A Variety of Teacher Leadership: A Study of Social Networks in Public High Schools in Santiago, Chile

José Weinstein
Universidad Diego Portales

Javiera Peña Fredes
Universidad Diego Portales

Francisca Maldonado Zavala
Universidad Argentina de la Empresa

Natalia Yañéz Ruiz
Universidad Diego Portales

This study investigates teacher leadership within public high schools in Santiago, Chile, focusing on three dimensions of school life: instructional, relational, and working conditions. Utilizing a mixed-method approach, including Social Network Analysis (SNA) and semi-structured interviews, the research examines the influence among teachers. Findings reveal distinct networks for each leadership dimension, with the instructional network exhibiting the highest density and reciprocal connections. Teacher leaders, identified within these networks, engage in practices that promote collaboration, support peer development, and facilitate conflict resolution. The results underscore the complexity of teacher leadership and its implications for educational improvement, advocating for a broader understanding of leadership that incorporates various aspects of school life beyond academic performance.

Keywords: Leadership; teacher evaluation; teacher leader

Introduction

Much previous research on teacher leadership has focused on how certain teachers, who may or may not occupy formal middle leadership roles (like department chair), influence their colleagues' teaching and, thus, student learning (Cooper et al., 2016; Supovitz et al., 2009; York-Barr & Duke, 2004). This research is consistent with Leithwood's (2006) maxim that leadership is (1) an influence exerted by a person or group on others (2) in a particular direction. But what about versions of teacher leadership that are broader and do not refer exclusively to the teacher's academic performance in the classroom?

Teachers' professional concerns and interests, at least in countries such as Chile, include not only developing effective teaching-learning practices with their students, but also involve other challenging areas of school life, in which teachers require the support of colleagues with greater knowledge or experience (Flessa et al., 2018; Oplatka, 2016). We hypothesize that it is possible to differentiate *instructional* teacher leadership (ITL) from other kinds of teacher leadership: one in which the focus is on the relationships between members of the school community, which we will call *relational teacher leadership (RTL)*; or a third in which the central issue refers to the existing working conditions, which we will call *working conditions teaching leadership (WCTL)*.

The following article explores this differentiation between these three potential types of teacher leadership based on a multiple case study methodology in five public secondary schools in Santiago, Chile. We sought to answer the following questions: Do differentiated teacher networks influence exist within secondary schools? Do these different networks fall into the leadership dimensions of instructional, relational, and working conditions? If yes, what are the characteristics of these three teacher leadership networks? Who are their leaders, and what leadership practices do they implement?

The Concept of Teacher Leadership

A recent bibliometric analysis shows that the concept of teacher leadership has been increasingly found in the literature base since 1990 onwards, with the United States, China, and Canada being the countries that have conducted the most research on the concept (Roslan et al., 2023). In fact, several literature reviews have already sought to systematize the knowledge accumulated in hundreds of studies (Nguyen et al., 2019; Schott et al., 2020; Tintoré et al., 2024; Wenner & Campbell, 2017). A recurrent finding is that several definitions are in use, and there is no single or comprehensive conceptualization of the meaning of teacher leadership (Nguyen et al., 2019). Indeed, Wiens et al. (2024) surveyed academics, specialized in teacher leadership in the United States, whose responses allowed them to confirm the conceptual polysemy associated with the term.

One frequently used definition of teacher leadership is that of York-Barr and Duke (2004), which describes teacher leadership as the process by which teachers, individually and collectively, influence their colleagues, principals, and other members of school communities to improve teaching-learning practices to increase student learning and achievement.

However, the professional life of teachers in their schools also incorporates other relevant dimensions. This is the case with the relationships established with different members of the school community, in which there are often various conflicts. In these conflictive situations, teachers may be involved first-hand as victims, perpetrators, or witnesses, but they may also be actors who help to resolve delicate situations. In addition, teachers participate as a particular professional group in the school's work, defending their working conditions (individual and collective) and getting collectively involved in decision-making on some school life issues. Although both dimensions (relationships and working conditions) are indirectly linked to teachers' pedagogical work in the classroom and can even be analysed as enabling conditions for this instructional work (Leithwood & McAdie, 2007), they have their own specificities in terms of the different practices that each teacher must develop, and in which leading teachers may influence them.

Teacher leaders influence their colleagues through different mechanisms. Shea et al. (2020) systematize them through the four "Is": individualized consideration, inspirational motivation, idealized influence, and intellectual stimulation. It should be noted that this influence possessed by teacher leaders is not necessarily self-perceived or publicly acknowledged. In fact, many of these influential teachers report that they do not consider themselves as leaders of other teachers (Grant, 2019; Webber, 2023).

Another way to visualize the impact of teacher leaders on their colleagues is, as shown by Schott et al. (2020), to describe the different roles they play, formally or informally. Thus, a brokering role, a mediating role, a participative role, and a forging role can be identified. These roles can be distinguished by acting as facilitators, coaches, or mentors of their colleagues (Le et

al., 2024; Tintoré et al., 2024), and may (or may not) be formalized as middle leaders in the school structure (Gurr, 2024). Teacher leaders' work as animators of professional communities among teachers has been highlighted, as well as their relevance as connectors between the different levels within the school; teacher leaders can be network enhancers and boundary spanners (Francis et al., 2025).

There are some common personal and professional characteristics typically present in those who rise to become leaders. The majority are linked with instructional teacher leadership, such as a high commitment and intrinsic motivation to inspire student learning (Webber, 2023; Žydžiūnaitė, 2025); strong disciplinary knowledge and knowledge of teaching methods (Wenner & Campbell, 2017); advanced or innovative professional practices (Lazaridou & Thomaidou, 2025); a strong perception of self-efficacy in job performance (Wang & Amirrudin, 2025); and a continued aspiration for professional development (Webber, 2023). Other characteristics are more generic, such as the ability to establish bonds of closeness and trust with other members of the school community (Domínguez-Castillo et al., 2024), a disposition toward cooperation with peers, and participation in formal and informal collective events, as well as in school activities in general.

The emergence of teacher leaders also depends on the institutional context in which they operate, which may be more or less conducive to their development. Not all school cultures promote a shared sense of belonging and foster collaboration, sharing, and collective action among teachers and the school community (Savaş et al., 2025; Wang & Amirrudin, 2025). The same applies to the structure and operation of schools. Thus, an overwhelming workload, disrespect for professional autonomy, and a shortage of opportunities for dialogue and joint work inhibit teachers' leadership deployment (Wenner & Campbell, 2017). In contrast, school structures that promote the constitution and smooth functioning of professional learning communities among teachers enhance teacher leadership (Smith & Schnellert, 2025). In terms of both the culture and the structure of the school, the role of principals seems decisive: their specific mode of leadership and management promotes or restricts the opportunities for the development of teacher leadership (Brown & Friesen, 2025; Lazaridou & Thomaidou, 2025; Pan et al., 2023; Waite & García-Carmona, 2025). In particular, the impulse of distributed leadership (Thien et al., 2024; Tucaliuc et al., 2025) and caring leadership (Eyal et al., 2024) tend to favor teacher leadership development. To be sure, the institutional context relevant to teacher leadership does not depend exclusively on the dynamics within each school; it is shaped by broader policies that vary across national and subnational school systems (Grant, 2019; Schott et al., 2020).

Finally, the specialized literature has sought to illustrate the effects of teacher leadership on instruction, while integrating some effects linked to school relationships or teachers' working conditions. In fact, it has been verified that the first beneficiaries are the teacher leaders themselves since they improve their psychological disposition towards their work (Nguyen et al., 2019), their professional self-esteem (Wenner & Campbell, 2017) and their job satisfaction (Schott et al., 2020; Žydžiūnaitė, 2025); they develop their own professional knowledge and practices by sharing them with other colleagues (Webber, 2023); and they achieve greater commitment to and identification with the school in which they work (Nguyen et al., 2019; Schaap et al., 2025). However, other teachers also benefit individually or collectively, since they improve their pedagogical work in the classroom (Hulsbos et al., 2025) and their perception of self-efficacy (Tucaliuc et al., 2025), promoting practice change and innovation (Savaş et al., 2025). They also strengthen their professional dialogue and cooperation within existing

professional communities (Tintoré et al., 2024; Wiens et al., 2024) and increase their commitment to the teaching profession (Bolyard et al., 2025) and to the educational institution (Lazaridou & Thomaidou, 2025; Tucaliuc et al., 2025). Additionally, studies have shown the positive effect of teacher leadership on the induction processes of entry-level teachers (Park & Jung, 2025; Smith, 2025), as well as greater involvement of families in school activities (Pan et al., 2023; Schott et al., 2020; Webber et al., 2024). In contrast, the effect among students is less evident (Schott et al., 2020; Shen et al., 2020; Wenner & Campbell, 2017). Finally, research suggests that greater teacher leadership in schools is also a favorable condition for the implementation of reform educational policies among teachers, since they would be more open to innovation and educational transformation (Brown & Friesen, 2025; Wiens et al., 2024).

Methodology

The multiple case study methodology was used to delve deeper into the research questions (Yin, 2014). Five case studies were conducted in public secondary schools in the Metropolitan Region. The selection of the cases sought diversity regarding the type of teaching (general and vocational), school size according to enrollment, and geographic location within the region (see Table 1).

The type of institution involved and its specific socio-educational context are highly suited to the topic under investigation. Public high schools are the most complex institutions of the segregated Chilean school system (Bellei et al., 2020), often characterized by multiple socio-educational conflicts (Villalobos et al., 2017). They typically obtain substantially lower academic results than private institutions, limiting their students' higher education opportunities (Bellei et al., 2015). In addition, they are institutions with frequent difficulties in *convivencia[1]*, both among students and between students and the adults who work there (teachers, managers, education assistants) (Weinstein et al., 2024). Finally, these high schools tend to be sites of protests and strikes, often mobilized by concerns for working conditions (Nuñez et al., 2010).

The cases were elaborated from a sequential mixed methodological approach, combining quantitative and qualitative techniques: Social Network Analysis (SNA) and interviews. While SNA provides quantitative insights into the relationships and structures within the network, the qualitative interviews offer rich contextual understanding and personal narratives that enrich these findings. The participants were professionals with responsibility for the classroom: teachers, other professionals, and school administrators. Since 2010, public secondary schools in the country have increasingly included other professionals, such as psychologists, social workers, and special educators, to assist teachers, particularly in integrating students with special educational needs into mainstream education (Castillo & Rodríguez, 2016). Likewise, in Chile, schools usually have school administration teams that are headed by principals but also include other positions that vary in number from school to school, but commonly include the technical pedagogical chief, general inspector, chief of *Convivencia,* among others (Queupil et al., 2021). Descriptive data for each case, as well as the number of professionals responsible for the classroom and the coverage achieved, are detailed in Table 1.

This describes how all members of the educational community—students, teachers, teaching assistants, parents and guardians, and administrators—interact, respect, and collaborate with one another. There is no common term in English that fits this meaning, but the concept is fundamental in the Chilean school system. Most schools, for example, have a Chief of Convivencia.

Table 1

Cases by teaching, enrollment, and geographic location

Cases	Education	Enrollment	Location	Number of professionals with responsibility for the classroom	Number of participants SNA
Case 1	V	780	West	55	49
Case 2	G	1017	North	69	54
Case 3	G	395	Downtown	39	36
Case 4	V	371	West	44	39
Case 5	G	280	South	36	29

Note. Location, according to the Ministry of Education classification (Ministry of Education [MINEDUC], n.d.)

Social Network Analysis (SNA)

Social Network Analysis (SNA) seeks to illustrate the connections individuals establish, the structures that arise from these connections, and the individual and group consequences that ensue. It is based on two fundamental premises: first, that individuals are interdependent; and second, that their relationships enable the exchange of resources—such as experiences and information—affecting individual actions and forming lasting patterns of interaction (Carolan, 2014).

The indicators derived from the application of Social Network Analysis (SNA) reflect the cohesion of the network and the positioning of its nodes. Each indicator considers one or more elements that constitute a network (Hanneman & Riddle, 2005):

- The network encompasses the entire set of interconnected nodes and their connections.
- The nodes represent the entities within the network, specifically the participants involved in the survey.
- Connections, links, or edges represent the relationships between the nodes based on the questions posed.
- The components refer to the subgroups that emerge within the network, characterised by fewer connections to the overall network and a higher internal density.

This study used Social Network Analysis (SNA) to explore the relationships teachers establish within the school regarding various aspects of school life. These relationships were reconstructed using a structured questionnaire based on standards from previous studies in educational contexts (Nicholas, 2019). The questionnaire was designed and piloted with a group of teachers through a cognitive interview. It was then administered to participants, including characterisation questions and reports on their connections with others (Umphress et al., 2003).

The questionnaire comprised three questions categorised by different areas of school life:

Please indicate which co-workers—teachers, non-teachers, and/or managers—you turn to for advice regarding:

1) *Classroom work, teaching practices and styles, learning models, and other didactic matters.*
2) *Issues related to school convivencia such as disciplinary or integration problems among students or between teachers and students.*
3) *Problems concerning working conditions, contracts, missed payments, etc. Consider who can advise you rather than focusing on who can resolve the issue.*

To respond, each teacher was given a list of teachers, managers, and other professionals, numbered alphabetically. The questionnaires were administered during the weekly meetings designated for collaborative work among teachers in each school.

The collected information was transformed into binary adjacency data. Data processing and analysis were conducted using the UCINET 6.4 programme, while additional data were analysed with SPSS statistical software.

To analyse the configuration of the networks, cohesion indicators were chosen to characterise both the degree of connectivity and the internal structure of each network. The following indicators were selected:

- Average (Avr) Degree: average number of connections per node.
- Density: proportion of effective connections with respect to the potential total.
- Component Ratio: ratio between the number of components and the number of nodes (the higher the indicator, the greater the fragmentation).
- Reciprocity: level of bidirectionality in the exchanges.

The values obtained were averaged linearly to facilitate comparisons between the networks, enabling the identification of patterns of similarity or discrepancy in their structures, independent of the specific results from each institution.

To explore the prestige distribution within each institution, we used the Degree of Entry (Indegree) measure, which quantifies the number of connections each node receives. This indicator of receptive centrality acts as a proxy for leadership, as a higher score suggests greater recognition as a reference or prestige in the network. The results from this measure helped us identify individuals frequently sought for advice on specific tasks, highlighting their leadership in pedagogical, relational, or working contexts, regardless of their formal positions.

Semi-structured interview

In addition to the SNA technique, 65 individual semi-structured interviews (Albaret & Deas, 2023) were conducted, between 11 and 15 per case (see Table 2). This approach provided a deeper understanding of discourses and perceptions surrounding teacher leadership, in general, and in relation to each identified area of relevance.

The fieldwork was conducted between October 2024 and May 2025. The interviews involved school principals, other members of the administration teams, and other professionals identified through SNA as people who concentrate leadership within their communities. Each interview lasted approximately 45 minutes.

The Indegree indicator produced by SNA for each case was used for this selection. A total prestige index was defined as the sum of the in-degree connections of each teacher in the four networks evaluated. Teachers and other professionals from each establishment were ranked according to this index and invited to participate in this order until between 7 and 9 per establishment had been completed. In addition, interviews were conducted with the administrators of each school. In Chile, the number of school administrators varies according to the size and type of school. 51% of the participants in the interviews were women. Table 2 shows the participant type, according to their role in schools.

Table 2
Number and type of interviewees per case

Cases	Number of interviewees	Teachers	Other professionals	School administrators
Case 1	14	8	1	5
Case 2	12	6	3	3
Case 3	11	5	2	4
Case 4	15	7	2	6
Case 5	13	7	2	4
Total	65	33	10	22

The topics addressed in the interviews were: i) characterization of the school; ii) concepts and meanings regarding teacher leadership; iii) areas in which teacher leadership is exercised; and iv) teacher leadership practices, taking into account the context in which they are implemented (educational, relational, or professional).

The interviews were coded and analyzed through content analysis (Krippendorf, 2004; Lincoln & Denzin, 1994). Initially, a shared matrix was employed to code the previously transcribed interviews, guided by the topics discussed during the interviews. The coding process was conducted by two researchers from the team using NVivo software. The entire research team subsequently reviewed the codes to adjust the pre-established codes and to reach a consensus on criteria for the cross-cutting inclusion of emerging codes. Following this, each case was analysed individually and compared to the information gathered in the social network analysis.

Finally, a cross-case analysis (Borman et al., 2006) was conducted to identify differences and similarities related to the questions guiding this article. While Social Network Analysis (SNA) provided an overview of the formation and interrelations of teacher leadership within the studied areas, the interviews offered deeper insights into how teacher leadership is perceived, the areas where it is practiced, and the related practices for each.

The research in general and the techniques used to elaborate on the cases were reviewed and approved by the Universidad Diego Portales's Ethics Committee. Participants in both stages of the study provided their consent to participate, with assurances of confidentiality regarding

their data. Each participant was guaranteed that no reports or publications from the study would reveal information about the school or personal traits that could lead to their identification.

Results

The results are developed in three sections. First, we analyze how teacher leadership is conceptualized by the school actors in the interviews of the five analyzed cases. Secondly, through SNA, we sought to quantify and deepen the structure of relationships and how leadership is exercised within each identified dimension of the school life. Finally, we address qualitative findings related to understanding those who hold leadership in each dimension, specifically focusing on teacher leaders and their practices.

Overview of Teacher Leadership by Field of Action

In general terms, by teachers, school administrators, and other professionals who perform their functions in schools, teaching leadership is exercised in two areas that are not necessarily dependent on each other. On the one hand, reference is made to teacher leadership in the classroom, in relation to students and, by extension, to families, and on the other hand, leadership with respect to their peers within the schools.

> I think that, on the one hand, it is related to the classroom and, on the other hand, it has to do with leadership at the level of colleagues or within an institution. (Teacher 7, Case 1)

Regarding teacher leadership in the classroom, although there is a specific diagnosis that it is a characteristic that should be common to the teaching practice, it is recognized by the interviewees in a transversal way that this is not necessarily what happens in practice. This leadership type would be evidenced in teachers' ability to establish and maintain appropriate classroom climates and in pedagogical strategies that contribute to the good development of teaching and learning processes. Likewise, teachers who establish a constructive and close relationship with both students and their families stand out.

In relation to teacher leadership among their peers, the interviews highlight the importance of being able to influence and mobilize others toward a common goal and in decision-making processes. Additionally, they refer to individuals who serve as trusted resources for colleagues, providing guidance in cases of doubt, conflict, or query. This leadership can be recognized and exercised in relation to three clearly distinguishable dimensions: i) Instructional, ii) Relational, and iii) Working conditions, which will be discussed in more detail below.

Teacher leadership in the classroom and leadership with respect to colleagues are not necessarily linked to each other, with some teachers having clear leadership in the classroom but no influence over their peers. Likewise, as will be seen below, depending on the school life dimension in question, both forms of leadership may or may not be interrelated.

> There are others (teachers) who believe they are teachers in the sense that I view myself…they transfer knowledge or generate something in the students, but then they leave and do not make another impact. (Teacher 2, Case 2)

In general, teachers who do not exercise a formal leadership role within the schools find it difficult to recognize themselves as leaders in relation to their peers but not so concerning to their students.

> Strictly speaking, I should lead the activities I must carry out. However, I do not always perceive it that way; more than anything, I feel that I am a responsible person, since I am committed to the things that I am expected to do and with those I want to do as well (...) They indicate that I have leadership in some aspects, but it is not my perception. (Teacher 3, Case 3)

Networks and three types of teacher leadership

In relation to network structure, a first finding is the presence of a significant difference in the average number of connections established per node within each type of network (Avg Degree). Thus, the analyzed schools tend to generate more instructional and relational links than working conditions links.

The density indicator shows that while the ITL network activates 6.1% of all possible connections, the RTL network activates 5.6% and the WCTL network 3.1%, which is approximately half of the previous ones.

A second finding is that, despite the similarities between the ITL network and the RTL network in density and average number of connections emanating from each node, the three analyzed networks show differences in internal structure (see Table 3). On the one hand, the Component Ratio index increases from 0.600 in the instructional network to 0.764 in the relational network, and to 0.909 in the working conditions network. This indicates increased fragmentation in the relational network compared to the instructional network, and greater fragmentation in the working conditions network compared to the other networks. On the other hand, the networks show differences in the reciprocity of their connections (Arc Reciprocity). While 48.3% of the connections established within the ITL network are reciprocal connections, only 28.6% of the connections in the RTL network and 17.2% of the connections in the WCTL network comply with this characteristic. This translates into the configuration of a working conditions network whose central nodes concentrate prestige, a relational network with similar behavior, although less marked, and an instructional network that distributes prestige to a greater extent, limiting the generation of subgroups.

Table 3
Indicators of cohesion, leadership, and networks (Average of 5 schools)

Indicator	ITL Network	RTL Network	WCTL Network
Avg Degree	2.9	2.6	1.5
Density (ratio)	0.061	0.056	0.031
Component Ratio	0.600	0.764	0.909
Arc Reciprocity (ratio)	0.483	0.286	0.172

The graphs presented in Figure 1, belonging to Case 3, illustrate the differences and similarities observed between the networks.

Figure 1
Network visualization - Case n°3
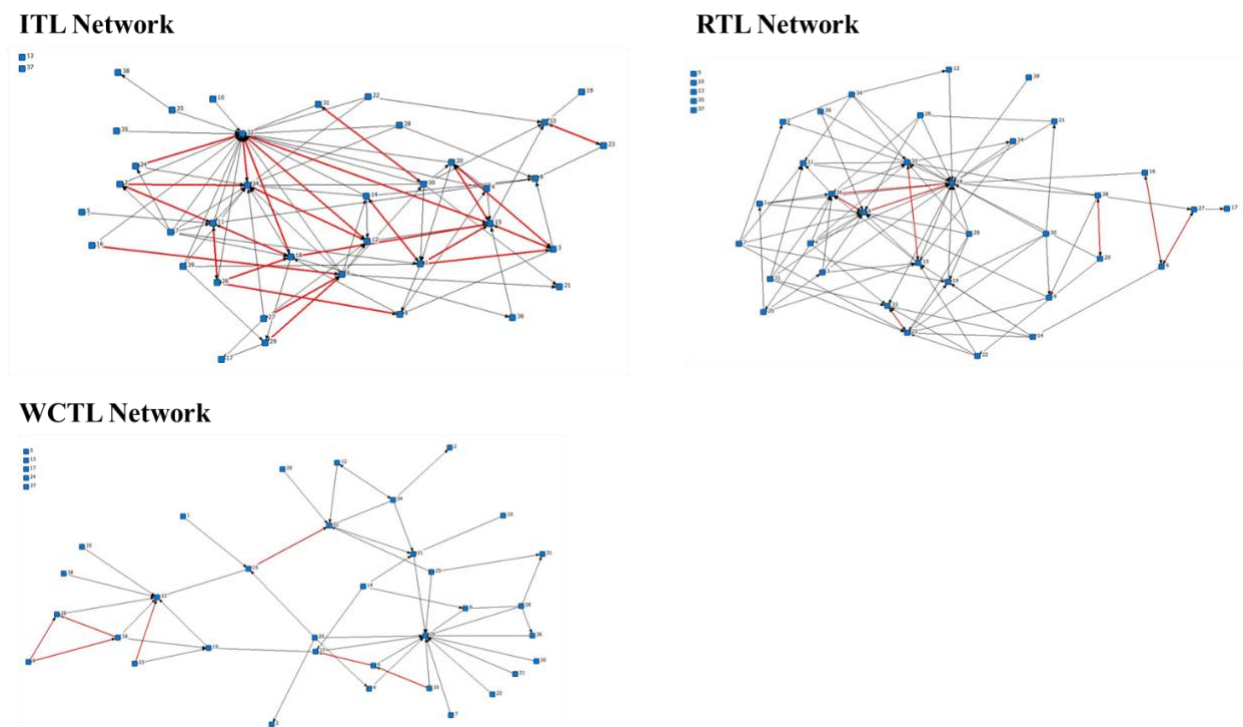
Note: Dots represent nodes and ties represent connections. Red ties indicate reciprocal connections, whereas black ties indicate non-reciprocal connections. The dots shown below each network title represent isolated nodes, that is, nodes with no reported connections.

A third finding regarding the similarity between the ITL network and the RTL network is that the connections established tend to overlap only partially. To analyze this aspect, an ad hoc indicator was constructed to show the proportion of links present in both networks, reaching an average of 41%, ranging from 33% to 47% depending on the institution. This data indicates that between a third and a half of the leadership links within the schools operate simultaneously for instructional and relational issues. The level of overlap is lower between the ITL and WCTL networks and between the RTL and WCTL networks. Table 4 shows that this occurs in 25% and 24% of the links, with maximums of 33% and 29% respectively.

Table 4
Overlap between networks

Networks	Average of five institutions		Ranges	
	RTL	WCTL	RTL	WCTL
ITL	41%	25%	33% - 47%	17% - 29%
RTL	--	24%	--	20% - 33%

Leaders and their practices in the three networks

A second level of analysis aimed to identify those holding leadership positions in each network focusing specifically on teachers and their practices. In the available literature, a distinction is usually made between middle leaders, who continue to work primarily in the classroom but take on an additional role (department head), and teachers (Gurr, 2024; Nicholas, 2019). Although some recent research has focused on department chairs in Chile, these are not normatively established structures in the Chilean educational system (Montecinos et al., 2025; Montecinos et al., 2024), and that in the studied cases, there was significant diversity in this regard; two schools had formal middle leader positions. Still, three others did not, so we decided not to consider this differentiation in the analysis.

Table 5 shows the percentage of teachers in the upper quartiles of more prestigious nodes in each school according to sphere of influence (instructional, relational, and working conditions), differentiating them from school administrators and other professionals working in the schools. Indeed, the importance of teachers in the networks is superior on instructional network than in the other two as we´ll explain in the description of the next sections.

Table 5
Presence of each segment in the top quartile of prestigious nodes

Networks	Average participation of each professional segment		
	Teachers	School administrators	Other professionals
ITL	45,5%	38,2%	16,3%
RTL	25,5%	52,7%	21,9%
WCTL	38,4%	46,5%	12,3%

The instructional teacher leadership network

The ITL network is the densest, least fragmented, and shows the greatest reciprocity. It is also the network within which the teaching staff concentrates greatest prestige. Furthermore, 25% of the most prestigious nodes in each school are distributed mainly between school administrators and teachers, with a greater presence of the latter. A common feature is the presence of influential teachers, whose concentration of prestige is comparable—and in some cases displaces—that of those who exercise leadership from a school administrator position.

From the interviews, it has been possible to identify a set of practices alluded to in the schools regarding the practices carried out by teachers who are identified as leaders in instructional terms (see Table 6). They are teachers who advise on matters related to teaching, practices related to the promotion and establishment of teacher collaboration also emerge, as well as the motivation and constant promotion of pedagogical actions beyond the classroom in their schools. It is also interesting that teachers who provide support to colleagues during national teacher evaluation processes are recognized as leaders across the board. Public sector teachers must be evaluated in Chile to advance their professional careers. As part of this process teachers are required to prepare a portfolio of evidence of their teaching work. The types of support requested and provided by teachers reflect a recognition of their skills and knowledge and their experience in these processes. The following table shows the practices and references in this regard.

Table 6
Pedagogical teacher leadership

Category	Practices	Quotations
Teacher collaboration	• Provide guidance and advice to peers regarding pedagogical strategies for classroom management.	"For example, can you say to people: hey, I have doubts in this planning, or not? She knows that you are wrong" (Case 4)
	• Share work material. • Advise on content planning and assessment issues. • Share teaching strategies and activities.	"Teacher X is the one... who gave me much advice. She was the one who told me: You have to do this, do not yell, because I will only regulate them, you have just to be quiet or start talking quieter so that they (students) start to lower the volume so that they can hear you. She always gives me advice. Much advice, yes" (Case 1).
Promote pedagogical actions	• Propose pedagogical activities at the school level (departmental, area, and/or general). • Organize and coordinate pedagogical activities at the school level (by department, area, and/or general). • Motivate and encourage peers to participate in pedagogical activities. • Advise and assist in national teacher evaluation processes.	"I also highlight how the teachers who are the coordinators of the departments, who are the ones who generate and plan the activity, and have the task of mobilizing all the other staff members to make it happen…I think this is not necessarily a quality of all department coordinators…in some others, perhaps that quality is weaker" (Case 1).

The relational teacher leadership network

In the RTL network case, it was observed (see Table 5) that the nodes that receive the most significant connections correspond to school administrators (52.7% of the most prestigious nodes are from this segment). In comparison, teachers make up 25.5% of the most prestigious nodes, and other professionals make up 21.9%. In other words, the school administrators have the most important influence on the relational school life dimension. In this area, the other professionals reach the highest level of influence within the schools. At the same time, although they do not centralize prestige, it is necessary to highlight that it is in this network that the other professionals show the greatest leadership. Their leadership is linked to the role they play, often as part of the *convivencia* or psycho-social teams (psychologists, social workers, special educators), positions in which they can provide advice.

Our qualitative fieldwork found two types of practices in terms of RTL. The first is linked to advising and providing support on school coexistence issues; the second is linked to promoting a good working environment and *convivencia* among adults as part of this area. In the first type of practice, interviewees described teams working together; in the second, interviewees

referred to teachers who spontaneously perform this type of role occurring more frequently regardless of formal structures within the school. Table 7 shows both types of practices.

Table 7
Relational teacher leadership.

Category	Practices	Quotations
Support and advice on coexistence issues	• Advise teachers on how to deal with coexistence problems, such as bullying among students.	"Several teachers arrive, always with problems, with students or with parents, and we offer them a seat. Listening to them, active listening." (Case 1)
	• Provide support and containment to teachers in conflict with students and/or parents.	"There is a teacher who loves to do things at the end of the year... she does not speak all year, but when it is like Christmas and the friend's secret as the Christmas spirit takes her" (Case 3).
Promote good coexistence	• Organize and promote coexistence activities among adults in the school (birthday celebrations, end-of-year outings, etc.). • Assume coordination or leadership roles in school events or institutional celebrations.	"I also have another colleague who, with our group, is organizing a trip at the end of the year" (Case 4).

The working conditions teacher leadership network

The WCTL network case shows different characteristics from the previous ones and a lower level of overlapping. Furthermore, the most prestigious positions—upper quartile of nodes that concentrate a greater number of direct connections—are distributed between teachers and school administrators, with a greater presence of the latter and a lower participation of other professionals.

Our analysis shows that, unlike in other networks, in the working conditions network, teachers more commonly identify administrators rather than teachers as their sources of support. In our sample schools, these leaders are often those who exercise a representative role, at the local level, in teachers' unions or associations, or at the regional and national level (and sometimes both). However, this type of teacher leadership tends to be much more instrumental than the previous ones. It emerges with force at certain moments, either for individuals with particular needs, such as the need for information and support to present a professional or labor demand or concern to school authorities, or collectively, for example, within a teacher mobilization like a protest or a strike. Interestingly, these are not leadership roles linked to other schoolwork areas. In this regard, an interviewee points out: "It depends on the moment, because

when a critical situation occurs, the working conditions leadership appears, and they appear." (Teacher 3, Case 2).

Table 8 summarizes the teacher leadership practices identified by the school actors in this regard.

Table 8
Working conditions teacher leadership.

Category	Practices	Quotations
Information on labor rights	• Provide advice and information to teachers during a labor problem or conflict. • Share information on labor and education laws related to teaching. • Keep teachers informed/updated on local or national union issues.	"They call them (management), and they leave badly, and then, Hey, next meeting. You can join me as a minister" (Case 4). "I recognize leadership, for example, with a colleague who is keeping us updated on the teaching contingency at the level of the teachers' union" (Case 5).
Role of spokesperson and promoter of demands	• Assume the role of "witnesses or ministers of faith" for teachers regarding school authorities. • Assume the role of spokesperson for teachers' union demands at specific times. • Motivate teachers to get involved and participate in local or national teacher mobilizations.	"There are teachers who are delegates, and they are always there giving support and consulting on everything. Informing (...) as in more administrative issues, perhaps as in… I do not know. Meetings of the Teachers' Council are the ones that inform us and are always asking us if we want to register for this or that; you have to go to meetings. They are, and I have to agree to vote for something. They are the ones who do all that, so they kind of have to lead the teachers." (Case 1)

Conclusion and Discussion

The main results of our analysis of three types of leadership in social networks of public high schools in the Metropolitan Region of Chile are:

1) We identified 3 primary kinds of networks among teacher leaders. These vary according to the three dimensions of school life, with the instructional and relational having a greater number of links and density than the working conditions one.
2) The three networks are different in terms of their internal structure, with the ITL network having the least fragmentation and the greatest reciprocity, followed by the RTL network, and with the WCTL network in third place in both dimensions.
3) Although they partially overlap, each network has a majority of specific links indicating that it is a network of differentiated influence. The most significant overlap

is between the ITL and RTL networks, but even with those, almost 60% of the links are differentiated.

4) Some teachers identify school administrators as leaders. While their weight is greater in the RTL and WCTL network, it is less in the ITL network, where teachers predominate. Teachers also identify other professionals as leaders, albeit in a minority.

5) In the three analyzed dimensions of school life, teacher leaders can devise a set of practices usually known in the specialized literature for pedagogical aspects. At the same time, they are more novel in the case of relational and working conditions aspects.

In sum, the results show that differentiated leadership networks exist for secondary school teachers regarding instructional, relational, and working conditions. There are different teacher leaders for different networks.

These findings invite us to reflect on the diversity and breadth of teacher leadership, including more decisive dimensions of school life, such as relational or working conditions, which have been little considered, if not directly forgotten, by an essential part of the main literature on the subject. An illustration in this regard is the standards developed more than a decade ago by a group of American academics (Teacher Leadership Exploratory Consortium, 2010). They proposed seven dimensions of teacher leadership: (1) foster a collaborative culture for educators and students; (2) access and use research for practice and student learning; (3) promote professional learning for continuous improvement; (4) facilitate improvements in instruction and student learning; (5) promote the use of assessments and data; (6) improve outreach with families and community; and (7) advocate for student learning and the profession. Beyond their unquestionable validity in pedagogical matters, it is difficult (but necessary) to include more explicitly in these dimensions the practices that teacher leaders must develop to address the important issues of relational or *convivencia* and working conditions that arise in schools.

We are interested in reinforcing the message that teacher leadership matters. By considering these overlapping realms of teacher leadership, it is possible to place educational improvement in a broader perspective. When school operating conditions divert the focus and energy of teachers in other directions, teaching and learning suffer. This is precisely what happens in Chile's public high schools when problems of coexistence arise, among students, between students and teachers, among teachers themselves, or when conflicts arise with the authorities due to the prevailing working conditions (Bellei et al., 2020). It is, therefore, especially important to note that in the face of these dimensions of school life, there are also informal teacher leaders who influence teachers' work. Their presence and practices should be made visible.

We believe it is necessary to deepen research on the plurality of teacher leadership. This study raises initial findings about the different kinds of teacher leader networks in a sample of secondary schools; understanding more about their independence and autonomy should be complemented by further research. For example, it would be of interest to visualize whether the individual characteristics of teacher leaders have elements in common among the three networks, and what these might be, or whether there is a kind of multidimensional leader (or *super leader*) who exercises leadership both in the instructional and in the relational and/or working conditions aspects. The same could be studied concerning the impacts of teacher leadership, both among the

leaders themselves and among students and their families, other teachers, or the school organization as a whole. It would be particularly useful to uncover if there are synergies between the different forms of leadership, in which, for example, the effect of instructional leadership may be enhanced when it operates in coordination with relational and working conditions leadership. It would be of special interest to investigate how much weight the culture and structure of the schools has regarding the formation of the three leadership networks identified.

As has already been highlighted by active international research networks (Webber, 2023), gathering the perspectives of different school systems makes it possible to delve deeper into how social, political, and cultural contexts affect teacher leadership, both in its causes and modes of expression and effects. It would be helpful to investigate how the three types of teacher leadership identified in this study vary, to visualize whether the plurality of networks of influence detected is a phenomenon typical solely of a specific national reality, such as Chile's, in which the problems of *convivencia* and working conditions are of great relevance for teachers, or whether it is a more general phenomenon, common at least for Latin American educational systems.

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