Managing School Climate Issues at the School District Level: A Comprehensive Review of the Literature*

Gestión del clima escolar a nivel de distrito escolar: una revisión comprensiva de la literatura

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ABSTRACT

Several research have studied how school management impacts cognitive and non-cognitive components of students' lives. However, less is known about what district level administrators do when dealing with issues concerning school climate. This study aims a comprehensive review of the literature on school district level involvement in school climate, with focus on the underlying school climate construct, methods, and associated outcomes. The results show four dominant dimensions: community, safety, risk, and academic performance. District level administrators are concerned not only of students' but also of teachers' wellbeing, with special focus placed on teacher stress and burnout. Despite the positive impact of informed decision making on school performance, accountability pressures involved in meeting evaluation criteria may offset the benefits. Our review confirms the need to support district leadership to set the goals and measure the progress of successful strategies to manage school climate issues.

Keywords
school climate; management; school district; comprehensive review.

RESUMEN

Diversas investigaciones han estudiado cómo la gestión escolar afecta los componentes cognitivos y no cognitivos de la vida de los estudiantes, pero poco se sabe sobre lo que hacen los administradores distritales cuando enfrentan problemas sobre clima escolar. Este estudio presenta una revisión comprensiva de la literatura sobre la participación distrital en el clima escolar, con énfasis en el constructo utilizado, métodos y derivaciones. Los resultados muestran cuatro dimensiones dominantes: comunidad, seguridad, riesgo, y rendimiento académico. Los administradores distritales están orientados tanto al bienestar de estudiantes como de profesores, con un enfoque especial en el estrés y agotamiento de estos últimos. La toma de decisiones informadas posee un

impacto positivo en el rendimiento escolar, pero la rendición de cuentas involucrada puede contrarrestar los beneficios. Nuestra revisión confirma un necesario apoyo al liderazgo distrital para establecer metas y medir el progreso de estrategias exitosas para abordar problemas de clima escolar.

Palabras clave
clima escolar; gestión; distrito escolar; revisión comprensiva.

Research have found that learning outcomes are influenced and may be predicted by school climate (SC) (Barile et al., 2012). A good climate increases the sense of security (Benbenishty & Astor, 2005), prevents and reduces the level of violence and bullying (Karcher, 2002a, 2002b; Skiba, 2015), boosts wellness and healthy life by promoting skills to improve participation, citizenship and respect for diversity (Berkowitz & Bier, 2005), and reduces the risk of mental disorders and drug addiction (NSBA, 2017).

Traditionally, the focus of research on school climate has been at the school level (Berkowitz, Moore, Astor, & Benbenishty, 2017), leaving the district level mostly unexplored (Campbell & Fullan, 2006). District level or school districts, are the organisms that articulate the needs and the information flow between schools and the central level (districts, superintendence, etcetera), conveying the demands of the school to the central levels, and/or downloading the ministerial and district requests and regulations to the school (Campbell & Fullan, 2006).

School districts have an important responsibility to improve the quality of education, and by extension the school climate of their institutions (Anderson, Leithwood, & Strauss, 2010). However, the relationship between district level and school climate is still unclear. There is a gap in the literature concerning what school districts do to manage school climate, how they understand school climate, and what actors are involved in these processes.

In this study, our aim was to explore how the district level may contribute by adding a complementary layer and a different perspective about how do manage school climate.

To do this, we conducted a comprehensive review of the literature on research about how school districts deal with school climate. Our task was to identify a) conceptions of school climate, b) methods, unit of analysis, and sample; and c) strategies and district level agendas.

School climate constructs

The concept of school climate derives from the organizational conception of organizational climate. In this sense, early in the 60's, the latter was used to analyze variables of the organizational life that would conduct to organizational effectiveness, as improving wellbeing, reducing turnover, rotation, absenteeism, and sick leaves (Zullig, Koopman, Patton, & Ubbes, 2010). In turn, from the beginning, school claimate was associated with learning and teaching outcomes, suggesting that a better school climate would yield better learning environments (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013).

Thus, there seems to be no consensus about this construct and the dimensions it that define it (Cohen, McCabe, Michelli, & Pickeral, 2009). However, recent studies reveal some degree of agreement in recognizing that at least four dimensions are involved in understanding school climate: a) safety, b) academics, c) community, and d) institutional environment (Wang & Degol, 2015). School safety refers to the physical and emotional security that provides a school to its members, along with the degree of order and existing. Safety is usually understood as encompassing three aspects: physical safety, emotional safety, and order and discipline. Moreover, international studies denote the relevance of learning and teaching process, considering three sub-dimensions: leadership, teaching and learning, and professional development. Following this, Community is understood as the quality of interactions within the school, addressing four aspects: quality of interpersonal relationships, connectedness, respect for diversity, and community engagement. Finally, the institutional

environment refers to the adequacy of the school setting and includes three sub-dimensions: environmental adequacy (e.g., temperature and lighting), structural organizations, and resource availability discipline (Devine & Cohen, 2007; Thapa et al., 2013; Wilson, 2004).

Another area of concern is related to the metrics of the school climate construct. The literature reports different strategies to measure school climate. Regarding this, surveys or questionnaires applied to students, teachers, or parents are frequently used, and only few studies included multi-actor perspectives, where only 8% of the studies analyzed by Wang and Degol (2015) used focus groups to assess school climate.

Research in this area took off once Halpin and Croft (1963) reported studies linking school climate to learning outcomes. In the 80's, school climate became recognized as one of the most important variables in the studies of school efficacy (Anderson, 1982; Bryk & Schneider, 2002), reporting a positive impact on student academic performance, wellbeing, and development.

In addition, other studies have also analyzed the mediating impact of school climate on connectedness and engagement (Wang & Holcombe, 2010) and on sense of safety (Benbenishty & Astor, 2005). Finally, other researchers have shown that the relationship between socioeconomic status (SES) and academic achievement varies across schools according to the quality of the climate they have (Cheema & Kitsantas, 2014).

Management and administration: their influence on education at the district level

Management has been historically a concept used in different public and private areas, and across industries at the local, regional and national levels (Truss, Mankin, & Kelliher, 2012).

In the case of education, the concept of management applies to the set of articulated strategies that coordinate rational procedures to meet organizational goals and objectives.

As such, this process involves planning, administering, organizing, coordinating, and evaluating resources used for educational outcomes (Okumbe, 1998; Truss et al., 2012).

This perspective has been strongly associated with efficiency and efficacy in responding the defined goals of educational organizations (Spaulding, 1977), but also connected with strategies and practices for improvement, quality, and their evaluation (Bell, 2002; Eacott, 2008). In this regard, data-based and data-driven decision-making tools have acquired attractiveness in different settings, ultimately incorporating the importance of context and diversity of configurations of educational organizations (Schildkamp, Lai, & Earl, 2013). Some of them, in the form of standards, quality management systems, and others, in the form of programs and interventions at the local and district levels (Hoogland et al., 2016; Sallis, 2014).

Lewin (2015) points out that thematic priorities such as social inequalities, learning outcomes, governance and accountability, and resilience of education systems, require tools for designing, monitoring and evaluating educational policies and plans. Therefore, as underscored by Lewin (2015), capacity building is also an important issue for educational planning and management. This includes strategies such as training programs and support for educational administrators, encouraging a favorable and cooperative environment for educational change, and technical cooperation.

This has also received attention from the perspective of organizational shared values and interests, collaborative cultures, community partnerships and networking (Connolly & James, 2006; Glatter, 2003). Management skills and active collaboration and engagement of stakeholders (students, parents, teachers, district staff, etc.) have become relevant to define a successful model of school (James, Dunning, Connolly, & Elliot, 2007), and even for aspects such as conflict management and job fulfillment.

Furthermore, significant administrative variables have emerged, such as standards, accountability, educational policies,

transparency, and independence issues in the management of education, mainly as mechanisms performed by a responsible entity to control, examine or evaluate progress and outcomes (Eacott, 2008; Levačić, 2008).

In addition, the literature tends to associate educational management with the administration of education and educational leadership (Bolam, 2004). A significant body of the educational management research has focused on the role of school teachers and principals (Cothran, Kulinna, & Garrahy, 2003). Nevertheless, in order to be successful, they need the support of school districts or district leaders/managers (Bush, 2007; Uribe et al., 2016). Thus, and particularly in the United States, school districts are part of the organizational processes that support the schools, playing a significant role through leadership and managerial actions. The literature reveals that the role of school districts is crucial in delivering and supporting change strategies in processes such as educational reforms (Phelps & Addonizio, 2006; Spillane, 1996). Research outcomes indicate that district leaders who engage on setting pertinent goals are likely to successfully manage change and have longer tenures, thus being able to witness higher rates of high-performing students (Pascopella, 2011), following specific leadership frameworks (Elliff, 2012).

In many different contexts, educational district leaders need to deal with issues such as professional identities, scope of roles, status, and power (Briggs, 2007; Busher, 2006). However, most of the research on the characteristics of effective schools has overlooked the role of district leaders (Anderson, 2003). As a consequence, it is still unclear what the dominant role of the district level is on relevant outcomes of students and school environments.

Methods

This study was conducted through a comprehensive review of the literature using the following procedure: search strategy; definition of inclusion/exclusion criteria; and data extraction

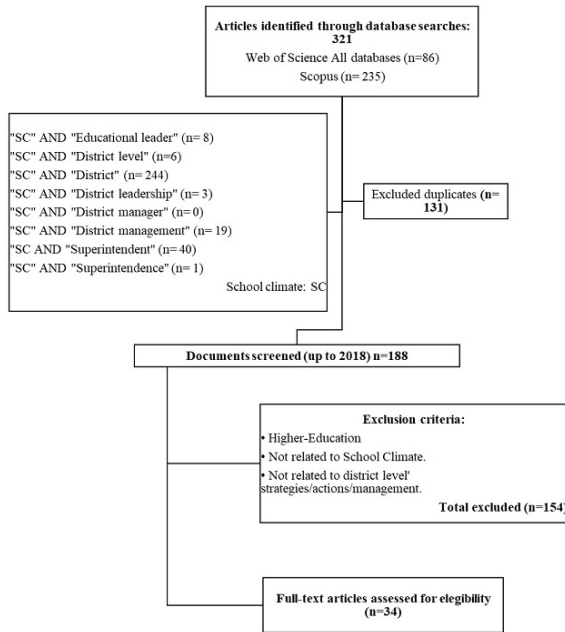process (Bjorklund Jr., 2018; Davies & Rizk, 2017; Siddaway, 2014).

Two major academic repositories were reviewed, Web of Science (WoS) and Scopus. These repositories were selected since these provide a significant source of high-quality worldwide scientific literature (Siddaway, 2014). In this sense, documents, such as articles, book chapters and reports were assessed (Clarivate Analytics, 2018; Elsevier, 2018). In the case of WoS, the ten indexed databases were considered (see Figure 1).

In order to advance towards a comprehensive characterization of the actions conducted by school districts to manage school climate, the initial search included the whole collection of published articles until 2018, regardless of language.

The search terms were selected to ensure the compilation of articles related to how districts manage school climate. These searches using the Boolean separator "AND" were: "school climate" AND "educational leader"; "school climate" AND "district"; "school climate" AND "district-level"; "school climate" AND "district leadership"; "school climate" AND "district manager"; "school climate" AND "district management"; "school climate" AND "superintendence"; and "school climate" AND "superintendent".

We identified a total of 321 articles. After removing duplicates (n=131), titles, keywords, and abstracts of 188 articles were analyzed. After this assessment, the number of eligible research publications dropped to 154, which after a full-text assessment and the application of the exclusion criteria was further reduced to 34 documents. Two independent researchers analyzed the articles contained in the dataset. Eventually, a third researcher participated in the analysis to resolve disputes. The exclusion criteria included non-empirical publications and research that did not involve the direct participation of school districts. More detail about the exclusion criteria can be found in Figure 1.

Figure 1.
Flowchart evidencing the process of articles' review

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            ┌─────────────────────────────────────────────┐
            │ Articles identified through database searches:│
            │                      321                      │
            │       Web of Science All databases (n=86)     │
            │              Scopus (n= 235)                  │
            └─────────────────────────────────────────────┘

┌────────────────────────────────────────┐
│ "SC" AND "Educational leader" (n= 8)    │         ┌──────────────────────┐
│ "SC" AND "District level" (n=6)         │         │ Excluded duplicates  │
│ "SC" AND "District" (n=244)             │─────────│      (n= 131)        │
│ "SC" AND "District leadership" (n=3)    │         └──────────────────────┘
│ "SC" AND "District manager" (n=0)       │
│ "SC" AND "District management" (n=19)   │
│ "SC AND "Superintendent" (n=40)         │
│ "SC" AND "Superintendence" (n= 1)       │
│                   School climate: SC    │
└────────────────────────────────────────┘

          ┌─────────────────────────────────────────┐
          │ Documents screened (up to 2018) n=188   │
          └─────────────────────────────────────────┘

                    ┌──────────────────────────────────────┐
                    │ Exclusion criteria:                  │
                    │ • Higher-Education                   │
                    │ • Not related to School Climate.     │
                    │ • Not related to district level'     │
                    │   strategies/actions/management.     │
                    │                Total excluded (n=154)│
                    └──────────────────────────────────────┘

                    ┌──────────────────────────────────────┐
                    │ Full-text articles assessed for      │
                    │        elegibility (n=34)            │
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Following this, a categorical content analysis was conducted using the bottom-up perspective recommended by Grounded Theory in order to generate a data-based theory (Glasser & Strauss, 1967). As part of this process, two researchers conducted an independent open coding of the data. They later agreed on categories that were mostly similar, which became conceptually and collectively defined. We used inter-subjective triangulation for rigor (Bjorklund Jr., 2018; Cáceres, 2003). Therefore, after conducting the individual analyses, our research team reached consensus about the categories to be used, in order to use only those categories that were deemed to be conceptually and methodologically consistent and robust.

Results

We found evidence of at least three relevant factors that could contribute to understanding not only what seems to be involved in school district management of school climate, but also the about the context. Hence, we present: a) the construct of school climate as understood by the researchers; b) characteristics of the methodology (participants, sample, and type of study or design); and c) the actions implemented at the district level to deal with school climate issues. The details of these findings are presented on Table 1.

Table 1
Characterization of School Climate Perspective, Methods Employed and Strategies, Actions and Findings of the Articles

Note n = 34

Definitions of school climate at the district level

A great deal of the articles analyzed take a multidimensional perspective at the district level. This is consistent with all reports about the conceptualization and metrics of school climate (Wang, & Degol, 2015; Thapa et al., 2013; Cohen et al., 2009).

As Table 2 shows, the dimension most frequently used in the school climate construct is *community*. The dimension of *safety* comes second in terms of the frequency it is used in the conceptualization about school climate at the district level. The dimension of *risk factors* ranks third in terms of prevalence in the papers we analyzed.

Table 2
Analysis of School Climate Perspectives

Article	Safety	Mental health	School community/ Social interactions/ relationships	Inclusive	Academic	Risk perspective alcohol, drugs, violence, bullying	District/ School leaders (student, teachers, parents)	Social emotional	Wellbeing	Comfortable	Respect	Culture	Physical environment
1.							X				X		
2.	X	X	X		X								
3.				X									
4.					X								
5.	X					X							
6.			X										
7.	X	X	X			X		X					
8.		X				X							
9.					X	X							
10.	X					X							
11.						X				X			
12.			X										
13.	X											X	
14.					X								
15.													
16.			X										
17.			X			X							
18.	X	X	X										
19.	X		X			X	X	X			X		
20.	X			X		X							
21.													
22.				X									
23.					X								
24.				X									
25.	X		X		X								
26.			X				X						
27.			X										
28.					X								
29.													
30.	X		X		X								
31.	X				X	X	X		X				X
32.			X				X						
33.			X										
34.						X							
Total	11	4	14	4	9	10	5	2	1	1	2	1	1

Beyond the dimensions involved in these perspectives, new dimensions emerged concerning school climate (Thapa et al., 2013; Wang & Degol, 2015). Two new areas were identified in three articles, both dealing with the

levels of teacher stress and burnout. In addition, issues of transparency, management autonomy, co-responsibility and the consequences or impacts they have on how schools handle climate issues were detected in four articles.

Research design, unit of analysis, and sample

Our study revealed that the methods used by researchers vary over a wide range of quantitative, qualitative and mixed methods (see Table 1). However, the use of qualitative approaches dominates research reported at the district level, through interviews, document analyses, case studies, and field reports. Qualitative methods used include case studies, documentary research, intervention programs, and deliberative procedures. Furthermore, among information production methods we noticed the use of interviews to adults in the district, such as teachers, superintendents, parents, supervisors from the Ministry of Education, directors in charge of training programs for school principals; and field reports of visits to schools as observers of behaviors by different actors.

Among quantitative studies, we were able to identify longitudinal studies, multilevel studies, as well as correlational studies, and the use of factor analysis and regressions. Data collection methods were mainly surveys where participants were mainly adults from the school.

Strategies and agendas at the district level

We produced six categories to promote and improve school climate at the distict level:

Network construction . The coordination and management of networks emerges as a relevant topic when school climate unfolds at the district level. First, we found that research reports that networking between the district level and universities tends to improve school performance, and second, we identified the existence of coordination networks between the State, the school district and the school.

Concerning networks between districts and universities, a variety of articles pointed out that school change strategies require the support of community organizations. Universities are reported to take on a fundamental role. In this sense, the literature reports that these organizations are allies that are considered fundamental when it comes to deploying plans and programs to improve school climate at the district level.

District-university relationships generate trust and credibility, since they allow the different community stakeholders to express their opinions and needs. In this sense, district-university bonds warrant free utterances by a wide variety of voices. Besides, district-university ties help to maintain the focus and meet the objectives that were set out by the same stakeholders. One analyzed article provided evidence that a district-university bond helped to identify the need to create new job positions to boost the level of learning by students. Another article provided evidence that improvement at the district level is based on the capacity to generate empiric evidence that would allow the deployment of processes and informed decision-making. To that effect, the university became an indispensable ally.

At the State-district-school interface, the coordination between these three levels is reckoned as fundamental. Change at the school level entails support and accompaniment during the deployment of strategies to improve the school.

District-specific policies. This dimension involves a diversity of agendas and policies deployed at the district level in support of school climate. Thus, it incorporates inclusion policies and the way they are communicated. One analyzed article reported that districts with specific LGBTI policies present lower levels of victimization and social aggression than districts that have generic policies. Districts that have developed policies and specific agendas to support minorities have a higher degree of racial inclusion. On top of this, another examined article adds the relevance of

contextual characteristics in the inclusion of LGBTI students.

On the other hand, the way in which the district communicates the policy and its outcomes is relevant. Generic and school reality agnostic communication turn out to be purely informative to educational communities. One analyzed article suggests that a comprehensive approach should be used, communicating detailed and in depth information. The assessment of the policy also becomes relevant. In this sense, another examined article claims that policies that assess gunfire threats, firearm bearing and gangs turn out to be counterproductive, since they tend to stigmatize students with mental health conditions, skin color and behavioral disorders. Besides, the assessments send the message that the school is not safe if it does not have a police force. Also, one more article provides evidence that high accountability policies end up putting teachers under stress.

District culture. This dimension alludes to actions that underscore the influence of district and school cultures in the construction of school climate. One examined article emphasizes the relevance of taking into account the influence of cultural variables at the district level when dealing with school climate. In this sense, the focus shifts towards the climate and the relationships that are constructed by the district staff. For instance, another inspected article provides evidence that weak relationships among district leaders not only create a negative social climate, but also inhibit the flow of ideas and practices across the district, which affects particularly low performing schools.

In contrast, pressure, an abundance of other programs, and lack of support emerge as factors that have a negative effect on the ability to manage these initiatives. Contextual characteristics, such as a rural condition and the educational level of adults have an impact on school climate. Districts with rural schools and a lower level of education of adults perceived school climates with higher degrees of hostility, argues one reviewed article. The articles analyzed suggest that educational and district leaders either adapt their practices to the context where

they are involved, prioritize shared values, or create collaborative cultures to enhance school climate.

Interventions. An important number of articles refer to the deployment of interventions in schools at the district level, which helped to reduce bullying events, or improve SC through programs involving either physical activities or musical activities. Results are also reported that incorporate the community improvement of physical health as well as mental health at the school level. In terms of the development of competencies, one reviewed article reports having deployed a program called "competency education", which improved school climate. Another article explained the implementation of a "Youth Leader Program" (YLP), which reduced the level of suicidal events and drug abuse.

Even when the interventions described above were conducted at the district level, the studies did not always report if and how the used their findings to inform the educational policy of the district. In this sense, a large number of the articles reviewed produce scientific information that might not get transferred at the district level. Only two articles explicitly mention that the findings of intervention programs at the schools were taken into account by district policy makers. For instance, one of these articles indicated a mediation program deployed in seven district schools, in partnership with a university. The experimental group recipient of the program "Mediator Mentors" revealed significant differences in the sub-dimension thoughts and feelings, compared to the non-mediators group, which scored better in the safety, connectivity and sense of belonging dimensions. The article explicitly mentions that following the study, the district implemented the program "Mediator Mentors" in all 102 schools of the district. The other article described the application of a socio-emotional development program in eight schools of a district, concluding that it is possible to deploy the program at the district level even in times of budgetary and leadership stress.

Finally, an article reported a study on contextual factors at the school and district

levels, and suggest that the levels of support and interest of the district were fundamental in the deployment of programs. On the other hand, the deployment of evidence based programs has been shown to be fundamental to improve school climate and mental health. In this sense, one article showed that the use of e-leadership technologies and databased decision making helped to improve school climate.

Accountability. This dimension refers to systems for the deployment of data-informed decision making, assessment, monitoring, and standardized evaluations. Within this dimension, salient articles have a positive evaluation of accountability systems. One of these articles claims that, in order to keep a positive school climate, data informed decision making is necessary, in particular data about student needs and organizational factors. This information becomes essential for the creation of school improvement plans and to generate the conditions for academic success. Similarly, another examined article claims that school quality benefits from the integration of internal and external assessments. By combining both, the scope of the assessment is broader, bias is lower and the assessment of school quality is enhanced. One more reviewed article suggests that there is a need to create regulations that are fair, clear and known to students, parents and teachers. Quality management systems have a positive impact on aspects such as the development of school norms and teacher participation in initiatives to improve schools and to develop positive school climates.

Counter to what we described above, some articles describe the damaging effects of accountability on school climate. One of them indicates that test-based accountability policies may predict great teacher turnover and higher levels of teacher stress, since they involve deployment pressures. Therefore, we notice a direct effect of accountability on the quality of life of teachers, which impacts school climate. Another reviewed article indicates that an increased level of predicted accountability pressure increases the level of environmental stress, curriculum related issues, generalized teacher stress, test-specific teacher stress and also negative peer relationships among students, which is also associated with teacher stress. One more article indicates that the deployment of educational policies and reforms such as test-based accountability generates high levels of student stress and anxiety before tests. Primary sources of test stress derive from administrator pressure and parents.

Discussions

The present work shows that the heterogeneity of understandings about school climate is congruent with the meanings identified in the specialized literature (Thapa et al., 2013, Cohen et al., 2009; Wang & Degol, 2015). This heterogeneity can be explained by the postulates which suggest that SC approaches must attend to cultural and contextual variables (Benbenishty & Astor, 2005). Considering this, interestingly, some of the analyzed studies incorporate two new dimensions to understanding SC. One of those is referred to the wellbeing and mental health of schools' adults (in particular, the teachers). The second is related to administrative and managerial factors, alluding for instance, to the effects of accountability, leadership, transparency and autonomy and their relation with SC. Contrasting with previous literature in SC, these findings suggest that school districts have different needs and concerns than schools.

Moreover, this study exposes that, in terms of methodology and instruments to measure SC, this diversity is replicated. Indeed, although a management perspective would suggest a universal design and understanding of SC that can contribute to formulating public policies, we argue the need to also advance towards a contingent and located analysis of the construct that fits the school districts' reality. Indeed, it has been proposed by the retrieved studies in this research, the use of both, standardized measures and local contextualized methods to assess school climate at the district level. This, in order to count with data that allows a national comparison and analysis that support

governmental decision-making processes, at the same time that provides information to advance towards contextual and specific district strategies.

Regarding this, some of the studies retrieved analyze the impact of accountability-oriented policies, which are reflected in an important amount of pressure that negatively affects teachers. This issue is particularly relevant considering that new trends in different countries have risen a movement against standardized tests and accountability, acknowledging the harmful effects of these on the students and teachers and criticizing the lack of contextual information that these provide. This supposes important challenges to the management of school climate, since alludes to overcome the standardized metrics or at least, improve assessment processes, which indistinctively, involves an investment of time and budget, affecting institutional environment at all levels (Booher-Jennings, 2005), including school districts (Cohen et al., 2009).

Following this, another relevant aspect in the discussion suggests that broad policies are not effective to tackle specific problems of the territory. In other words, it is needed to advance in normative that seek to include minorities, such as LGBTI and others. Indeed, the retrieved studies in the present research illustrate that school districts with specific policies such as those LGBTI-oriented, present less victimization and less aggression that school districts with generic anti-discrimination policies. At the same time, our evidence suggests and explains that those districts that have engaged with actions and policies to support minorities achieve great racial inclusion, which in accordance with other analysis about educational diversity and racial issues (Frankenberg & Ayscue, 2013).

These illustrate and support the idea that to develop specific plans of SC at the district level, it is needed to know the needs of the schools and the territory where these are. For instance, the retrieved studies expose that those zones with a high number of rural schools and a low level of adults' education show hostile SC. This demands better coordination between school and district

leaders in order to share values and foster cultures that seek to improve by taking into account the context's reality. In this sense, the authors suggest that one of the best ways to achieve this is by developing specific instruments that help to outline illustrations about the context (such as tests, interviews, and focal groups). Indeed, to manage successful SC plans at the district level, the literature suggests the need to count with empiric evidence that illustrates voices of different actors from the educative community, such as teachers, students, and parents, among others. Thus, to create, develop and consider these relationships become crucial (Howard, 2007).

Regarding the type and sample size, most of the studies did not mention if these were representative or not, which in consequence, does not allow to generalize the conclusions of their research. Nevertheless, the present comprehensive revision does propose specific suggestions that can be considered for district leaders and policymakers. For instance, research suggests that those school districts, who establish trustworthy networks to work with, show better results in SC. In this sense, there have been identified two types of networks; first, those stablished with organisms from the community, such as universities that take a central role in supporting school districts and the community. Second, networks established with the State (Ministry of Education and other similar organisms) and the schools from the school districts' territory. This is fundamental networks considering that school districts are able to take the demands from the territory to the upper level (State) (bottom-up), at the same time that they communicate and implement the information that comes from the State and governmental level (top-down).

Following this, at the interpersonal level, research suggests that district leaders should promote positive relationships between leaders from the schools, teachers and other educational actors, which has been underscored in previous literature beyond district level (Howard, 2007; Leithwood & Riehl, 2003). However, the high pressure, accountability, amount of programs and

the lack of support from the district leader, which are factors that negatively influence SC, may hinder this. In this sense, it has been proposed that the school districts not only should seek for the quality of SC between students, but also for the teachers' quality of life. In this sense, we can expect that those leaders that count with different data about these actors, such as retention and turnover indexes and stress levels, can design successful plans the teachers' life quality which in turn can influence the SC.

Acknowledgments

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Notes

*   Review article.