CLASSROOM CLIMATE IN SERBIA:
THE PERSPECTIVE OF PRIMARY SCHOOL TEACHERS[*]

Slavica Ševkušić[**], *Sonja Anđelković and Vladeta Milin*
Institute for Educational Research, Belgrade

Abstract. The goal of this research is to gain insight into the classroom climate in schools in Serbia from the perspective of teachers. To realize this goal, we set up two research questions: (1) How do teachers assess the importance of certain aspects of the classroom climate and their own engagement in creating favourable climate, and (2) which factors determine the quality of classroom climate. We considered four dimensions of classroom climate: equality in communication, social relationships between students, respect for students' feelings and the organizing group work. The sample consisted of primary school teachers in Serbia (N=1441), who completed a questionnaire made for our research needs. The results of factor analysis confirmed the initial assumption that the selected dimensions are related in terms of their belonging to the same construct and sufficiently different to be considered as self-contained. The obtained results show that teachers in Serbia highly value the importance of all researched aspects of the classroom climate and believe that they are engaged to a large extent in creating a positive classroom climate. Also, it was shown that teachers' gender and the teaching level are the most important determinants of classroom climate quality. Bearing in mind the limitations of the applied instrument it is concluded that the results should be considered with caution and that future research should include students' perspective, direct class observation and qualitative methods to gain a more objective and more comprehensive understanding of the classroom climate.
Key words: classroom climate, teachers, social-emotional dimensions of teaching.

Interest in researching classroom climate and its influence on various aspects of student behaviour began in the 1970's (Moos, 1979; Walberg & Anderson, 1968). Today, after more than 40 years of researching, it can be said that there is firm agreement regarding the importance of a positive classroom climate for a wide spectrum of cognitive, social and emotional learning outcomes. This was confirmed by the results of numerous empirical studies carried out in different time periods, on different levels of schooling, with different instruments and in different socio-cultural surroundings (Fraser, Walberg, Welch & Hattie, 1987; Fraser, 1998; Kuperminc, Leadbeater, Emmons & Blatt, 1997; Loukas, Suzuki & Horton, 2006; Roeser, Eccles & Sameroff, 2000; Vieno, Perkins, Smith & Santinelo, 2005; Way, Reddy & Rhodes, 2007). In addition, the classroom climate was also cited as being one of the key factors in Walberg's widely accepted multifactorial model of educational productivity (Walberg, 1981). A large number of empirical tests of this model confirmed the author's assumption that the classroom climate is a strong predictor of a school's success and students' approaches towards learning, their teachers, peers and school subjects (Djigic & Stojiljkovic, 2011a; Fraser *et al.*, 1987).

During the last decade, a significant increase in the number of research studies into the characteristics of classroom climate around the world has been noted. This trend could be explained by the fact that educational researchers have increasingly opted to discard the 'deficit model', in which the causes of poor adaptability and school failure are sought in a child's deficiencies, and have adopted systematically orientated approaches which are focused on an evaluation of the whole context in which the learning process occurs (Anderson, Hamilton & Hattie, 2004; Fraser, 1999). Those approaches are mostly based on two theories of personality development, the ecological systems and the self-determination theories. The ecological systems theory, also known as Bronfenbrenner's bio-ecological model of human development, claims that the environment in which young people grow up shapes their development, i.e. development occurs through complex interactions between children and their direct context (Bronfenbrenner, 1979, in Rivers, Brackett, Reyes, Elbertson & Salovey, 2013; Tseng & Seidman, 2007). In accordance with that, an environment which ignores the emotional and social needs of young people impedes their development. (Eccles *et al.*, 1993, in Rivers *et al.*, 2013). The self-determination theory emphasises the significance of three basic psychological needs: autonomy, competence and connections with others. According to the supporters of this theory, the social-contextual factors which provide humans with the conditions to satisfy their basic needs contribute to strengthening their intrinsic motivation, healthy psychological development and optimal functioning, while an environment which thwarts those needs leads to the opposite results (Deci & Ryan, 2000). When it comes to the school context, those authors believe that it is important to create an atmosphere in the classroom which provides optimal challenges for learning, where students feel that

their teachers respect them, care about them and provide support for their autonomy (Ryan & Deci, 2000).

Classroom climate – definition and operationalization of the construct

Even though the classroom climate has been comprehensively researched for some considerable time there is no unique definition of this concept in the literature or any confirmation of the aggregate factors/dimensions which make up this construct. The classroom climate is most often determined by the model and quality of interpersonal relationships between teachers and students, the relationship between students, the classroom management style as well the teachers' behaviour style (Flanders, 1965; Moos & Trickett, 1974, in Fraser, 1998). A certain number of authors define the classroom climate as the result of individual and joint perceptions, the processing and evaluation of significant aspects of the classroom context by its participants – teachers and students (Fraser, 1999; Pekrun, 1985, in Peter & Dalbert, 2010). We found a broader determination of this phenomenon offered by those authors who, in addition to the group processes which are developed in the classroom context, also include the emotional aspects of interpersonal relationships, teachers and student's beliefs and values, the structural aspects of teaching style and classroom organisation, teacher's expectations and attitudes towards students, the level of control, discipline problems, the gender and age of students (Allodi, 2010; Schmuck & Schmuck, 1978, in Zedan, 2010), as well as school achievement and the physical aspects of the learning environment (Johnson & Johnson, 1999). What all these determinations have in common is the belief that teachers' behaviour, i.e. the way they regulate the social relationships in the classroom, is a key component of the classroom climate.

In attempts to evaluate classroom climate and measure its effects on various cognitive and social variables, numerous attempts were made to identify and operationalize its dimensions and the factors that determine it. By analysing different types of environment, Moos (1979) concluded that the social climate is made up of three dimensions: *relationships, goal orientation and system maintenance and change*. The relationship dimension includes factors such as the level of inclusion and belonging, the level of teacher support, students' free expression, group cohesion, and conflict resolution. Goal orientation consists of factors such as: task orientation, competition, achievement and interdependence. The dimension of system maintenance and change include factors of organisation, the establishment and clarity of rules and teacher control. On the basis of those dimensions the author created a questionnaire for researching classroom climate (*Classroom Climate Questionnaire – CCQ*).

In contrast to this and other instruments for evaluating classroom climate, which are focused on general psychological characteristics, Woods & Fraser (1995) developed a questionnaire for evaluating specific teacher be-

haviour (*Classroom Interaction Patterns Questionnaire – CIPQ*). A teacher's style is evaluated by means of six factors: praise and encouragement, asking open questions, lecturing and giving instructions, organising individual work, discipline and management and organising group work. Aiming to measure the effects of the program for the improvement of the social and emotional climate in the classroom, Rivers and associates (Rivers *et al.*, 2013) used four dimensions as indicators in observation protocols: positive climate (the level of warmth and interconnection), negative climate (the level of negativism), teachers' sensitivity (the awareness and reactions of teachers to students' academic and social needs) and taking students' perspectives into consideration (the level of response to students' interests and motivation). In addition, the questionnaires for teachers were concentrated on three dimensions: (1) the level of support – an evaluation of students' pro-social behaviour; (2) emotional inclusion – evaluates to what extent teachers are engaged in personal relationships and their level of interest in students' emotional needs; (3) cooperative learning strategies – evaluates to what extent teachers create cooperative learning activities.

We may conclude that a favourable classroom climate is one which facilitates learning processes and the successful integration of students into the class social life, one in which equal communication is developed, in which students freely express their opinions and where the environment is organised in accordance with previously defined rules. Also, when teachers provide an appropriate level of autonomy and establish clear expectations of children's behaviour, students develop a stronger feeling for unity and express socially competent behaviour (Pianta & Steinberg, 1992). A particularly important dimension of classroom climate is that of *belonging* which measures the level of friendship among students. This is expressed through their desire to get to know each other better, to help each other and their enjoyment in group work (Anderson *et al.*, 2004). Meyer and Turner (2006) emphasised the significance of emotional support in classroom interaction. In their studies they confirmed the significant connection between teachers' positive support, which includes interest in students' personal problems, and students' motivation to learn (Patrick, Turner, Meyer & Midgley, 2003; Turner & Patrick, 2004). In addition, it was also stressed that during the evaluation of classroom climate, other variables must be taken into considerations such as: classroom size, students' age, subject type, prevalent teaching methods, social-cultural context, etc. (Salomon, 1992; Zedan, 2010).

Despite strong empirical evidence of the importance of a favourable classroom climate for education outcomes, in Serbian literature there is a small number of relevant studies in which the classroom climate has been researched as a comprehensive phenomenon (Joksimović, 1991; Joksimović, Ševkušić-Mandić i Janjetović, 2002; Spasenović i Milanović-Nahod, 2001). Recent research studies into teachers and students' perceptions of classroom climate are particularly rare (Djigic & Stojiljkovic, 2011a; Đigić & Stojiljković,

2011b). There is a slightly higher number of studies which link certain dimensions of school and classroom climate to the cognitive and social outcomes of schooling (Antonijević i Janjetović, 2005; Gašić-Pavišić i Stanković, 2011; Ševkušić-Mandić, 1991, 1992; Spasenović, 2008). The results of existing studies into the quality of the classroom climate in schools in Serbia pointed out numerous problems, above all in the domain of interpersonal relationships: unequal communication between teachers and students, lack of teachers' interest in students' personal problems, insufficient appreciation for students' opinions, competitive atmosphere and exaggerated insistence on school success neglecting the good mutual relationships and solidarity among students etc. Considering that most of these studies were carried out over ten years ago, as well as the fact that in the meantime numerous reform attempts were carried out aiming to improve various aspects of the education system, the need for comprehensive research into the current classroom climate quality in schools in Serbia thus imposes itself.

METHOD

The goal of this research is to gain insight into the classroom climate in schools in Serbia from the perspective of teachers. To realize this goal, we set up two research questions: (1) How do teachers assess the importance of certain aspects of the classroom climate and their own engagement in creating favourable climate, and (2) which factors determine the quality of classroom climate. Taking into account that we are particularly interested in social aspects of classroom climate, we selected four dimensions of this multidimensional construct: equality in communication, social relationships between students, concern about students' feelings and organizing group work. The review of relevant literature shows that these dimensions are most often link to the classroom social climate.

Sample. The research encompassed teachers (N=1441) from 40 primary schools in Serbia. The schools were randomly chosen from a representative school sample, with attention to appropriate regional representation. The sample was made up of 43.2% of lower elementary class teachers and 56.8% subject teachers, while 77.8% were female and 22.2% male teachers. The average school teaching experience was 17 years (minimum of 1 and maximum of 42 years) and the average number of students per class was 24 (minimum 1, maximum 40). Teachers from rural schools make up 27.3% of the sample while those who teach in urban schools constitute 72.7%. The sample consists of 47.5% teachers who teach subjects from social sciences while 52.5% teach natural sciences.

Instrument. The data presented in this research was collected within the framework of a wider research project whose aim was to research the level of encouraging creativity, initiative and cooperation in teaching practice in Serbia. For this purpose, the teacher questionnaire was constructed and completed in the first semester of the 2012/13 school year. In order to construct the question-

naire to investigate teachers' assessments of classroom climate, we selected the items that correspond to four dimensions: equality in communication, social relationships between students, concern about students' feelings and organizing group work. Finally, the instrument for this research is comprised of 23 items self-report scales (Table 1). Considering that some items ask teacher to assess the importance of certain aspects of classroom climate (i.e. to express a level of agreement), and others to assess his/her own engagement in creating favourable climate (i.e. the frequency of behaviour), it is implemented two five-point Likert scales: (1) an *agreement scale* with options strongly agree, agree, undecided, disagree, strongly disagree and (2) a *frequency scale* with options never, very rarely, occasionally, often and almost always.

On the basis of the obtain value of Cronbach's alpha coefficient (α.=.868), it can be concluded that the reliability of the teacher questionnaire is high.

RESULTS

Dimensions of classroom climate

In order to answer the research questions, we first explored the hypothesized four-dimensions classroom climate construct. We subjected the data gained via the questionnaire to explorative factorial analysis. A Principal Component method of extraction with Varimax factor rotation was performed on the data. Four factors which explain 46.73% of the variance were gained (Table 1). Those factors correspond to the four classroom climate dimensions which were the theoretical assumption of the research. The factor analyses also confirmed the association of items with their hypothesized factors.

Table 1: Factorial analysis of classroom climate dimensions

Items	Saturation
Concern about social relationships between students (13.83% of variance)	
1. Relationships between students are their personal issue.	0.72
2. A new student should establish relationships within the class himself/herself, and others should not make any special effort in that regard.	0.61
3. Efforts to develop compassion among students these days are futile.	0.69
4. Socialising should take place outside school.	0.67
5. If there is a conflict in the class, I do not interfere unless it is prominent and disruptive to the lesson.	0.57
6. Students who often express their opinions during lessons and ask questions only want to attract attention.	0.47

Organising group work (13.51% of variance)	
1. I do organise group work in my classroom.	-0.53
2. I do not see the advantages of group work.	0.77
3. Group work creates chaos in the classroom.	0.81
4. Primary school students are not mature enough for team work.	0.77
5. Students prefer to work by themselves rather than in groups.	0.67
6. It doesn't matter whether the students get on in groups, but it is important that they do the task correctly.	0.33
Encouraging equality in communication (11.62% of variance)	
1. I encourage students to discuss and argue their own view during lessons.	0.55
2. I encourage underachievers to ask questions and express their ideas.	0.62
3. It is important to me that my students feel free to express their opinion.	0.56
4. It is my experience that students will respect rules of behaviour more if we formulate them together.	0.46
5. I set aside time each lesson for students' questions and additional interests.	0.69
6. I like it when my students use their heads, even if that opposes my opinion.	0.70
7. In the lessons I primarily address those students who show the greatest interest in the curriculum.	-0.32
Concern about students' feelings (7.66% of variance)	
1. Students' feelings are not within a teacher's purview.	0.42
2. A student does not have the right to interrupt the concept of the class just because he/she is in a bad mood.	0.53
3. Students talk to me about their personal problems.	-0.70
4. I set aside time to talk with my students about how important it is to understand how others feel.	-0.61

Although the classroom climate comprises four different dimensions, we expected the various dimensions to be related. Examination of the links between those four factors established the values of Pearson's correlation coefficient as significant (Table 2). The highest correlation was found between the *concern about social relationships between student*s and *organisation of group work* dimensions (r=0.543), and then between the *concern about social relationships between students* and *concern about students' feelings* dimensions (r=0.506).

Table 2: Correlations between classroom climate dimensions

Correlations between dimensions (N = 1433)		Concern about students' feelings	Encouraging equality in communi-cation	Concern about social relationships between students	Organi-zing group work
Concern about students' feelings	Pearson	1	.417	.506	.427
	Sig.(2-talled)		.000	.000	.000
Encouraging equality in communication	Pearson		1	.396	.406
	Sig. (2-talled)			.000	.000
Concern about social relationships between students	Pearson			1	.543
	Sig. (2-talled)				.000
Organizing group work	Pearson				1
	Sig. (2-talled)				

*The importance of certain aspects of classroom climate
and teacher engagement in their creation*

The results point out that the teachers highly value the importance of all researched aspects of the classroom climate and report that they are to a large extent engaged in their creation (Table 3): (1) encouraging equality in communication (t(1439)=107.920, p<.001); (2) concern about social relationships between students (t(1434)=57.093, p<.001); organising group work (t(1439)=55.653, p<.001) and (4) concern about students' feelings (t(1432)=46.301, p<.001). However, an analysis of the variance for repeated measures established the existence of a significant difference between the results for individual dimensions (F(3,1432)=211.800, p<.001). Post-hoc tests show that the teachers believe that the most important aspect of classroom climate is establishing equality in communication with students. Then, the order of dimensions is as follows: concern about social relationships between students, organizing group work and concern about students' feelings.

*Table 3: Teachers' scores for the researched dimensions
of classroom climate*

Dimensions of classroom climate	N	AS	SD
Encouraging equality in communication	1440	4.30	0.46
Concern about social relationships between students	1435	4.06	0.70
Organizing group work	1440	4.02	0.69
Concern about students' feelings	1433	3.84	0.69

An analysis of the individual items within the frame of the *encouraging equality in communication* dimension shows that almost all of the teachers (94.2%) believe that it is important to create an atmosphere in which students feel free to express their own opinion. Most of the teachers encourage students to discuss and explain their own view in class (84.4%), encourage questions and students' interests (88.8%), and pay attention to those students who do not show such a great interest in the curriculum (67.4%).

  Within the *concern about social relationships between students* dimension, it was established that most of the teachers believe that relationships between students should be the subject of their interest (81.4%). In accordance with that, over 70% of them report that pay attention to conflicts between students and almost the same percentage do not agree with the claim that so-

cialising between students should take place exclusively outside school. Three quarters of the teachers believe that students should help their new friend instead of letting him/her establish relationships in the class by himself/herself. The majority of them also believe that developing compassion is worth the effort (80.9%).

The findings which refer to the *organisation of group work* indicate that the teachers have a positive attitude towards group work. The majority of the teachers (76.4%) claim that they often organise group work. They notice its advantages (76.4%) and believe that students prefer lessons organized in such a way (68.4%). The teachers do not agree with the claim that primary school students are not mature enough for group work (76.9%), and do not believe that this kind of work disrupts discipline (76.1%). More than two thirds of them believe that it is also important how their students get on in groups, and not only do they complete the task.

As regards the individual items within the frame of the *concern about student's feelings* dimension, teachers believe that they should deal with students' feelings (85.8%) and state that they do talk with students about how important it is to understand others' feelings (78.7%). In addition, two thirds of teachers report that students talk with them about their personal problems.

Determinants of classroom climate

In order to answer to the second research question, which factors determine the quality of classroom climate, we linked the teachers' assessments of various aspects of classroom climate with the following variables: level of teaching, teachers' gender, length of work experience in education, average number of students per class, subject type and type of community in which the school is located. We researched the correlations between those variables by means of unrepeated one-way ANOVA analysis and Pearson's Correlation Coefficient.

The analysis of the data related to the *level of teaching* showed that there is a significant difference in the answers given by the lower elementary class teachers (grades 1 to 4) and the subject teachers (grades 5 to 8). The class teachers gained higher scores in all four dimensions. The differences in scores were highest in the *concern for students' feelings* dimension $(F(1,1393)=104.430, p<.001)$, followed by the *encouraging equality in communication* dimension $(F(1,1399)=44.557, p<.001)$, concern about social relationships between students $(F(1,1394)=41.460, p<.001)$ and *organising group work* for students $(F(1,1399)=40.698, p<.001)$.

Gender appeared as a significant variable for all four dimensions of classroom climate. Despite not being great, the differences are consistent and indicate that female teachers pay more attention to all of the researched dimensions of classroom climate than their male counterparts. The responses differ the most in the case of *encouraging social relationships between*

students (F(1,1396)=27.234, p<.001), then *concern for students' feelings* (F(1,1394)=19.718, p<.001), and less in *encouraging equal communication* (F(1,1401)=10.625, p=.001) and *organising group work* (F(1,1401)=9.503, p=.002).

Length of work experience in education correlates significantly, but poorly, with the researched dimensions of classroom climate. A low correlation was obtained for *concern about social relationships between students* (r=-.068, p=.011) and *equality in communication* (r=-.057, p<.034). The correlation for *organising group work* (r=-.112, p<.001) is slightly higher and it shows that more experienced teachers expressed greater reserve towards this kind of work than those with less teaching experience.

Subject type seems to be a significant determinant for the dimensions of *concern about social relationships between students* and *concern for students' feelings*. Social science teachers gave higher scores to concern about social relationships between students (F(1,635)=11.074, p=.001) and concern for students' feelings (F(1,635)=4.141, p=.042), than those who teach natural sciences.

It was established that the *type of community in which the school is located* presents a significant determinant for the teachers' expression of *concern about social relationships between students* (F(1,1433)=12.769, p<.001), as well as *concern for their feelings* (F(1,1431)=7.649, p=.006). The teachers in urban areas reported to care more about those two dimensions of classroom climate then those in rural areas.

In our research the class size, i.e. the *average number of students per class* did not prove to be a significant variable.

DISCUSSION

Taking into consideration the different definitions of classroom climate, as well as various operationalization of this concept in the literature, in our research we selected the dimensions which are most often link to the social aspects of classroom climate. We focus our attention to these dimensions which 'cover' the upbringing aspect of schooling which, in our opinion, have been neglected in comparison with learning issues or cognitive aspects of education. The results of our research confirmed theoretical assumptions about the important dimensions of classroom social climate. Factor analysis of the teachers' responses showed that the four selected dimensions – equality in communication, social relationships between students, concern about students' feelings and organizing group work – are sufficiently different to be observed as various aspects of classroom climate. Also, further analysis showed that those dimensions are also significantly related, thus justifying the assumption that they belong to the same, overarching construct. Such confirmation of theoretical assumptions enabled us to answer the questions which we set in this research.

The implemented analyses show that teachers in elementary school in Serbia are highly valued social aspects of classroom climate and believe that they are engaged to a great extent in the creation of a positive classroom climate. In addition, they assess the encouraging equality in communication as the most important aspects of classroom climate. The concern about social relationships between students and organizing group work are also very important from the teachers' perspective, but they report on slightly less concern for students' feelings. If we pay attention to such an order of dimensions, we may notice a certain logical sequence. Firstly, good communication between teachers and students is believed to be one of the basic conditions for successful teaching performance (Meyer, 2009). Another important goal is regulating and improving social relationships between students, which can be partially achieved through organisation of group work. Namely, in addition to the proved positive effects within the cognitive domain, it was also shown that group work equally contributes to other outcomes of educational work such as: greater self-respect in students, better social relationships in the class, more positive attitudes towards teachers, peers and subjects, a greater inclination on the part of students towards pro-social behaviour and similar (Johnson & Johnson, 1999; Slavin, 1995), i.e. the establishment of a positive classroom climate. On the other side, the finding that the lowest score was gained for the dimension of teacher's concern for students' feelings was not completely unexpected, since contemporary literature points out that the emotional dimension in schools and teaching is rather neglected (Allodi, 2010; Hargreaves, 2000).

The analysis of the teachers' responses to the individual items within the frame of the *equality in communication* dimension gave rise to relatively unexpected data. On the basis of the answers, it could be concluded that the majority of teachers encourage students to discuss and explain their own view during the class, thus encouraging questions and stimulating students' interests. Those findings provide a better picture in comparison with previous research studies which established that two thirds of classes are devoted to teacher talking time while only one third is spent on that of students, as well as that students' questions are a relatively rare occurrence during classes (Wells, 2004; Ševkušić-Mandić, 1992).

The analysis of the answers within the frame of the *concern about social relationships between students* dimension shows that the majority of the teachers believe it is important to deal with relationships between students, take an interest in their conflicts and support students' socialising in school. Those findings are also unexpected considering that research studies carried out in our surroundings mostly offered a different picture in this regard. Namely, previous research results showed that the relationships between students in schools are mostly neglected, and solidarity among students is rarely encouraged (Joksimović, 1991; Spasenović, 2008).

The finding that the majority of teachers claim to *often* organise group work could also be said to be unexpected. This finding differs to the results from two cycles of international research studies about students' achievements in mathematics and sciences (TIMSS 2003 and TIMSS 2007), where more than 85% of teachers from Serbian primary schools said that they organize group work only during *some* lessons (Antonijević i Janjetović, 2005; Gašić-Pavišić i Stanković, 2011).

As regards *concern for students' feelings*, the teachers believe that it is their task to deal with students' feelings, claim that they do talk with students about how important it is to understand others' feelings, and that students talk to them about their personal problems. On the basis of this data, it could be concluded that Serbian teachers seek to establish not only professional, but also personal relationships with their students which involves emotional support. These findings are surprising if we know that the emotional dimension is believed to be neglected in teaching and school in general, and that some previous research studies in Serbia showed that students criticize teachers for not having enough understanding for young people's personal problems, i.e. problems which are not connected with the teaching curriculum (Spasenović i Milanović-Nahod, 2001).

The obtained results show that the teaching level and teachers' gender are important determinants for all four dimensions of classroom climate. The finding that lower elementary class teachers establish a more favourable climate in the classroom than subject teachers in higher grades could be explained by the differences in their initial education (more pedagogical and psychological subjects in the education of future teachers) as well as by the fact that lower elementary school teachers spend significantly more time with their students which enables them to get to know them better. The biggest difference stood out in the answers to those questions which referred to concern for students' feelings. The reason for this could lie in the attempts of lower level elementary school class teachers to respond to the specific developmental needs of their students (Joksimović, 1991; Stojiljković, Stojanović i Dosković, 2012; Ševkušić i Milošević, 2004).

As regards teachers' gender, our results show that female teachers take more care in the creation of a positive classroom climate than their male peers. The obtained results are in accordance with those expected on gender stereotypes, according to which female teachers are 'predestined' to care more about students and to create warmer relationships with them (Vogt, 2002). Some studies in 1960s based on class observations showed that female teachers had more favourable attitude towards pupils, democratic classroom practices, permissive educational viewpoints, and verbal understanding (Ryans, 1960). Recent studies in Serbia have shown that female teachers, more often than male ones, implement indirect, democratic communication styles in their teaching (Ožegović, 2006). Also, it has been found that female teachers

are more empathic and more incline to ethic of care than males teachers (Stojiljkovic, Stojanovic & Doskovic, 2011; Stojiljković *et al.*, 2012).

The length of teachers' work experience, the subjects they teach and the size of the place where the school is located influence the classroom climate to a smaller extent, or to be more exact only certain dimensions. The length of teachers' work experience is variable that had a significant influence only on the dimension of organising group work. It was shown that younger teachers perceive this type of teaching in a more positive way and organise it more often. This finding may be linked with research results which point out that more experienced teachers, in comparison with those who are at the beginning of their professional careers, are less willing to introduce innovations and changes into the common way of working (Ghaith & Yaghi, 1997). However, considering that the noted differences between experienced and less experienced teachers are relatively small, we can assume that the establishment of a positive classroom climate is equally important to both of them.

It has been shown in our research that social science teachers gave higher scores to concern about social relationships between students and concern for students' feelings, than those who teach natural sciences. There is empirical evidence from other research to confirm that the classroom climate varies depending on the subject type (Fraser, 1987; Mucherah, 2008; Shapiro, 1993). For example, student survey data collected by subject areas for 30 schools has shown that students perceive the climate in mathematics classrooms to be significantly less favourable than the climate in reading classrooms. This is consistent for grade levels 3–12 (Freiberg & Stein, 1999). Also, some research in social studies classrooms has suggested that the climate is high in affiliation and low in competition (Fouts, 1990; Fouts & Myers, 1992), and with other studies showing science classrooms to be low in cooperation and cohesion (Dart, Burnett, Lewis, Campbell, Smith & McCrindle, 1999; Goh & Fraser, 1998).

The assumption is that the context in which the school is located is a significant determinant of the learning environment. The present study has provided some evidence in support of the above assumption. It has been found that teachers who teach in schools in urban areas express greater interest and concern for social relationships between students and their feelings then teachers who teach in rural areas. This finding seems unexpected if we consider previous research studies which indicate that the classroom climate is more positive in rural primary schools. In those schools, according to the views of both teachers and students, interactions are more frequent and intimate than in schools in towns and cities (Joksimović, 1991; Schmuck & Schmuck, 1992). An explanation for this could be sought in the particularly acute demographic, sociological, cultural and economic changes which have occurred in Serbia since the beginning of this century. The fact remains that today large towns and cities present a generally wealthier and more simulating environment for teachers' professional development. This is corroborated by the findings

of a recent study in which teachers who work in smaller places pointed out the reduced possibilities of attending various professional training programs (Stanković, Đerić i Milin, 2013). In addition, the latest analysis of villages in Serbia shows that education in villages is generally of a lower standard than that in cities (Živkov *et al*., 2012).

A reduction in the number of students in a class is usually considered to improve the conditions for work and contributes to a better social climate, primarily because teachers have more time for individual interaction with students. Our research findings did not confirm the assumption that a better classroom climate is established in classes with fewer students. The results from other studies also show that classroom size in itself does not have a significant influence on how teachers and students experience the class and school climate (Koth, Bradshaw & Leaf, 2008; Van den Oord & Van Rossem, 2002).

Conclusion

The empirical findings of this study present a contribution to further theoretical reflection on and research into the phenomenon of classroom climate, but also indicate possible directions for planning educational policies. First of all, this study confirmed that the classroom social climate is an overarching construct that is comprised of different, but related, dimensions. In this research, we address four essential areas of focus which we call dimensions of classroom climate (equality in communication, social relationships between students, respect for students' feelings and organisation of group work) and it could be concluded that obtained results support our conceptualization. Although there is not yet a consensus about which dimensions are essential to measuring classroom climate validly, we believe that empirical evidence such as these will help to refine and focus our understanding of the aspects of classroom climate that can and need to be assessed.

By selected these classroom climate dimensions we wanted to highlight the social-emotional aspect of the teaching process which is, in our opinion, relatively neglected in educational research. On the basis of the gained results, we could conclude that teachers in Serbia highly value the importance of all researched aspects of the classroom climate and believe that they are engaged to a large extent in creating a positive classroom climate. In general, our results provide a more favourable picture of the classroom climate in primary schools in Serbia than those from studies carried out at the end of the last century. On one side, it is possible that under the influence of numerous reform initiatives which have been introduced into our education system since 2000, some aspects of schooling have changed for the better. On the other side, it is possible that this disparity in the results arose as a consequence of different methodological approaches used in the studies, as well as different conceptualisations of the classroom climate phenomenon. Although the high

reliability of the teachers' questionnaire we constructed to meet the needs of this research allowed us to draw certain conclusions, the gained results should certainly be taken with some caution.

Considering that it is desirable that teachers have positive attitudes towards different aspects of classroom climate and that their engagement in creating favourable environment is desirable and expected behaviour, it is possible that the respondents give socially desirable answers. This is supported by many studies which show that teachers are inclined to evaluate the classroom climate in the classes they teach as optimal, while their perceptions often do not coincide those of their students and the researchers themselves (Fraser, 1999; Mucherah 2003; Mucherah, 2008). Overall, teachers perceived their classroom climate to be nurturing, challenging, well organised, and high in task orientation. These perceptions, however, were not shared by their students. It is assumed that the teachers' authoritative role and desire to function optimally influence their perceptions. This assumption is supported by findings of other environmental studies conducted in various human context (Raviv, Raviv & Reisel, 1990). In addition to the influence of the role status on their perceptions, teachers are possibly more aware than the students of the implications of having their questionnaire reviewed by the researcher and might respond in accordance with this awareness.

Therefore we believe that further research into this phenomenon should be extended to include the students' perspective, the direct observation of classes, as well as the implementation of qualitative methods such as participatory action research which includes open dialogue with all of the participants in education process. It could lead towards a more objective and more comprehensive understanding of the classroom climate. In that way the empirical results, perceived within the context of relevant theoretical starting points, would enable the conceptualisation of efficient programs for the further improvement of classroom climate quality. This assumption is supported by the results of the latest studies aimed at researching the effects of the implementation of various social and emotional learning programs (SEL). These educational strategies, based on the theories of ecological systems and self-determination, were designed to contribute to classroom climate through the improvement of the social and emotional competences of both teachers and students (Catalano *et al*., 2004, in Rivers *et al*., 2013). A meta-analysis of some studies carried out on different levels of schooling (Durlak, Weissberg, Dymnicki, Taylor & Schellinger, 2011), indicate that the implementation of those programs could make a significant contribution to the improvement of students' social, emotional and academic skills.

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Славица Шевкушић, Соња Анђелковић и Владета Милин
РАЗРЕДНА КЛИМА У ШКОЛАМА У СРБИЈИ:
ПЕРСПЕКТИВА НАСТАВНИКА ОСНОВНИХ ШКОЛА
Апстракт

Циљ овог истраживања јесте да се анализира разредна клима из перспективе наставника основних школа у Србији. У истраживању су формулисана два истраживачка питања. Како наставници процењују важност појединих аспеката разредне климе и сопствено ангажовање у креирању повољне разредне климе? Који фактори одређују квалитет разредне климе? Разматране су четири димензије разредне климе: једнакост у комуникацији, друштвени односи међу ученицима, поштовање ученичких осећања и организовање групног рада. Узорак су чинили наставници из основних школа у Србији (N=1441) који су попуњавали упитник конципиран за потребе овог истраживања. Резултати факторске анализе потврдили су почетну претпоставку да су одабране димензије повезане тако да се може рећи да припадају истом конструкту и да су довољно различите да би се могле разматрати самостално. Добијени резултати показали су да наставници у Србији високо вреднују важност свих истраживаних аспеката разредне климе и сматрају да су у великој мери укључени у креирање позитивне климе. Такође, показало се да пол наставника и ниво наставе представљају најважније детерминанте квалитета атмосфере на часу. Имајући у виду ограничења примењеног инструмента, закључује се да добијене резултате треба тумачити са опрезом и да би у будућим истраживањима требало укључити и перспективу ученика, директно посматрање часа и квалитативне методе како би се добила објективнија и обухватнија слика о клими у разреду.

Кључне речи: разредна клима, наставници, социоемоционалне димензије наставе.

Славица Шевкушич, Соня Анджелкович и Владета Милин
КЛИМАТ НА УРОКЕ В СЕРБСКИХ УЧИЛИЩАХ
ИЗ ПЕРСПЕКТИВЫ УЧИТЕЛЕЙ ОСНОВНЫХ ШКОЛ
Резюме

Цель данного исследования – провести анализ климата на занятиях в основных школах Сербии из перспективы учителей. В исследовании сформулированы два ключевых вопроса для рассмотрения: (1) как учителями оценивается важность отдельных аспектов климата на занятиях и собственный вклад в создание благоприятного климата, и (2) какие именно факторы определяют качество климата на занятиях. Были рассмотрены четыре аспекта климата на занятиях: равенство в общении, общественные отношения между учащимися, уважение чувств учащихся и проведение групповой работы. Корпус испытуемых был составлен из учителей восьмилетних школ в Сербии (N=1441), которые заполняли вопросник, специально созданный для нужд данного исследования. Результаты факторного анализа подтвердили начальное предположение, что выбранные аспекты связанны в смысле принадлежности к одному конструкту и что между ними имеются достаточные различия, что дает основание считать их самостоятельными. Полученные результаты показали, что учителя в Сербии высоко ценят важность всех исследовательских аспектов климата на занятиях, считая, что они в большой мере включены в создание положительного климата на занятиях. Оказалось также, что пол учителя и уровень обучения являются важнейшими определяющими факторами качества атмосферы на уроке. Имея в виду ограничения примененного инструмента, авторы приходят к выводу, что полученные результаты необходимо интерпретировать осторожно, и что в будущих исследованиях, в целях получения более объективной и более комплексной картины о климате на занятиях, необходимо включить и перспективу учащихся, прямое наблюдение уроков и качественные методы.
Ключевые слова: климат на уроке, учителя, социоэмоциональные аспекты обучения.