

## Determination of Indicators of School Culture in Primary Schools

### Abstract

School culture is one of the indicators of school quality. Effective school leaders are continually working on changing the school, analyzing and examining why their school needs to become a better place for all students and employees. To change school culture it is very important to determine at what level it is, what elements representing it are satisfactory, and which elements are essential to be changed with the goal of improving them. The aim of this study was to determine indicators of school culture in primary schools and on this basis to determine its level. Indicators of school culture were viewed from the point of view of 562 teachers, assistants and other staff in primary schools. Through factor analysis seven indicators of school culture were distinguished in primary schools: encouraging joint work, evaluating employee achievement, teacher collegiality, principal-teacher feedback, learning partnership, colleagues' compliments and personal involvement of teachers.

**Key words:** *school culture, school management, primary school, research.*

### Introduction

In accordance with changes in other areas of labour, education in the last ten years has faced a series of attempts to increase the effectiveness of schools. The aim of modern school is to become more efficient, effective and flexible. A prerequisite for achieving a successful school is the quality, creativity, innovation, speed of change and adaptation. This fact indicates that school management should be

focused on changing the school system. Effective school leaders are continually working on changing the school, analyzing and examining why their school needs to become a better place for all students and employees. In accordance with that the most important task of school leaders is: building vision, understanding and development of people (students and employees), redesigning the organization, management of the teaching and learning processes in school.

School culture can have a positive impact on the learning process, just as it can seriously jeopardize the achievement of the academic mission. Modern trends in education are advocating students' independent work and this is only possible if the school developed a culture that encourages students to critically overlook problems, first try to understand them, understand the importance of school attendance and develop an atmosphere in which the effective realization of a given activity is possible. The culture of a school can be described as a way of living and working in it, the impact of history and tradition of the school and its success on the behavior of teachers, staff and all school employees. Culture gives meaning to teachers on how to behave in the entire educational process and to students on how to develop a positive climate in the classroom so they can fully use the potential that helps them to quickly and efficiently learn lessons and gain the necessary competences.

In order to change school culture it is very important to determine at what level it is in a school, and which elements are essential to be changed with the goal of improving them. Peterson and Deal (Staničić, 2006, 320) describe a good school as a place where teachers are aware of the common goal, which is dominated by the norms of behavior such as collegiality, professional development and hard work, a place where student success is celebrated, and where innovations are brought by teachers as well as parents, and where there is plenty of success, joy and humor. Lezote and Levine (1990) identified nine characteristics of effective schools and they say that it is common for effective schools to have a regulated environment and a productive climate and culture. According to these authors, the regulated environment in the school includes regulated interpersonal relationships, and among those the ones that stand out are cooperation, compromise, communication and collegiality.

Specific school culture represents an understanding of the school in a historical, institutional and normative sense. School culture has characteristics of organizational culture because the principal is responsible for creating and sustaining culture in school and basic communication values (Staničić, 2006, 332). Characteristics of school culture can be seen by analyzing the social environment that should promote interaction among employees, active communication among teachers, teacher collegiality and partnership of parents and students. This is an environ-

ment in which there are diverse groups of students, teachers are open to students' suggestions, students have opportunities to participate in decision-making, while teachers and students are trained to prevent and resolve conflicts.

### **Methodological framework of the research**

**The research topic** is school culture. School culture is examined in this paper based on the opinion of employees in elementary schools. **The aim of the survey** was to identify the structure of school culture and determining factors of school culture in primary schools, and then, based on them, to evaluate the existing level of culture in schools. **The sample of the study** consisted of 22 primary schools (11 urban and 11 rural). A total of 572 respondents of which 484 (84.6%) were female and 88 (15.4%) were male. According to work experience, more than a half of the respondents, 295, had worked in the school for over 11 years, indicating the validity of the results. The age group that comprised the majority of the respondents was from 31-40 years (33.2%) and the age group of 41-50 32.5% of the respondents. The smallest number of the respondents was in the age group of over 60 years (1.7%) and in the group that comprised the respondents of 21-30 years of age (13.6%).

**The instrument used** in this research and which was used to extract indicators of school culture was developed by Gruenert (1998), called The School Culture Survey (SCS). SCS contains 35 questions with 6 Likert-type response alternatives: strongly disagree, disagree, partially disagree, agree, partly agree and strongly agree. In order to check the reliability of the measuring scale Cronbach's Alpha was used. Ratios over 0.7 were considered acceptable, and coefficients greater than 0.8 were considered good. In this study for 35 variables that related to the various elements of school culture, Cronbach's Alpha was 0.932, and it was concluded that the measurement scales used were reliable.

### **Results of the research and discussion**

In the data analysis, factor analysis was used with factor extraction using the method of principal components analysis. Before conducting this analysis, we assessed the suitability of data for factor analysis. The value of Kaiser-Meyer-Olkin Measure of Sampling Adequacy, KMO, was 0.943, which exceeded the recommended value of 0.6 (Kaiser, 1970), and thus it was concluded that the obtained data was suitable for the implementation of factor analysis. Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance (i.e. the value Sig. should be 0.05 or less, in this case,  $p=0.000$ ), so the factor analysis was justified. Analysis of the

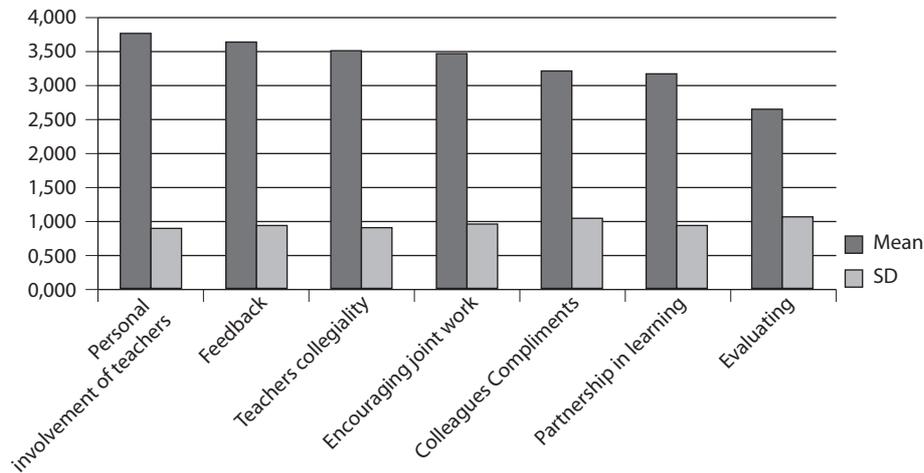
main components revealed the presence of seven components with eigen values over 1 (11.753, 1.916, 1.809, 1.395, 1.347, 1.148, 1.010). The seven components explained the total of 58.2% of the variance. With the inspection of communalities ( $h^2$ ) as a measure by which every variable participates in the entire system it could be established that almost all the variables occupied a significant share in defining the system. "Mission reflects the values of the community," "Teaching performance reflects the mission of the school," and "Involvement in school policy" had somewhat lower communalities. In order to obtain simpler solutions, extensive rotation was performed by the principal components method, the results obtained were assembly and structure of the school culture variables (Table 1).

**The first factor** includes nine variables related to the joint work of teachers and encouraging the exchange of ideas and expressions of dissent. It showed how well-informed the teachers were concerning the issues in schools, encouraging teachers to interact, exchange ideas and encouraging innovation, encouraging teachers to work together on developing and evaluating projects, as well as on how well the school mission was in line with the learning effect. The value of Cronbach's Alpha coefficient for this factor was 0.870, indicating that the scales used for measuring were reliable. On the basis of the variables that included the first factor it can be called *Encouraging Joint Work*. **The second factor** included four variables to measure the degree of monitoring the achievement and progress of teachers by the principal or some outside institution. It also included variables related to rewards given to the teachers by the principal. The value of Cronbach's Alpha coefficient for this factor was 0.766, which exceeded the recommended value of this coefficient. Based on the variables included, this factor can be called *Evaluation of Employees' Achievement*. **The third factor** measured the degree to which teachers supported each other, how much they trusted each other and the they were willing to help each other when there was a problem. It also indicated the amount of time teachers spent planning together. This factor contained four variables and the value of Cronbach's Alpha coefficient of 0.759. Considering that the included variables were related to cooperation among teachers this factor can be called *Teachers Collegiality*. **The fourth factor** included only two variables, but the correlation of the coefficients between the variables was strong. This factor measured the degree to which the principals praised the teachers for a job well done. Based on the variables included in the fourth factor it can be called *Compliments of the Colleagues*. **The fifth factor** included nine variables related to the interaction between principals and teachers. It showed how much the leader (principal) believed the professional opinion of teachers and adequately evaluated teachers' ideas. Also, this factor indicated what opportunity teachers had to dialogue and how great was their involvement in

decision-making process. It measured the understanding of school mission by teachers. The value of Cronbach's Alpha coefficient for this factor was 0.870. Based on the variables included in the fifth factor it is called *Principal – Teacher Feedback*. **The sixth factor** included four variables that related to the degree to which teachers, parents and students worked together for the common good of students, and also at what level parents and teachers shared common expectations about student achievement and trust. The value of Cronbach Alpha's coefficient for this factor was 0.756. Given that the overall factor coincided with the factor obtained in previous studies (Gruenert, 1998; Mees, 2008) the sixth factor may also be called *Learning Partnership*. **The seventh factor** included variables related to the willingness of teachers to be actively involved in school policy, their motivation to engage in tutoring other colleagues, and information about how other teachers worked with students. Given the variables included, this factor can be called *Personal Involvement of Teachers*.

In a survey conducted by Gruenert (1998) variables were grouped under the seven factors, by which the quality of school culture was measured. The following factors were obtained: collaborative leadership, teacher collaboration, professional development, collegial support, unity of purpose and learning partnership. Comparing the obtained factors with previous research (Gruenert, 1998; Mees, 2008), only one factor fully matched and that was the sixth factor, namely "Learning partnership". This result can be attributed to differences in the countries where research was conducted, also to the education systems that are established in them, and leadership styles that are used in these schools. Given that in our country principals lack professional training in the field of educational management, they do not apply some of the basic principles of effective leadership. In addition to that, in most schools there is no transparent published school mission and the teachers have different reasoning on issues related to the understanding and supporting of the mission of the school. Finally, problems arose also with issues related to professional evaluation by the faculties and also with the issue of connecting the faculties with schools, given that in our country such relationships are almost non-existent. Nevertheless, the identified factors clearly point to the common meaning of the variables that are included in them, leading to valid results and conclusions.

The obtained structure of the indicators of school culture was subjected to analysis of the representation of each indicator in schools where the research was conducted. By calculating the mean and standard deviation obtained for each factor, the degree of representation of indicators of school culture was determined (Figure 1). According to the calculated values, the most common indicator was the "Personal Involvement of Teachers" ( $\mu=3.771$ ,  $\sigma=0.904$ ) and the least represented

**Figure 1.** Mean values of the representation of certain factors of school culture

was the indicator of “Evaluation” ( $\mu=2.651$ ,  $\sigma=1.086$ ). After the most represented indicator, three indicators appeared with similar values, in the order by size, “Feedback” ( $\mu=3.656$ ,  $\sigma=0.933$ ), “Teachers Collegiality” ( $\mu=3.515$ ,  $\sigma=0.905$ ) and “Encouraging Joint Work” ( $\mu=3.46$ ,  $\sigma=0.979$ ). With slightly lower values there were indicators “Colleagues’ Compliments” ( $\mu=3.214$ ,  $\sigma=1.049$ ) and “Partnership in Learning” ( $\mu=3.179$ ,  $\sigma=0.937$ ). The results of the research by which the most common indicator of school culture was “*Personal Involvement of Teachers*”, while the least represented indicator appeared to be “*Evaluation*”, reflected a realistic situation in schools in Serbia, confirmed by additional comments of the respondents collected during the survey. On the one hand, this result indicated the teachers’ willingness to actively participate in school policy and awareness of personal contributions to school culture by maintaining the current base of knowledge through continuous professional development. On the other hand, the results indicated a lack of evaluation from the principal and other colleagues as well as rare rewards for hard working teachers. These results indicated that teachers who aspired to professional development did it because it was their personal choice and not because they were motivated by the behavior of the principal. Because those ambitions are often disadvantaged when compared to colleagues who have no such affinity. Just from these two factors some initial conclusions about the condition of the school culture in the schools in our country can be drawn. Teachers feel the

need to contribute to improving the state of their school culture through their own efforts, but on the other hand, they are not sufficiently rewarded or valued by the principals and colleagues. The indicator of “*Principal – Teacher Feedback*” is the second most represented in our schools. This indicator refers to the relationship between principals and teachers regarding the performance of teachers at school, which demarcates their possible ambitions for improvement. The variables included are related to the fact that the principal trusts and values his teachers and, on the other hand, teachers express their understanding and support for the mission of the school. The problem that arises in this indicator is that in our schools there are no clearly expressed missions, and teachers are not sure what is the subject of their support. The answers that they gave can be attributed to the fact that they believe that by the mission they comprehend some unwritten guiding star to which all employees in school aspire, and by these responses they are expressing their identification with the positions of their principals. Such a highly rated indicator implies good feedback between the principal and teachers, at least when it comes to issues related to teaching, where the principal makes the work of teachers easier and trusts in their decisions, and in return teachers show the principal a high level of support in achieving the mission of the school. The indicators of “*Teachers Collegiality*” and “*Encouraging Joint Work*” were also given a lot of high marks. This is a result of the good relations between colleagues regarding the syllabus, where they express a high level of willingness to help and trust each other. On the other hand, the results indicate encouragement of joint work by the principal, which together with collegiality of the teachers points to well-established relationships between colleagues concerning cooperation and mutual exchange of ideas. These two factors indicate well-established school culture when it comes to the indicators related to teaching. The indicators that received worse marks are “*Colleagues’ Compliments*” and “*Learning Partnership*”. This result confirms the previously obtained poor results related to the poor evaluation of the work and not enough rewarding of the colleagues and by using the indicator of “*Colleagues’ Compliments*” it may be concluded that praise by colleagues and by the principal are of rare occurrence. Next to last by its presence is the indicator “*Learning Partnership*”, implying very poor communication between parents and teachers. According to this indicator, it can be concluded that parents’ and teachers’ expectations of student achievement differ as does parents’ confidence in teachers, which is very low.

Such a bad result of this indicator shows that the condition of school culture in our schools is not at a high level when it comes to relations with outside factors, who have a direct interest in school work.

## **Conclusion**

The study of school culture provides information on common values, beliefs, behavior patterns and relationships in school. Each factor measures a unique aspect of common culture. Based on the research presented in this paper we can discuss the following dimensions of school culture present in primary schools: encouraging joint work, evaluating employee achievement, teacher collegiality, principal-teacher feedback, learning partnership, colleagues' compliments and personal involvement of teachers. Based on these indicators it is possible to gain insight into the quality of school culture in primary schools in our country. The dimensions of school culture are directly dependent on the style of school management, as well as on the specific conditions in which the school operates. Summarizing the results we can draw a general conclusion that the condition of school culture is at a satisfactory level, but only when talking about relationships related to teaching, the relationship between colleagues as well as principals and teachers. When it comes to evaluating the professional development of teachers, colleagues' compliments and rewards from principals it may be concluded that these are the indicators on which schools have to work more. If there are no praises and rewards, this reduces teachers' motivation for professional development, which is a key indicator of improving the overall school culture. Relationships with parents are also at a low level and concerning expectations regarding student achievement it is possible to arrange more frequent meetings of teachers and parents and with better informing of parents about their children's accomplishments. Whether and to what extent this subject will attract special attention depends on school principals, who are the direct creators of school culture. Raising principals' awareness of the need for better motivation and rewarding of teachers and development of better relationships between parents and teachers are criteria of developing better school culture that will in future be in accordance with the needs of all stakeholders involved in primary education.

## **References**

- Bartlett, M. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society*, 16, 296–8.
- Kaiser, H. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31–36.
- Gruenert, S. (1998). *School Culture Survey*. Unpublished doctoral dissertation, University of Missouri, Columbia.

- Levine, D.U., Lezotte, L.W. (1990). *Unusually Effective Schools, A Review and Analysis of Research and Practice*, Madison, WI: National Center for Effective School Research and Development.
- Mees, Gregory W. (May 2008). *The relationships among principal leadership, school culture, and student achievement in Missouri Middle Schools*. Doctoral dissertation, University of Missouri, Columbia. ProQuest, UMI Dissertation Publishing (September 11, 2011).
- Staničić, S. (2006). *Menadžment u obrazovanju*. Rijeka: Autor.
- School Leadership: Concepts and Evidence*, Full Report, National College for School Leadership, 2003.
- What we know about school leadership*, 2006, available at: [www.ncsl.org.uk/publications](http://www.ncsl.org.uk/publications).