5

School leadership and the development of a positive learning climate

This chapter addresses the role of educational leadership in shaping a climate conducive to student learning. The first part of the chapter focuses on differences between countries and economies with regard to creating a disciplinary classroom climate and establishing a positive relationship between teachers and students within a school. The second part of the chapter examines the impact of instructional and distributed leadership on the creation of a positive learning climate at a school. In the third section, the effect of school leadership on learning climate is explored by comparing the four different types of school leadership: integrated leadership, inclusive leadership, educational leadership and administrative leadership. In this section also, country and economy leadership types are related to the establishment of a learning climate within a school. The chapter concludes with reflections on the direct influence of the principal in lower secondary schools on classroom climate.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Highlights

- School leadership only marginally influences the learning climate at a school. The learning climate at a school is relatively more affected by the composition of the student population and the experience of teachers.
- A stronger engagement of principals in distributed leadership is related to more positive teacher-student relationships. Creating opportunities for students and their parents or guardians to participate in school decisions means teachers are interested in what students have to say and are likely to be concerned with students' well-being. Thus, distributed leadership may result in a greater sense of belonging among students and parents, as well as common responsibility for the functioning of the school among all key stakeholders.
- Experienced teachers in lower secondary schools are better suited to creating an orderly atmosphere in the classroom. Teachers capable of creating a positive learning climate are also more confident in their skills concerning classroom management and student engagement.
- The presence of students who speak a foreign language and students with special educational needs creates a situation in the classroom that makes it more difficult for teachers to maintain a disciplinary climate in class.
- In classrooms with students with special educational needs, teachers are more willing to listen to the needs of students and give them extra help and assistance.
- Across systems, private schools are able to create a more positive climate for student learning than are public schools. Teachers in small schools experience fewer difficulties in maintaining an orderly environment in their classroom, and they are engaged in more positive relationships with their students.

CREATING A LEARNING CLIMATE AT SCHOOL

This chapter examines the role principals may play in enhancing a positive learning climate within a school.

Classroom disciplinary climate

Classroom disciplinary climate refers to what extent student learning is not hindered by noise and disruption in the classroom (see Box 5.1).

Box 5.1 **Classroom disciplinary climate in TALIS 2013**

Classroom disciplinary climate is measured in the Teaching and Learning International Survey (TALIS) by means of the "Classroom disciplinary climate: Need for discipline" scale (TCDISCS). Teachers answered four items: "When the lesson begins, I have to wait quite a long time for students to quiet down" (TT2G41A), "Students in this class take care to create a pleasant learning atmosphere" (TT2G41B), "I lose quite a lot of time because of students interrupting the lesson" (TT2G41C) and "There is much disruptive noise in this classroom" (TT2G41D).

These items were measured on a four point scale, with response categories of 1 for "strongly disagree", 2 for "disagree", 3 for "agree", and 4 for "strongly agree". The negatively formulated items TT2G41A, TT2G41C and TT2G41D were reverse coded in order to create a scale with higher figures indicating a more favourable disciplinary climate. The factor scores for TCDISCS were transformed to a convenience metric with a standard deviation of 2.0 and a midpoint of 10 that coincided with the midpoint of the scale. Thus, a score of 10 for TCDISCS corresponds with the average response of 2.5 on items TT2G41A, TT2G41B, TT2G41C and TT2G41D.

Source: OECD (2014), *TALIS 2013 Technical Report*, OECD, Paris, www.oecd.org/edu/school/TALIS-technical-report-2013.pdf, Chapter 10.

Figure 5.1 presents the system means for the classroom disciplinary climate at schools. With scores of 10 points or higher on the scale, teachers are, on average, positive with regard to the disciplinary climate at their school. Only in Brazil do more teachers, on average, disagree than agree with the statements that their school has an orderly, non-disruptive atmosphere. Moreover, in Chile and Spain, teachers are also less positive on the disciplinary climate in their classes than in many other countries and economies. Teachers in Georgia; Japan; and Shanghai, China report, on average, a stronger disciplinary climate in their classrooms than teachers in most other countries (Table 5.1).

Positive teacher student relationship

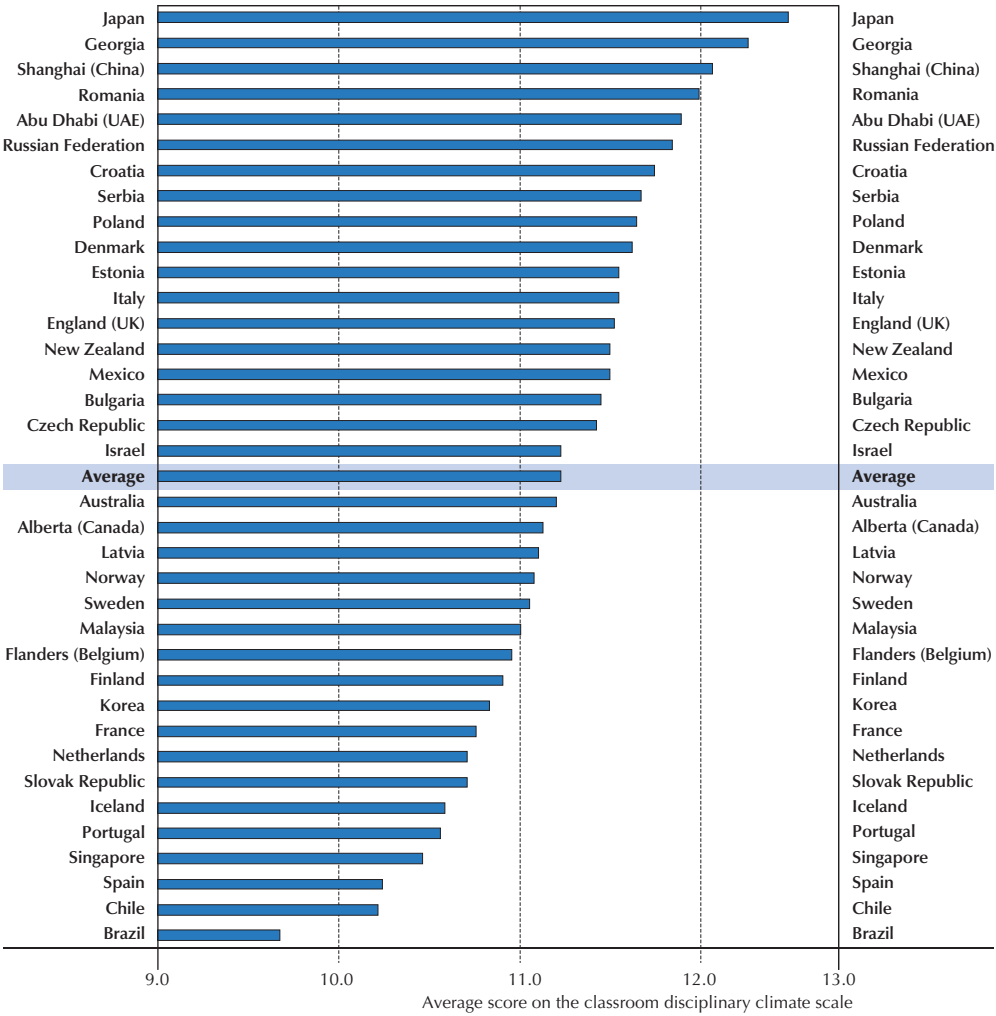
"Positive teacher student relationship" refers to what extent teachers and students engage in a mutually helpful, friendly and respectful way (Box 5.2). Figure 5.2 reveals that teachers in all countries and economies agree, on average, that their school is characterised by positive teacher-student relationships. In general, teachers in all participating countries find themselves working in a school in which teachers and students get on well with each other and in which teachers are concerned with their students' needs. Most notably, teachers in Norden countries, like Denmark, Iceland and, to a slightly lesser extent, Norway and Sweden, show great interest in their students' well-being and are inclined to provide assistance to students when needed. Teachers in Alberta, Canada; England, United Kingdom; and New Zealand express a similar attentiveness and consideration towards their students.

Although teachers in Korea indicate that positive relationships with students are common at their school, nevertheless, they rate the nature of these relationships as less attentive and caring than teachers in most other countries and economies. Next to Korean teachers, those from the Czech Republic, Poland and the Slovak Republic also express, on average, less positive teacher-student relationships at their school than teachers in various other countries and economies (Table 5.1).

■ Figure 5.1 ■

Classroom disciplinary climate scale, by country and economy, in lower secondary education

Average scores on the learning climate scale "classroom disciplinary climate"



Note: Countries and economies are ranked in descending order, based on the average system score on the learning climate scale "classroom disciplinary climate".

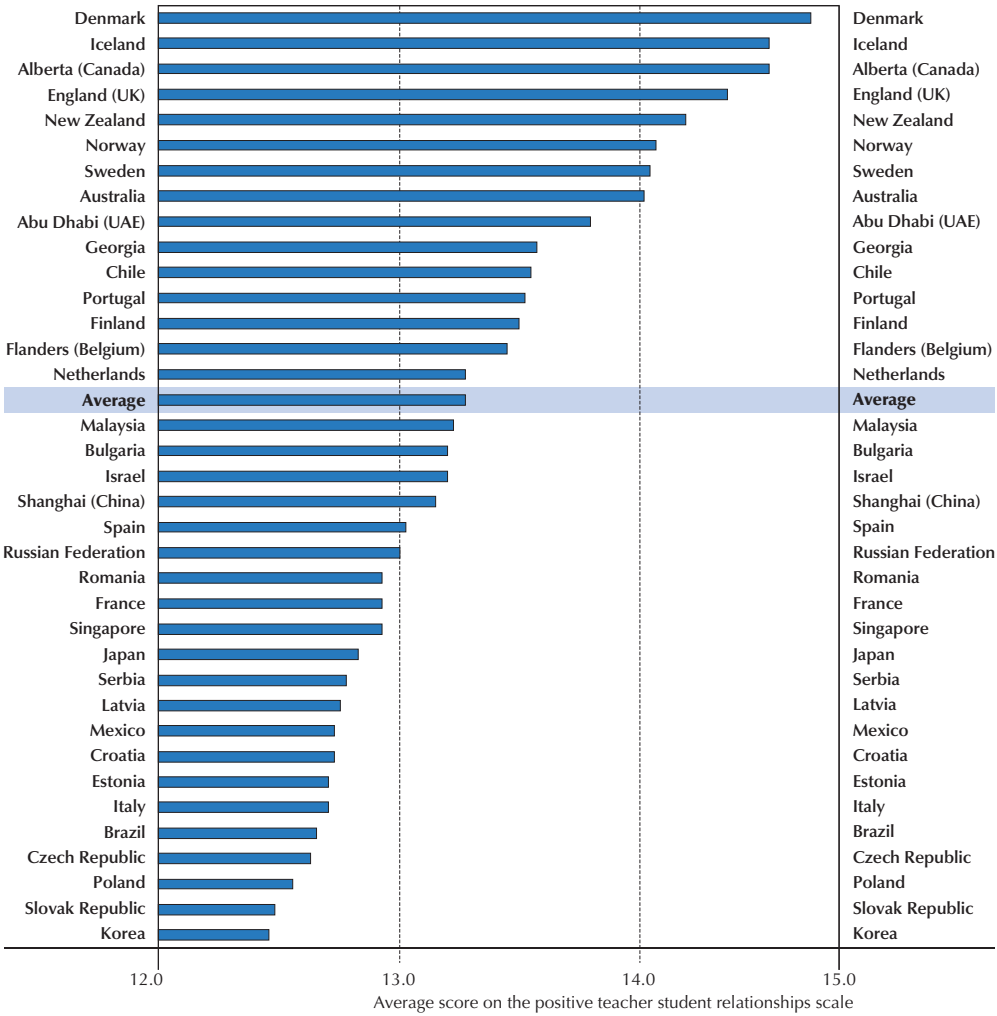
Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20; Table 5.1.

StatLink http://dx.doi.org/10.1787/888933369783

■ Figure 5.2 ■

Positive teacher-student relationships scale, by country and economy, in lower secondary education

Average system score on the learning climate scale "positive teacher-student relationships"



Note: Countries and economies are ranked in descending order, based on the average system score on the learning climate scale "positive teacher-student relationship".

Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20; Table 5.1.

StatLink http://dx.doi.org/10.1787/888933369794

Box 5.2 **Positive teacher-student relationship in TALIS 2013**

Positive teacher-student relationships are measured in TALIS by means of the teacher-student relations scale (TSCTSTUDS). Teachers answered four items: "In this school, teachers and students usually get on well with each other" (TT2G45A), "Most teachers in this school believe that the students' well-being is important" (TT2G45B), "Most teachers in this school are interested in what students have to say" (TT2G45C) and "If a student from this school needs extra assistance, the school provides it" (TT2G45D).

These items were measured on a four point scale, with response categories of 1 for "strongly disagree", 2 for "disagree", 3 for "agree", and 4 for "strongly agree". The factor scores for TSCTSTUDS were transformed in TALIS to a convenience metric with a standard deviation of 2.0 and a midpoint of 10, which coincided with the midpoint of the scale. This transformation means that a score of 10 for TSCTSTUDS corresponds with the average response of 2.5 on items TT2G45A, TT2G45B, TT2G45C and TT2G45D. A score below 10 indicates disagreement with the items in the TSCTSTUDS scale.

Source: OECD (2014), *TALIS 2013 Technical Report*, OECD, Paris, www.oecd.org/edu/school/TALIS-technical-report-2013.pdf, Chapter 10.

RELATIONSHIP BETWEEN EDUCATIONAL LEADERSHIP AND ESTABLISHING A LEARNING CLIMATE IN SCHOOLS

Figure 5.3 indicates whether positive or negative relationships were found for the two educational leadership indices, school context variables and teacher characteristics in relation to the learning climate within a school using multilevel analysis (Box 5.3).

Box 5.3 **Multilevel analyses**

Multilevel analysis takes the hierarchical structure of the TALIS 2013 dataset into account. Three levels are distinguished. Teachers (level 1) are nested within schools (level 2), and schools are nested within countries (level 3). Random intercept models were used to estimate the effect on the two aspects of learning climates: disciplinary classroom climate and positive teacher-student relationships (Snijders and Bosker, 2012). The sampling design of TALIS 2013 is considered by performing a weighted analysis. Final teacher weight and final school weight are implemented in the analyses at, respectively, levels 1 and 2.

First, an empty model is estimated (Model 0). Such a model reveals the basic estimates for the random parts of the model: the variance at levels 1, 2 and 3. Secondly, distributed leadership and instructional leadership are added as predictors to the empty model (Model 1). Model 1 enables an estimate of the gross effects of these two forms of educational leadership on aspects of learning climates. The third step in the multilevel analyses concerns adding school context characteristics to Model 1, resulting in Model 2. This model presents the restricted net effect of school leadership aspects on learning climates, accounting only for school context characteristics. The fourth step is expanding Model 2 with 10 teacher characteristics. This results in Model 3, the most extensive model to estimate the net effect of school leadership aspects on learning climate. The signs in Figures 5.3 and 5.4 are based on these most extensive models. See Annex B for further details.

■ Figure 5.3 ■

Effect of leadership and other school and teacher characteristics on the establishment of a learning climate in lower secondary education

	Classroom disciplinary climate	Positive teacher-student relationships
Educational leadership		
Instructional leadership		
Distributed leadership		+
School context		
School location (hamlet, village or small town)		
Town		
City or large city	–	
School type (public)		
Private government dependent	+	+
Private government independent	+	+
School size (300 or fewer students)		
301-600 students	–	–
601-1 200 students	–	–
more than 1 200 students	–	–
School autonomy on staffing (no autonomy)		
Mixed autonomy		
High autonomy		
School autonomy on budgetting (no autonomy)		
Mixed autonomy		
High autonomy		
School autonomy on instruction (no autonomy)		
Mixed autonomy		
High autonomy		
Percentage foreign language students (0%)		
1-10% of students	–	
11-30% of students	–	
31-60% of students	–	
more than 60% of students	–	
Percentage students with special needs (0%)		
1-10% of students	–	+
11-30% of students	–	
31-60% of students	–	
More than 60% of students	–	+
Percentage low SES students (0%)		
1-10% of students		
11-30% of students	–	
31-60% of students	–	–
more than 60% of students	–	–
Teacher characteristics		
Gender (females)		–
Employment status (less than 50% full-time hours [fth])		
50-70% fth		–
71-90% fth		
more than 90% fth		
Subject (other subjects)		
Humanities subjects		
Science subjects		+
Teaching experience	+	
Teachers' formal education (below ISCED5)		
ISCED5B		–
ISCED5A	+	–
ISCED6		–
Self-efficacy classroom management	+	+
Self-efficacy instruction	–	+
Self-efficacy student engagement	+	+
Teacher autonomy		

Note: The signs refer to either a positive (+) or a negative (-) relationship between one of the predictor variables and one of the learning climate scales. A bold sign indicates that the relationship was statistically significant at $p < 0.01$, and a normal sign denotes a statistical significance of $p < 0.05$. The blanks mean that no significant relationship at $p \leq 0.05$ was found. The full tables of the analyses for classroom disciplinary climate and positive teacher-student relationships are to be found only on line via StatLinks (Tables 5.2 to 5.5).

Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20; Table 5.2 and 5.3.

Figure 5.3 reveals that the influence of principals on creating a learning climate at their school seems to be limited. Only for distributed leadership is a positive relationship with positive teacher student interactions found. Including distributed leadership in the model, however, does not explain any variance, which further corroborates the idea that the influence of principals on learning climate is, at best, marginal (Table 5.3).

For instructional leadership of principals, neither a relationship with classroom disciplinary climate nor with positive teacher-student relationships in school is found (Table 5.2). Since instructional leadership is directed towards creating the conditions in a school necessary to produce an environment conducive to learning, a stronger engagement in instructional leadership is expected to foster an orderly school atmosphere, as well as an awareness among teachers regarding their interaction with students. As previous research into school leadership has shown that school leaders usually only indirectly affect student achievement through teachers (see also Robinson, Hohepa and Lloyd, 2009), one explanation for these findings could be that there are many intermediate factors in schools that might hinder the steps the principal takes to stimulate a positive learning climate. Figure 5.3 indicates that several school context and teacher characteristics play a role with regard to an orderly classroom climate, as well as positive teacher-student interactions. This corroborates the explanations that other factors, which more directly affect what happens within the classroom, have a greater impact on the school's learning climate than the actions of the principal.

The findings indicate that a student population with students who need extra attention or care has a negative effect on the classroom disciplinary climate. Teachers in schools with relatively more foreign language students, students with special educational needs, and high percentages of low socio-economic status (SES) students encounter more difficulties in creating an orderly learning environment in their classroom. This could point at relatively more difficulties in maintaining a disciplinary classroom climate in countries and economies with inclusive education or heterogeneous classes. Differences between public and private schools might possibly also account for this phenomenon since, in many countries and economies, private schools have a less disadvantaged student population and can often select the students who enrol at their school. If this explanation is sound, this would imply that this effect adds up to the negative effect on the classroom disciplinary climate found for foreign language, special educational needs and low SES students. Moreover, teachers in small schools report being better suited to creating a disciplinary climate in their class than teachers in larger schools.

More years of teaching experience appear to result in competencies that enable teachers to deal with any disturbances in the classroom and to maintain an orderly climate in their class. Similarly, teachers who feel efficacious in classroom management and student engagement are better able to create an orderly atmosphere in their classroom.

Positive teacher-student interactions seem to be less influenced by the student population. For foreign language students, no relationship with teacher-student interactions is found. The percentage of students with special educational needs is, however, unlike its relationship with the disciplinary classroom climate, positively related to teacher-student interactions. This might suggest that teachers who work with students with special educational needs feel dedicated to their needs. For foreign language students, this seems to be less the case. Possibly, teachers are less aware of the needs of these students, or they are less receptive to their needs than with students with special educational needs.

Teachers' self-efficacy is positively related to creating positive teacher-student interactions. For teachers' formal education, however, a negative instead of a positive relationship with teacher-student interactions is found.

RELATIONSHIP BETWEEN SCHOOL LEADERSHIP TYPES AND CREATING A LEARNING CLIMATE WITHIN A SCHOOL

Figure 5.4 reports on the effect of educational leadership types on the learning climate. Similar to the previous analysis on the effect of instructional and distributed leadership, no clear relationships between school leadership and either a disciplinary classroom climate or positive teacher-student interactions are found. The same mechanism of indirect influence through a long chain of possibly disruptive factors may at be play here, as previously discussed for instructional leadership.

■ Figure 5.4 ■

Effect of school and country/economy leadership types and other school and teacher characteristics on the establishment of a learning climate in lower secondary education

	Classroom disciplinary climate	Positive teacher-student relationships
Educational leadership		
School leader types (ref. integrated leadership)		
Educational leadership		
Inclusive leadership		
Administrative leadership		
Country leadership profile (ref. category 1)		
Countries with mainly inclusive leaders (Cat. 2)		
Countries with mainly educational leaders (Cat. 3)		
School context		
School location (hamlet, village or small town)		
Town		
City or large city	–	
School type (public)		
Private government dependent	+	+
Private government independent	+	+
School size (300 or fewer students)		
301-600 students	–	–
601-1 200 students	–	–
more than 1 200 students	–	–
School autonomy on staffing (no autonomy)		
Mixed autonomy		
High autonomy		
School autonomy on budgetting (no autonomy)		
Mixed autonomy		
High autonomy		
School autonomy on instruction (no autonomy)		
Mixed autonomy		
High autonomy		
Percentage foreign language students (0%)		
1-10% of students	–	
11-30% of students	–	
31-60% of students	–	
more than 60% of students	–	
Percentage students with special needs (0%)		
1-10% of students	–	+
11-30% of students	–	
31-60% of students	–	
more than 60% of students	–	+
Percentage low SES students (0%)		
1-10% of students		
11-30% of students	–	–
31-60% of students	–	–
more than 60% of students	–	–

■ Figure 5.4 ■

Effect of school and country/economy leadership types and other school and teacher characteristics on the establishment of a learning climate in lower secondary education *(continued)*

	Classroom disciplinary climate	Positive teacher-student relationships
Teacher characteristics		
Gender (females)		–
Employment status (less than 50% full-time hours [fth])		
50-70% fth		–
71-90% fth		
more than 90% fth		–
Subject (other subjects)		
Humanities subjects		
Science subjects		+
Teaching experience	+	
Teachers' formal education (below ISCED5)		
ISCED5B		–
ISCED5A	+	–
ISCED6		–
Self-efficacy classroom management	+	+
Self-efficacy instruction	–	+
Self-efficacy student engagement	+	+
Teacher autonomy		

Note: The signs refer to either a positive (+) or a negative (-) relationship between one of the predictor variables and one of the learning climate scales. A bold sign indicates that the relationship was statistically significant at $p < 0.01$, and a normal sign denotes a statistical significance of $p < 0.05$. The blanks mean that no significant relationship at $p \leq 0.05$ was found. The full tables of the analyses for classroom disciplinary climate and positive teacher-student relationships are to be found only on line via StatLinks (Tables 5.2 to 5.5).

Source: OECD (2013), *Teaching and Learning International Survey (TALIS): 2013 complete database*, http://stats.oecd.org/index.aspx?datasetcode=talis_2013%20; Table 5.4 and 5.5.

The relationship of school context and teacher characteristics with learning climate also resembles, to a large extent, the findings discussed in the section *Relationship between educational leadership and establishing a learning climate in schools*.

For the three country leadership profiles based on the type of school leadership shown in figure 5.4, no relationship with either disciplinary classroom climate or positive teacher-student relationships is found.

SUMMARY

The results in this report showed that a stronger engagement of principals in distributed leadership is related to more positive teacher-student relationships. Creating opportunities for students and their parents or guardians to participate in school decisions means teachers are interested in what students have to say and are likely to be concerned with students' well-being. Thus, distributed leadership may result in a greater sense of belonging among students and parents, as well as common responsibility for the functioning of the school among all key stakeholders.

However, the introduction of distributed leadership to the model only marginally explained the variance on positive teacher-student relationships and instructional leadership does not have any significant association with any of the dimensions of learning climate. Thus, educational leadership does not influence the learning climate at school to a great extent. The learning climate is mainly affected by the composition of the student population and the experience of teachers. Experienced teachers in lower secondary schools are better suited to creating an orderly atmosphere in the classroom. Teachers capable of creating a positive learning

climate are also more confident in their skills concerning classroom management and student engagement. With regard to the role of the principal, he or she should be aware of the assignment of teachers to classes. This role is, at least in some countries and economies, limited by the fact that principals have little say in the selection of their teachers, or do not have any opportunities in practice to select teachers who they feel would be best suited to address the specific needs of the students in the school. Several countries and economies have a system of assigning teachers to schools by higher agencies, and these assignments are, at best, partly based on the needs of a specific school. Other countries and economies have a market approach to hiring and dismissing teachers, but accounts from the United States, for instance, indicate that better teachers often choose the schools with lower percentages of foreign language students and low SES students, although these are the most in need of good education.

The report's findings point out that the presence of students who speak a foreign language and students with special educational needs creates a situation in the classroom that makes it more difficult for teachers to maintain a disciplinary atmosphere. On the other hand, in classrooms with students with special educational needs, teachers seem to be more willing to listen to the needs of students and give them extra help and assistance. For foreign language students and low SES students, no relationship with teacher-student interaction is present. It is possible that teachers are less aware of the needs of these students, or they are less receptive to their needs than with students with special educational needs.

Across countries and economies, private schools are able to create a more positive climate for student learning than public schools. The difference between public and private schools corroborates the conclusion that school context factors and teacher characteristics have a greater impact on the establishment of a learning climate within a school than the type of leadership. In many systems, private schools have a less disadvantaged student population and can often select the students who enrol in their school. This would imply that this effect adds up to the negative effect on the classroom disciplinary climate found for foreign language, special educational needs and low SES students.

Teachers in small schools experience fewer difficulties in maintaining an orderly environment in their classroom, and they are engaged in more positive relationships with their students. Griffith (1999) suggests that smaller schools are more easily managed and that smaller schools create an environment in which students feel less alienated by demands to participate in classroom and school activities and experience a sense of belonging and greater self-efficacy.

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