DL practices to students' engagement as mediated by teachers' self-efficacy in secondary schools in the state of Amhara, Ethiopia. Based on the above objectives and the empirical evidence, the following hypotheses were formulated to address these gaps:

H1: Distributed leadership, teacher self-efficacy, and student engagement each show meaningful patterns in Ethiopian secondary schools.

H2: Schools that practice more distributed leadership tend to see higher levels of teachers' self-efficacy and student engagement.

H3: Teachers' confidence in their abilities (self-efficacy) helps explain how distributed leadership influences student engagement.

By addressing the aforementioned gaps and testing hypotheses, the current research provides context-specific insights that might improve the development of leaders and educational reform initiatives in Ethiopian settings. This research is significant because it examines how leadership is distributed in Ethiopian secondary schools, how confident secondary schools are in their skills, and how engaged pupils are in learning. These three areas—distributed leadership, teacher self-efficacy, and student engagement—are inextricably linked, particularly in Ethiopian secondary schools that face problems such as large class sizes, scarcity of resources, and heavy workloads. In Ethiopia, there is a rising inspire in giving educational institutions more decision-making authority and increasing teacher involvement

and empowerment in leadership (Berhanu, 2025). However, in practice, many schools continue to rely on top-down administration, which can leave teachers feeling unsupported and students less engaged. Exploring how leadership may be shared more effectively can help schools capitalize on their teachers' skills, establish trust, and enhance student results. By concentrating on Ethiopian secondary schools, this study reveals what works—and what doesn't—in this specific setting, providing insights that may be used to improve leadership training, teacher development, and policies that promote student learning in meaningful ways.

1.2. Theoretical Framework of the Study

DL is theoretically grounded in a combination of activity theory, distributed cognition, system theory, and social constructionist theory. Based on these theories, leadership is viewed as a set of social (shared) and collaborative practices, not solely the single individual activity, but dynamic interfaces among leaders, the situations and all organizational members' knowledge and expertise are utilized to achieve the desired results (Clifton, 2017; Harris, 2007; Harris & Muijs, 2004; K. A. Leithwood et al., 2009).

Self-efficacy's theoretical foundation is grounded in social cognitive theory, which emphasizes that people have self-beliefs that govern their ideas, feelings, and behaviors. According to Bandura's (2006) suggestion, self-knowledge regarding one's efficacy is influenced by data gathered from vicarious experiences (the modeling of others, such as school leaders' leadership practice), verbal or social persuasion (positive or negative feedback), and the understanding of one's own emotional and physical responses (Bandura, 1997).

Student engagement is linked to Astin's (1999) theory of involvement, which suggests that the extent of time and energy students devote to

academic and extracurricular activities determines their persistence and success in their learning. Hence, following the introduction of Bandura's social cognitive theory (Bandura, 1997), how efficacy influences teachers' competency and actions has garnered researchers' attention. Teachers' sense of efficacy, therefore, is conceptualized as teachers' judgment of their ability to bring about the expected results of student learning and engagement (Tschannen-Moran & Hoy, 2001). In line with the above theoretical frameworks, the study proposed that the distribution of leadership functions, such as supportive leaders' feedback, setting clear directions and goals, having and working on the same goal, and encouraging contribution in making decisions, influences teachers' self-efficacy, which is more likely to affect student engagement. In line with the discussions made above about the relationship between variables under consideration, the conceptual framework for the study was created as follows.

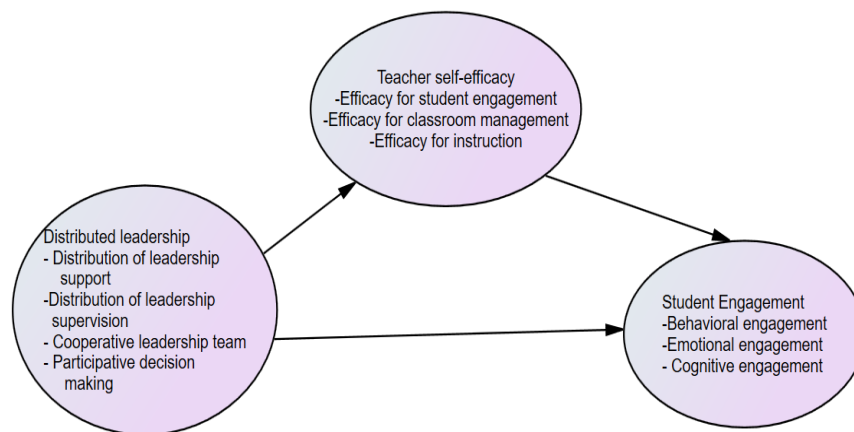


Figure 1. Conceptual Framework of the Study

Methodology

Research Design

This study used a quantitative approach. This approach entails gathering and analyzing quantitative data (Creswell & Clark, 2017). Quantitative data helped researchers to investigate significant relationships and the effects of variables on student engagement. This study was carried out using a cross-sectional survey. A cross-sectional survey approach was used (Subedi, 2016) to show the direction and intensity of the correlations between DL practices, teachers' self-efficacy, and student engagement.

Participants

The target population of this study was secondary school teachers in the regional state of Amhara, Ethiopia. In the region, there were twelve zones (East Gojjam, Awi, South Gondar, South Wollo, Central Gondar, West Gojjam, West Gondar, Oromia, North Gondar, North Wollo, North Showa, and Waghimra) and three metropolitan cities (Bahir Dar, Gondar City, and Dessie City) by the year 2020/2021. Based on the ANSREB report (2021), in the region, there are 39,247 (male=29,533, female=9,714) teachers in 652 secondary schools.

Since the number of secondary schools (652 in 2020/2021) and the number of woredas were large, multistage sampling was used to obtain sample respondents. In applying multistage cluster sampling, the researchers divided the population into groups (zones and woredas) in two phases for better data collection, management, and interpretation (Cohen et al., 2018). In the first stage, five zones were selected randomly out of fifteen zones in the region (Awi, East Gojjam, South Gondar, Bahir Dar City, and South Wollo). Since there was not an equal number of woredas (districts) in each zone (province), 11 woredas were chosen using proportionate random selection in the

second phase. In accordance with the quantity of teachers available, sample respondents were ultimately chosen from the sample districts. Regional data for 2020–21 showed that there were 3753 teachers in the sample districts (ANSREB, 2021). To ensure that representatives from each sample district were chosen, a proportionate stratified random sampling procedure was employed to choose the sample teachers (Gay et al., 2012). The Cochran formula was utilized to calculate the sample size (Cochran, 1977) as it works well with large populations and allows researchers to determine the ideal sample size given a desired degree of precision. Furthermore, because the method considers effect size and minimizes sample errors, it was considered appropriate for multistage sampling. When calculating the sample size, Cochran advises multiplying the computed value by the investigation's number of steps.. Accordingly, the sample size for this study was 350 out of 3753 teachers with a 0.05 accuracy. The sample size was 700 after multiplying 350 by the number of steps the investigation underwent. In terms of school type, 27 (45%) were rural and 33(55%) were urban. Proportional to the number of teachers in those schools, 305 (42.7%) and 409 (57.3%) respondents participated from rural and urban schools, respectively. Additionally, the study's total sample size was 771, who completed questionnaires based on the 10% non-response rate recommended by Cohen and colleagues (Cohen et al., 2018).

Data Collection Instruments

Three study variables were treated as study variables. Before using instruments in the main study, data collection instruments (questionnaire) validity and reliability were checked through the pilot study. Hence, before using the instruments for the actual data collection, to better capture the nuances of the target respondents' language, the original scales were translated into Amharic (the local tongue) using bilingual translators of English and psychology

instructors. The questionnaires were subjected to forward and backward translation to certify the accuracy of the translation. The instruments were piloted and validated using 92 teachers from Nigus Tekle Haymanot's secondary school in Debre Markos town, which was omitted from the main study. The pilot test of scales was carried out to ensure their reliability (internal consistency), which was assessed using the Cronbach alpha coefficient or inter-item correlation. Moreover, Cronbach's alpha measured the extent to which responses were consistent across the items within a construct (Collier, 2020). As indicated in Table 2, the minimum item-total correlation was .311 (for team cooperation), which exceeded the recommended value.30 (De Vaus & de Vaus, 2013). Accordingly, all items were maintained for further analysis. The Cronbach alpha values for all variables considered in this study ranged from $\alpha = 0.763$ for normative commitment to $\alpha = 0.911$ for cognitive engagement.

Table 1.

Cronbach Alpha Values and Minimum Item-Total Correlations for the Study Variables

The Study Variables and dimensions	Number of items	Minimum item-total Correlation observed	Cronbach's alpha if item deleted	Cronbach Alpha (α)
Leadership support	10	.406	.844	.844
Leadership supervision	3	.641	.800	.834
Team cooperation	10	.311	.881	.772
Participative decision making	6	.541	.827	.839
Behavioral Eng.	12	.321	.894	.887
Emotional Eng.	5	.682	.887	.896
Cognitive Eng.	10	.497	.912	.911
Efficacy for Student Engagement	4	.553	.815	.820
Efficacy for Classroom Management	4	.517	.822	.808

Efficacy for	4	.555	.858	.844
Instructional Strategies				

The DL practice scale

The DL practice was used to measure leadership distribution among formal positions. It was adapted from Hulpia to address schools' DL practices (Hulpia, 2009). The instrument has 29 items with four dimensions: leadership support (10 items), supervision (3 items), teamwork (10 items), and teacher participation in decision-making (6 items). The items are valued on a 5-point Likert scale for each dimension (0 (never) to 4 (always)). Sample item includes: The leadership team provides organizational support for teacher interaction. The DLI reliability scores were previously tested using Cronbach's alpha coefficient on a sample of 1,902 Belgian respondents. They were found to have a high ($=.91$ to $.93$) internal consistency (Hulpia et al., 2009). The present study's EFA results indicate the variances explained by each of the four components extracted. The four components jointly explained 70.038% of the variance of the inventory. An alpha coefficient exceeding .80 is highly reliable (Cohen et al., 2018).

Student Engagement Scale

The researchers developed the Student Engagement Scale (SES) because a well-validated and reliable survey was needed. The developed survey was an other-rater form (teacher ratings of students). Most student engagement scales were self-rated or lacked multidimensionality, validity, and reliability reports (Fredricks & McColskey, 2012). This study needed a teacher-rater student engagement scale, bearing in mind the statistical assumptions that test a hypothesized model using homogeneous data collected from the

same respondents. Hence, the scale was developed and validated based on the literature and its multidimensional constructs. For example, emotional engagement (interest, a sense of belonging, and a positive learning attitude) was measured using five items (e.g., I feel that students enjoy when they do their class work). The items were piloted, and alpha coefficients ranged from .83 to .91, suggesting above-acceptable internal consistency (Cohen et al., 2018). The range of responses includes: 1=Strongly Disagree, 2=Disagree, 3=Slightly Agree, 4=Agree, and 5=Strongly Agree. Hence, a self-developed scale of student engagement was given to 20 subject experts (psychology instructors) to rate items in the sub-scales into one of three categories: "essential," "useful, or "not necessary." The items exhibited strong content validity to assess their various dimensions, as indicated by the estimated content validity ratios (CVRs) of .83, .87, and .90 for behavioral, emotional, and cognitive involvement, respectively. According to Lawshe, a content validity guarantee is provided by expert agreement of 50% or more. The instruments' convergent and discriminant validity were also guaranteed using component analysis. Three factors were identified by the exploratory factor analysis as the cause of 62.41% of the variation. With an eigenvalue of 13.47, component 1 (cognitive engagement) accounted for 49.87% of the variation, component 2 (behavioral engagement) contributed 6.76%, and component 3 (emotional engagement) accounted for 5.78% of the variance.

Teacher self-efficacy

There are various measures of teacher self-efficacy. However, the Tschannen-Moran and Hoy's (2001) Teacher Sense of Efficacy Scale was utilized in this study. This scale was selected over others due to

the following reasons: (1) the scale was developed based on Bandura's concepts of self-efficacy theory (Klassen et al., 2011); (2) it has good psychometric properties established in various samples; (3) the survey has been most widely used in empirical studies, and (4) it is a self-report scale. Therefore, the teachers' sense of efficacy scale yielded stable factor structure across countries (Ruan et al., 2015), was employed to measure the teachers' sense of self-efficacy. Each item indicates a response from: 1=none at all, 2=very little, 3=some degree, 4=quite a bit, 5=a great deal. Sample items for efficacy for classroom management dimensions include: I control disruptive behavior in the classroom and get children to follow classroom rules. Twelve items made up the scale, four for each of the three sub-factors: instructional techniques, classroom management, and self-efficacy for student involvement. Exploratory factor analysis was used to determine the underlying elements (components) of teachers' self-efficacy. The twelve items had a high factor load. Accordingly, self-efficacy for classroom management (component 2) explained 11.99% of the variance, self-efficacy for instruction (component 3), and self-efficacy for student engagement (component 1) explained 10.08% and 49.98% of the variance, respectively. Together, the three elements explained around 72.05 percent of the variation. The pilot study results revealed internal consistency values for DL subscales: team cooperation, supervision, participation in decision-making, and leadership support, which were found to be .77, .83, .84, and .84, respectively. Cronbach's alpha values for all sub-scale instruments were higher than the permissible (> 0.7).

Data Collection Procedures and Methods to Minimize Bias

First, the instruments for data collection were ready for administration. After ethical approval, the permission letter was given to the districts'

education offices. Then, a list of teachers with their school names was obtained. Appointments were arranged with teachers. In the following days, the discussion was conducted with sample teachers, such as informing them that their participation was voluntary. Orientation about how to fill out the questionnaires was given, and an agreement was made with the respondents regarding the time they would return the questionnaires. Finally, the researcher distributed the questionnaires in sample schools, and explanations were given to those who needed them during administration.

To address possible method bias in the current investigation, the authors used a variety of measures targeted at reducing bias in the data acquired via self-report questionnaires. Procedurally, the researchers ensured that questionnaire items were well phrased and straightforward, reducing the possibility of misinterpretation during the pilot study. Furthermore, participants were guaranteed confidentiality of their comments, which can reduce social desirability bias and encourage more honest reporting (Jordan & Troth, 2020). Confirmatory Factor Analysis (CFA) examines measurement model fit and helps identify and control method bias (Rodríguez-Ardura & Meseguer-Artola, 2020). As a consequence, using procedural precautions (e.g., clear items, anonymity) and statistical checks (CFA analysis), researchers made several corrections (e.g., item improvements and excluding problematic items), and we concluded that method bias had no significant effect on the results of this study.

Data Analysis and Assumption Testing

Before data analysis, there were issues to be considered. In this regard, data coding, data cleaning, preliminary analysis (missing values, errors, outliers, and skewed distribution), and statistical assumptions for structural equation modeling (normality, multicollinearity, linearity, and homoscedasticity) of the quantitative data were

inspected (Tabachnick & Fidell, 2019). The missing data were addressed through the maximum likelihood method before the analysis (Collier, 2020). Univariate and multivariate outliers were also checked. EFA and CFA were conducted to determine the instruments' convergent and discriminant validity.

As suggested by authorities in the field, before quantitative data analysis, data screening (missing values, errors, outliers, and a non-normal (skewed) distribution, preliminary analysis, and testing of statistical assumptions were done (Collier, 2020; Tabachnick & Fidell, 2019). Descriptive statistics outputs were inspected for errors (scores falling outside the possible range) and missing values for each item. Values that fell outside the possible range were checked based on the survey codes; the minimum and maximum scores fell within the range of each item. Missing values were detected by computing the frequencies of items. From the total data set, less than 5% missing values are tolerable (Kline, 2023). Less than 2% of missing data was found scattered randomly in different cases and considered tolerable (Tabachnick & Fidell, 2019). However, structural equation modeling does not allow missing values in the analysis. Therefore, the missing data were addressed through the maximum likelihood method before the analysis (Collier, 2020; Hair et al., 2017).

To assess the normal distributions of the data, statistical sketches were checked. Many sources suggest that the values of normal data skewness and kurtosis fall between 1 and -1 (Kline, 2023; Tabachnick & Fidell, 2019). The ranges of skewness values were -.95 (leadership supervision) to .60 (continuance commitment), and kurtosis values lay between -.72 (cooperation of the leadership team) and .58 (leadership supervision), suggesting the data met the normality assumption.

Univariate and multivariate outliers were also checked. To examine the univariate outlier values of the variables, they were converted to

standard scores and compared with the threshold of 3.29 (or less than -3.29) for the standardized residual value. It is suggested that standardized residual values falling above 3.29 or below -3.29% are considered univariate outliers (Tabachnick & Fidell, 2019). In order to detect multivariate outliers, the Mahalanobis distance was employed and compared with critical values. With the use of 13 degrees of freedom and a $p < .01$ criterion (the critical value of chi-square (χ^2) is 36.12) for Mahalanobis distance, no multivariate outliers were found (Tabachnick & Fidell, 2019).

Before data analysis, the suitability of the data for factor analysis, correlation tests, and SEM was checked. Most of the assumptions that many sources recommend include data normality, multicollinearity, linearity, and homoscedasticity (Collier, 2020; Kline, 2023; Tabachnick & Fidell, 2019). The issue of the normality of the data was addressed in the data screening and preliminary analysis section. In addition, the standard residual statistics of the regression were checked and found to be between -2.37 and 1.75, which were within the recommended ranges (-3 and 3), suggesting the data satisfied the assumption of normality (Tabachnick & Fidell, 2019).

To avoid much overlap between latent variables, the multicollinearity test between constructs was checked by examining the correlation of independent variables, the variance inflation factor (VIF), and tolerance values. Multicollinearity becomes a concern when independent variables are highly correlated ($r = .9$ and above). In the present study, the correlation coefficients between .123 and .701, suggesting the absence of overlapping among constructs (Kline, 2023). SEM assumes the relationship between predictors and outcome variables is linear (Kline, 2023). To examine the assumption of linearity in the combination of variables, the regression residual normal probability plot (p-plot) was checked.

Using SPSS-27 and AMOS-23 software, descriptive statistics such as frequencies and percentages were used to analyze respondents' background information, and inferential statistics (one-sample T-test, Pearson correlation, and SEM) were used to analyze the data and answer the three research questions, respectively. Ethical Considerations in the Study

The Authors followed the study norms of ethics: do not damage human subjects. Furthermore, steps were taken to safeguard study participants, build trust with them, and promote research integrity (Creswell, 2017). Regarding ethical issues, before conducting the study, the researchers secured an ethical approval letter from Bahir Dar University in Ethiopia. Participants provided informed consent before the study was undertaken. The study's goal, projected length to fill, and methods were informed to participants. The participant's anonymity was kept confidential. In general, the study was done according to the research code of ethics.

Findings

Descriptions of Respondents' Characteristics

771 teachers were given the survey to complete. 736 were returned out of those. They were examined for completeness, outliers, and unengaged replies prior to additional analysis. During the data filtering, 22 surveys were eliminated because of incomplete and disengaged replies. For the main analysis, 714 survey responses were employed.

Table 2
Teachers' Sociodemographic Characteristics

Teachers' characteristics		Frequency	%
Sex	Male	527	73.8
	Female	187	26.2
Qualification	Diploma	10	1.4
	First Degree	497	69.6
	Second Degree	207	29.0
Teaching Experience	Below five years	9	1.26
	5-10	108	15.13
	11-16	276	38.60
	17 and above	321	44.96
Total		714	100

As shown in Table 2, the respondents' background characteristics were analyzed to determine their sex, experience, and professional experiences. Regarding qualification, this study showed that most respondents were first-degree and above holders, per the minimum qualification criteria set by the Ministry of Education of Ethiopia (Tesfaye, 2014). Concerning professional experience, in the current study, the highest proportion of sample teachers (83.6%) were well-experienced (above 11 years) and categorized as in the highly accomplished and lead teacher career stages, which are recognized as highly skilled classroom practitioners, serve as role models, lead and mentor others, and are to some extent familiar with leadership functions. This might be used as good input for the study because participants could respond to the survey with awareness of the items raised.

The status of DL practices, teachers' self-efficacy, and students' engagement

The first objective of this study was to examine the status of DL practices, teachers' self-efficacy, and students' engagement in secondary schools in the state of Amhara, Ethiopia. Hence, one-sample t-test statistics were computed. The results are shown in Table 3.

Table 3

One-Sample Test Statistics of DL Practices, teachers' self-efficacy, and students' engagement

Study variables		Test Value = 2.5						
		Mean	SD	T	df	P	Mean Difference	Effect size
DL Dimensions	LDS	2.49	.86	-.385	713	.700	-.012	-.014
	LSP	2.90	.86	12.266	713	.000	.396	.459
	CLT	2.24	.83	-8.353	713	.000	-.259	-.313
	PDM	2.39	.86	-3.420	713	.001	-.110	-.128
	Average	2.50	.73	.132	713	.895	.004	.005
Student	BHE	2.59	.79	-13.600	713	.000	-.406	.50
Engagement Dimensions	EME	2.94	.86	-1.823	713	.069	-.059	.10
	CGE	2.77	.82	-7.601	713	.000	-.232	.28
	Average	2.77	.72	-8.591	713	.000	-.232	.32
Self-efficacy Dimensions	ESE	3.57	.86	17.622	713	.000	0.57	.66
	ECM	4.07	.81	35.475	713	.000	1.07	1.32
	EIS	3.35	.82	11.191	713	.000	0.35	.42
	Average	3.67	.68	25.845	713	.000	.66	.97

Note: CLT: Coherent leadership team; LDS: leadership support; PDM: participative decision making; LSP: leadership supervision; EME: emotional engagement, BHE: behavioral engagement, CGE: cognitive engagement; ESE=Efficacy for Student Engagement, ECM=Efficacy for Classroom Management, EIS=Efficacy for Instructional Strategies

As indicated in Table 3, DL functions were practiced at varying levels. The exhibited average value of DL practices was not significantly different from the expected ($M = 2.50$, $t = .132$, $df = 713$, $P > .05$). This revealed that dimensions of DL were implemented at different levels. Overall, the results provide a clear picture of the existing situation in Ethiopian secondary schools. On average, Distributed Leadership (DL) techniques are poorly implemented (the effect size $d = 0.005$). While Leadership Supervision comes out with a modest, positive impact ($d = 0.459$), indicating that administrators are somewhat adept in directing teachers, other critical aspects, such as team cooperation and shared decision-making, are underdeveloped in Ethiopian secondary schools. These underscores continued difficulty in creating coherent leadership structures, as documented in previous research from Sub-Saharan Africa.

In relation to student participation, Table 3 shows that, of all the subscales, emotional engagement had the greatest mean value ($M = 2.94$, $SD = 0.86$). The behavioral involvement of the children, on the other hand, was far lower than anticipated. Cohen's criteria for effect sizes (Cohen, 1998), which state that $d = 0.80$, 0.50 , and 0.20 indicate large, medium, and small effects, respectively, were used to classify the effect size ($d = 0.5$) as moderate, meaning that the mean degree of behavioral engagement was moderately below the projected value. But there was no discernible difference between the average and pupils' emotional engagement, according to the study. An average degree of emotional involvement among students was determined by the small effect size ($d = 0.10$). Student engagement has a moderate average effect ($d = 0.32$). Students are moderately engaged in classroom activities (Behavioral Engagement, $d = 0.50$), but their deeper emotional and

cognitive commitment is limited, which might be due to psychological or financial constraints typical in the region.

The mean scores on the teacher self-efficacy subscales showed that teachers had above-average self-efficacy in classroom management, instructional tactics, and student engagement. The findings showed that teacher self-efficacy was much greater than normal in terms of student engagement, instructional tactics, and classroom management. The results showed significant differences based on Cohen's effect size benchmarks, with effect sizes of $d=0.66$ for teacher self-efficacy in student engagement, $d=1.32$ for classroom management, and $d=0.42$ for instructional strategies. These results showed that teachers had a significantly higher-than-average sense of efficacy. Their confidence in their teaching abilities is also positive and compares favorably to data from other emerging nations.

The relationship between DL Practices, teachers' self-efficacy, and engagement

Table 4

The relationship between DL Practices, teachers' self-efficacy, and engagement

Study Variables	Distributed leadership practice	Teachers' self-efficacy	Students' engagement
Distributed leadership practice	1		
Teachers' self-efficacy	.458**	1	
Students' engagement	.500**	.420**	1

As shown in Table 4 above, a moderate positive correlation ($r=0.458, p<0.01$) exists between distributed leadership practice and teachers' self-efficacy, suggesting that as school leaders' distributed

leadership practice increases, the self-efficacy of teachers also tends to increase. Similarly, school leaders' distributed leadership practice has a moderate to strong positive correlation with students' engagement ($r=0.5, p<0.01$). All these correlations are statistically significant.

The mediating role of teacher self-efficacy in the relationship between DL practice and student engagement

The study also aimed to explore the mediating role of teacher self-efficacy in the relationship between distributed leadership and student engagement. As presented in Table 5, goodness-of-fit results of the structural model revealed good model fit indices: $\chi^2=3833.1$, $df=1807$, $\chi^2/df=2.12$, $P=0.000$. The chi-square (χ^2) statistic shows significant results. However, its significance doesn't mean the model is bad. Large sample sizes can make the chi-square value higher (Brown et al, 2019; Collier, 2020; Tabachnick & Fidell, 2019). Thus, it is advised to look at other fit indices like CFI, TLI, RMSEA, and RMR for a clearer picture of how well the model fits. Hence, CFI=.94, TLI=.93, RMSEA=.040 and RMR=.041, suggesting the data fit the model well.

The standardized regression weight results in Table 5 disclosed that leadership support ($\beta=.28$, S.E. =.03, $p<.05$), leaders' supervision ($\beta=.20$, S.E. =.03, $p<.05$), and teachers' participation in decisions ($\beta=.13$, S.E.=.04, $p<.05$) had a significant positive influence on teacher self-efficacy. However, leadership team cooperation ($\beta=.03$, S.E. =.03, $p=.565$) was found to have a non-significant effect on teacher self-efficacy. The standardized regression results indicated that one standard deviation variation in leadership support, leaders' supervision, and teachers' participation in decisions was accompanied by .28, .20, and .13 variations in teacher self-efficacy, respectively. Moreover, leaders' supervision and participative decision-making had

a small effect, and leadership support had a relatively medium effect on teacher self-efficacy, according to Cohen's (1988) effect size estimates. This indicated that not all DL dimensions appear to be equally effective in influencing teacher self-efficacy. Interestingly, team collaboration did not significantly affect teacher self-efficacy. This shows that merely increasing teacher collaboration may not be sufficient to raise confidence or improve teaching. In contrast, when school leaders give direct assistance and constructive oversight, teachers may feel more empowered and capable in their responsibilities.

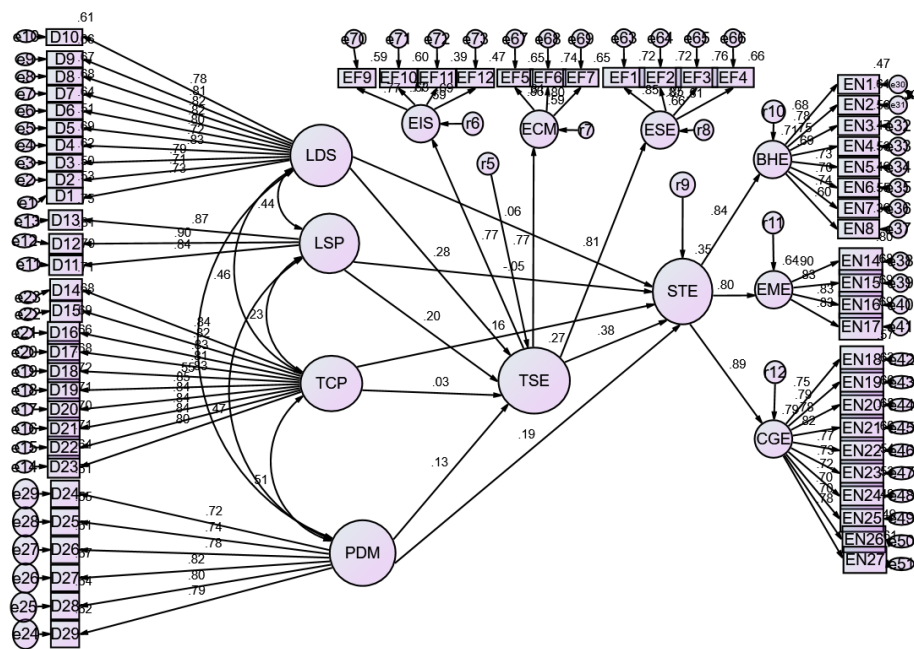
Table 5

Regression Weight results in Predicting Student Engagement from teacher self-efficacy and DL practice

No	Hypothesized relationships	β	S.E.	C.R	p-value
1	Teacher self-efficacy <--- Leadership supervision	.203*	.033	4.128	***
2	Teacher self-efficacy <--- Participation in decisions	.133*	.035	2.328	.028
3	Teacher self-efficacy <--- Team cooperation	.028	.027	.575	.565
4	Teacher self-efficacy <--- Leadership support	.284*	.031	5.291	***
5	Student engagement <--- Team cooperation	.164*	.029	3.681	***
6	Student engagement <--- Leadership support	.058	.032	1.148	.251
7	Student engagement <--- Leadership supervision	-.054	.034	-1.174	.240
8	Student engagement <--- Participation in decisions	.193*	.037	3.639	***

No	Hypothesized relationships	β	S.E.	C.R	p-value
9	Student engagement <--- Teacher self-efficacy	.373*	.061	7.144	***
Squared multiple correlations (R^2)					
	Distributed leadership dimensions	.27			
	Teacher self-efficacy	.35			
Model fit indices: $\chi^2=3833.1$, $df=1807$, $\chi^2/df=2.12$, $P=0.000$, $CFI=.94$, $TLI=.93$, $RMSEA=.040$ and $RMR=.041$					

Note: Mediation was tested using a bootstrap analysis with a 95% confidence interval. * indicates $P<.05$



Note: LDS=Leadership Support, LSP=Leadership Supervision, TCP=Team Cooperation, PDM=Participation in Decision Making, TSE=Teacher Self-Efficacy, STE=Student Engagement

Figure 2. The mediating role of teacher self-efficacy in the relationship between DL practice and student engagement

On the other hand, leadership team cooperation ($\beta=.16$, $p<.05$) had a direct significant effect on student engagement. However, leadership support ($\beta=.28$, $p<.05$) and leadership supervision ($\beta=.20$, $p<.05$) had significant indirect positive effects on student engagement through teacher self-efficacy. Alternatively, participative decision-making had both significant direct ($\beta=.13$, $p<.05$) and indirect ($\beta=.19$, $p<.05$) effects on student engagement. The variables had a small to medium effect on student engagement based on Cohen's (1988) effect size estimates. The study demonstrates that not all DL dimensions have an equal impact on student engagement. For example, increasing engagement in decision-making and teamwork had significant effects, suggesting that when teachers feel involved and collaborate effectively, the students are more likely to remain interested and engaged. However, leadership support and leadership supervision had no substantial direct effect. This might be because these dimensions of DL have a more indirect influence on students, impacting teacher self-efficacy before influencing their engagement.

The squared multiple correlations (R^2) values in Table 5 and Figure 2 showed that DL dimensions (leadership support, leadership supervision, team cooperation, and teachers' participation in decisions) jointly accounted for 27% ($R^2 = .27$) of the variations in teachers' self-efficacy. Likewise, DL dimensions and teacher self-efficacy explained 35% ($R^2 = .35$) of the variation in student engagement.

Table 6

Mediation analysis results for the effects of teacher efficacy on the relationship between DL practice and student engagement.

Predictor Variables	Teacher Self-efficacy	Student Engagement		
	Direct effect	Direct effect	Indirect effect	Total effect
	β	β	β	β
LDS	.284*	.058	.109*	.166*
LSP	.203*	-.054	.078*	.024
TCP	.028	.164*	.011	.175*
PDM	.133*	.193*	.051*	.243*
TSE	---	.383*	---	.383*

Note: LDS=Leadership Support, LSP=Leadership Supervision, TCP=Team Cooperation, PDM=Participation in Decision Making, TSE=Teacher Self-efficacy.

In general, the model two standardized regression weight and the mediation analysis results in Table 5, Table 6, and Figure 2 disclosed that exogenous variables included in the study contributed 35% of the variance in student engagement. Moreover, teacher self-efficacy played a significant partial mediation role in the relationship between DL and student engagement.

Discussion

Status of DL practices, teachers' self-efficacy, and students' engagement

The first research question sought to address in this study was to examine the extent of DL practices exhibited, teachers' self-efficacy, and students' engagement in secondary schools in the Amhara region, Ethiopia. Hence, the study revealed moderate DL practices in secondary schools. This finding indicates that secondary school

teachers received substantial supervisory support from various school leaders: principals, vice principals, department heads, and senior teachers. Consistent with the findings of the present study, it was found that supervision support is provided by multiple actors, such as district experts, cluster supervisors, leaders, and peers in Ethiopia (Eshetu, 2020), which may lead supervision practices to be exhibited as a highly DL function. Inconsistent with this study's findings, previous evidence suggests that Amhara region secondary school principals provided below-average supervisory services to teachers (Melaku & Demeke, 2022). This result variation might be due to the present study measuring supervision provided by multiple leaders: principals, vice principals, department heads, and senior teachers. Conversely, the dimensions of cooperative leadership ($M = 2.24$) and participative decision-making ($M = 2.39$) were found to be significantly below average. This result shows inconsistency with the national education policy aspiration, which aims to decentralize educational management and empower teachers to assume leadership roles alongside their teaching responsibilities (MoE, 2022, 2023), highlighting the improvement in the implementation of DL practices.

The present study found a low level of behavioral and cognitive engagement among the students. This shows that secondary school students in Ethiopia were hesitant to prioritize education, participate in extracurricular activities, or dedicate more time and energy to their academics. These results are in line with the desk review report from the Ethiopian Ministry of Education, which indicates that secondary school students were less eager to study and engaged in academic pursuits (MoE, 2018). Previous studies have shown that students' levels of involvement with learning activities tend to decrease as they progress through high school (Klem & Connell, 2004; Martin & Torres, 2016).

Teachers' self-efficacy in classroom management, instructional tactics, and student engagement was found to be above average. To some extent, the research's findings are consistent with a study conducted in Ethiopian elementary schools (Romel et al., 2021). Romel et al. (2021) found that contextual variables, including educational qualification levels, influenced teachers' self-efficacy views. They found that instructors with diplomas, who made up 66% of their sample, felt more efficacious than those with first degrees. The majority of teachers in the current study, 98.6% (704), had a first degree or higher, whereas just 1.4% (n = 10) held a diploma.

The relationship between DL practices, teachers' self-efficacy, and students' engagement

In the present study, the relationship between DL practices and teachers' self-efficacy was a significant and positive relationship. This result is consistent with previous findings (Kurt, 2016; Liu et al., 2021; Printy & Lui, 2021; Zheng et al., 2019). DL facilitates collaborative and supportive school cultures that involve more people in decision-making processes, which have a relationship with teachers' self-efficacy (Sun & Xia, 2018). Similarly, increased collaboration and cooperation among leadership teams in schools would result in the accomplishment of team-based goals, the resolution of issues, and an improvement in teacher effectiveness (Thien & Chan, 2022). In particular, a prior study in Malaysian secondary schools discovered a strong positive correlation between DL and teachers' self-efficacy, which is in line with the current study's findings (Halim & Ahmad, 2016). Similarly, employing previously conducted 32-country data of secondary collected from 104,358 participants in lower secondary schools, a study found an indirect effect of DL on teachers' self-efficacy ($\beta=.038$) through collaboration and supportive school culture (Liu et

al., 2021). Consistent with the present study findings, empirical evidence revealed that DL positively correlates with teacher self-efficacy (Halim & Ahmad, 2016; Spillane, 2006; Brown et al., 2019). Conversely, the result of this study contradicts the study conducted in Romania using an online survey, which found a negative relationship between DL and teacher self-efficacy ($r = -.07$) (Tucaliuc et al., 2023). The differences in results might be due to variations in the data collection method (they employed an online survey, and respondents might be laissez-faire in filling it out) and study context differences (Spillane, 2006).

The present study also found that teacher self-efficacy influenced student engagement. In a similar way, the available literature that shows the link between teacher self-efficacy and student engagement disclosed that efficacious teachers use different teaching strategies to manage and engage students in learning activities (Turner et al., 2014; Zee & Koomen, 2016). According to Shuukat and Iqbal (2012), teachers who are highly effective also typically exhibit high levels of organization and preparation, as well as spend more time supervising and evaluating their students' work. One possible explanation for this might be because educators who possess high levels of self-efficacy are confident in their abilities and demand excellence from their students (Stronge, 2018). Teachers set higher learning goals and work harder to meet them in order to affect students' interest in learning, which appears to be another effective factor (Thien & Adams, 2021). It is possible that teachers who feel more effective spend more time helping pupils learn and bolstering their intrinsic drive (Bandura, 1997). In addition, educators that are very effective may participate in professional development and experiment with and adopt several new instructional methods to engage students in their learning.

The mediating roles of teachers' self-efficacy in the relationship between DL practice and student engagement

DL functions (leadership support, supervision, and participative decision-making) had a significant positive direct effect on teacher self-efficacy. DL had mainly an indirect, significant positive effect on student engagement through teacher self-efficacy. However, although the results showed limited effect, participative decision-making and collaboration within the leadership team were found to have a direct effect on student engagement. In other words, teacher self-efficacy played a partial mediation role in the relationship between DL and student engagement. This result has implications for school leaders in that improving student engagement in learning activities necessitates enhanced teacher self-efficacy, which DL practices determine.

The present study, leadership team cooperation mainly had a weakly significant direct (.12) effect on student engagement. This finding is linked to the assertion that the more leadership is distributed to teachers and middle leaders, the closer leadership involvement is to the teaching practice, and the greater the improvement in student learning and engagement (Harris & Jones, 2023).

The overall structural model results indicated that DL dimensions significantly raised teacher self-efficacy. These results are, to some extent, consistent with prior studies (Berjaoui & Karami-Akkary, 2020; Halim & Ahmad, 2016; Hulpia & Devos, 2009; Hulpia et al., 2012; Liu et al., 2021; Thien & Adams, 2021). Similarly, self-efficacy ($\beta=.26$) significantly influenced student engagement. In other words, DL dimensions explained 41% of the variations in student engagement through teacher self-efficacy. These results suggested that teacher self-efficacy had a significant partial mediating role in the contribution of DL to student engagement. Put simply, DL, specifically the leadership team cooperation dimension, had a weak direct effect on student

engagement. This finding is to some extent parallel with Harris and Jones's (2023) claim that the nearer to the teaching and learning processes, the greater the leader's likelihood to directly impact student learning. Inconsistent with the present study's finding, Leithwood and Jantzi (1999) found no significant effect of teacher leadership on student engagement. Furthermore, the mediation effect of teacher self-efficacy in the link between DL and student engagement supports earlier research, implying that when educators feel more capable and supported, students are far more likely to be motivated and involved in their academic setting. These findings are similar to previous studies by Tschannen-Moran and Hoy (2001) and Fredricks et al. (2004), providing additional data from a sub-Saharan African environment. Therefore, more studies are needed to ensure the consistency of the study findings. Mainly, in the current study, DL had a modest to medium significant indirect positive effect on student engagement through teacher self-efficacy. In this regard, another study concluded that the implementation of DL in schools promotes the sharing of responsibilities and decision-making involvement among teachers, which positively affects the classroom environment and students' academic success (Khan et al., 2023). Therefore, the study revealed that DL practices can improve teachers' sense of efficacy, which in turn enhances student engagement in learning activities.

Conclusion

The study found a moderate level of DL practices in secondary schools in the state of Amhara, Ethiopia. Students demonstrated a low level of engagement in their learning while teachers exhibited above-average self-efficacy. Hence, the study inferred that students were reluctant to participate in classroom activities, had limited involvement in co-curricular activities, and had a general tendency to invest less value,

time, and effort into their education. The study found that leadership practices characterized by support, supervision, and inclusive decision-making significantly enhance teachers' self-efficacy. Teacher self-efficacy was found to have a significant positive relationship with student engagement. Hence, the more teachers develop confidence in their assessment techniques, classroom practices, and instructional strategies, the more students engage in learning activities. Moreover, efficacious teachers are more likely to employ innovative instructional strategies and various assessment techniques, which improve the likelihood of students' engagement in educational activities. Despite the leadership team cooperation having a weak direct effect on student engagement, SEM full model results disclosed that teachers' self-efficacy plays a significant partial mediation role in the relationship between DL and student engagement. It indicated that DL had a medium significant effect on student engagement through teacher self-efficacy. These findings confirmed the significance of the distribution of leadership support and teachers' participation in decisions to increase teacher commitment to school and self-efficacy and, in turn, student engagement.

Implications and Limitations

This study has practical, theoretical, and policy implications. In terms of practical implications, as the findings indicate, to increase student engagement in learning activities, teachers' affective needs should be met first. Moreover, the study has practical implications that teacher self-efficacy should be given emphasis to improve student engagement. Specifically, the mediation analysis suggests that leaders who provide support, supervision, and involve teachers in decisions are more likely to improve teacher self-efficacy. For school leaders, the

positive relationship between distributed leadership and teacher self-efficacy suggests that empowering teachers through shared leadership can enhance their confidence and motivation. School principals should foster collaborative decision-making, delegate meaningful responsibilities, establish strategies for successful teacher cooperation, give continuous leadership support, and create an inclusive school culture where teachers feel valued and supported. This, in turn, can contribute to a more engaged and responsive teaching force. For teachers, the results highlight the importance of self-efficacy in promoting student engagement. Professional development programs that focus on building teachers' instructional skills, classroom management, and ability to motivate students can enhance their sense of efficacy and, by extension, their students' involvement in learning activities. In sum, this study provides practical implications about how leaders improve teacher self-efficacy, in turn, student engagement. The study has implications for policymakers. The selection, preparation, and in-service training of school leaders and teachers can take into account the study findings. Moreover, educational policy and its directives can focus on enhancing the distribution of leadership in schools, teacher self-efficacy, and organizational commitment to improve student engagement. Regarding theoretical implications, the available literature lacks empirical evidence that shows the interplay between the distributions of leadership functions, teacher self-efficacy, organizational commitment, and student engagement. Hence, this study provides empirical evidence on the link between leadership variables, teacher variables, and student engagement. Moreover, the study adds new knowledge to the emerging body of literature on how leader-level factors contribute to teacher-level factors and, in turn, student engagement.

The limitations of this work give future research directions. First, a self-reported survey was used to gather data on teacher self-efficacy, which may have been skewed by social desirability bias or overreporting of commitment and effectiveness levels. However, teachers graded the student engagement data, and they may have trouble grading the affective or implicit behaviors of students' emotional involvement. Hence, future research should integrate other-report and self-report data to ensure the comparison of results across various surveys. Future research that uses different information sources, such as observations in the classroom, interviews, or questionnaires from students, may assist in triangulating the data and strengthening validity. Second, the study used teacher respondents only due to the homoscedasticity statistical assumption and the employed study design effect. This limits the comparison and generalization of the study results among different populations. Thus, future studies should incorporate diversified samples (such as students and school leaders) to provide additional evidence and a deeper understanding of the findings. Third, the scope of this study was secondary schools. To provide dependable results and robust conclusions, it is suggested that future studies be replicated in other education settings (kindergarten, primary, and tertiary). Fourth, the study used a cross-sectional design, which collected data at a particular point in time. As a consequence, we are unable to identify causal connections between the study variables. Longitudinal studies in the future might help follow variations over time and give a stronger basis to grasp the connection between cause and effect. Finally, the overall SEM model revealed a 59% unexplained variance of student engagement. Therefore, to better comprehend the determinants of student engagement, future researchers need to address more theoretically based mediating variables, such as family

support, peer support, and teacher-classroom practices, in the relationship between DL and student engagement.

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Distributed Pedagogical Leadership and Quality in Early Childhood Education

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Abstract	Article Info
<i>High-quality early childhood education (ECE) is widely regarded as an essential right, with leadership playing a vital role in its delivery. Effective pedagogical leadership significantly enriches children's learning, development, and overall well-being by nurturing collaborative settings and promoting shared decision-making processes. Limited research exists on particular leadership approaches, such as distributed pedagogical leadership (DPL), that contribute to quality improvement, despite the commonly recognized significance of distributed leadership in enhancing ECE quality. Thus, our study aimed to explore the connection between DPL and ECE quality in Finland. A sample of 453 staff members from 35 ECE centers in six municipalities around Finland responded to online surveys in 2019. The participants rated the DPL and ECE quality in their ECE centres. The results of multivariate regression analysis showed that distributed pedagogical leadership responsibilities and power relations were related to structural quality, such as the physical environment and human resources, whereas shared vision, distributed power</i>	Article History: Received: January 16, 2025 Accepted: July 22, 2025 Keywords: Early childhood education, distributed pedagogical leadership, and quality.

relations, and distributed enactment of pedagogical development contributed to effect and process quality, such as child well-being and pedagogical activities. Distributed responsibilities were also related to intangible resources, and distributed enactment of pedagogical development was related to collaborative ECE planning. The findings imply that municipalities should prioritise investing in the establishment of a shared vision and strategy and the distributed enactment of pedagogical development as part of implementing DPL. Furthermore, because power and authority distribution are essential for pedagogical quality and child well-being, it is crucial to explore approaches to empower and include staff in decision-making.

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Introduction

High-quality early childhood education (ECE) is a child's right. It is suggested in the literature that effective leadership has a positive impact on the ECE quality, which in turn promotes children's learning, development, and well-being (Douglass, 2019). Leadership and quality in ECE are globally recognised as critical components in providing young learners with a sound educational foundation (Barnett, 2003; Bøe & Hognestad, 2015; Epstein, 2018; Ishimine, Pianta & Hamre, 2009; Karlsson, 2024; Modise, 2019; NAEYC, 2021; Okiri, 2024; Sheridan, 2001; Tayler & Bennett, 2010; Yang & Lim, 2023; Yoshikawa et al., 2018).

Leadership for quality requires a participatory and systematic approach, for example, through joint negotiation of visions and the implementation of coherent strategies (Heikka et al., 2021). Shared responsibility for achieving goals is key. Quality management as a whole is built when everyone commits to their tasks. National and organiser-level guidance, plus the ECE centre director's and ECE teachers' responsibilities and duties, promote the achievement of a common goal in this context (Heikka & Suhonen, 2019). Additionally, Yang and Lim (2023) argue that autonomy encompasses both freedom and a sense of ownership and accountability in teaching. Teachers who are actively involved in decision-making are more inclined to critically reflect on their practices, contribute to reforms, and foster continuous improvement. This approach positions distributed pedagogical leadership (DPL) as a means for professional development that also enhances educational standards.

Finnish ECE leadership research has embraced the concept of pedagogical leadership. This concept focuses on guiding and leading the core purpose of early childhood pedagogy within ECE organizations (see, for example, Fonsèn & Lahtero, 2024). Essentially, it involves ensuring that the educational practices and philosophies are effectively implemented and maintained. In Finland's multi-level municipal organization, pedagogical leadership is not the responsibility of a single individual. Instead, it is distributed among multiple stakeholders. This means that various people, such as municipal ECE leaders, ECE centre directors, and teachers, share the responsibility of leading and supporting pedagogical practices. The idea of DPL has

been developed to describe how this shared leadership works at a system level. It emphasizes the interdependent (Spillane, 2006) actions of different stakeholders in enacting pedagogical leadership. This approach is distinct from mere delegation, where leadership tasks are simply assigned to others. Instead, distributed leadership involves a collaborative and interconnected effort to lead and support pedagogical practices (Spillane, 2006). For example, while delegation might involve an ECE centre director assigning specific tasks to teachers, distributed leadership would involve the centre director and teachers working separately, but interdependently (Heikka, 2014) to develop and implement pedagogical goals. DPL emphasises the importance of group effort alongside individual strength. Research indicates that distributed leadership fosters better teamwork and consistent teaching methods (Bøe & Hognestad, 2015; Okiri, 2024).

DPL supports quality management by building a shared vision and systemic strategy to achieve goals. Shared and clear responsibilities secure the prerequisites for leadership at the macro level and strengthen quality work in children's groups. DPL in the centres includes pedagogy development, in which ECE centre directors and teachers have separate but collaborative responsibilities and tasks from the perspective of goals (Heikka, 2014; Heikka et al., 2021; Spillane, 2006). However, the development of effective leadership may be half-finished due to limited guidance or limited theoretical knowledge.

It has been suggested that distributed leadership approaches relate to the realization of quality in ECE (Douglass, 2019; Heikka et al., 2021). This study seeks to

clarify which aspects of DPL relate to structural and process quality in Finnish early childhood education. The findings of this research can foster advancements in theoretical developments in ECE leadership. That is, the results of this study could assist in renewing the concepts that describe the main functions in this area and explain their effective implementation in ECE settings and the municipal functions. This research will provide knowledge of innovative approaches to enhance quality provisioning of ECE, and theorizes the rationale for the proposed system-wide multi-faceted leading of ECE through DPL. By extending the focus from centre directors to teachers in leadership for quality, this research also provides new knowledge by indicating how leadership can be enacted as distributed practice (Spillane, 2006), where teachers are expected to lead pedagogy in their teams. This approach to ECE leadership has received growing attention around the world (Bøe & Hognestad, 2024; Yang & Lim, 2023; Okiri & Hercz, 2024). This study can help shed light on the meanings of the new approaches by complementing existing empirical and theoretical research with the use of evidence collected from municipalities in Finland.

The Study Context

The present study was conducted in Finland. According to Urban (2023), a common value base of holistic, play-based learning can be identified in ECE in the Nordic countries. The Nordic model also entails governance through decentralisation and local democracy. In Finland, Sweden, and Norway, this is reflected as strong local autonomy, where local structures and practices play a key role in ECE.



Local autonomy enables flexible procedures for municipalities and citizens, including children, to influence matters concerning themselves (Kiili, 2011). Great strides have been made over the past decade in the quality steering of Finnish early childhood education. The governance of Early Childhood Education and Care (ECEC) in Finland was moved from the Ministry of Social Affairs and Health to the Ministry of Education and Culture in 2013. The Act on Early Childhood Education and Care was enacted in 2015 and revised in 2018 to set the goals for ECEC and to regulate the quality of ECE. According to Act on Early Childhood Education and Care (540/2018, §3), the aim is to 'provide all children with equal opportunities for early childhood education and care, to promote non-discrimination and gender equality, and to provide them with the ability to understand and respect the general cultural tradition and their linguistic, cultural, religious and philosophical background'. ECE is steered by the National Core Curriculum for Early Childhood Education and Care (EDUFI, 2022). Pre-primary education for 6-year-old children is legislated in the Basic Education Act (Act 680/1998) and steered by the Core Curriculum for Pre-primary Education (EDUFI, 2014). Additionally, every municipality uses the national curricula framework to draw its own specific guidelines and local curricula.

The quality evaluation of the ECE system is a statutory task (Act 540/2018). The Organisation for Economic Co-operation and Development (OECD) Report highlights Finnish centres' observing, with local authorities determining evaluation processes (OECD, 2015, p. 85). Evaluation is crucial for ECE quality, and municipalities

have a continuous obligation to assess it (Vlasov et al., 2019). The Finnish Education Evaluation Centre (FINEEC) focuses on development-oriented quality management and encourages evaluation within the ECEC centres (Ahtiainen et al., 2021). Municipalities should observe educational transformation and evaluate its effects on systemic change, whereas the government should support practical development. Evaluation extends to all educational system levels (Ahtiainen, 2017).

Finnish ECE centres are usually owned, organised, and managed by municipalities (Ahtiainen et al., 2021). ECE centres in Finland educate children aged from 1 to 6 years. One centre can contain 1-10 or more groups of children. In the groups of children under three years, the adult/child ratio is 1/4. In groups with full-time children over three years, the adult/child ratio is 1/7 (The Act on Early Childhood Education and Care, 540/2018). Pre-primary education is one year of preschool for 6-year-old children before comprehensive school (Basic Education Act, 680/1998).

The ECE centre directors are usually responsible for the functioning of a cluster of ECE centres and ECE services. The staff in a Finnish ECE centre work in multiprofessional teams in the child groups, and the Act on Early Childhood Education and Care (540/2018) requires that two of every three educators among the multiprofessional staff must have bachelor's degrees by the year 2030, and at least half of those bachelor's degrees must be in education. Currently, a staff team usually comprises a university-qualified ECE teacher together with two ECE child carers

or one child carer and a teacher with a Bachelor of Social Services degree. Child carers typically have a vocational qualification in social welfare or in health care. The qualification requirements for ECE centre directors will also increase in 2030, and according to the law, ECE centres must have a director who is responsible for the quality of the centre they manage. The staff's pedagogy and competence will be emphasized more than before, and directors will be required to have a master's degree in education from 2030 onwards.

Distributed Pedagogical Leadership

The development of the concept of distributed pedagogical leadership (DPL) in educational research has received growing attention during the past decade (Bøe & Hognestad, 2015; Okiri & Hercz, 2024). However, the concept is still evolving. Researchers have not yet reached a consensus on the concept. One reason for this lack of agreement is the limited research available in this area. Another reason is the absence of a unified understanding of the basic concept of pedagogical leadership within educational research. The variability of perspectives makes it challenging to establish a common framework. As a result, for the contextual appropriateness, the understanding of the concept in this study is anchored mainly with Finnish and Nordic research (Heikka, 2014; Bøe & Hognestad, 2015, 2024). This body of research is complemented and elaborated on by the available international research in the area.

DPL combines the concepts of distributed leadership and pedagogical leadership (Heikka, 2014). Distributed

leadership's core element is that leadership is enacted separately but interdependently between leaders (Spillane, Halverson, & Diamond, 2001; Spillane, 2006). Heikka (2014) has identified five prerequisites for interdependence in early childhood education (ECE) leadership, which we next describe in more detail, because the research instrument used in this study is based on these prerequisites.

Enhancing shared consciousness of visions and strategies is essential for creating interdependence between leadership enactments (Bøe & Hognestad, 2024; Okiri & Hercz, 2023; Yang & Lim, 2020). According to Sims et al. (2015), a shared understanding of the ECE organisation's purpose by all staff members is crucial for distributed leadership. The participants' capacity to make informed decisions on pedagogy is enhanced when formal and informal leaders participate in the negotiation of goals and values. This brings additional, relevant information from the staff's perspectives to form the basis of decisions (Heikka, 2014; Heikka et al., 2021).

Distributing responsibilities for pedagogical leadership involves, firstly, the provision of sufficient resources for pedagogical leadership in the ECE centres (see, for example, Yang & Lim, 2020). Shared responsibility also means teachers' participation in pedagogical leadership (Grice, 2019). This means, in practice, that teachers take various leadership actions (Bøe & Hognestad, 2015) and especially responsibility for pedagogical planning, assessment, and development in their child groups (EDUFI 2022; Heikka et al., 2022). Teachers' leadership

responsibilities also entail leading and organising daily pedagogical activities, leading parental and multiprofessional collaboration, and enhancing staff team members' professional learning (Colmer, Waniganayake, & Field, 2015; Harris, 2008; Heikka et al., 2016, 2022; Hognestad & Bøe, 2014, 2015). Fulfilling these responsibilities often requires empowerment and professional development for the teachers (Grice, 2019; Yang & Lim, 2020).

ECE teachers in Norway assume leadership roles to ensure high-quality educational experiences are provided. Research has shown that, while teacher leadership is good, more explicit direction is needed. This emphasizes the need for further support and the development of competencies for teacher leaders to improve their efficacy in giving instructional guidance in the classroom (Hognestad & Bøe, 2025). Also in Finland, and for example in Sweden and Singapore, the implementation of DPL has become more difficult due to the teacher shortage (see, for example, Yang & Lim, 2020). This further emphasizes the need for professional development and training.

Distributing and clarifying power relationships is crucial for the functioning of DPL. This includes ensuring participation in decision-making (Heikka et al., 2013) and trust (Grice, 2019). Bøe and Hognestad (2015) indicated how teachers' leadership is embedded in interaction and enacted by positional capacity. It also means a shared authority between directors and teachers in ECE centres. Fonsén et al. (2021), for example, have found that teachers' leadership cannot function if power is not boldly and visibly given to teachers. Grice (2019) revealed that

hierarchical leadership hindered teachers' work for pedagogical change. The authority is shared if the teachers can act independently but interdependently as pedagogical developers in staff teams (Heikka, 2014). Denee and Thornton (2021) stated that in distributed leadership, trust and opportunities for teachers to participate in leadership are important. Heikka et al. (2020) stated that the role of teachers is not yet clear in Finnish ECE communities. The leadership responsibilities of the teachers should be clarified in relation to power distribution. Similarly, in Singapore, Yang and Lim (2020) reported insufficient inclusion of teachers in curriculum decision-making, which hindered the implementation of DPL.

Distributing the enactment of pedagogical development within centers is the core element of DPL. This means sharing goal-oriented and planned leadership functions between centre directors and teachers so that both have separate but interdependent tasks and responsibilities in pedagogical development. Pedagogical development includes, for example, pedagogical reflection among staff (Colmer, Waniganayake, & Field, 2015; Heikka et al., 2022). Shared pedagogical reflection in staff teams led by the teachers is important for enhancing the staff's professional learning (Heikka & Suhonen, 2019). In DPL, teachers can enable, structure, and empower staff for collective learning and development (Grise, 2019). However, teachers have varying dispositions to lead the team to critical reflection and to involve team members in discussion (Grise, 2019; Heikka et al., 2021, 2022; Waniganayake et al., 2018). The Competence Development Model by Sheridan (2001)



highlights how crucial reflective practice is for improving teaching effectiveness. DPL promotes ongoing learning for educators by weaving reflection into daily leadership and collaboration.

Implementation of distributed leadership should be goal-oriented, evaluated, and developed regularly (Heikka et al., 2013). Therefore, developing a strategy for distributed pedagogical leadership is essential. This means creating structures, tools, and practices for interdependent participation and enactment of leadership by all leaders. This can mean, for example, making leadership procedures and responsibilities explicit for all professionals. A forum, tools, and procedures for negotiating shared organisational visions and strategies are essential. The study by Heikka and Suhonen (2019) revealed that the strategies for distributed pedagogical leadership made by the centre directors within their centres were crucial for pedagogical development. The directors formulated a leadership plan together with teachers to enact distributed pedagogical leadership separately but interdependently within the centres.

Quality of Early Childhood Education

Early childhood education (ECE) can fulfill its potential only if it meets high-quality standards (Ahtiainen, Fonsén, and Kiuru, 2021; Hujala, Fonsén & Elo, 2012; Karlsson, 2024; Mäntyjärvi & Puroila, 2019; Von Suchodoletz, Larsen, Uka & Nadyukova, 2022). Nevertheless, the definition of (high) quality remains a subject of debate.

The notion of quality is both value-bound and subject to change (Puroila & Kinnunen, 2017). Different research

methodologies reflect varying paradigms that shape beliefs regarding quality in the associated discourses (Fenech, 2011). Puroila and Kinnunen (2017) found in their review that many quality studies are rooted in positivist, post-positivist, or constructivist paradigms. Research using positivist methods has been dominant, influencing our understanding of quality by minimising the importance of, for example, the perspectives of children and guardians in assessments. Conceptualisations of quality can also illustrate views whereby quality is assessed based on universal criteria related to structure and processes, which are often framed through the lens of experts (Fenech, 2011).

Puroila and Kinnunen (2017) identified four distinct approaches to conceptualising quality. The first approach defines quality criteria in terms of children's learning outcomes, while the second adopts a more comprehensive perspective on children's learning and development as a process focused on evaluating and enhancing practices. The third approach highlights the importance of incorporating various viewpoints, including those of guardians and children, in quality assessments, and the fourth approach stresses the qualities that emerge from material-discursive practices.

The understanding of quality can differ across countries and cultures, with some nations grounding it in specific curricula (Fonsén, Lahtinen, Sillman & Reunamo, 2022) while others focus on children's learning outcomes (Furu & Heilala, 2021). At the heart of Finnish quality structuring lies the ECE environment and the way the established

goals and content for ECE are implemented in practice (Vlasov et al., 2019). The quality of Finnish ECE remains relatively high, characterised by all aspects of children's experiences and environments that are believed to support their holistic development and well-being (Furu & Heilala, 2021).

Various elements in the field of ECE influence the quality of education delivered, including educators' qualifications and the curriculum utilised. Studies reveal that teachers with higher education and extensive training tend to provide superior and excellent ECE experiences. The adopted curriculum also plays a significant role in determining educational quality, with curricula that are developmentally suitable and culturally responsive yielding more favourable results. The nature of interpersonal relationships between educators and children, characterised by warmth and sensitivity, is vital for optimal child development. Additionally, parental involvement stands out as a key element affecting educational quality. Research indicates that active participation of parents or family members in their children's education fosters positive outcomes (Fonsén & Ukkonen-Mikkola, 2019; Mäntyjärvi & Puroila, 2019; Ahtiainen et al., 2021).

A study comparing ECE across various nations reveals significant differences in curriculum standards, teacher qualifications, and learning outcomes. While Scandinavian nations emphasise overall growth and learning through play, North American and Asian regions prioritise academic readiness and standardised testing. Conversely, European education systems focus on cultural growth

while fostering both intellectual and social development. Thus, these variations in ECE reflect views on quality that are shaped by the unique cultural, historical, and economic contexts of each area, highlighting the need to understand local situations in quality evaluation. Nevertheless, in the Nordic countries, for example, quality evaluation tools based on different paradigms are used in parallel, and therefore Urban (2022) suggests discussion in Nordic countries about the appropriateness of decontextualized measures. For example, exploration of standardised instruments, such as ECERS, can be seen in Nordic countries (Sheridan, 2007), besides tools that are situated in their specific contexts.

Examining curriculum standards, Nordic countries maintain a child-focused strategy that emphasises the child's social, emotional, and cognitive development through play-based education. Finland's curriculum centers on personalised development plans (Niu et al., 2024), while Sweden advocates for democratic values and children's welfare (Gu, 2006). In contrast, ECE in North America is more formal, emphasising academic readiness and standardised results, especially in the U.S., which focuses on literacy and numeracy (Hernandez, 2024). Canada, while also concentrating on academic readiness, integrates play-based learning, particularly in Quebec, to enhance social and cognitive growth (Alvarado & Galigao, 2024). Asian nations such as China, Japan, and South Korea prioritise structured, academically driven ECE, stressing moral, intellectual, and physical growth to ready children for formal education (Li, 2024; Niu et al., 2024; Woo et al., 2023). In contrast, European nations employ diverse

strategies, often balancing academic and social development. The UK underscores essential skills in literacy, numeracy, and social growth (Huang, 2024), while Germany and France emphasise socialisation and comprehensive development through play-based learning and cultural enrichment (Sylva et al., 2016).

ECE teachers in the Nordic countries are very skilled, typically having a bachelor's or master's degree, with Finland mandating a bachelor's for teachers (Niu et al., 2024). Norway and Denmark also stress the importance of professional training and freedom in developing curricula (Urban, 2023). In contrast, North America shows a lot of differences; in the U.S., basic qualifications can be just a high school diploma or an associate's degree (Hernandez, 2024), while Canada mostly requires a diploma or degree in early childhood education (Alvarado & Galigao, 2024). ECE teachers' qualifications differ across Asia, where academic degrees are highly regarded. In China, teachers must have a college degree in early childhood education, with increasing attention on professional growth (Niu et al., 2024). Japan and South Korea also need highly trained teachers, focusing on teaching methods and classroom experience (Woo et al., 2023). In Europe, many countries require a degree in early childhood education, with the UK needing specialised training in areas such as special needs education (Huang, 2024). Likewise, educators in Germany and France are well-trained, emphasising teaching techniques and cultural development (Sylva et al., 2016).

Concerning learning outcomes, the Nordic countries focus on comprehensive development in ECE, prioritising social, emotional, and cognitive growth. Finland focuses on

personalised learning outcomes and the well-being of children (Niu et al., 2024), while Sweden's system highlights democratic values and critical thinking (Gu, 2006). In contrast, North America's method, especially in the U.S., leans more towards academic performance, stressing literacy and numeracy, with a focus on readiness for school (Hernandez, 2024). Canada, while also appreciating academic skills, emphasises social and emotional growth, particularly in Quebec (Alvarado & Galigao, 2024). ECE in Asia emphasises literacy, numeracy, and science skills, with China focusing on moral, intellectual, and physical growth in a structured environment (Niu et al., 2024). Japan and South Korea prioritise academic achievement, especially in reading, writing, and math (Woo et al., 2023). In Europe, results vary, but there is a strong focus on comprehensive development. The UK takes a balanced approach, combining academic and social growth, while Germany and France concentrate more on social skills, cultural enrichment, critical thinking, and collaboration skills (Sylva et al., 2016).

Several countries have established frameworks and regulations concerning quality (Heikka et al., 2021; Urban, 2022). Quality aspects are usually categorised into process and structural factors. Domains can also be classified into three or more overarching categories that may include structural, intermediate, process, and effect factors (Fonsén et al., 2022; Heikka et al., 2021). In Finland, quality is perceived through postmodern and transmodern perspectives as subjective and co-constructed, grounded in local values and goals (Alila, 2013). Hence, in this study,

quality is assessed using the Finnish quality evaluation model with the four quality dimensions outlined here (Hujala-Huttunen, 1995; Hujala et al., 1999; Hujala & Fonsén, 2010a; Authors, 2021). Firstly, the structural domain encompasses the physical setting, including teacher-child ratios, group sizes, and other physical tangible facilities (Furu & Heilala, 2021). In the context of Finland, Hujala and Fonsén (2010a,b) and Heikka et al. (2021) outlined intermediate quality factors, such as informational communication regarding policies and practices, an inspiring learning environment, professionalism, collaboration, and leadership. According to Hujala et al. (2012), educators' experience in the workforce aligns with quality and fosters excellent interactions between children and their teachers.

Thirdly, the process domain pertains to the quality interactions that occur between teachers and children during the implementation of a quality curriculum. Heikka et al.'s (2022) findings affirm that this is a pivotal aspect of the pedagogical dimension in ECE. Furthermore, it encompasses pedagogy, effective teaching strategies, social-emotional support, and children's engagement in daily interactions with educators and peers (Hujala et al., 2012). Finally, the effect factor pertains to children's learning and holistic development, as well as their positive experiences in ECE and the satisfaction of customers (Heikka et al., 2021; Hujala & Fonsén, 2010a,b).

The Connections Between Leadership and Quality

The connection between leadership and quality in early childhood education (ECE) is profoundly intertwined and

complex. Leadership is a crucial factor in establishing and sustaining high-quality ECE settings (Barnett, 2003; Douglass, 2019; Modise, 2019; Blose & Muteweri, 2021; Hansen & Ringsmose, 2023), yet its impact on quality is dependent upon multiple elements, including leadership style, responsibilities, and the specific context.

Research indicates that leaders play a vital role in cultivating positive environments, promoting lifelong learning, and ensuring the achievement of goals. For example, Togher and Fenech (2020) highlight the necessity for leaders to possess robust qualifications and leadership abilities to facilitate quality improvement. Pianta and Hamre (2009) likewise emphasise the critical role of leadership in facilitating teacher development and improving child outcomes. Leaders also significantly influence parent and community involvement, as noted by Epstein (2018), which is particularly shaped by cultural contexts, such as those found in Qatar (Ihmeideh et al., 2020).

The National Association for the Education of Young Children (NAEYC) underscores that leaders are essential for upholding quality through effective assessment and enhancement strategies (NAEYC, 2021). Leadership also encompasses advocacy at the policy level, in addition to internal practices, as observed by Yoshikawa et al. (2018). Competent leaders secure funding, resources, and community support to maintain high standards in ECE.

Distributed pedagogical leadership (DPL) particularly provides a framework for harmonising quality initiatives across all levels of an ECE organisation (Atjonen, 2015;

Vannebo & Gotvassli, 2018; Vlasov et al., 2019). Leaders who encourage collaboration, engage in reflective practices, and facilitate professional development contribute to embedding a continuous enhancement culture. For instance, leaders in Australia promote quality by supporting the development of educators and aligning the organisation's objectives (Zhou & Fenech, 2022). Furthermore, research conducted by Heikka et al. (2021) indicates that distributed leadership fosters teacher dedication and teamwork, thereby enhancing both pedagogy and learning outcomes.

Douglass (2019) encapsulates contemporary studies, suggesting that effective leadership significantly enhances children's learning, development, and overall well-being, especially when it involves collaboration in driving change and making decisions with staff, fostering teamwork in learning, and enhancing improvement within environments, while also encouraging teacher leadership. Although a connection between distributed approaches in leadership and ECE quality has been suggested in ECE literature, there is no research evidence on the topic. It is important to understand how different leadership strategies contribute to quality, particularly how DPL is connected to quality. Therefore, using quantitative research methods, we aimed to answer the following research question in the present study: What is the relationship between different areas of distributed pedagogical leadership (DPL) (e.g., shared vision, distributed responsibilities, and distribution of power) and different areas of quality (e.g., available resources, child well-being, and collaboration) in Finnish ECE?

Methodology

Participants

The participants of this cross-sectional survey study were 453 staff members (94.5% female, 2.0% male, 3.5% other/no response) from 35 ECE centres in six municipalities in Eastern and Southern Finland. A convenience sampling was used for selecting the participating municipalities of different sizes from different parts of Finland. A link to respond to the survey was sent to all personnel in six municipalities. The selected municipalities and their early childhood education and care services represented a typical organizational and administrative structure in Finland. The number of children under school age in the municipalities varied between one hundred and two thousand. The participation rate was approximately 77%. A majority of the participants (74.8%) had more than six years of work experience, whereas 9.5% had 4 to 6 years, 10.6% had 1 to 3 years, and 5.1% had less than one year of work experience.

Data Collection

Two electronic questionnaires were distributed to all participants in 2019 by municipality ECE leaders. The first questionnaire concerned questions on DPL in the participants' ECE unit; the second questionnaire included questions on ECE quality. Of the 453 participants, 310

(68.4%) evaluated both leadership and quality, whereas 49 (10.8%) responded only to the leadership questionnaire and 94 (20.8%) only to the quality questionnaire. A missing value analysis showed that the data were not missing completely at random: Participants with less than a year of work experience were underrepresented (39.1%) among those who participated in both questionnaires and overrepresented (30.4%) among those who evaluated leadership only. Additionally, those who participated in both questionnaires gave higher evaluations on all leadership variables than those participants who gave ratings only to leadership but not to quality (p values < .001; Cohen's $d = 0.52$ – 0.73).

Data Collection Instruments

Distributed Pedagogical Leadership

The distributed pedagogical leadership (DPL) scale included 28 items grouped into five sections representing the five DPL areas developed in the study by the Authors (2014) (for previous use of the same scale, see the Authors). The questionnaire was suitable for this study because it was developed with Finnish organizational and leadership structures in mind. The participants were presented with a general instruction to respond based on their own experience in their early childhood education (ECE) centre, even though they might not belong to the personnel group that a specific item concerned. All items were responded to on a 5-point Likert scale (1 = completely disagree, 5 = completely agree). Mean scores for the five subscales were calculated: *shared consciousness of visions and strategies* (5 items, e.g., "There is a clear vision guiding the pedagogy

and its development"; Cronbach $\alpha = .89$), *distributed responsibilities for pedagogical leadership* (6 items, e.g., "Teachers' participation in pedagogical leadership is supported"; $\alpha = .87$), *distributed and clarified power relations* (5 items, e.g., "I have enough opportunities to be involved in decision making regarding ECE in my municipality"; $\alpha = .83$), *distributed enactment of pedagogical development* (4 items, e.g., "Teacher guides the team of educators in developing the operational culture"; $\alpha = .82$), and *Developing strategy for distributed pedagogical leadership* (5 items, e.g., "The responsibilities and tasks for leadership have been clarified and I am aware of them"; $\alpha = .90$). Three items were omitted because of poor internal consistency (i.e., a poor inter-item correlation with the rest of the respective scale and a resulting decrease in the scale reliability coefficient).

ECE Quality

The scale for ECE quality comprised 66 items responded to on a 5-point Likert scale (1 = completely disagree, 5 = completely agree). The quality evaluation instrument is based on the quality evaluation model of ECE, developed in earlier studies by Hujala-Huttunen (1995), Hujala et al. (1999), Hujala and Fonsén (2010a), and the Authors (2021). The original instrument was updated according to the National Core Curriculum for Early Childhood and Care in Finland (EDUFI, 2019) and the FINEEC guidelines and recommendations for evaluating the quality of ECE (Vlasov et al., 2019). The updated scale has been previously used in a study conducted by the Authors (2021). The quality evaluation instrument was used in this study

because it is based on the policy documents that steer ECE quality in Finland.

An explanatory factor analysis was performed to establish the factor structure among the items; accordingly, five factors were created: *physical and human resources* (6 items, e.g., “The outdoor area is safe for children”; $\alpha = .77$), *intangible resources and respectful climate* (19 items, e.g., “The staff is professionally skilled and committed to education and care”; $\alpha = .95$), *effectiveness and child well-being* (4 items, e.g., “Children enjoy coming to ECE centre/preschool”; $\alpha = .87$), *pedagogical activities and educational content* (16 items, e.g., “Staff and children together carry on a wide range of activities based on play”; $\alpha = .93$), and *collaborative ECE plan* (6 items, e.g., “Parents and staff have together written children’s ECE/preschool plan”; $\alpha = .89$). Fifteen items were omitted because of poor internal consistency. Mean scores for the five quality factors were calculated across the respective items.

Control Variables

The participants’ age in years and level of education were used as control variables in the analyses. The distribution of education in the sample was as follows: upper secondary education with vocational or general qualification (e.g., child carer) – 213 participants (47.0%), upper secondary education with further vocational qualification (e.g., teaching assistant) – 20 (4.4.%), post-secondary education (e.g., social educator) – 60 (13.2%), bachelor’s degree (e.g., Bachelor of Education or Social Services) – 127 (28.0%), and master’s degree (e.g., Master of Education or Social Services) – 24 participants (5.3%).

Nine participants (2.0%) did not report on their level of education.

Analytical Strategy

A multivariate regression model was analysed to answer the research questions. All five quality variables in the model were regressed on all five leadership variables. The control variables were included alongside the leadership variables. The analyses were conducted in *Mplus* 8.8 (Muthén & Muthén, 1998-2022). The models were estimated with full-information maximum likelihood with standard errors that are robust to non-normality (MLR). Intraclass correlation coefficients (ICC) and design effects were calculated because the data were hierarchical (i.e., individual participants clustered in the ECE centres). Relatively high ICCs (.11 to .36) and design effects (2.22 to 4.65) were obtained for all variables, indicating that a significant amount of variance in the Distributed Pedagogical Leadership (DPL) and Early Childhood Education (ECE) quality evaluations could be attributed to differences between the ECE centres. Consequently, the COMPLEX command in *Mplus* was used to take the group-level differences into account.

Research Ethics

The responses to the online questionnaires were collected anonymously. In other words, the respondents' identities were not known to the researchers at any point in the research process. Consent to participate in the study was collected from the participants after they were informed about the study and their rights. The principles of research integrity (Finnish National Board on Research Integrity TENK, 2023) were followed at each stage of the study's

implementation. Links to the electronic surveys were distributed to the research participants by municipality ECE leaders. Help from the local government officers was used to contact the participants and distribute the survey invitation among the ECE staff, although the participants were assured that their survey responses would stay anonymous and not be shared with their employers or anyone outside the research group.

Results

Table 1 presents the descriptive statistics and bivariate correlations of the study variables. All leadership variables had moderate or strong positive relationships with all quality variables. Strong correlations ($r = .55-.76$) were also detected between the leadership variables, which may signal possible multicollinearity issues when the variables are simultaneously included as predictors in a regression model. The variance inflator factor (VIF) values for these variables ranged from 1.94 to 3.28. VIF values exceeding 10 are generally considered a sign of multicollinearity¹. Nevertheless, the shared variance was accounted for in the final model by allowing correlations between the leadership variables.

¹ As even lower VIF values have been suggested to indicate possible multicollinearity (see Cohen et al., 2002), we repeated the results in a revised model without the predictor “distributed responsibilities for pedagogical leadership,” which had the highest VIF value. Eliminating this predictor from the model increased the predictive power of distributed enactment of pedagogical development on the quality of physical and human resources ($\beta = .9, p = .001$) and on the quality intangible resources and respectful climate ($\beta = .28, p = .01$). Concerning the other predictors, the results remained fairly similar (i.e., within the same level of statistical significance) to the full model, suggesting that the role of the other predictors was unaffected by the eliminated predictor.

Table 1

The Descriptive Statistics and Zero-Order Correlations of the Study Variables

	1	2	3	4	5	6	7	8	9	10	11	N	Min-Max	M (SD)
Distributed leadership														
1. Shared consciousness of vision and strategy												357	1.00–5.00	3.81 (0.75)
2. Distributed responsibilities for pedagogical leadership	.76***											358	1.33–5.00	3.81 (0.74)
3. Distributed and clarified power relations	.61***	.64***										359	1.20–5.00	3.44 (0.75)
4. Distributed enactment of pedagogical development	.70***	.72***	.55***									356	1.00–5.00	3.95 (0.70)
5. Strategy development for distributed pedagogical leadership	.76***	.76***	.65***	.69***								353	1.00–5.00	3.53 (0.82)



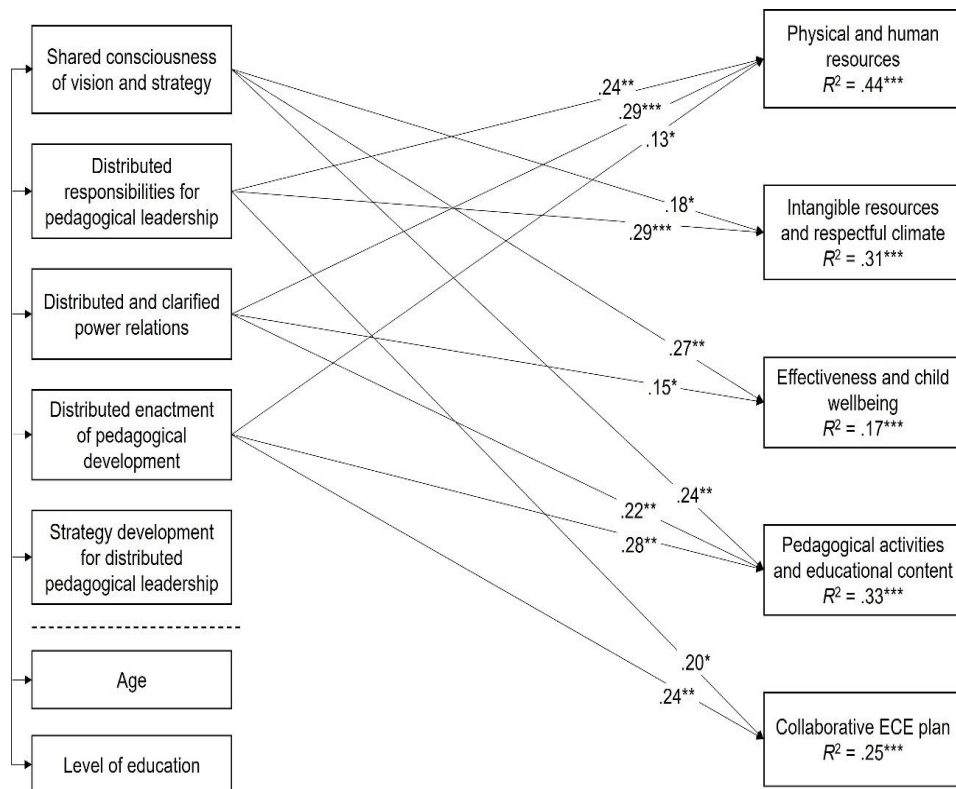
Heikka, Hirvonen, & Muteweri (2025). Distributed pedagogical leadership and quality in early childhood education.

Quality of pedagogy															
6.	Physical and human resources	.57***	.60***	.59***	.55***	.54***						404	1.50–5.00	3.77 (0.64)	
7.	Intangible resources and a respectful climate	.50***	.52***	.36***	.50***	.45***	.46***					404	2.56–5.00	4.51 (0.47)	
8.	Pedagogical activities and educational content	.53***	.47***	.48***	.52***	.46***	.49***	.77***				404	2.50–5.00	4.20 (0.54)	
9.	Effectiveness and child well-being	.40***	.34***	.33***	.34***	.33***	.46***	.66***	.64***			403	2.75–5.00	4.48 (0.49)	
10.	Collaborative ECE plan	.42***	.48***	.39***	.47***	.40***	.35***	.50***	.50***	.33***		399	1.00–5.00	4.55 (0.57)	
Control variables															
11.	Level of education	-.08	-.14**	.02	-.08	-.14*	.04	-.04	-.02	.01	-.06	444	1–5		
12.	Age	.20***	.14**	.06	.11*	.16**	.16**	.10*	.15**	.12*	.07	-.15**	453	21–66	45.88 (11.01)

Note: ^a Spearman's rho coefficient used for the ordinal scale (1 = upper secondary education with vocational or general qualification; 2 = upper secondary education with further vocational qualification; 3 = post-secondary education; 4 = bachelor's degree; 5 = master's degree). * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 1 presents the results of the regression model. The model was saturated (with zero degrees of freedom) because all possible means, variances, and covariances were estimated, and no fit statistics are thus provided. The results of the model showed that, after controlling for the effects of other leadership variables and the background variables, shared consciousness of visions and strategies was positively related to the quality of intangible resources and respectful climate ($\beta = .18, p = .02$), effectiveness and child well-being ($\beta = .27, p = .004$), and pedagogical activities and educational content ($\beta = .24, p = .003$). This indicates that the more positive the participants assessed shared consciousness of visions and strategies in their ECE center, the higher they rated the quality of intangible resources, effectiveness, and child well-being, and pedagogical activities and educational content. Similarly, distributed responsibilities for pedagogical leadership were positively related to the quality of physical and human resources ($\beta = .24, p = .004$), intangible resources and respectful climate ($\beta = .29, p < .001$), and collaborative ECE plan ($\beta = .20, p = .049$). Moreover, positive distributed and clarified power relations were related to high quality of physical and human resources ($\beta = .29, p < .001$), effectiveness and child well-being ($\beta = .15, p = .03$), and pedagogical activities and educational content ($\beta = .22, p = .001$), whereas high distributed enactment of pedagogical development was related to high quality of physical and human resources ($\beta = .13, p = .049$), pedagogical activities and educational content ($\beta = .28, p = .003$), and collaborative ECE plan ($\beta = .24, p = .01$). Strategy development for distributed pedagogical leadership was not related to any of the quality outcomes, nor were the control variables age and educational level. The highest amount of explained variance was found in the quality of physical and human resources, where 44% of the variance could be explained by the five leadership factors, followed by pedagogical activities and educational

content (33%), intangible resources and respectful climate (31%), and collaborative ECE plan (25%). The lowest explained variance (17%) was found in the quality of effectiveness and child well-being.



Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 1. Results of the Multivariate Regression Model for Predicting the Five Areas of Quality from the Five Areas of Distributed Leadership, Controlling for the Respondents' Age and Education Level (Standardized Estimates)

Discussion

The findings showed that the staff members' perceptions of distributed pedagogical leadership (DPL) in their Early Childhood Education (ECE) centre significantly related to their perceptions of quality. However, different areas of leadership were related to different quality factors, suggesting that the way leadership is distributed regarding specific practices in the ECE work communities can have complex reflections on the quality of their everyday operations.

Firstly, the results revealed that if the respondents felt that there was a clear and mutually agreed vision leading the pedagogical work in their ECE centre and in their municipality, it was perceived to reflect on a high-quality implementation of pedagogy, the well-being of children and staff, and an appreciative climate and communication in their workplace. The OECD (2020) promotes transparency among stakeholders in ECE to ensure quality effectiveness. Sims et al. (2015) also emphasize that the core of distributed leadership is the creation of the shared meaning of the ECE work in the organization. Fonsén et al. (2020), in line with this finding, discovered that a shared vision helps to improve ECE quality. Active involvement of all participants in an ECE setting promotes vision and goals (Zhou & Fenech, 2022) and assists in making informed decisions on pedagogy by all participants (Heikka, 2021). Thus, when all stakeholders understand the ECE's clear goals, it becomes easier for them to commit to the necessary demands for high-quality outcomes.

Secondly, the results showed that when staff members felt that the more the responsibilities are distributed not only to the head of the centre but also among all staff members, the safer and more functional the facilities are, the more competent and supportive the staff members are, and the better the communication and collaboration within the staff and with families. Fabry, Barblett, and Knaus (2022) also conclude

that teachers' ability to act as pedagogical leaders for quality improvement demands continued teacher learning.

Similarly, perceptions of distributed and clarified power relations were positively related to quality evaluations regarding child well-being, pedagogy, and human resources. In other words, the basic tasks of education and care seem to benefit from the staff members' empowerment and experience of power being fairly distributed in their workplace. ECE teachers in Finland are defined as pedagogical team leaders responsible for pedagogical actions in their own child groups (Ahtiainen et al, 2021). This understanding demonstrates that authority is not centred just on ECE leaders, but that teachers are also involved and believe they have a voice and can participate in decision-making. Teachers will have a voice in mutual decision-making that can enhance their ability to carry out their essential tasks more effectively when power and authority are vested in them. Therefore, our results suggest that valuing teacher autonomy and expertise helps to improve the quality of education in ECE. Zhou & Fenech (2022) also found that when the centre staff value educational leaders and their work, it enables the quality of education.

The distributed enactment of pedagogical development was found, in turn, to have a positive relationship with the quality of pedagogical activities, educational content, a collaborative ECE plan, and physical and human resources. Distributed pedagogical development can promote pedagogical quality by enhancing mutual reflection on the daily practices in the staff teams (Heikka et al., 2022). The reflection is led by the teacher and focuses on development areas and how the team works together to reach goals aligned with local and national policies. The reflections can then be utilized in the curriculum planning. Leeson, Campbell-Barr, and Ho (2012) emphasise the meaning of context sensitivity when leading quality improvement. They also call more

attention to the interrelationships between policy, leadership, and quality in ECE research. Distributed pedagogical development can be a flexible strategy enabling the consideration of the local needs and characteristics of each child group, as well as families' views in the development of quality.

It has been found that to be functioning, distributed leadership has to be well planned, goal-oriented, managed, and developed continuously (Heikka et al., 2013). However, strategy development for DPL was found in this study to have no unique contribution to the quality perceptions over and above the effects of the other leadership factors. It is possible that because strategy development functions on a higher level – laying the strategic grounds for leadership and pedagogical practices – its effect on the quality outcomes may be transmitted through the other leadership variables. This is something that should be further explored in future studies.

Limitations

Some limitations should be considered when interpreting the findings of the study. Firstly, the questionnaires included a long list of items on a number of different concepts, and it may have been difficult for the participants to interpret all of them. The measures' validity should be further developed in future studies. A mixed method approach with qualitative analysis could also increase our understanding of the results by clarifying what the concepts mean to different individuals; for example, what does 'good quality' mean to them. Secondly, our sample was not fully representative, for example, in terms of the participants' work experience, creating possible bias in the results. The findings should be replicated in more heterogeneous samples. Thirdly, although we did take into account that the participants were clustered

into several ECE centres, our analyses focused on the between-person level, that is, on the perceptions of individual participants. Larger samples that allow proper multilevel analyses would be needed in order to examine whether the leadership and quality perceptions vary both within and between the ECE units.

The questionnaires developed for the study are particularly well suited for the evaluation of Finnish early childhood education and care, as they are based on the value base of Finnish early childhood education and care as well as social policies and structures. The results describe the manifestations and relationships of the studied phenomena in the selected Finnish municipalities. Because quality is understood as a context-specific phenomenon, when carried out elsewhere, the study should use local quality indicators. In addition, the sampling did not include the biggest cities in Finland, and in that respect, the study participants do not represent all municipalities in Finland.

Conclusion

This study contributes to understanding relations between distributed pedagogical leadership (DPL) and quality in Finnish early childhood education (ECE). The results showed that the effectiveness of DPL positively relates to the quality of ECE in the six Finnish municipalities. We would particularly like to highlight two critical observations from the perspective of quality in the implementation of distributed leadership. Firstly, the study's results suggest that municipalities should prioritise investing in the development of a shared vision and strategy as part of the implementation of DPL, as it's also shown in international studies on distributed leadership (Sims et al., 2015; Okiri & Hercz, 2023; Bøe & Hognestad, 2024). Contemplating building a shared vision and strategy requires functional structures for sharing

information and shared decision-making in the organisation (Heikka et al., 2013). Therefore, municipalities should focus particularly on how to build interdependence within an ECE organisation to support interaction between different levels and, notably, how to involve the staff in joint negotiations on visions and strategies.

Municipal local policies and structures in Nordic countries create a central operational environment conducive to leadership and quality (Nordic Council of Ministers, 2022). A recent Finnish study found that municipal structures play an important role in the implementation of pedagogical leadership (Heikka et al., 2024). Earlier research has shown that building interdependence may not always work in practice in a multilevel municipal organisation, and leaders in the municipality do not communicate sufficiently with each other. The views of the personnel in building the vision and strategy may be limited in this case, jeopardising both awareness and commitment to goals and common approaches (Heikka, 2014). The problems of vertical co-operation in quality management have also been highlighted in recent Nordic studies (Urban, 2022, 2023). This has now been emphasised in the Finnish municipalities, and things have improved. Based on our results, staff members' perceptions of visions and strategies were relatively positive, and it was one of the DPL factors relating most strongly to quality. Reflecting on the Finnish system and leadership for quality within a larger framework, we can observe that the context of Finnish ECE leadership is relatively complex, and it poses challenges in the implementation of DPL. It seems that Finnish municipalities have now adopted distributed leadership in a more formal way, which could be reflected in the ECE quality.

Secondly, due to the findings demonstrating that power and authority distribution are vital for pedagogical quality and child well-being, it is critical to explore ways to empower and involve staff in decision-

making. According to Denee and Thornton (2021) and Grice (2019), this necessitates a shift in the traditional concept of leadership, in which the leader has the power, and the staff executes the decisions. As such, a new understanding of leadership as distributed strengthens and increases teachers' commitment, empowerment, and motivation. That is why it is important to pay attention to the critical component of DPL, because when responsibilities are shared, power is also shared (Heikka, 2014). Fonsén (2021), for example, has found that teacher leadership cannot function if power is not boldly and visibly given to teachers. Yang and Lim (2020) reported that the development of DPL was hindered in Singapore because teachers were excluded from the curriculum decision-making. This negatively contributed to improving quality.

ECE teachers are responsible for pedagogical planning, assessment, and development in the Finnish policy (EDUFI, 2022). However, teachers in Finland may feel insecure about their role in the staff teams (Heikka et al., 2021). This is a challenge for ECE communities, local municipality leaders, and policymakers. Finnish National ECE policy may better support teachers' positions in this regard, compared, for example, to Norway and Australia. It should be stated more clearly in Finnish policy documents what the teachers' roles and responsibilities are regarding pedagogical leadership and quality improvement. It is also important to pay more attention to teacher professional development at different stages of education and career, as studies in Australia (Grice, 2019), Singapore (Yang & Lim, 2020), and Norway (Hognestad & Bøe, 2025) have shown that it is essential to support teachers' leadership skills and pedagogical expertise for the implementation of DPL. In addition, cultivating a culture of teacher leadership in ECE centres so that the whole community supports teachers' identities as pedagogical leaders and values teachers'



pedagogical expertise and decisions about pedagogy is also essential (Yang & Lim, 2020).

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Distributed Leadership and Secondary School Goal Achievement: Empirical Insights from Nigeria

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Abstract

In school settings, leadership plays a critical role in predicting student achievement. However, this study examined the perceived contribution of distributed leadership (DL) of principals to secondary school goal achievement (SSGA) in Ilorin Metropolis, Nigeria. Based on the partial least squares structural equation model, the study utilised a non-experimental research design to predict the contribution of DL and its components to SSGA. Fornell Larckers' approach was used to determine the discriminant validity in this study. The analyses indicated that all the components of DL had a positive contribution to the SSGA except in the areas of modelling and inspiring a shared vision. Also, all the DL factors in the model jointly contributed R^2 0.315 to the total variance observed in SSGA. It thus indicates that adopting DL will promote the attainment of secondary school goals. DL constructs: driving innovation and change, and leadership support significantly contributed to SSGA ($\beta=0.464$ and 0.299). Meanwhile, coherent leadership ($\beta=0.075$), encouraging the heart ($\beta = 0.0046$), and supervision ($\beta=0.041$) have a non-significant positive contribution to SSGA. Consequently, inspiring a shared vision ($\beta=-0.21$) and modelling the way ($\beta=-0.14$) have negative, non-significant contributions to SSGA. Therefore,

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principals should be empowered with DL in their leadership development to attain SSGA. Also, each DL component should be considered when developing a curriculum for the principalship development programme to enable the participants to acquire holistic knowledge and capacity to attain SSGA.

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Introduction

The quality and strength of a nation's development level depend on the quality and strength of its human resources, which is also hinged on the country's education system (Adebisi, 2014). Therefore, a country's education system is a critical metric to determine the developmental trajectory of such a country. Central to the education system are curricular issues, representing the entire body structure of the education system (Adebisi, 2014; Davis, 2009; Obiakor & Newman, 2022). Curriculum issues are pivotal to an education system's effectiveness as they predict a country's educational output (Glewwe, 2002; Malik, 2018; Woessmann, 2016). The 21st century is a knowledge-based, skill-driven, highly competitive stage in human society (Shapaka, 2020). To keep up with the evolving demands of 21st-century survival, the Nigerian government redefined its educational goals for different levels of education in the country (Akanbi & Jekayinfa, 2019; Uzomah, 2018).

The Nigerian secondary and post-basic education curriculum covers science, mathematics, technology, humanities, and business studies, aiming to develop students' talents, technical and entrepreneurial skills, and prepare a workforce for self-reliance and economic growth (Federal Republic of Nigeria, 2014; FRN, 2013). It also emphasises moral, civic, and religious values (FRN, 2014). However, the effectiveness of these goals is hindered by leadership challenges, management issues, and resource shortages (Viennet & Pont, 2017). Principals play a crucial role in goal-setting, staff development, and school improvement, making leadership capacity vital to educational success (Danbaba et al., 2021). In addition, the implementation of secondary education policy in Nigeria is impeded by poor funding, weak leadership, lack of political will, personnel and governance issues, and accountability deficits (Enyiazu, 2022). Other barriers include limited stakeholder consultation, corruption, cultural and religious constraints, and inadequate (Igbokwe, 2016; Yaro et al., 2016). While policies are set by government bodies and educational agencies, effective implementation depends on school-level leadership. Principals manage curriculum delivery, learning environments, resources, and staff, balancing input from multiple external actors (Ahmad & Ghavifekr, 2014; Bush & Sargsyan, 2020; Chinedum, 2019). Thus, achieving education objectives relies on principals' leadership in navigating both internal demands and external influences.

Leadership styles are conceptualised based on theoretical understandings of leadership behaviour, with leadership for learning comprising distributed, instructional, and transformational approaches frequently associated with enhanced student achievement (Papadakis et al., 2024). Behavioural leadership theory further categorises styles as autocratic, democratic, or laissez-faire (Wangmo,

2021). In OECD countries, school principals exert significant influence on student outcomes (Tan, 2018), while in African secondary schools, effective leadership is demonstrated through teacher development, student support, and community engagement (Awodiji, Etejere, Oluwalola, et al., 2019; Maponya, 2020; Owusu-Ansah et al., 2024; Shava, 2021).

The pivotal role of school leadership in realising educational goals has led to increased scholarly interest in understanding its mechanisms of influence (Özdemir et al., 2022). Bush and Sargsyan (2020) offer a typology of educational leadership styles, including managerial, transactional, post-modern, contingency, moral, and instructional leadership. Among widely accepted models are transformational, participatory, instructional, distributive, and shared leadership (Akkaya, 2021). Shared leadership, in particular, emphasises collective decision-making and mutual influence, and has proven effective in diverse, complex school settings (Acton, 2021; Clarke, 2013; Liu & Watson, 2023; Poom-Valickis et al., 2022). Collaborative leadership practices and shared responsibilities are shown to improve school systems (Louws et al., 2017; Mashaya et al., 2022). As Bendikson (2017, p.6) asserts, “courageous and coherent leadership is required for excellent and equitable outcomes,” highlighting the essential role of middle leaders in supporting principals, guiding teachers, and ensuring coherence in school leadership efforts.

Transformational Leadership

Transformational leadership emphasises commitment, competence, and relationship-building to enhance school productivity (Akkaya, 2021; Amanchukwu et al., 2015). It inspires and motivates followers through shared vision, confidence-building, and intellectual

stimulation (Smith, 2016). This leadership style involves developing objectives, modeling values, fostering high expectations, and encouraging participation in decision-making (Akkaya, 2021; Smith, 2016). Transformational leadership aligns closely with shared leadership principles.

Collaborative Leadership

Collaborative leadership, a collegiate model, is based on increasing school efficiency, democratic participation, and leadership distribution among stakeholders (Akkaya, 2021). It encourages inclusive decision-making, allowing team members to contribute ideas and remain engaged in leadership processes (Admiraal et al., 2016; Amanchukwu et al., 2015; Heck & Hallinger, 2010a; Mamun et al., 2021). Due to its emphasis on shared decision-making, participative leadership is also referred to as shared or democratic leadership (Wangmo, 2021).

Instructional Leadership

Instructional leadership involves initiative, authority, and professional activities to enhance teaching and learning in specific subjects (Moeketsane et al., 2021; Olaifa & Awodiji, 2023; Puruwita et al., 2022). It prioritises student learning and guides school management and teachers toward this goal (Smith, 2016). According to Gilbar (2015), instructional leadership consists of two main themes: fostering teacher reflection on instructional activities and promoting professional goals set by school leaders. This leadership style is a response to rapid social and industrial changes, influencing education, curricula, teaching methodologies, and assessment practices, necessitating principals' active involvement in instructional leadership (Agung Pambudi & Gunawan, 2020; Karacabey et al., 2022; Puruwita et al., 2022).

Instructional leaders engage in continuous dialogue with teachers, offering suggestions, feedback, and praise while soliciting input (Heck et al., 2006; Hoque & Raya, 2023). They adopt a student-centered vision and collaborate with teachers to refine instructional practices and ensure the best teaching methods (Smith, 2016). Success in instructional leadership is measured by student academic achievement, achieved through collaboration and shared leadership.

Distributed Leadership

Distributed leadership (DL), emerging in the 1980s, represents a collegial model where leadership responsibilities are shared among school members rather than concentrated in a single leader (Daniëls et al., 2019). Principals in this model delegate roles to sub-leaders, promoting interdependence, shared responsibility, and commitment while retaining overall authority (Seobi & Wood, 2016). DL differs from traditional leadership by emphasising capacity building, collegiality, teamwork, collaboration, and human relationships, which are vital for addressing 21st-century educational challenges (Cansoy, 2018; Cox & Mullen, 2019). It distributes accountability, making principals not solely responsible for school management and decision-making (Naicker & Mestry, 2013).

However, DL is often misunderstood in practice. Harris and DeFlaminis (2016) note that it is frequently equated with delegated leadership and perceived as a flawless solution, which Jambo and Hongde (2020) argue is an unrealistic assumption. The effectiveness of DL hinges on how it is enacted, shared, and received within the school (Harris & DeFlaminis, 2016)(Harris & DeFlaminis, 2016). Operationalising DL requires integrated leadership efforts and strong relational collaboration between principals and teachers (Naicker &

Mestry, 2011). Yet, many secondary school leadership teams lack essential skills such as problem analysis, targeted goal-setting, and monitoring (Bendikson, 2017).

DL fosters school improvement by leveraging collective expertise, building trust, and encouraging collaboration. Innovation through shared responsibility. It underscores the importance of coordinated leadership by principals who are proactive, goal-oriented, and willing to take strategic risks. Thus, the principal's approach to DL in achieving school objectives warrants close examination.

Distributive leadership and secondary school goal achievement

Education leadership is primarily concerned with two functions: setting direction and exercising influence (Leithwood, 2004). In many underperforming or dysfunctional schools, leadership style is both a core challenge and a potential solution (Chikoko et al., 2015; Fairman et al., 2023; Pitan & Muller, 2020). Various leadership approaches, such as distributed, instructional, transformational, and shared leadership, have differing impacts on school performance, staff development, student learning, and overall academic achievement (Awodiji, Etejere, & Alao, 2019; Kitsis et al., 2016). DL, in particular, is characterised by shared authority, trust-building, and systemic integration across all levels of school management (Naicker & Mestry, 2011). Shared leadership focuses on collaboration and valuing members' contributions (Acton, 2021; Amanchukwu et al., 2015; Poom-Valickis et al., 2022; Smith, 2016), while instructional leadership is oriented toward student learning and achievement (Daniëls et al., 2019).

Empirical studies generally affirm a positive relationship between school leadership and academic achievement (Chang, 2011; Leithwood

et al., 2017; Owusu-Ansah et al., 2024). For instance, Smith (2016) found a direct positive link between transformational leadership and student achievement, though Awodiji et al. (2019) noted no significant correlation in senior secondary school contexts. Leadership approaches influence key outcomes, including graduation rates and curriculum delivery (Imbovah et al., 2020). Instructional leadership has also been linked to strategic goal-setting (Aureada, 2021), though distributing leadership among teachers sometimes correlates negatively with achievement (Tan, 2018).

The impact of DL on educational goal achievement is widely debated (Harris, 2014). While some evidence highlights its capacity to drive innovation and effective teaching practices (O'Shea, 2021), other findings suggest variability in its impact across contexts (Almarshad, 2017; Torres et al., 2024). Almarshad's (2017) meta-analysis indicates DL has a stronger impact on goal achievement than transformational or instructional leadership, a view supported by Jambo and Hongde (2020), who highlight DL's ability to decentralise power and enhance teacher involvement in decision-making.

However, the student achievement dimension of DL remains under-researched (Jambo & Hongde, 2020). Some studies link DL positively to improvements in reading and mathematics outcomes (Davis, 2009; Heck & Hallinger, 2010b), while others emphasise DL's effect on teachers' satisfaction and school innovation (Heck & Hallinger, 2010a; Hulpia & Devos, 2009). Effective school leadership not only addresses existing challenges but also creates a culture of continuous improvement, risk-taking, and strategic adaptation (Lee, 2020; Mestry, 2017; Rajapathirana & Hui, 2018). Coherent leadership marked by consistent vision and communication is essential for navigating

complex educational contexts (Bendikson, 2017; Khadka et al., 2024; Kin et al., 2020; Kit et al., 2023). Emotional and motivational aspects such as “encouraging the heart” also play a key role in aligning individual efforts with school goals (al-Baradie, 2014; Helland & Winston, 2005; Mestry, 2017; Tanriögen & Iscan, 2016; Tian et al., 2020).

Recognition, celebration of achievement, and community-building foster high morale and commitment (Danbaba et al., 2021; Salleh, 2022; Sinnema & Robinson, 2012). Sharing a clear vision central to both transformational and distributed leadership has been shown to positively impact school goal achievement (Chin, 2024; Hallinger & Heck, 2002; Gyansah et al., 2020). However, vision statements are often poorly communicated, weakening their potential impact (Dalton & Arpon, 2024).

Despite growing evidence on the effectiveness of distributed leadership in fostering teacher collaboration, innovation, and organisational capacity, there remains limited empirical clarity on its direct relationship with secondary school goal achievement, particularly from the perspective of teachers, who are key actors in its implementation (Jambo & Hongde, 2020). Consequently, this study examined whether DL, as perceived by teachers, can significantly **predict secondary school student achievement.**

Conceptual Framework

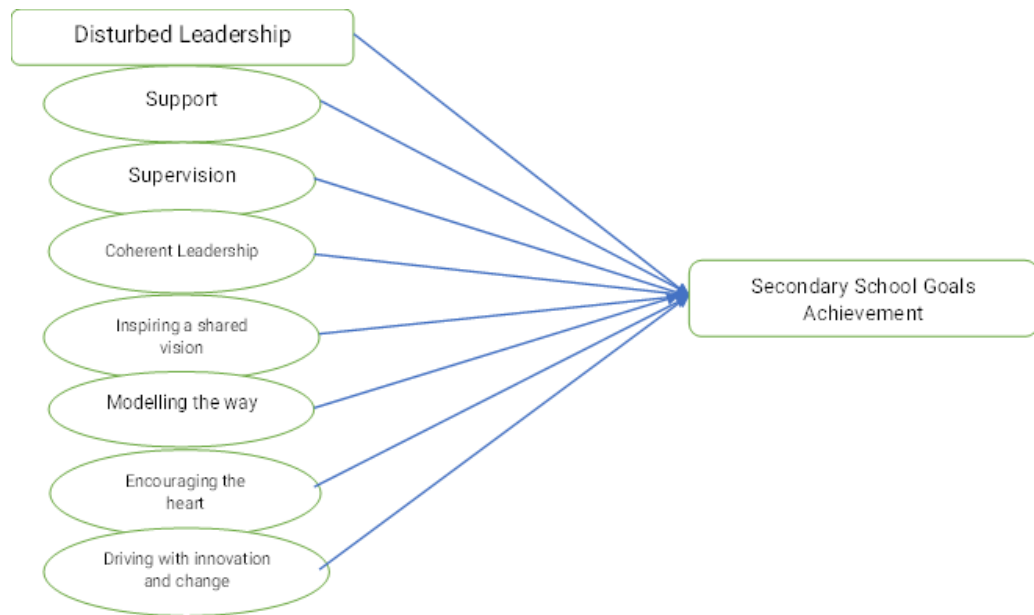


Figure 1. *Principals' Distributed Leadership and Secondary School Goal Achievement*

Principals' distributed leadership and secondary school goal achievement is a conceptual framework that explains how school leadership contributes to overall school success when shared among different stakeholders. In this framework, principals are highlighted for their role in 'support', 'supervision', 'coherent leadership', 'inspiring a shared vision', 'modelling the way', 'encouraging the heart', and 'driving innovation and change' to enhance performance, and are likely to attain a successful school (Bendikson, 2017). DL is a shared leadership method that promotes cooperation, capacity-building, and school improvement by dividing leadership responsibilities among stakeholders, including teachers,

administrators, students, and the community. A principal's leadership approach is shared among stakeholders to attain school goals. School principals who manifest DL are likely to achieve school goals. Hence, it aligns with the transformational leadership theory that school productivity would rise if principals prioritised the dedication and skills of their staff members (Akkaya, 2021). As a result of the framework, principals' DL is directly related to the achievement of school goals. Effective DL leads to highly motivated teachers, well-managed resources, and a supportive learning environment, which leads to higher student achievement. Principals' DL and SSGA emphasise the importance of a shared leadership model in enhancing school performance. Schools can create a more efficient, supportive, and goal-oriented educational environment by distributing leadership responsibilities among teachers and staff.

Hypotheses

In light of the existing literature, these hypotheses were formulated:

1. DL does not significantly contribute to secondary school goal achievement
2. Principals' driving innovation and change will not relate to secondary school goal achievement
3. Principals' coherent leadership will not contribute to secondary school goal achievement
4. Principals' encouraging the heart will not contribute to secondary school goal achievement
5. Principals' inspiring a shared vision will not relate to secondary school goal achievement

6. The principals' supporting staff will not correlate with achieving secondary school goals.
7. Principals' supervision will not predict secondary school goal achievement.
8. Principals who model the way will not significantly achieve secondary school goals.

Methodology

A non-experimental correlation design was adopted to predict the relationship between principals' DL and SSGA in selected secondary schools in Ilorin Metropolis, Nigeria. In the Ilorin metropolis, schools were selected based on a stratified random sampling procedure from the four local government areas of Asa, Ilorin East, Ilorin South, and Ilorin West. The copies of the questionnaire were completed by 505 teachers randomly selected from secondary schools within the Ilorin metropolis. Using Taro Yamane, a sample size of 323 teachers was calculated. One hundred and eighty-two additional teachers were added to the estimated sample size to account for attrition and to ensure the generalisability of the results (Althubaiti, 2023; Ranganathan et al., 2024; Tipton et al., 2017). Participants were selected proportionally across the local government areas by stratified sampling. Because Ilorin has four local government areas (strata), the number of teachers per local government area was divided by the overall number of teachers in the metropolis. Thus, the number of teachers per stratum (Local Government Area) = X , Population = Y , and the overall sample size estimated = 505. The sample size was proportionately estimated.

Therefore, 505 respondents from selected public secondary schools in Ilorin Metropolis were surveyed for this study. Although 505 teachers were chosen for sampling for the study via the Yamane formula, only 419 of the final replies were genuine, after data cleaning and screening. We validated data entry by checking for typos, incorrect codes (e.g., "5" on a scale of 1–4), or inconsistencies. Further, complete cases (rows) with missing data were deleted listwise. We removed all questionnaires that were not properly filled out. In this study, 419 teachers responded (see Table 1), 62.8% of whom were females, 62.3% were married, and 50.4% had a bachelor's degree (B.Ed.). It is interesting to note, however, that 76.6% of respondents teach in the urban areas of Ilorin Metropolis. Hence, it implies that more schools are located in urban areas than rural ones.

Table 1

Profile of the Respondents

Demographics	No. of Respondents	Percentage
Gender		
Male	156	37.2
Female	263	62.8
Marital Status		
Single	158	37.7
Married	261	62.3
Highest Qualifications		
Higher National Diploma	23	5.5
Bachelor's degree (Science/Arts/Tech)	135	32.2
Bachelor's degree (Education)	211	50.4
Post Graduate Diploma in Education	27	6.4
Master's degree	18	4.3
PhD	5	1.2
Location		



Urban	321	76.6
Rural	98	23.4
Total	419	100.0

Ethical Issue

Researchers obtained formal approval from the Kwara State Ministry of Education, Ilorin, Nigeria, and received consent from school principals to administer questionnaires in their schools. Principals facilitated the distribution and collection process. Teachers' informed consent was secured, participation was voluntary, and no coercion occurred. Responses were collected using a structured questionnaire addressing potential biases such as acquiescence, social desirability, habituation, and confirmation bias. Four trained assistants, each assigned to a local government area, conducted the data collection to minimize researcher influence. Researchers maintained objectivity by avoiding personal interaction with respondents and by excluding leading constructs from the instrument. Statistical analysis was used to interpret the data.

Instrumentation

The instruments tagged Distributed Leadership Inventory (DLI) were extracted from existing literature (Emiru & Gedifew, 2024; Tanriögen & Iscan, 2016) to measure principals' DL practices as perceived by their teachers. Three constructs (Leadership support, supervision, and coherent leadership) with 18 items were extracted from the distributed leadership scale (Emiru & Gedifew, 2024). Furthermore, five constructs (Modelling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart) with 31 items were adapted from the distributed leadership practices inventory

(Tanriögen & Iscan, 2016). However, challenging the way a construct of DLI was renamed driving innovation and change (Kouzes & Posner, 2013; Tanriögen & Iscan, 2016), following the argument from literature to meet the current changes and innovations in leadership. The DL was a latent score, which is an interval in nature. The scale was measured in a 5-point Likert format ('Always', 'Often', 'Sometimes', 'Rarely', 'Never'). Meanwhile, 29 items for the Secondary School Goal Achievement Questionnaire (SSGAQ) were extracted from the National Policy of Education, with a focus on secondary school goals (Federal Republic of Nigeria, 2014b) for data collection activities. The dependent variable (SSGA) was a latent score, which is an interval in nature. The scale was measured in a 5-point Likert format ('Strongly Agree', 'Agree', 'Slightly Agree', 'Disagree', 'Strongly Disagree'). This composite score, obtained through the measurement model, was treated as a reflective latent variable, satisfying the assumptions of linear regression inherent in PLS-SEM.

Consequently, pilot testing with the two proposed scales was conducted to determine the construct's validity. A factor analysis was conducted using R-Studio on the data obtained. Among the 49 items with eight constructs proposed for DLI, only 36 items were categorised into seven factors. All items that failed to load at all or at least loaded on more than one construct at the same time are eliminated. Similarly, only 24 of the 29 items proposed for SSGAQ were loaded under a single construct. We therefore removed the weak and unloaded items, leaving us with only one construct.

Analytical Procedure

In this study, SmartPLS version 3.3.1 was used to predict teachers' perceptions of their principals' DL: 'driving innovation and change',

‘modelling the way’, ‘coherent leadership’, ‘encouraging the heart’, ‘supervision’, ‘inspiring a shared vision’, and ‘supporting’, as well as secondary school goal attainment, the dependent latent variable. The technique was chosen because it aims to predict a set of hypothesised relationships that maximise the variance explained in the dependent variable. As a result, the PLS-SEM measurement and structural model were developed. Two-stage approach

Validation of the Instruments

Senior academics with expertise in educational management, evaluation and measurement, educational psychology, and social science education evaluated the instrument's face and content validity. A score was calculated for each item based on its ambiguity, relevance, readability, structure, and clarity. Cohen's Kappa index was used to estimate the expert rating. A 0.6 to 0.7 inter-rater agreement was achieved (Siraj et al., 2021). Thus, weak items with an index lower than 0.6 were rewritten and restructured. Several of the raters' comments were also considered in the final revision.

Furthermore, the instrument was validated by establishing the construct and discriminant validity alongside the reliability of the trait.

Construct Reliability and Validity of the Instrument

Construct validity measures the degree to which each trait (Distributed leadership) is accountable for the construct under investigation.

Validity and Reliability

Table 2 presents each trait's measures and coefficients of validity and reliability.

Table 2

Reliability and Construct Validity of the Instrument

Construct	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Driving innovation and change	0.835	0.842	0.876	0.504
Coherent Leadership	0.875	0.963	0.903	0.612
Encouraging the heart	0.810	0.824	0.863	0.514
Inspiring a shared vision	0.882	0.927	0.907	0.622
Modeling the way	0.889	0.900	0.915	0.642
Goal Achievement	0.898	0.913	0.913	0.563
Supervision	0.860	0.872	0.891	0.508
Support	0.872	0.905	0.895	0.568

The result shows that the instrument used for data collection for the study is reliable, as the Cronbach Alpha reliability coefficient of the items for each construct is above 0.8 against the cutoff point of (0.7-0.9). The alternative reliability measures, i.e., rho, also indicated a value above 0.8, which confirms the initial value obtained using the Cronbach Alpha approach, which implies that the item's instrument has internal consistency. The coefficient of Composite reliability also shows that the instrument is reliable because its value is above 0.8 against the benchmark of 0.7. The AVE shows coefficients greater than 0.5 except for Goal achievement and support. It indicates that most

traits that underlie the constructs show construct validity and are reliable. The discriminant validity coefficients for the trait in the model show that each of the traits that underlie the construct is distinct and different from other traits, as presented in Table 2

Table 3

Discriminant Validity

Construct	X1	X2	X3	X4	X5	X6	X7	X8
Driving innovation and change (X1)	0.701							
Coherent Leadership (X2)	0.475	0.782						
Encouraging the heart (X3)	0.768	0.484	0.717					
Inspiring a Shared Vision (X4)	0.543	0.740	0.565	0.789				
Modelling the way (X5)	0.604	0.746	0.541	0.744	0.802			
Goal Achievement (X6)	0.522	0.275	0.432	0.287	0.316	0.603		
Supervision (X7)	0.483	0.502	0.449	0.586	0.649	0.279	0.713	
Support (X8)	0.492	0.684	0.487	0.740	0.699	0.383	0.526	0.684

Note: Driving innovation and change (X1), Coherent Leadership (X2) Encouraging the heart (X3), Inspiring a Shared Vision (X4), Modelling the way (X5), Goal Achievement (X6), Supervision (X7), and Support (X8).

Table 3 shows the Discriminant Validity (DV) of the constructs in the model. The Fornell Larckers' approach was used to determine the DV. Thus, it was predicated on the fact that the relationship (in the form of a coefficient) between the construct in question should not be higher than the square root of the AVE of that construct (Ab Hamid et al., 2017; Fornell & Larcker, David, 1981; Hilkenmeier et al., 2020). For instance,

the square root of AVE (0.504) for X1 in Table 1 is 0.709, more significant than the coefficient of relationship for X1 in Table 3. Also, the square root of AVE (612) for X2 in Table 1 is 0.782, the same as the correlation coefficient of X2 with other constructs. Therefore, constructs in the model measure distinct traits.

Analytical Procedure

The Partial Least Squares Structural Equation Model (PLS-SEM) procedure was followed to analyse the data collected for the study (Sarstedt et al., 2021; Thien et al., 2021). The approach requires building measurement and structural path models to estimate the path coefficient for the two models (Awodiji, 2024; Morgado et al., 2017). The measurement model was designed to provide information about the constructs' validity. In contrast, the inner model provides information on the influence of each construct in the model on the others. PLS-SEM3 software was used to analyse the data.

Results and Findings

The study results are presented in sections, including descriptive statistics of the construct, path diagram, and coefficients, and the contribution of distributed leadership traits to goal attainment. Table 4 shows the descriptive statistics of the magnitude of difference in the contribution of one construct from another.

Table 4

Descriptive Statistics

Indicators	Mean	Standard Deviation	T-Statistics	P-values
Driving innovation and change	0.439	0.147	3.147	0.002
Coherent Leadership	0.108	0.185	0.406	0.685
Encouraging the heart	0.088	0.131	0.518	0.604
Inspiring a Shared Vision	-0.218	0.185	1.144	0.253
Modelling the way	-0.164	0.163	0.828	0.408
Supervision	0.065	0.130	0.319	0.750
Support	0.321	0.119	2.513	0.012

Table 4 presents the descriptive statistics for the constructs in the model, and the result revealed that the mean contribution of support significantly differs from other constructs (Mean=0.321, $t=2.513$, $p<0.05$). Also, driving innovation and change's mean contribution is significantly different from other constructs (Mean=0.439, $t=3.147$, $p<0.05$). However, the mean contributions of other constructs are not significantly different.

Path Model and Coefficients

The path diagram and coefficient for both inner and outer models are presented in Figure 2

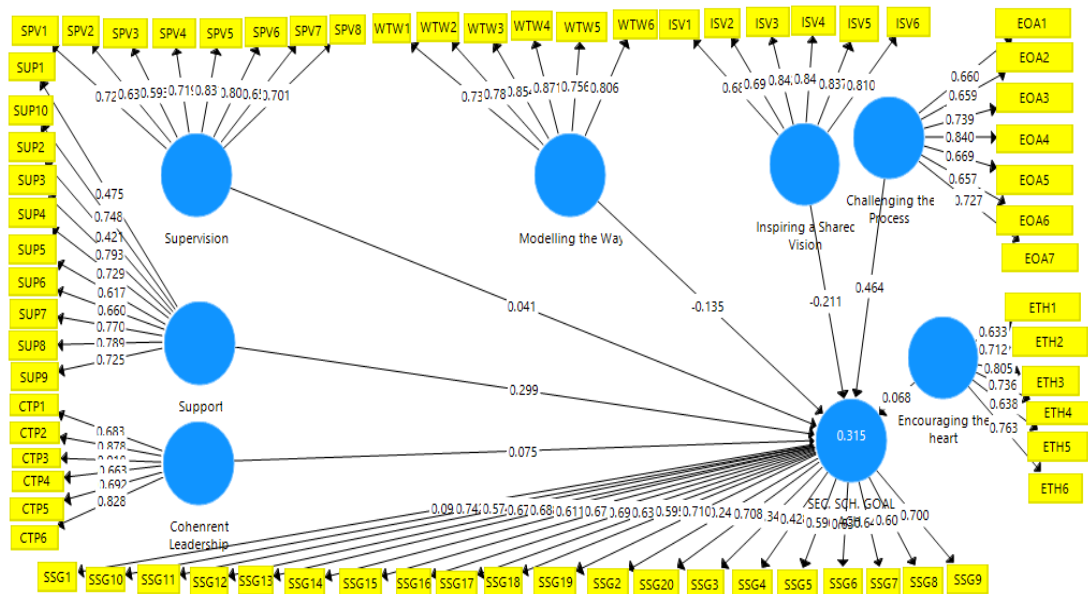


Figure 2. Path Diagram and Coefficients for the Influence of Distribution Leadership on Goal Attainment

The model showed that all the variables positively influenced secondary school goal attainment, other for modelling and fostering a common vision. Altogether, all the elements in the model contributed 31.5% ($R^2=0.315$) to the total variance observed in secondary goal attainment. The fit indicators for the model are presented in Table 5.

Table 5

Fit Indexes for the Model

Fit Indicator	Saturated Model	Estimated Model
SRMR	0.082	0.082
d_ULS	20.333	20.333

d_G	13.866	13.866
Chi-Square	4608.159	4608.159
NFI	0.937	0.937

Byrne recommends that SRMR's value be less than 0.082 and NFI be greater than 0.90 for a model to be considered fit (Byrne, 2013; Dash & Paul, 2021; Hooper et al., 2008). Table 4 shows the SRMR =0.082, d_ULS=20.33, d_G=13.86, Chi-square=4608.159 and NFI=0.387. The result indicates that the model met the criteria of SRMR but shows that the constructs (DL) in the model contributed 38.7% to the changes in secondary school goal achievement (NFI=0.387). The contribution of each of the constructs based on their beta weight is presented in Table 5.

Table 5

Contributions of the Distributed Leadership to Secondary School Goal Attainment

Indicators	Beta	Squared (β^2)	Effect Size (%)	Interpretation	p-value	Sig
Driving innovation and change	0.464	0.2150	21.5%	moderate effect	0.002	S
Coherent Leadership	0.075	0.0056	0.56%	Very small effect	0.685	NS
Encouraging the heart	0.068	0.0046	0.46%	Very small effect	0.604	NS
Inspiring a Shared Vision	-	0.0445	4.45%	Small effect	0.253	NS
Modelling the way	0.211	0.0182	1.82%	Small effect	0.408	NS
	0.135					

Supervision	0.041	0.0017	0.17%	Negligible effect	0.750	NS
Support	0.299	0.0894	8.94%	Moderate effect	0.012	S

Principals' leadership driven by innovation, change, and support in the school system significantly contributed to secondary school goal achievement. From the result, a unit standard deviation increase in leadership support will lead to a 0.29 increase in secondary school goal achievement. Also, a unit standard deviation change in driving innovation and change will lead to a 0.46 increase in secondary school goal achievement. The $\beta = 0.464$ and 0.299 in the model represent a moderate to large effect size, explaining about 21.5% and 8.94% of the variance in the outcome variable (SSGA).

Furthermore, other constructs, such as encouraging the heart, supervision, and coherent leadership, had a positive, non-significant contribution to secondary school goal achievement. The Beta values in the model represent moderate to very small effect sizes, explaining their variance in the outcome variable (SSGA). However, inspiring a shared vision and modelling the way had a negative, non-significant contribution. The result indicates that a unit standard deviation change in school principals' inspiring a shared vision and modelling the way will lead to a 0.21 and 0.14 decrease in secondary school goal achievement, respectively. Although their effect size is very small. Multiple factors may account for the negative correlation between the two constructs and the dependent variable, including poor construct validity, multicollinearity, model misspecification, reverse causality, sample issues, endogeneity issues, and contextual factors (Kyriazos & Poga, 2023; Liaw et al., 2021; MacKinnon et al., 2000).

The pictorial representation of the contribution of DL to dependence can be seen in Figure 3.

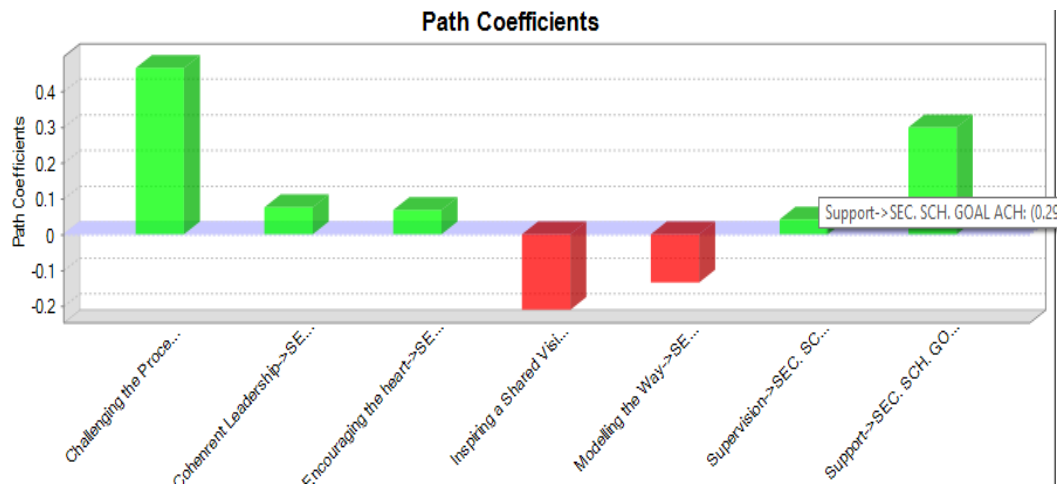


Figure 3. The pictorial representation of the contribution of DL to Secondary School Goal Achievement

Figure 3 illustrates how five of the seven indicators of DL positively influence SSGA. As shown in the red bars, school principals in the study areas were unable to model the way and inspire a shared vision, since their practice and what they inspired were antagonistic to school goals.

Discussion

DL does not significantly contribute to secondary school goal achievement.

Principals' distributed leadership practices and SSGA in Nigeria were examined using a PLS-SEM based on teachers' ratings. Results

indicated that principals' DL practices contributed to secondary school goal achievement in the study area. The hypothesis was rejected; thus, DL significantly increased secondary school goal achievement. In a study conducted by Danbaba et al. (2021), a relationship was found between leadership practices and the achievement of educational goals in schools. Davis (2009) also found significant associations between DL approaches and secondary school performance. It has been shown that distributed leadership enhances the achievement of school goals (Heck & Hallinger, 2010). Similarly, schools' educational achievement significantly correlates with DL (Almarshad, 2017; Khadka et al., 2024; Torres et al., 2024). As a result, DL plays a crucial role in determining SSGA. As a result, principals can focus on their strategic responsibilities while empowering their team to contribute to school success.

The principals' supporting staff will not correlate with achieving secondary school goals.

Additionally, the results showed that principals' support contributed significantly to secondary school goal achievement. The proposed assumption that principals who support their staff will not achieve SSGs was rejected. Principals who provide support may likely promote the attainment of secondary school goals. There is substantial evidence that a school's chances of success increase when staff receive support from school leaders (Arghode et al., 2022; Karakose et al., 2024; Tindle, 2012). Furthermore, a study by Khadka et al. (2024) corroborated that the supportive role as an element of DL significantly predicts schools' educational achievement.

Principals' driving innovation and change will not relate to secondary school goal achievement.

In the same vein, the results revealed that 'driving innovation and change' by the school principal will significantly increase secondary school goal achievement. Leadership by principals who challenge the status quo plays a crucial role in fostering a culture of growth and progress and driving transformational change. This approach allows schools to navigate complex and dynamic environments effectively. The interplay between leadership styles and achievement goals is key to understanding how principals challenge the way and achieve secondary school goals (Lee, 2020; Mestry, 2017; Rajapathirana & Hui, 2018). The finding aligns with other studies that leaders who challenge the status quo tend to achieve increased productivity because they allow diversity and inclusivity in their leadership and allow teachers and other people within their school to demonstrate their initiative and participation (al-Baradie, 2014; Lee, 2020; Tanriögen & Iscan, 2016). It typically implies that principals who question or rethink traditional practices, methods, and mindsets associated with leadership are likely to achieve the educational goals of their school. That is, instead of simply following established norms or practices, principals look for innovative approaches and alternatives to improve their leadership practices to achieve school goals.

Principals' encouraging the heart will not contribute to secondary school goal achievement.

Furthermore, the result indicated that principals who 'encourage the heart' will likely achieve secondary school goals, though not significantly. School principals who practice are to recognise, appreciate, and celebrate the contributions and achievements of

individuals and teams that would likely achieve the goals of a secondary school. When school principals show sincere gratitude, provide positive encouragement, create a culture of recognition, and provide assistance, stakeholders are inspired. A school principal who acknowledges their team's efforts and creates opportunities to celebrate successes and milestones together will be more likely to achieve the organisation's goals. Thus, it will give team members a sense of belonging or leadership that will enhance their participation in achieving school goals. The finding is consistent with the findings of (Tatlah et al., 2015) that the "Encourage the Heart" principle's practice was found to be related to student achievement. In related studies, creating a culture of recognition, cultivating a sense of community, and inspiring stakeholders is a leadership strategy that improves school environments and achieves school goals (al-Baradie, 2014; Danbaba et al., 2021; Salleh, 2022; Tanriögen & Iscan, 2016). The principal who encourages subordinates in their leadership practice focuses on inspiring, motivating, and recognising team members by showing appreciation for their contributions, celebrating achievements, and fostering a positive, emotionally supportive environment has the likelihood of SSGA.

Principals' supervision will not predict secondary school goal achievement.

Moreover, 'supervision' as an approach to DL was found to have a positive, non-significant contribution to secondary school goal achievement. The finding indicates that school principals who employ a supervision approach as a form of DL will likely achieve school goals. The finding is consistent with Khadka et al. (2024) that supervisory role as a construct of DL will not significantly predict schools' educational

achievement. It implies that principals with supervisory practice will likely achieve school goals.

Principals' coherent leadership will not contribute to secondary school goal achievement.

In addition, the result indicated that coherent leadership as an element of DL would not significantly predict secondary school goal achievement. However, there is an optimistic prediction between the two variables, which is significant. Coherent leadership as a component of DL may promote the attainment of school goals. The findings correlate with Khadka et al. (2024), who state that coherent leadership team roles of school principals as a factor of DL are important predictors of school achievement. A school's success depends on a coherent leadership team with a consistent vision, communication, and action (Bendikson, 2017; Kin & Kareem, 2020; Kit et al., 2023). The coherent leadership practice of a school principal will inevitably lead to school goals.

Inspiring a shared vision and modeling the way will not significantly achieve secondary school goals.

In contrast, 'inspiring a shared vision' and 'modelling the way' as components of the DL practice of school principals had a negative, non-significant contribution to SSGA. The hypotheses were rejected. An increase in these DL elements is associated with decreased SSGA. Thus, the finding suggests that the prediction might be due to random variation rather than a real effect. Conversely, DL relies heavily on sharing a vision (Chin, 2024) and contributes positively to SSGA (Hallinger & Heck, 2002). Furthermore, a study by is in constant with the present findings, where inspiring a shared vision and modelling

the way were found not to predict the dependent variable (teachers' job satisfaction).

The practices of inspiring a shared vision and modelling the way are generally associated with positive leadership outcomes, but they may negatively affect organisational goal achievement when misapplied, misaligned, or lacking authenticity (House, 2004). In the context of SSGA in Nigeria, such negative outcomes may arise when school principals impose visions without stakeholder involvement (Senge, 1994), rely excessively on personal charisma (Tourish, 2013), or fail to align their actions with stated values (Brown & Treviño, 2006). Additionally, a compelling vision without a clear implementation strategy can remain ineffective (Kouzes & Posner, 2005), while leadership behaviours that conflict with school or cultural norms may provoke resistance (House, 2004). These factors could explain the negative association observed between these leadership practices and SSGs in this study. Further research in different contexts is recommended to validate these findings.

Conclusion and implications

The study concludes that leadership DL will enhance the achievement of secondary school goals. Five constructs of DL (support, driving innovation and change, encouraging the heart, supervision, and coherent leadership) predict the SSGA. However, 'inspiring a shared vision' and 'modelling the way' had a reversed contribution to the SSGA. Distributed Leadership can positively influence secondary school goal achievement (SSGA), depending on contextual factors,

leadership behaviour, and system dynamics. DL involves shared decision-making and collective responsibility, enhancing school performance through collaboration, improved decision-making, and goal alignment. Supportive and proactive leaders within this model foster a positive work environment and encourage open communication and team-based problem-solving. To enhance leadership effectiveness, policymakers should incorporate DL into leadership training, curricula, and professional development initiatives such as workshops and symposiums. School principals should align strategic goals with national objectives and adopt participatory governance practices.

Limitations

Regression analysis may be an appropriate statistical method for analysing correlations between various factors, such as secondary school goals and DL components, but it also has limitations. DL and SSGA can be dependent on context. It is, therefore, imperative to be circumspect when generalising findings to other contexts since relationships can change based on school and environmental factors. It is possible to generalise the findings from this model to other levels of education and locations. It is also possible to adopt a mixed-method approach to understand the relationship between the variables better. Furthermore, the moderating role of the respondents' social demographic data could strengthen the relationship between the variables. Teachers' job satisfaction, leadership development programmes, professional learning communities, and leadership behaviour could mediate between DL and SSGA. Teachers' perceptions are relied upon in this study, which might lead to a

problem of triangulation or confirmation bias. Future scholars can triangulate data from other stakeholders to gain a holistic perspective.

Additionally, future research should address multiple factors that might have contributed to the negative correlation between the constructs "inspiring a shared vision" and "modelling the way" and the dependent variable (SSGA).

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Technological Leadership of Turkish Secondary School Administrators According to ISTE Standards

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Abstract

In educational institutions, school administrators play an important leadership role in the effective and efficient implementation of technology integration. The standards developed by the International Society for Technology in Education (ISTE) provide a comprehensive framework to guide administrators in this area. This study aims to assess technological leadership characteristics of 33 public secondary school administrators in the Western Black Sea Region of Turkey based on ISTE standards. The data collected through a semi-structured interview form were analyzed using a case study approach. The findings, presented in a narrative synthesis under four main themes (technological structure, technological competencies, technological leadership, and technological resources), were discussed within the framework of ISTE standards, revealing the factors that shape the leadership roles of school administrators.

The results indicate significant tensions between the centrally provided technological infrastructure and its practical implementation, as well as a notable gap between strategic planning and on-the-ground application. Furthermore, teachers' varying competencies and the need for differentiated

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professional development were identified as critical elements for effective technology leadership. The study suggests that to enhance success, administrators must bridge the gap between planning and practice and foster a supportive school culture for all stakeholders.

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Introduction

The digital age has led to radical changes in education, as in many areas of social structure. Developments in educational technologies and the proliferation of digital tools have brought with them the potential to reshape teaching and learning processes. However, this transformation is not limited to the provision of technological tools; it also requires leadership approaches that require managing these tools with a strategic vision (Gupta, 2016). Technological integration in education is not only a technical adaptation issue but also a leadership issue. In this context, the ability of school administrators to create a culture of change in their schools by using technology strategically is critical to the success of digital transformation (Raman et al., 2019). Furthermore, the advent of Artificial Intelligence (AI) presents new dimensions to technology leadership, demanding that leaders not only integrate existing technologies but also navigate the complexities and potentials of AI in educational settings (Adams, 2023). Research suggests AI can assist school leaders with administrative tasks, potentially freeing them to focus on instructional leadership, although



the core relational aspects of leadership remain distinctly human (Adams, 2023; Adams & Thompson, 2025).

Technological leadership is a concept that includes administrators' knowledge, skills, and vision of technology (Ertmer & Ottenbreit-Leftwich, 2010). This leadership model reflects not only technical skills but also administrators' attitudes towards technology and their commitment to promoting technology integration in schools. Technological leaders encourage teachers and other stakeholders to use technology more effectively by creating an innovative culture in the school environment (Altunay, 2017). Moreover, this type of leadership plays a vital role in preparing students for the requirements of the digital age (Sheninger, 2019). The ability to effectively manage and integrate technology into educational processes is recognized as one of the key elements of successful school leadership (Anderson & Dexter, 2005). Accordingly, the standards developed by the ISTE provide an important guide for administrators to develop their digital leadership capacity.

ISTE provides a comprehensive framework for how education leaders can drive digital transformation processes. These standards encourage the consideration of technology as a transformative element in the educational process, moving beyond the view of technology as merely a supportive tool (ISTE, 2023). The standards cover the core competencies of leaders, such as visioning, ethical decision-making, supporting professional development, and building an innovative school culture. However, more research is needed to understand the application of the ISTE standards in different contexts. In particular, the applicability and impact of these standards have not been sufficiently examined in countries such as Turkey, which is a bridge

between both Western and Eastern cultures (e.g., Turan et al., 2020; Karakose et al., 2021).

In Türkiye, digitalization efforts in education have been supported by large-scale initiatives such as the FATİH Project (Movement to Increase Opportunities and Improve Technology). While such policies have provided opportunities to develop the digital leadership capacities of school administrators, they have also brought with them various challenges (Banoğlu et al., 2016). However, studies in the Turkish context have generally focused on teachers' technology use and digital pedagogical practices, while research on administrators' leadership roles has been limited (Minaz et al., 2022; Turan et al., 2020).

The purpose of this study is to examine the technological leadership roles of school administrators in a province in Turkey based on ISTE standards. In this context, the study will contribute to the development of digitalization policies in education and international literature. It is also expected to provide a broader perspective on the applicability of ISTE standards in different cultural and socio-economic contexts.

Literature Review

Secondary Education in Turkey

With the introduction of the 4+4+4 system in 2012, Turkey transitioned to a model of compulsory and uninterrupted education structured into three four-year stages: primary school, middle school, and high school. Secondary education institutions in Turkey encompass a diverse range of public and private high schools, including general, vocational-technical, and religious education institutions. Public secondary schools include various types such as Anatolian high schools, science high schools, social sciences high schools, fine arts high schools, and sports high schools (MoNE OGM, 2015). These schools are structured

under the Ministry of National Education (MoNE). The school year typically runs from September to June.

According to the Ministry of National Education's statistics for the 2023-2024 academic year, there are a total of 12,506 secondary education institutions, serving 5,796,881 students with 397,990 teachers across Turkey (MoNE SGB, 2024). Class sizes generally range between 24-30 students in schools admitting students by examination, but can exceed 40 in schools with address-based enrollment. These larger class sizes can pose challenges for both teachers and administrators in effectively using technology and exercising leadership skills.

The school administration team in Turkish public schools typically consists of a Principal and one or more Vice-Principals, potentially including a Head Vice-Principal depending on the school's size and type. *Becoming a school administrator in Turkey is a structured process governed by regulations set by the Ministry of National Education.* To be appointed as an administrator for the first time, candidates must generally meet several criteria: hold a university degree, be actively serving as a teacher within the Ministry's system, possess an Education Management Certificate, and be successful in selection examinations. These examinations typically involve a written test and an oral interview. Candidates are evaluated based on their written exam score, an assessment form, and their oral exam performance, with a composite score determining their ranking. Specific requirements may also apply depending on the type of school (e.g., subject area background for science, social sciences, or vocational schools). Administrators are appointed for a four-year term, with the possibility of reappointment; however, they generally cannot serve as an administrator in the same school under the same title for more than

eight years. While the proportion of female school administrators is growing, the field remains predominantly male, particularly in principal roles.

In this context, school administrators hold significant responsibilities, including ensuring the effectiveness of teaching processes and supporting the equitable distribution and utilization of technological opportunities.

The Concept of Technological Leadership

Technological leadership is a concept that refers to the ability of school administrators to manage, integrate, and support technology strategically and has an important place among contemporary educational leadership approaches (Hamzah et al., 2016). Today, technological leadership is considered a leadership model that aims not only to bring technological tools into schools but also to transform educational processes with an innovative vision (Jameson, 2013). This model includes the tasks of developing technology-related skills of teachers, students, and other stakeholders, encouraging effective use of technology, and aligning the potential of technology with educational goals (Bağlama et al., 2022; Flanagan & Jacobsen, 2003).

In the literature, the impact of technological leadership on the overall functioning and achievement levels of schools is frequently emphasized. Minaz et al. (2022) stated that an increase in school administrators' technological leadership competencies can increase the overall effectiveness of the school. This shows that technological leadership is not only a management skill but also a powerful element that transforms the school environment and influences teaching processes. Chang (2012) stated that technological leadership skills improve classroom practices by increasing teachers' confidence in the

use of technology and directly contribute to student achievement. On the other hand, researchers such as Bush (2008) emphasized that some administrators are unable to adapt to the rapidly changing technological environment, and this can negatively affect educational processes.

Aurangzeb et al. (2019) discuss technological leadership in four main dimensions:

1. **Technology Vision and Strategy Development:** Technological leadership requires school administrators to develop a vision that integrates technology with school goals in a coherent way and to create strategies based on this vision. This dimension requires administrators to consider not only technological tools but also the long-term effects of digitalization (Jameson, 2013).
2. **Technology Management and Support:** Technology leaders are responsible for effectively managing resources to build and maintain a strong digital infrastructure across the school. In this context, technology management includes a wide range of tasks, from procuring hardware and software to cybersecurity measures (Santos & Cajucom, 2020).
3. **Modeling and Promoting Technology:** Leaders should be role models for teachers and other stakeholders by using technology effectively in their roles and responsibilities. The process of promoting technology makes it possible to provide students with more interactive and richer learning experiences by facilitating teachers' adoption of these tools in the classroom (Bağlama et al., 2022).
4. **Developing Technological Competencies:** Technological leaders should design and conduct professional development programs to support teachers and school staff in developing their

technology skills. Saraih et al. (2022) state that such programs enable teachers to create more effective learning environments by increasing their technological pedagogical knowledge.

These dimensions show that technological leadership is not only limited to the personal competencies of administrators, but also requires the creation of a school-wide digitalization culture. By providing guidance for teachers and students, an effective technological leader can increase the pedagogical use of technology and pave the way for innovation in schools (Sheninger, 2019). Recent discussions highlight the evolving nature of technology leadership in the era of AI, emphasizing the need for leaders to develop AI literacy, foster ethical AI integration, and manage the human-AI symbiosis within schools (Adams & Thompson, 2025). The discourse also includes developing AI policies that address fairness, transparency, and equity (Arar et al., 2025).

ISTE Standards

The International Society for Technology in Education (ISTE) has developed comprehensive standards that serve as a guiding framework for students, educators, and educational leaders to ensure the effective integration of technology in education. These standards are not theoretical constructs but practical benchmarks aimed at creating educational environments that meet the demands of the digital age and enabling educational leaders to effectively manage digital transformation processes (ISTE, 2023). The ISTE Standards for Education Leaders, in particular, provide essential guidance, encouraging a visionary approach to technology integration and fostering an innovative culture in schools.

These standards encompass core competencies such as envisioning future-ready learning, promoting equitable access, supporting professional growth, and designing effective systems. Research on the impact of ISTE standards on leadership processes indicates their wide international application. For example, studies suggest that ISTE standards can transform leaders' attitudes towards technology towards a more visionary approach (Aurangzeb et al., 2019) and contribute to fostering a collaborative culture throughout the school community (Richardson et al., 2012). While research on the direct applicability of ISTE standards specifically in the Turkish context may be limited (Turan et al., 2020), these standards offer a valuable framework for evaluating the strategic roles of educational leaders in technology integration processes in Turkey. Examining their relevance provides both theoretical and practical contributions by highlighting areas of alignment and potential adaptation within a different socio-cultural context.

Technological Leadership in the Context of Turkey

Technological leadership in education in Turkey has gained more and more importance in recent years, as digitalization policies have gained momentum. However, research shows that school administrators are unable to fully demonstrate technological leadership competencies (Gök & Yıldırım, 2015). This situation is associated with various factors such as limited technological infrastructure, inadequate strategic planning, limited professional development programs for teachers and administrators, and a lack of effective collaboration among stakeholders (Turan et al., 2020). Effective implementation of technological leadership in the Turkish context depends not only on individual leadership skills but also on addressing structural deficiencies at the system level.

The education system in Turkey has taken important steps with large-scale digitalization initiatives such as the FATİH Project. This project aimed to strengthen the technological infrastructure in classrooms, increase teachers' digital skills, and digitize educational materials (Yavuzalp et al., 2015). However, Gök and Yıldırım (2015) state that the problems encountered in the implementation of the FATİH Project have led to significant inequalities in access to and use of technological resources across school types. For example, schools in rural areas have more difficulties in accessing technology than those in urban areas. Such inequalities stand out as an important barrier that prevents school administrators from effectively fulfilling their technological leadership role.

On the other hand, it is emphasized in the literature that administrators' competencies in seeing technology as a strategic tool and exhibiting visionary leadership in this direction are limited. Some studies conducted in Turkey reveal that administrators' awareness of technology integration is low and therefore they have difficulty in creating a school culture that supports the use of technology (Banoğlu et al., 2022; Turan et al., 2020). In addition, inadequacies in their ability to collaborate effectively with teachers and other stakeholders make it difficult for technology to be adopted and used effectively throughout the school.

The importance of work

Most of the studies on technological leadership have focused on Western countries, and research on leadership approaches in different socio-cultural contexts is limited. Turkey, as a bridge between Eastern and Western cultures, offers an important opportunity to understand how technological leadership is shaped in different cultural contexts. In Turkey, large-scale digitalization initiatives such as the FATİH

Project have created significant transformations in the education system, but the effects of these initiatives on leadership have not been sufficiently examined in the international literature. Therefore, it is anticipated that further research in the Turkish context will provide a broader perspective on leadership and digitalization processes in education.

This study aims to provide both theoretical and practical contributions by analyzing the technological leadership competencies of school administrators in Turkey based on ISTE standards. The research findings are expected to provide guidance for improving digitalization processes in education, developing leadership competencies, and planning professional development programs more effectively. In particular, examining the strategies adopted by administrators in technology integration processes, the challenges they face, and their level of collaboration with school stakeholders will fill the existing knowledge gap.

The applicability of ISTE standards in the Turkish context offers an area of research that can make significant contributions to both academic literature and educational policies. These standards encourage leaders to use technology not only as a tool but also as a transformative element of instructional processes. In this context, supporting leaders with professional development opportunities, creating an equitable technology use culture, and strengthening digitalization policies in education are of great importance.

The purpose of this study is to examine the technological leadership roles of school administrators in a province in Turkey based on ISTE standards. In line with this purpose, the following research problems will be tried to answer.



- How are school administrators' performance indicators for technological leadership in the context of ISTE standards?

METHOD

Research Model

In this study, a case study, one of the qualitative research methods, was used. A case study is an approach that provides an in-depth examination of a specific situation and aims to conduct a comprehensive analysis by using multiple data sources together (Creswell, 2007). The case in this study is the evaluation of technological leadership competencies of school administrators in Turkey according to ISTE standards.

Research Participants

The participants of the study consisted of 33 school administrators (labeled as Y1, Y2, Y3, etc.) working in public secondary education institutions in the Western Black Sea region of Turkey. Participants were determined based on voluntary participation, and administrators from different school types were included in order to provide diversity.

In the selection of participants, criteria such as professional experience, leadership tenure, and knowledge and skills in digital technologies were taken into account. In this context, in order to examine the effects of regional differences on technological leadership, attention was paid to diversity among managers working in rural and urban areas. Detailed information about the demographic characteristics of the participants is given in Table 1. The sampling method of this study was determined as purposive sampling since the participants were school

administrators in different school types and in different experience groups.

Table 1

Demographic Information of Participants

Feature	Category	N	%
Gender	Woman	7	21.2
	Male	26	78.7
Age	25-35	4	12.1
	36-45	14	42.4
	46-55	12	36.3
	56+	3	9
Years in Current Role	1-10 years	23	69.6
	11-18 years	4	12.1
	19-28 years	6	18.1
Role	Principal	15	45.5
	Head Vice Principal	1	3.0
	Vice Principal	17	51.5
Total Years of Service	1-10 years	9	27.3
	11-20 years	8	24.2
	21-30 years	11	33.3
	31+ years	5	15.2

Table 1 presents the demographic information of the 33 participating school administrators. As seen in the table, the majority of the participants were male (78.7%) and fell within the 36-55 age range (42.4% aged 36-45; 36.3% aged 46-55). In terms of roles, the participants included both Principals (45.5%) and Vice-Principals (51.5%), with a small percentage of Head Vice-Principals (3.0%). A large portion of the administrators (69.6%) had 1-10 years of experience in their current administrative role. Their total years of service in the education system varied, with notable percentages in the 21-30 years range (33.3%) and 1-10 years range (27.3%). The administrators also represented diverse

professional backgrounds, including subject areas such as IT, Languages, Sciences, Social Sciences, Arts, Vocational fields, Guidance, and Religious Culture, reflecting the varied nature of secondary education institutions.

Data Collection Instrument

A semi-structured interview form was used as a data collection tool. The interview form was based on 22 performance indicators under five dimensions developed by the ISTE for educational leaders. The questions in the interview form aimed to understand the participants' perceptions and experiences of technological leadership roles according to ISTE standards. Each of the 22 performance indicators of ISTE determined the content of the semi-structured interview questions. The interview protocol prepared by the researchers was finalized with a pilot study involving 2 school administrators after receiving expert opinions.

The interview protocol prepared by the researchers was finalized after receiving expert opinions and conducting a pilot study with two school administrators from the same province where the main research was conducted. The interviews from this pilot study were used solely for refining the protocol and were not included in the final data set of 33 participants.

Trustworthiness

To enhance the trustworthiness of this qualitative study, several strategies adapted from Lincoln and Guba (1985) were employed:

- **Credibility:** To ensure findings accurately reflect participants' experiences, credibility was sought through: (a) developing interview questions based on the ISTE standards and refining them with expert

opinions and a pilot study (see section 3.3 Data Collection Tool); (b) obtaining informed consent and ensuring voluntary participation (see section 3.5 Data Collection Process); (c) clarifying participant responses during interviews when necessary; and (d) utilizing peer debriefing during the analysis phase where two researchers independently coded the data and discussed discrepancies until consensus was reached (see section 3.6 Data Analysis).

- **Dependability:** To ensure the consistency of the findings, dependability was addressed by calculating inter-coder reliability using Krippendorff's alpha coefficient, achieving a high level of agreement ($\alpha > .89$). A clear description of the research process, from participant selection to data analysis, is also provided throughout the Method section to allow for scrutiny.
- **Confirmability:** To ensure findings are grounded in the data rather than researcher bias, confirmability was supported by the independent coding process ($\alpha > .89$) and the use of direct participant quotes to illustrate findings in the Results section.
- **Transferability:** While findings from case studies are context-specific, transferability is supported by providing a detailed description of the research context (see section 1.1.1 Secondary Education in Turkey and section 1.1.4 Technological Leadership in the Context of Turkey), participants (see section 3.2 Research Participants), and methodology, allowing readers to assess the relevance of the findings to other settings. The findings were also situated within the existing literature by comparing them with previous studies in the Discussion section.

Data Collection Process

Data were collected during the first half of 2024 through face-to-face semi-structured interviews. The interviews lasted an average of 60 minutes and were recorded with a voice recorder. The audio recordings were transcribed and transcript texts were prepared. Then, the collected data were anonymized and the analysis process started.

Data Analysis

A two-stage content analysis approach was adopted for data analysis. In the first stage, the interview transcripts were systematically coded using the content analysis method (Creswell, 2007), and these codes were grouped under four main themes within the framework of ISTE standards: Technological Structure, Technological Competencies, Technological Leadership, and Technological Resources. At this stage, inter-coder reliability was ensured in the coding process, which was carried out by two independent researchers.

In the second stage of the analysis, a thematic narrative synthesis was conducted to enhance the readability and analytical depth of the findings. This approach aimed to integrate the codes generated in the first stage and the relevant administrator quotes into a cohesive and narrative-driven structure under each theme. Accordingly, instead of presenting fragmented codes and quotes separately, each theme was woven into an interpretive narrative that helps the reader make sense of the data in context. This method allowed for a clearer presentation of the analytical insights behind the findings and strengthened the narrative coherence of the argument.

Findings

The data obtained as a result of the interviews were gathered around themes since they included topics similar to ISTE standards. These themes were explained with various codes.

Theme 1: Technological Structure

This theme addresses the structural conditions faced by school administrators in the process of technology integration and the relationship of these conditions with ISTE standards. The findings show that this theme is shaped around three main codes. The following table summarizes these codes, the related ISTE standards, and the number of administrators who support these views.

Table 2

Technological Structure Theme and Related ISTE Standards

Code	Related ISTE Standards	Number of Participants (N=33)
Attitudes Towards Technology and School Culture	Empowering Leader	8
	Visionary Planner	7
	Equality and Digital Citizenship Advocate	13
Challenges in Transitioning from Planning to Implementation	Visionary Planner	15
	System Designer	10
Status of Current Infrastructure and Access Issues	System Designer	23
	Empowering Leader	4

Attitudes Towards Technology and School Culture

The technological structure is largely shaped by the prevailing climate in the school and the attitudes and abilities of teachers towards technology. Eight administrators (N=8) stated that a collaborative and innovative climate has been established in their schools, and they expressed that this situation gained momentum, especially with the distance education process that came with the pandemic. One administrator described this process as follows:

- *"Distance education has increased teachers' use of technology and improved their skills. There is an innovative culture in our school, and we supported each other" (Y8).*

Administrators emphasized that their own understanding and the willingness of teachers play a key role in maintaining this climate:

- *"The technological climate is shaped by the administrator's understanding and the teacher's willingness" (Y19).*

This approach highlights the importance of the administrator's role as an *Empowering Leader*. However, this innovative climate may face difficulties due to the limitations in the school's overall technology usage capacity. Seven administrators (N=7) exhibited cautious optimism when evaluating their schools' capacity. One participant expressed this situation as follows:

- *"Our school's capacity to use technology is generally good. However, we are not fully sufficient; we need to reach a better point" (Y1).*

Another administrator stated that the rapid development of technology constantly questions this sense of sufficiency (Y19). At the

root of this capacity problem lies the diversity in the teaching staff's command of technology. Thirteen administrators (N=13) stated that working with technologically talented teachers is an advantage, but the teacher profiles in their schools are quite variable. They also expressed this situation with concrete numbers; one stated that "80%" (Y26) of their teachers are competent, while another said that "all but one or two" (Y21) are competent. It was frequently mentioned that younger teachers are more competent, while senior teachers face difficulties. One administrator summarized this mixed structure in the school as follows:

- *"Most of the teachers in our school are intermediate in technology. While some of them have advanced technological knowledge, there are also those who do not have a good command of technology"* (Y19).

This competence gap among teachers brings the role of administrators as *Equity and Digital Citizenship Advocates* to the forefront. This standard emphasizes the responsibility of leaders to increase all teachers' equitable access to and competence in technology. Therefore, creating support mechanisms to include teachers who are distant from or inadequate in technology in the process emerges as one of the most critical tasks of technological leadership.

Challenges in Transitioning from Planning to Implementation

Another important dimension of technological leadership is to place technology integration within a strategic framework. About half of the participants (N=15) confirmed that their schools have strategic plans that include the use of technology aimed at increasing student achievement. These plans, as one administrator stated, have the potential to provide a roadmap for the school's future:

- *"It is part of our school vision that every student has basic computer skills" (Y1).*

This situation directly aligns with ISTE's *Visionary Planner* standard. However, the existence of a plan alone does not guarantee effective integration. Ten administrators (N=10) stated that the existing strategic plans lack specific and applicable steps on *how* technology will be used to enhance learning. One participant underlined this problem as follows:

- *"There is no specific plan on how to use technology in the strategic plan. These deficiencies make it difficult for us to achieve our goals" (Y11).*

Some administrators, however, think that such detail is unnecessary (Y32). One of the main problems is that the plans cannot be implemented effectively and turn into a document that remains theoretical "on paper." This situation shows that administrators face difficulties in building a bridge between vision and implementation while fulfilling the roles of both *Visionary Planner* and *System Designer*.

Status of Current Infrastructure and Access Issues

At the center of the participating administrators' experiences regarding the technological structure is the infrastructure provided by the national-scale FATİH Project. A large majority of the participants (N=23) stated that the internet access and interactive whiteboards provided to schools within the scope of the project constitute a fundamental basis for technology use. This situation provides a critical starting point for the *System Designer* standard, where administrators assume the role of designing and managing technological systems.

One administrator expressed the importance of these resources with the following words:

- *"Currently, internet access and interactive boards are available in our school. We need to use this infrastructure more efficiently" (Y1).*

However, the existence of this basic infrastructure is not a sufficient condition for technological leadership. Participants emphasized that this infrastructure is often inadequate for implementing strategic plans. In particular, thirteen administrators (N=13) mentioned problems such as the lack of computer labs or the insufficiency of devices in libraries (Y18). An administrator whose school was under renovation, on the other hand, concretized this difficulty as follows:

- *"Our technological infrastructure is limited due to the renovation of our building. This prevents us from realizing our strategic plans" (Y29).*

Another critical deficiency in the infrastructure is access to digital assessment tools for monitoring student progress. While four administrators (N=4) touched upon the limitations in this regard, eleven administrators (N=11) stated that they do not have adequate digital tools for comprehensive monitoring. Although some administrators stated that they use special systems such as "quality tracking system" or "coaching projects" (Y12, Y32, Y18), many complain about the inadequacy of central systems. More than one administrator (Y7, Y8, Y25, Y29) stated that the central e-Okul system is very limited in this regard and needs to be improved. One administrator summarized this situation as follows:

- *"The e-Okul system is very limited in this regard; it needs to be improved" (Y7).*



Another participant expressed helplessness in this matter with the following words:

- *"Unfortunately, we do not have such an assessment tool... This matter is under the initiative of our ministry and provincial directorate..." (Y5).*

These findings show that one of the biggest obstacles for administrators to turn their visions into action is the infrastructure gap between the plans on paper and the reality on the ground. This situation makes it difficult for administrators to fully fulfill their roles as *System Designer* and *Empowering Leader*.

Theme 2: Technological Competencies

This theme addresses the digital competencies of both teachers and school administrators in the process of technology integration and the reflections of these competencies within the framework of ISTE standards. The findings are gathered under two main codes shaped around teachers' competence and self-confidence in technology, and administrators' ways of maintaining their own professional development and demonstrating reflective leadership.

Table 3

Technological Competencies Theme and Related ISTE Standards

Codes	Related ISTE Standards	Number of Participants (N=33)
Teachers' Digital Competency and Development Needs	Connected Learner	4
	Empowering Leader	9
Administrator's Professional Development and Reflective Leadership	Connected Learner	12
	System Designer	15
	Empowering Leader	10
	Equality and Digital Citizenship Advocate	10

Teachers' Digital Competency and Development Needs

According to school administrators, teachers' technological competencies stand out as a critical factor in the success of technology integration. Administrators stated that teachers are generally competent but also have areas for development. One administrator expressed this general situation as follows:

- *"Our teachers are generally competent, but they need more support for the use of technology"* (Y1).

Teachers' command of technology varies depending on factors such as age and interest. This situation shows that administrators evaluate the teaching staff not as a whole, but by considering individual

differences. One administrator shared his observation based on interest and gender factors as follows:

- *"I would say our teachers are not fully competent... Generally, looking at it, our male teachers are more interested in technology. Female teachers are a bit more hesitant"* (Y1).

Another administrator pointed out the difficulties experienced by senior teachers:

- *"Teachers are not fully competent... but have shown positive progress. Older teachers are unable to use technology because they keep their distance from it"* (Y7).

This perception of competence is directly related to teachers' self-confidence. Nine administrators (N=9) emphasized that teachers' self-confidence in technology varies. It was stated that it is easier for younger teachers to adapt to technology and that their self-confidence is higher. One administrator explained this generation gap as follows:

- *"New young teachers adapt to technology much more easily."* (Y5).

The same administrator detailed the reflection of this situation on self-confidence with the following words:

- *"New young teachers have excessive self-confidence..., but our older teachers... experience a lack of self-confidence"* (Y5).

These findings show that administrators observe not only the technical skills of teachers but also their affective states. While teachers' self-development is related to the *Connected Learner* standard, the administrator's effort to include all teachers in the process by

managing these self-confidence differences reflects the *Empowering Leader* role.

Administrator's Professional Development and Reflective Leadership

Administrators are aware of the importance of maintaining their own professional development and engaging in reflective practices for effective technology leadership. Fifteen administrators (N=15) stated that they actively follow new technologies and developments in educational sciences. This continuous learning effort is seen as part of the administrator's leadership role. One administrator expressed this responsibility as follows:

- *"Following new technologies and implementing them at school is part of our leadership role" (Y14).*

Administrators see this learning process not only as an individual effort but also as a goal of creating a school-wide learning environment.

- *"I try to create a learning environment in every situation and at every age... In general, I believe that administrators should follow new technologies. We need to have a little knowledge about everything" (Y14).*

This state of continuous learning shows that administrators have adopted the *Connected Learner* and *System Designer* standards. Administrators also actively use the opportunities offered by online networks and collaboration groups for professional development. Twelve administrators (N=12) stated that they participate in such platforms to learn about good practices in other schools and to communicate with their colleagues.

- *"Webinars and online groups are very useful for professional development. In this way, we learn from other schools" (Y12).*

Administrators also emphasize the importance of turning the information they have acquired into reflective practices. Ten administrators (N=10) stated that it is their duty to follow technological innovations, share them with teachers, and support their practices.

- *"It is our duty to follow technological innovations, share them with teachers, and support their practices" (Y23).*

This reflective approach reinforces the administrator's role as an *Empowering Leader*. Finally, administrators are aware of the potential of the correct use of digital resources to create social change. Ten administrators (N=10) emphasized that the correct use of digital resources can have a positive impact on both students and society, but that the digital literacy of families needs to be increased in this process.

- *"The correct use of digital resources can have a positive impact on both students and society. It is also important to raise awareness of parents on this issue" (Y1).*

This view shows that administrators address their roles not only within the school boundaries but also in a broader social context and try to fulfill the requirements of the *Equity and Digital Citizenship Advocate* standard.

4.3. Theme 3: Technological Leadership

This theme addresses the leadership roles exhibited by school administrators in the process of technology integration, their practices to support the development of teachers and other stakeholders, and

the challenges they face in this process. The findings show that the leadership behaviors of administrators are concentrated around three main codes. The following table summarizes these codes, the related ISTE standards, and the number of administrators who support these views.

Table 4

Technological Leadership Theme and Related ISTE Standards

Codes	Related ISTE Standards	Number of Participants (N=33)
Collaborative Leadership and Professional Development Support	Empowering Leader	10
	System Designer	12
Vision Sharing and Stakeholder Communication	Visionary Planner	15
	Empowering Leader	10
	Equality and Digital Citizenship Advocate	17
Flexibility in Strategic Planning and Continuous Improvement	System Designer	10
	Connected Learner	12

Collaborative Leadership and Professional Development Support

Administrators see themselves as having an important mediating role in the development of teachers' technological skills. Ten administrators (N=10) think that increasing teachers' competencies will increase the overall success of the school and stated that they try to create

supportive environments for teachers' needs in this direction. One administrator explained the systematic approach they follow in this process as follows:

- *"We conduct surveys in board meetings about the deficiencies in technology and plan trainings for teachers" (Y1).*

These efforts show that the administrator assumes the role of an *Empowering Leader*. Another dimension of leadership is to combine this development with the school's strategic goals. Twelve administrators (N=12) emphasized the importance of acting in cooperation with teachers in the implementation of the strategic plan and involving them in the process. This collaborative approach ensures that the plan becomes a living process rather than just a document.

- *"We prepare strategic plans together with teachers. Involving teachers in the process ensures success in the implementation of the plans" (Y5).*

Another administrator pointed out the importance of persuasion and motivation in this process:

- *"To implement the strategic plan in collaboration with all employees, school administrators should create a common understanding with teachers, and persuading and motivating teachers is important" (Y1).*

These findings show that administrators try to fulfill the requirements of the *System Designer* standard while managing the implementation of the strategic plan.

Vision Sharing and Stakeholder Communication

Effective technological leadership requires not only planning and implementation but also the development and sharing of a vision that gives meaning to this process. A significant portion of the participants (N=17) stated that it is critical to develop a vision for the use of technology and to involve teachers in this vision. This common vision forms the basis of technology integration.

- *"We create a common vision with teachers to achieve technology goals"* (Y1).

The same administrator pointed to teachers' technological literacy as a prerequisite for participation in this vision:

- *"For teachers to be involved in the process, they need to know the programs in terms of technological literacy. At the very least, they need to know how to use a Word file"* (Y1).

This approach reflects the administrator's role as an *Equity and Digital Citizenship Advocate*. The vision is realized in cooperation not only with internal stakeholders but also with external stakeholders. Fifteen administrators (N=15) stated that they actively cooperate with other schools, universities, and non-governmental organizations to achieve strategic goals.

- *"We carry out projects with other schools and increase our cooperation with stakeholders"* (Y13).
- *"We communicate with private individuals or individually talented people... We collaborate with various public institutions and organizations... We collaborate with universities..."* (Y5).

These collaborations are seen as a requirement of the *Visionary Planner* standard. Finally, the sustainability of this process is possible through the recognition of achievements and the creation of a continuous feedback loop. Ten administrators (N=10) emphasized the importance of effective communication with stakeholders and receiving feedback from them. One administrator expressed his proactive attitude on this issue as follows:

- *"In general, communication with stakeholders should be good. Feedback should be given to students and parents... We push the communication channels with stakeholders" (Y1).*

Another administrator explained the methods of collecting feedback as follows:

- *"We collect feedback through periodic surveys and share this feedback with stakeholders" (Y24).*

This continuous improvement cycle reinforces the administrator's role as an *Empowering Leader*.

Flexibility in Strategic Planning and Continuous Improvement

Administrators stated that strategic plans are not static documents and should be updated according to the changing needs of the school. Ten administrators (N=10) stated that they have adopted the principle of flexibility in strategic plans on issues such as updating technological tools, planning, infrastructure, and teacher competencies, and that they have made the necessary adjustments.

- *"We revise our strategic plans according to the needs of the school" (Y12).*

This flexibility shows that the administrator's role as a *System Designer* is applied dynamically. This revision process also brings with it a search for continuous improvement. Twelve administrators (N=12) stated that they follow innovations in technology to support learning and include them in their plans. One administrator described this process as follows:

- “We follow new technological tools and programs and share them with our teachers” (Y5).

Other administrators also stated that they improve themselves by following software, projects, and online platforms (Y1, Y2, Y10). However, it is also an important finding that these individual efforts are not always sufficient and that external support is needed. Some of the administrators (Y1, Y4, Y6, Y10, Y16, Y25, Y31) stated that they need more systematic training on this subject. This continuous learning and self-improvement effort of administrators overlaps with the *Connected Learner* standard. These findings reveal that effective technology leadership requires addressing the planning, implementation, and evaluation processes in a continuous cycle.

4.4. Theme 4: Technological Resources

This theme addresses the skills of school administrators to use and manage digital resources effectively, the challenges encountered in this process, and their contributions to social change. The findings show that the approaches of administrators on this subject are shaped around two main codes: the social effects and ethical use of digital resources, and the adequacy of existing resources and future planning. The following table summarizes these codes, the related ISTE standards, and the number of administrators who support these views.

Table 5

Technological Resources Theme and Related ISTE Standards

Codes	Related ISTE Standards	Number of Participants (N=33)
Social Impact and Ethical Use of Digital Resources	Equality and Digital Citizenship Advocate	10
	System Designer	10
Sufficiency of Resources and Future Planning	System Designer	16

Social Impact and Ethical Use of Digital Resources

Administrators are aware of the dual impact of digital resources on social change. Ten administrators (N=10) emphasized that digital resources have the potential to create a positive impact on society with the right guidance, but that they have the responsibility to guide the community, especially families, in this process.

- *"With the right guidance and cooperation, we can increase the contribution of digital resources to society. We especially need to improve the digital literacy of families" (Y1).*

Administrators stated that digital resources create positive changes when used correctly, but the negative aspects of the digital world also negatively affect young people and their families (Y2, Y30). Pointing out that some applications accelerate social change, one administrator made the following comment:

- *"Applications like TikTok directly affect... This affects and accelerates the change" (Y6).*

Another administrator thinks that this change is progressing uncontrollably and emphasizes individualism:

- *"Online digital resources are effective in the speed of social change. However, this social change is progressing uncontrollably and emphasizes individualism" (Y7).*

This awareness of social impact shows that administrators have adopted the role of *Equity and Digital Citizenship Advocate*. This role also brings with it the responsibility to promote the safe, ethical, and legal use of digital resources. Ten administrators (N=10) stated that safe and ethical use is a fundamental requirement for both students and teachers. In this direction, nine administrators (N=9) stated that they have created school policies on data privacy and management. These policies are generally shaped within the framework of the Personal Data Protection Law (KVKK).

- *"We share children's photos on the website. We obtained permission forms from all parents. This is important" (Y4).*
- *"For students who put their work out there in these activities, we have signatures and protocols within the scope of the Personal Data Protection Law" (Y5).*

Administrators also recognize the steps taken by the Ministry in this regard:

- *"Everyone having their own e-school password, MEBBİS password is actually the Ministry's initiative in this regard" (Y8).*

The creation and implementation of such policies reflect the efforts of administrators to establish a safe digital ecosystem in the school as a requirement of the *System Designer* standard.

Sufficiency of Resources and Future Planning

The final important factor affecting the technological leadership roles of administrators is the adequacy of existing digital resources and the capacity of these resources to meet future demands. Sixteen administrators (N=16) expressed different opinions on this matter. While some of the administrators (N=9) think that the resources will be insufficient in the future, some (N=5) believe that the resources will never be fully sufficient due to the rapid advancement of technology.

- *"I think that resources will never be fully sufficient due to the rapid advancement of technology, so we have to constantly produce innovative solutions" (Y18).*

On the other hand, seven administrators stated that the existing resources are sufficient for now, but that these resources should be used more effectively.

- *"The resources provided by the Ministry are sufficient, but we need to use these resources more effectively" (Y26).*

Some administrators, on the other hand, have an optimistic view of the future:

- *"I don't think we will experience such an inadequacy, because when humanity reaches such an intense period, I believe technology will also have reached a level capable of meeting this" (Y19).*

These different perspectives show that administrators adopt different strategies for resource management and future planning. The task of evaluating the adequacy of resources and planning for the future is a fundamental part of the administrator's role as a *System Designer*.

Discussion

This qualitative case study examined the technological leadership roles of 33 secondary school administrators in the Western Black Sea Region of Turkey, based on the International Society for Technology in Education (ISTE) Standards for Education Leaders. The findings, obtained through semi-structured interviews, provided rich data on the factors influencing administrators' perceptions and experiences in the technology integration process. The presentation of the findings in a narrative structure around four main themes (Technological Structure, Technological Competencies, Technological Leadership, and Technological Resources) reveals the multidimensional and complex nature of technological leadership. This study confirms and extends existing findings in the technology leadership literature (e.g., Aurangzeb et al., 2019; Chang, 2012; Flanagan & Jacobsen, 2003) while also highlighting the unique challenges and perspectives of the studied context. The results indicate that administrators' success in technology integration is deeply dependent on the interplay of technological infrastructure, the effectiveness of strategic planning, teacher support mechanisms, and an understanding of digital citizenship.

Discussion on Theme 1: Technological Structure

The findings emerging under the theme of Technological Structure reveal two critical tensions that form the foundation of technological leadership: the dichotomy between centrally provided infrastructure

and on-the-ground access issues, and the gap between visionary planning and implementation. The findings confirm that the FATİH Project has established a significant foundation by providing schools with essential tools like internet access and interactive whiteboards. This situation supports previous studies (Gök & Yıldırım, 2015; Yavuzalp et al., 2015). However, administrators emphasized that the existence of this basic infrastructure is not sufficient on its own, and that deficiencies in more specific resources, particularly computer labs and digital assessment tools, hinder the achievement of strategic goals. This demonstrates, as is frequently noted in the literature, that providing infrastructure is only the first step and that sustainable support mechanisms are vital for the success of technology integration (Jameson, 2013; Dexter & Richardson, 2020). The struggle of administrators with these infrastructural challenges makes it difficult for them to fully fulfill their role as an ISTE System Designer.

Similarly, the findings gathered under the code Challenges in Transitioning from Planning to Implementation point to the common problem of strategic plans existing but remaining "on paper." Although most administrators have a strategic plan for technology, the lack of concrete steps on how to use it to enhance learning limits the plan's impact. This finding aligns with the views of Santos and Cajucom (2020) that the mere existence of a plan is insufficient for effective technology integration; what matters is effective implementation. The on-the-ground implementation challenges of large-scale initiatives like the FATİH Project (Yavuzalp et al., 2015) once again show that school administrators need to be more actively involved in this process. This situation reveals that administrators face significant obstacles in turning the vision required by the ISTE Visionary Planner standard into action.

Discussion on Theme 2: Technological Competencies

The theme of Technological Competencies focuses on the human dimension of technology leadership. The findings under the code Teachers' Digital Competency and Development Needs strongly indicate that the task of enhancing teachers' digital skills and self-confidence lies at the core of school administrators' leadership roles. The competency and self-confidence differences observed by administrators, especially between junior and senior teachers, are parallel to findings in the literature (e.g., Paunil, 2024). This situation emphasizes the responsibility of administrators to provide differentiated and targeted professional development opportunities that include all teachers (Raman & Shariff, 2018; Banoğlu et al., 2022; A'mar & Eleyan, 2022). The efforts of administrators to mediate the technological development of teachers are an indicator of the extent to which they embrace the ISTE Empowering Leader and Connected Learner standards.

The attitudes of administrators towards their own professional development also form an important part of this theme. The code Administrator's Professional Development and Reflective Leadership reveals the efforts of administrators to continuously follow new technologies and pedagogical approaches, participate in professional networks, and reflectively apply the knowledge they acquire in their schools. This continuous cycle of learning and sharing is a fundamental component of effective technology leadership. However, alongside these efforts, their need for more systematic training and external support shows that the development of technology leadership capacity is too important to be left to individual efforts alone. These findings reveal that administrators, in fulfilling their roles as Connected Learner and System Designer, require both individual and

systemic support.

Discussion on Theme 3: Technological Leadership

The findings presented under the theme of Technological Leadership show how administrators put their leadership roles into action. The code Collaborative Leadership and Professional Development Support highlights administrators' efforts to guide teachers' technological development and implement strategic plans collaboratively. The fact that administrators involve teachers in the planning process and try to motivate them reveals that leadership is not just a top-down instruction process but also requires persuasion and building a common understanding. This approach aligns with the concept of distributed leadership by Spillane et al. (2001) and shows that the success of technology integration depends on a collective effort. In this process, administrators actively assume the roles of ISTE's Empowering Leader and System Designer.

The code Vision Sharing and Stakeholder Communication reveals the dimension of leadership that extends beyond school boundaries. The efforts of administrators to create a common vision for technology use and to share this vision not only with teachers but also with external stakeholders such as parents, other schools, and universities are a fundamental feature of the digital leadership emphasized by Sheninger (2019). This broad network of collaboration enriches the school's resources and learning opportunities. Furthermore, the efforts of administrators to create a continuous improvement cycle by establishing feedback mechanisms show that they embrace the Visionary Planner and Empowering Leader standards.

Discussion on Theme 4: Technological Resources

Finally, the theme of Technological Resources examines the material and ethical foundation of leadership practice. The findings gathered under the code Social Impact and Ethical Use of Digital Resources show that administrators are aware that digital resources are not just tools but also powerful elements that shape social change. The efforts of administrators to establish policies for safe and ethical use (e.g., within the scope of personal data protection laws) to protect students and families from the negative effects of the digital world reveal how seriously they take their roles as Equity and Digital Citizenship Advocates. This supports the idea, as stated by Dexter & Richardson (2020), that digital safety requires active leadership and supportive policies beyond individual responsibility.

The code Sufficiency of Resources and Future Planning reflects the different perspectives of administrators on resource management and the uncertainties they face. The concern of some administrators that resources will be insufficient in the future, contrasted with the belief of others that innovative solutions can always be produced thanks to their optimism about technological development, shows that technology leadership is not a static state but requires continuous adaptation and foresight. This situation reveals that administrators, as System Designers, have to manage the difficult balance of using existing resources most efficiently while also planning for future needs.

Conclusion

This study provided a detailed examination of the technological leadership roles of secondary school administrators in Turkey based

on the ISTE Standards. The findings, derived from the views of 33 participants, revealed that an effective digital transformation in education is shaped by a complex interplay of factors such as the state of technological infrastructure, the development of teacher and administrator competencies, the implementation of strategic planning, robust communication with stakeholders, and digital citizenship awareness. The study reiterates that technological leadership is not merely about possessing technical skills; it is a multifaceted process that also requires developing a strategic vision, observing ethical responsibilities, and establishing effective collaborations within the school community.

The results show that administrators face significant tensions and dilemmas in their technological leadership practices. On one hand, there is the existence of basic infrastructure provided by central projects, and on the other, the inadequacy of this infrastructure in achieving strategic goals. Similarly, the gap between the existence of visionary strategic plans and these plans remaining "on paper" is one of the biggest obstacles to leadership. This study, consistent with the broader literature, reveals that administrators must actively support the continuous professional development of themselves and their staff and meaningfully involve all stakeholders in the technology integration process. By providing rich insights into these dimensions within the Turkish context, this research contributes to a more comprehensive understanding of technological leadership challenges and opportunities in different cultural settings and offers valuable implications for policies and practices aimed at fostering sustainable technological innovation in education.

Recommendations

Based on the findings and conclusions of this study, several recommendations have been developed to strengthen the technological leadership roles of school administrators and to make technology integration in education more effective.

First, supporting the transition from strategic planning to action is of critical importance. The study revealed a significant gap between the existence of visionary strategic plans and their implementation. To close this gap, school administrators should be provided with practical training and mentoring support on preparing and managing the implementation processes of living and applicable technology integration plans that do not just remain "on paper." These plans should include concrete action steps, clear responsibilities, and measurable success indicators instead of abstract goals.

Furthermore, it is necessary to design differentiated and continuous professional development programs. The findings showed significant differences in teachers' technological competencies and self-confidence, especially depending on seniority and age. Therefore, instead of standard in-service training for all teachers, personalized and differentiated professional development programs that cater to different needs and levels (e.g., basic workshops for beginners, project-based learning groups for advanced levels, peer coaching, etc.) should be designed and disseminated.

A flexible approach should be adopted for infrastructure and resource management. It was observed that the basic infrastructure provided by central projects is valuable but insufficient in meeting the specific needs of schools (e.g., digital assessment tools, software for specific

fields). In this regard, policies should be created that allow schools to identify their own context-specific technology needs and to develop flexible budget models to support these needs with local resources.

Additionally, the development of school-based digital citizenship policies should be encouraged. Administrators' efforts to raise awareness about digital security and ethics are important. To support these efforts, in addition to central guidelines, each school should be encouraged to create its own applicable digital citizenship and data security policies with the participation of its stakeholders (students, parents, teachers).

Strengthening administrator leadership capacity is another important step. Effective technology leadership requires administrators to be continuous learners as well. To enable school administrators to effectively fulfill their technology leadership roles, national and local professional development networks, best practice sharing platforms, and university-school collaborations that support their continuous professional development should be encouraged and strengthened.

Finally, fostering a collaborative and innovative school culture is of great importance. Administrators should be supported in creating a school climate that makes room for technological experimentation and innovation, sees failure as a learning opportunity, and rewards collaboration among teachers. This will help technology integration to be adopted not just as a tool, but as an element that transforms the school culture.

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Experiences of Female School Principals on Resilient Leadership Practices in Leading and Managing Rural Schools

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Abstract	Article Info
While there is a growing body of literature on educational leadership, gender and leadership, and rural schooling challenges in South Africa, there remains a notable lack of in-depth, context-specific research focusing on resilient leadership practices of female school principals. Female school principals have to deal with unfair gendered expectations from different stakeholders when performing their leadership responsibilities. The paper aimed to investigate how female principals in rural schools practice resilient leadership in the face of gender-based challenges owing to their identity as females. Grounded in social role theory, which posits that individuals' behaviours and responsibilities are shaped by societal expectations associated with their gender. Underpinned by the qualitative and interpretive paradigm, this paper used phenomenology as a research design, centered around female school principals' lived experiences. Data were gathered through semi-structured interviews with three participants and analysed using thematic analysis. Findings revealed that communities are enablers of gendered expectations from female school principals; female school principals end up possessing elevated levels of emotional intelligence, competence, and confidence compared to their male counterparts, and lastly, demonstrating sustained perseverance and resolute	Article History: Received: March 5, 2025 Accepted: August 21, 2025 Keywords: educational leadership, female leadership, gender, resilience, rural schools, social role theory.

determination facilitated their success in leadership positions. The paper recommends community engagement, policy changes, and capacity-building programs to sensitize communities to undoing entrenched gender prejudices in educational leadership.

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Introduction

The South African history of school leadership and experience has revealed that females can lead and want to take up leadership positions (Jansen & du Plessis, 2023; Nhlumayo & Nkosi, 2024). Chikwe, Eneh, and Akpuokwe (2024) argue that when women are given the opportunity to lead a school, they do better than their male counterparts. The leadership practices of female school principals, predominantly in rural schools, have earned significant interest within the education sector. However, females in leadership roles frequently contend with multifaceted challenges inherent to their positions. These require female leaders to be resilient and show extraordinary leadership skills. These challenges are compounded when they are leading in rural contexts. Rural contexts often encounter unique challenges, characterized by multiple deprivations which usually include a lack of resources, numerous economic hardships, and social disadvantages (Myende & Nhlumayo, 2022). Rural schools, in particular, come with their own array of difficult conditions, which exacerbate the phenomenon of gendered expectations for female leaders. Studies indicate that women in leadership continue to face

persistent and unresolved challenges (Haile, Emmanuel, & Dzathor, 2016; Weinstein, Sembler, Weinstein, et al., 2023). One of these is the exaggerated expectation that the public has of a grand performance when a female occupies a leadership position.

This paper focuses on the experiences of female principals in rural schools in using resilient leadership practices to weather any resistance and challenges that come against them due to their gender identity. Bhamra, Dani, and Burnard (2011) and Witmer (2019) define resilience as the strength to resist challenges meant to disrupt a particular process. The schools indicated as rural are located in communities characterised by existing patriarchal standards and values, such as traditional gender roles and criticism that weigh heavily against women (Gyan & Mfoafo-M'Carthy, 2022). Kutub (2023) further states that rural contexts are characterised by social structures and practices that give males power over females, such that when they are in leadership, they become subjected to these gendered expectations. De Bruyn and Mestry (2020) indicate that school principals are constrained by these dynamics to display resilience in their leadership practice to show that they are equal to the task.

McKinley (2023) asserts that gendered roles and expectations are synonymous with the victimisation and oppression of female school principals, putting pressure on them to perform in their leadership roles, thereby affecting their health. Sharma (2022) refers to this as gender inequality and further claims that it is mostly women who suffer the negative impact of these societal gendered norms and roles. They may feel restricted from the freedom to be themselves and thus end up exhibiting resilient leadership practices to withstand and resist any opposition that is directed at them. Studies indicate that some rural communities use their cultural backgrounds to discriminate

against women (DeKeseredy, 2020; Hathi, Coffey, Thorat, et al., 2021; Love, Nikolaev & Dhakal, 2024). This phenomenon then infiltrates schools where females are in leadership. One of the challenges faced by these school principals relates to authority and power struggles, as argued by Ahmad and Haryanto (2023). These are indications of deeply embedded cultural norms and patriarchy prevalent in rural and traditional communities where the schools are located. These characteristics have a negative influence on the execution of leadership for female school leaders in traditional communities. Local and international discourses seem to support gender equality in leadership spaces; however, the practice is different, as female school principals have to face struggles in the communities where their schools are located. Female school principals have to struggle against the odds and exhibit resilient leadership practices to survive in the leadership space. Mpofu (2019) argues that these gendered expectations and patriarchal ideologies are explicitly related to gender stereotypes and institutional discrimination experienced by females in school leadership. These dynamics leave the female school principals with two choices: either seize those leadership positions and lead with resilience or stay in lower-ranking roles and allow men to lead. Kulkarni and Mishra (2021) claim that, generally, women in leadership often exhibit qualities traditionally associated with femininity, such as admirable expressive abilities, high-class persuasion and compromise skills, empathy, and sympathy. On the contrary, Odell (2020) claims that males in leadership are not defined or evaluated based on gender-related traits, and this creates a boundary regarding how these two genders practice their leadership abilities. For females to survive in their school leadership roles, they must become aggressive, strong, powerful, and resilient. In their study on women in leadership, Wells and Fleshman (2020) assent with the claim that females in school leadership face

societal pressure to assert their authority and establish their presence to combat discrimination, inequality, and societal neglect. It is against this background that this paper investigated resilient leadership practices of female school principals in leading and managing schools within the context of rurality.

Problem Statement

Generally, leadership is regarded by society as a male-centric arena, and females in leadership have to regularly prove to stakeholders that they are well-suited for the roles they occupy. And that they are equal to the task. According to Haile et al. (2016), this phenomenon is called negative gender stereotyping. Female leaders are confronted with the challenges of tokenism, and their leadership skills are constantly tested, thus having to constantly prove themselves to stakeholders, including the community where the school is located. Other factors that may be used to discriminate against female school principals include age, race, marital status, and qualifications; however, females in school leadership may be perceived as token appointments based on gender or affirmative action policies. This calls for them to put in twice the leadership effort compared to their male counterparts, thus putting pressure on them as they execute their leadership practice. Corroborating this view are Bodalina and Mestry (2022), who indicate that, in doing this, society pits female school principals against their male counterparts regarding their leadership performance.

Studies indicate that most females in school leadership often struggle with having their authority challenged and their credibility doubted (Keohane, 2020; Coleman, 2020; Pick, 2024). The authors further argue that Female school leaders often encounter resistance and a lack of compliance from both male and female colleagues. Against this backdrop, this paper explored the resilient leadership practices of

female principals in rural schools. The aim was to examine how female school principals navigate resilient leadership practices while managing both gendered performance expectations and the unique challenges of rural schools. Given the purpose, the following research question is formulated: How do female school principals use resilient leadership strategies to lead and manage schools within the context of rurality?

Literature Review

This paper examined the literature on the following themes: Resilient leadership experiences for female principals in school leadership and navigating gendered expectations in rural school leadership. These themes are discussed in the following sections.

Resilient leadership experiences for female principals in school leadership

Arguably, the role of the school principal is the most influential in the provision of education in the school. According to Riani and Ain (2022), the role of the school principal fluctuates between being a manager, leader, supervisor, administrator, teacher, innovator, and motivator. When the school principal is confronted with contextual and societal challenges, it affects their operational responsibilities. In their qualitative study on the leadership practices of principals during the COVID-19 pandemic, conducted in the Philippines, Pedroso, Siason Jr, and Tangco-Siason (2021) indicate that school principals must use situational leadership practices to resist challenges experienced at a particular time. In their study on protesting by women in educational leadership, Chase and Martin (2019) assert that female school leaders still face stereotyping, characterisation, and discrimination. Furthermore, in an Israeli study conducted by Halevi

and Schechter (2023), the findings indicated that resilience is a process that women leaders have to adapt to as they face leadership pressures.

However, through resilience and allegiance to social justice, they can transcend societal challenges, stereotypes, and oppressive ideologies and systems that shape their reality. Among the hardships that female school principals face to this day, Galsanjigmed and Sekiguchi (2023) list gendered stereotypes as external factors where they are considered unsuitable for leadership positions. Rural communities place unreasonable demands on female school principals, and Wang, Pollock, and Hauseman (2023) posit that some of these demands can induce negative emotions in the school principals' welfare and that of the schools. Mashiane (2022) resonates that this is the case in rural areas, in most African social structures. Therefore, to circumvent these, female school principals cope by using adaptive strategies such as resilient leadership practices. School leadership has traditionally been demarcated as the domain of males in general, and that accounts for the patriarchal behaviours that seem to influence school leadership and management. Some female school principals live with these unreasonable gendered role demands to such an extent that it affects their physical and emotional health. Burton, Cyr, and Weiner (2020) claim that to avoid physical and psychological distress, female school principals use coping strategies that may include self-protective measures such as resistance. Hryniewicz and Vianna (2018) state that since leadership is not a fixed practice, female school principals find themselves having to apply resilient leadership based on the contextual factors in which they find themselves. To thrive in these circumstances, female school principals may adopt resilient leadership practices that may include self-confidence and emotional intelligence (Eliot, 2020). Determination and commitment to succeed in leadership,

despite the contextual and societal challenges, are some characteristics that female school principals use as fuel to navigate the gendered role expectations, as discussed in the following section. Therefore, this paper seeks to examine the resilient leadership practices drawn from the female school principals as they navigate the challenges they experience in leading and managing rural schools.

Navigating challenges experienced by females in rural school leadership

Educational leadership scholars argue that principals' leadership practices are shaped and influenced by the broader community, school environment, and organizational context. (Hayes, Flowers & Williams, 2021; Pedroso, Siason Jr, & Tangco-Siason, 2021). Therefore, understanding how principals operate in rural schools is essential to recognizing how they interpret and enact their leadership to address the diverse needs of their rural community stakeholders. Findings from a study on navigating gender stereotypes in educational leadership by Shah (2023) revealed that females must negotiate gender stereotypes in cultures where they face challenges in asserting their authority, confronting misogynistic mindsets, and balancing work and personal life, all while actively and passionately engaging in educational leadership. Shah (2023) further states that traditional contexts believe that male leaders are more capable than female leaders; therefore, for women to succeed in leadership, they have to exhibit masculine behaviours. Such types of contexts have a bearing on how female school leaders may choose to practice their leadership. Females in rural school leadership often find themselves having to display a masculine work ethic, which Schull and Kihl (2018) describe as aggressive. At this juncture, resilient leadership becomes the leadership style female school leaders can use to get and stay ahead in

leadership. Further to this, females in rural school leadership use relationship-building and inclusive strategies as internal coping strategies to survive gendered expectations, as much is expected from them as their male counterparts (Stone, Ferguson & Boulden, 2024). Pick (2024) asserts that generally, females in rural spaces have a desire to achieve recognition in their leadership fields and possess feminine traits, which are internal strengths such as being better listeners, considerate, and sensitive, which they can use to their advantage to survive these challenges.

Theoretical Framework

The theory that underpins this research paper is the social role theory by Eagly and Wood (1991). The social role theory frames the differences between males and females because of their biological and social influences. This theory highlights the causal impact that society's expectation has on the performance and conduct of each gender (Eagly & Wood, 1991). It is a sociological and psychological framework designed to justify and interpret human behaviour regarding societal roles, expectations, and norms. The theory further claims that roles that are occupied by individuals in society carry implicit or explicit expectations regarding how individuals in those roles should behave. Characteristics such as gender, age, race, religion, occupation, or marital status often define these roles, and they also shape how individuals perceive themselves and others, as well as the behaviours they demonstrate. However, for this paper, gender is the descriptor of how females are perceived by society as fit for school leadership. The social role theory is appropriate for this paper as it mirrors how females who lead schools, particularly in rural contexts, respond to unfair societal expectations bestowed on them based on their gender identity.

Methodology

This study adopted an interpretive qualitative approach, and the mode of inquiry was phenomenology. Leadership practices reflect the lived experiences of these female school principals, hence the use of phenomenology (Pilarska, 2021). All school principals are confronted with a continuous struggle to prove to the stakeholders that they are equal to the leadership task. However, with female school principals, the intensity of the struggle doubles. Three female school principals from one selected rural education circuit, in KwaZulu-Natal, South Africa, were participants. The rationale behind the three participant-focused samples was the achievement of a more harmonious expression of participants' interpreted lived experiences in which individual voices were honoured and could contribute to a coherent whole (Bartholomew, Joy, & Kang, et al., 2021).

Data were generated through individual in-person interviews where participants shared their lived experiences, uncovering the deeper meanings through their interpretations (Aguas, 2022). The participants responded to the following questions:

1. What role do communities play in supporting gendered expectations from female school principals?
2. What resilient practices do school principals employ to survive the gendered expectations and gender discrimination when leading and managing schools in rural communities?
3. How do you overcome obstacles such as gendered expectations and discrimination in your practice as a female school principal?

Each interview lasted a minimum of one hour, with the aim of gaining in-depth insights into the participants' lived experiences. Conducting

the interviews within the participants' school offices, familiar and natural settings, helped foster a sense of comfort and security (Limpuatpong, 2009).

The interview was conducted by an independent researcher from an academic institution, and in adhering to ethical considerations, the researcher obtained approval from the circuit manager to interview school principals and also obtained ethical clearance from their institution. The three school principals were intentionally selected based on their gender, their leadership positions, and, for this paper, as they were suitable participants to address the research question. Following the approach of Braun and Clarke (2006), inductive thematic analysis, where I identified themes directly from the data, was used. Generating and using the data from diverse sources, at different times and in different spaces, as outlined by Denzin (2012), allowed for triangulation in this paper. Following data transcription, the researcher conducted member-checking to verify the data and enhance trustworthiness by seeking participants' feedback prior to drafting the final paper.

The research sites were three schools located in one selected rural education district marked by multiple deprivations, including but not limited to lack of employment, education, healthcare, material resources, and infrastructure. The community struggles with social challenges such as poverty, disease, teenage pregnancy, and crime. In addition to these contextual factors, the community is grappling with societal, economic, political, and cultural challenges, most of which exclude females based on patriarchy by limiting their freedom and access. These challenges pose a severe threat to women's leadership and empowerment, equality, and development.

Table 1

Profile of the research participants and research sites

Participants and schools	Number of learners in the school	Qualifications	Age	Number of years as a teacher	Number of years as school principal
Principal A School A	366	M.Ed.	44	24	5
Principal B School B	478	M.Ed.	47	25	9
Principal C School C	569	PhD in progress	50	28	11

Keys: M.Ed. – Master of Education, PhD – Doctor of Philosophy

Table 1 above presents the demographic details of the participants and the research sites. The research sites were three primary schools purposively selected as they were headed by female school principals and located in a rural community in a selected education circuit. Pseudonyms have been used to indicate the participants and the research sites as follows:

Principal A to Principal C – PA to PC

School A to School C – SA to SC

Findings

Verbatim participant quotes are used to present the findings, organized according to the themes that emerged from the data. Through these verbatim quotes of the participants, the sections below present the data findings according to the themes as they emerged from the data. The themes are the community's role in shaping gendered expectations of women in school leadership, resilient

leadership practices demonstrated by rural female school principals, and “*I refuse to quit*”.

The Community’s Role in Shaping Gendered Expectations of Women in School Leadership

Responding to the question on what role the communities play in supporting gendered expectations from female school principals, participants revealed that rural communities have expectations from female school principals because of their gender identity. These were the perspectives expressed by the participants.

As you can see the school is located in a rural area, the community here is welcoming, but they treat me differently from the previous school principal who was a male. At first, they did not recognise me and always compared me to the previous school principal. PA

When probed further as to how the participant survived the comparison to their male counterpart, they revealed that they had to declare and reannounce that they were now in the lead, and they had to accept it, these were her words:

I had to put my foot down and remind them that I am now the principal of the school, and there is nothing they can do, we can only move forward. PA

Sharing similar sentiments with PA, PB revealed that the community where the school is situated still believes so much in leadership as a masculine domain that she constantly had to show her masculine traits to survive both inside and outside the school. This was her view:

In most instances, I have to behave like a man because the community and some of my colleagues still believe very much in male leadership.

PB

PC revealed that leading the school in this rural community has been a struggle that has uncovered how much power she possesses as a female school principal. Gendered expectations from the community have revealed that she has the power to do better than her male counterparts. These were her views:

Since I arrived in this community, they still believe a man can do a better job at leading this school just because he is a male, they do not care about all the improvements I have made in the 11 years, it is a constant struggle, but we soldier on. PC

The emerging data reveal that females in school leadership are faced with unique challenges that are inherent in rural and traditional communities. These challenges are formed based on their gender identity. Rural communities are dominated by male leadership (Edwards, 2018), and this phenomenon has a way of infiltrating the school that is situated in the community. These gender stereotypes are shaped by patriarchal societies and communities, assigning traditional roles to men and women. From a critical feminist point of view, these gender-related challenges exhibit a negative attitude, thus fuelling a resilient approach to leadership from the female school principal. These resilient approaches and strategies may be interpreted as authoritarian and dictatorial by those against the school leadership. Furthermore, based on the social role theory, society seems to perpetuate interpretations that can be labelled as stigmatisation, resentment, rejection, and discrimination against female school

leadership from the communities by allowing these gendered expectations. To survive in these rural and traditional communities, female school principals have to exhibit resilient leadership practices.

Resilient Leadership Practices Demonstrated By Rural Female School Principals

The participants were asked what resilient practices they employed to survive the gendered expectations and gender discrimination formed against them in leading and managing the schools in rural communities. It emerged from the data that female school principals displayed traits of emotional intelligence, decisiveness, and competence, among others, to endure gender discrimination in their leadership space. PA revealed that being decisive and sticking to policy has assisted her in surviving the challenges in leadership. These were the views shared by PA:

My coping mechanism is that I have developed the guts to make difficult decisions, I do not care who says what, as long as I stick to policy implementation, that is how I have learned to survive my colleagues and the community. PA

PB revealed that having a high level of emotional intelligence has assisted her in leading and managing the school successfully amid the unfair gendered expectations from the community and her colleagues in the school.

I can manage my emotions and those of others, I have also developed sober social skills so that I act accordingly when confronted with these kinds of behaviors levelled against me because I am a woman. You

need to show people that you are level-headed and that you are equal to the task at hand! PB

Resonating with PB, PC revealed that being competent at what you do quietens the noise against you, and possessing a high level of confidence repels the negative noise around the leadership practice:

Continuous learning is helping me, right now I am busy with my PhD, and it has improved both my competence in my work as well as the confidence I need to make unpopular decisions to survive, for me that is being resilient enough. Sometimes, it can be too much, and I would feel like quitting and pursuing my studies full-time, but it also shows the strength I have as a woman. PC

Female leadership requires a higher level of resilience as it is fraught with more challenges than male leadership. To navigate the patriarchal ideologies and cultural adversities that are prevalent in rural communities, participants have developed resilience and strength in their personal and professional lives. The social role theory argues that people's performance in their personal and professional roles is shaped by society's expectations, depending on their gender. Owing to their resilient leadership practices, the participants endure and struggle with being labelled as strict and harsh in leading and managing their schools. Communities where the schools are located do not trust female school leadership, as, according to them, leadership is a male-dominated terrain. It is against these gender-discriminatory societal tendencies that females in school leadership have to display these resilient leadership practices to survive. In their study on women leaders navigating cultural adversity, Chance (2022) indicates that females must set clear standards on what can and cannot be tolerated

in their leadership spaces, and they must develop a “no-nonsense attitude” while holding a strong work ethic.

“I Refuse To Quit”

It is worth noting that participants were school principals who had intentionally applied and were qualified to be in these positions; however, societal expectations have influenced their lived experience in the leadership space because of their gender. Responding to a question on overcoming obstacles in their position as female school principals, it emerged from participants that they refused to quit and be stopped in their leadership, thereby revealing a resilient approach. From the words of PA, it emerged that a certain level of confidence is necessary when one is confronted with challenges that stand against their very identity. This was her view:

I remain undefeated amid all the hardships I have endured in the five years of rural school leadership; the behaviour of the community here has exposed the strength within me that I can overcome adversity while remaining true to myself and staying the course. PA

It emerged from PC's view that assertiveness, confidence, and self-assurance were qualities of resilience that one needed to possess in the face of adversity. This is what she shared.

Evaluating the number of years I have spent in the teaching profession as a teacher and as a school principal, there is no turning back or slowing down. I have been in this position for 11 years now and it has not been a bed of roses, but one thing is for sure, we soldier on. PC

One cannot survive without collaboration, as no leader has ever achieved some deal of success alone. This was evident in PB's view:

I have the support of my mentors, family, and district officials, I understand that leadership comes with responsibility. Therefore, as much as I am strong and resilient, I always network and collaborate so that I am ready for challenges and exercise integrity in dealing with those challenges. PB

Having a vision that is bigger than the contextual challenges of a rural school and gendered expectations from society, amounts to resilient leadership practice. In PC's words, it can be gleaned that having a vision as a leader would enable female school leaders to withstand any challenges directed at them.

I will not lie, there were times when I felt like quitting and going back to my previous school, but I had a vision for my school and I am authentic and honest enough to rope everyone in, including the community to move forward. PC

Challenging circumstances demand a resolute stance in leadership. Resilience refers to the ability to remain strong amid challenges and adversity. Structural attributes of rural communities tend to influence the leadership patterns in those communities. This trend spills down to the schools located in those communities. In a study on rural school leaders in South Africa, Smit (2017) indicates that female leadership is linked to care and emotions, such that when female school principals display a resilient character, they are deemed to behave like men. Bush, Kirezi, Ashford and Glover (2022) attribute this phenomenon to social attitudes from the communities, thus resonating with the social role

theory. The authors assert that these deeply embedded social attitudes indicate that females should focus on family responsibilities, rather than leading schools. Further to this, the authors indicate that female school principals should use collegial and collaborative qualities to their advantage as they assist them in becoming effective school leaders. Female school principals who have a vision and want to see their schools succeed tend to work against any disadvantages presented by the rural contexts and rural communities and display their resilient potential through their leadership.

Discussion

Social Role Theory asserts that societal norms assign different expectations to men and women, often associating leadership with masculine traits such as assertiveness, dominance, and independence, while aligning women with nurturing, supportive, and communal roles (Eagly & Wood, 2011). The findings reveal that rural communities often expect female principals to conform to traditional gender norms, viewing them through the lens of caregiving and emotional labour rather than professional leadership. Participants reported that their authority was at times undermined due to community-held beliefs that leadership is best suited to men. Gardiner (2015) indicates that these contextual and societal stereotypes are socially constructed phenomena that tamper with the authenticity of the leader. Furthermore, these expectations reinforce the theory's premise that women in leadership positions experience role incongruity, whereby the expectations of their gender conflict with the attributes associated with effective leadership. This tension forces female principals to constantly negotiate their professional identities, balancing cultural expectations of femininity with the demands of school leadership.

Despite these challenges, the study found that the participants consistently demonstrated resilience in their leadership. Pillay-Naidoo and Nel (2022) define resilience as the ability to overcome and circumvent threats and challenges while possessing the capacity to deal with future challenges. The participants employed relational, collaborative, and emotionally intelligent strategies to manage conflict, build trust, and sustain school functioning under resource-constrained conditions. These approaches align with socially prescribed "feminine" characteristics; however, the female principals leveraged these traits not as limitations, but as strengths within their leadership practice. Through the lens of Social Role Theory, this finding illustrates that while gender roles impose constraints, women can also strategically adapt and repurpose these roles to lead effectively. Rather than adopting traditionally masculine leadership traits, these principals demonstrated that communal leadership styles are not only culturally appropriate in rural contexts but are also instrumental in fostering resilience. This challenges dominant leadership discourses that equate effective leadership with control and authority, highlighting the need for more inclusive conceptions of leadership that recognise the value of relational and context-responsive approaches.

The third theme, "I Refuse to Quit," encapsulates the participants' unwavering commitment to their roles, despite the personal and professional pressures they encountered. This theme illustrates an important dimension of Social Role Theory that is sometimes overlooked: the capacity for individual agency and resistance in the face of constraining social norms. The female principals' determination to persevere in leadership, despite systemic barriers, reflects a process of role negotiation and redefinition. While they were subject to gendered expectations, they did not passively conform to them. Instead, they actively reinterpreted what it meant to be a woman

leader in a rural context, integrating both resilience and assertiveness into their leadership identities. This finding suggests that gender roles, though socially constructed, are not fixed; rather, they can be contested, reshaped, and expanded through the lived experiences and agency of individuals.

Theoretical Implications and Implications for Practice and Conclusion

The study contributes to Social Role Theory by extending it into rural, under-researched educational leadership contexts, demonstrating how women navigate, challenge, and reshape socially constructed roles, highlighting resilience as a context-specific, gender-influenced leadership strategy, suggesting that gender roles are not only constraining but can also be harnessed for effective leadership.

The paper calls for actions that intend to undo deep-rooted gender prejudices in school leadership. Further to this, the paper recommends education programmes that capacitate rural communities to address family and social attitudes. There must be the establishment of programs that sensitize the community to issues of gender, where all stakeholders, including community leaders, parents, and the school governing body members, assist in raising awareness on gender issues. Over the years, educational leadership has embraced the appointment of females into school leadership; however, societal expectations have increasingly become gendered against them. This has prompted the aggressive use of resilient leadership practices by female school principals to withstand these societal-gendered expectations. Therefore, this paper advocates for community engagement in dissipating the biased patriarchal philosophy that males make better leaders than females and that female leaders need to double their efforts to survive in the leadership space. Furthermore, there is also a

need for policy transformation to advance gender equality and empower female leaders, establishing community-inclusive educational settings, particularly in rural traditional contexts.

One notable limitation of the study is the small sample size, which may limit the generalizability of the findings to the wider population of school principals. Additionally, the cross-sectional nature of the data collection restricts the ability to observe changes over time. Nevertheless, the participants were purposively selected for their relevance and appropriateness in addressing the research objectives. Although the study was limited to one selected education district, the findings can be transferable to other rural contexts where female school principals are at the helm of school leadership and experience similar challenges.

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