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## **THE RELATIONSHIP BETWEEN PERCEPTION OF SCHOOL CLIMATE AND TEACHER MOTIVATION**

The relationship between organizational climate and employee motivation is one of the fundamental questions in the field of work performance research. Previous research has shown that a more favorable social, emotional and work context contributes to greater employee engagement and higher productivity. The subject of this research was the relationship between the teachers' perception of school climate and their work motivation. This paper presents the results obtained on a sample of 467 teachers from 25 elementary schools in the wider city area of Tuzla. The School Level Environment Questionnaire (SLEQ) and the Work Tasks Motivation Scale for Teachers (WTMST) were used to collect data. The obtained results suggest that the school climate, as perceived by teachers, has predictor value in relation to their motivation. In terms of predictor value for identified regulation, amotivation and internal motivation, collaboration between teachers and relationships with students stand out. Nevertheless, the small amount of explained variance is an indicator that teacher motivation is in its entirety mostly determined by the sum of actions of other factors. In this way, however, a small part of the total variance of motivation is explained, which suggests that motivation is mostly determined by the sum of the actions of other factors.

**Key words:** teacher motivation; school climate; Self-determination theory

## INTRODUCTION

Although school, in the form in which it is known today, appeared much earlier, it wasn't until the beginning of the second half of the twentieth century when researchers started showing more interest in the field of pedagogy to observe each institution as a separate community, which has its own history, (partially) its own value system, specific relationships of its members, and represents a unique social, emotional and working environment. Only then do researchers widely abandon the approach of analyzing rules which are equally valid in all schools and place the emphasis on the importance of *intangible factors and factors which are harder to perceive* in achieving the school's goals and objectives.

The study of *school climate*, as the overall relationship between the employees and students of a school was named, started from the field of studying the general organizational climate. The first instruments adapted to educational institutions appeared in the sixties (Halpin and Croft, 1963). The interest of the researchers who developed them was focused on the management practices of school principals and interpersonal relations within institutions. At the same time, interest in correlational research is starting to develop, where the relationship between school climate and student academic achievement is examined (Coleman, Campbell, Hobson, McPartland and Mood, 1966; Coleman, Hoffer and Kilgore 1982).

At the same time, the issue of climate is observed at different organization levels (school, class) and in different segments of the school's work (teaching, extracurricular activities). Then, the very concept of climate can be divided into social, emotional and work components. In the B/C/S (Bosnian-Croatian-Serbian) speaking area, in addition to the word *klima*, among others, the words *ozračje, atmosfera, ton, duh, ugodaj, okolina, ambijent* are used to denote *climate*.

The concept of school culture is often closely tied to the concept of school climate. However, in order to separate those two, it is important to keep in mind that climate is viewed as a dynamic i.e. a faster changing feature. On the other hand, culture is characterized by a higher level of permanence, although it can also be viewed as dynamic. Culture is a consequence - the result of dynamic relationships within the organization, but also the very factor that (reversely) shapes psychosocial dynamism (Staničić 2011).

Motivation refers to psychological processes that move people to perform a certain activity and exhibit certain behavior. Although the focus of previous studies of teacher motivation as a dependent variable was more often the leadership style of school prin-

cipals (Alasad 2017; Eres 2011; Eyal and Roth 2011), there are studies that focus on school climate as an independent variable. Ladylong (2014) reported that 35% of teachers' work motivation can be explained by the school climate. The dimensions that have a significant predictor value are *Collegial leadership* and *School community interrelationships*.

Raman, Ling and Khalid (2015) obtained similar results. They found a moderate positive connection between school climate and teachers' commitment to work, with *Teachers' professional behavior* and *Collaborative leadership* as dimensions of climate which contribute to the model the most.

Hamid, Ahmed and Rashid (2020) also found a positive association between perceived school climate and motivation in primary school teachers and principals.

A generally higher degree of motivation, and dominant intrinsic motivation among teachers, are significant for pedagogical practice and theory because there is knowledge that these factors are correlated with teacher efficacy and, ultimately, with student performance and the achievement of the school's educational goals (Gorozidis and Papaioannou 2014; Jesus and Lens 2005; Karabenick and Conley 2011; Perlman 2013). The answer to the question about the potential contribution of the school climate to teacher motivation could, therefore, contribute to the improvement of teaching theory and practice.

## **SCHOOL CLIMATE**

The term school climate refers to the intangible dimension of school life, which is the result of the overall relationships of all its employees and students, and which each of them experiences subjectively, at the level of their own emotions, social relations, and work environment. It is about the climate of the school as a group/organization.

According to Sušanj (2005), how we understand organizational climate is key for its precise definition. In this sense, since the earliest research, two directions were noted: objectivist or realistic and subjectivist or phenomenological. The first understanding implies that the climate exists objectively, as part of the organization's reality. Although it is composed of typical behaviors, attitudes and feelings, climate is an attribute that exists independently of the perception of the organization members. In contrast, according to the subjectivist understanding, climate refers to the perceptual and cognitive structuring of the organizational situation, which is shared by its members. Such an attitude implies that climate does not exist objectively and that it is the

result of personal cognitive maps of all members of the organization, which they use to structure organizational situations (Sušanj 2005) perceptually and cognitively.

In his definition of the school climate, Rafferty places emphasis on the role of principals and teachers in the creation of school climate, not mentioning students as having a particularly important role. "School climate is organizational climate with context specificity. It embraces the milieu of personalities, the principal and teachers, interacting within the sociological and psychological framework present in all school" (Rafferty 2003: 52).

Taking the above into account, *school climate* can be understood as a psychosocial climate, created in the school as a specific organization, and which consists of the behaviors, attitudes and feelings of its principal, teachers, expert associates and students.

This paper studies five dimensions of school climate which were defined by Johnson, Stevens and Zvoch (2007): 1. *Instructional innovation*, 2. *Collaboration*, 3. *Decision-making*, 4. *School resources* and 5. *Student relations*.

- Instructional innovation is expressed through the school's openness to plan changes and experimenting, the openness of the class community to the outside environment and the nurturing of individuality;
- Johnson, Stevens and Zvoch (2007) define collaboration as circumstances in which teachers can get help, advice and support from colleagues, and feel accepted;
- Decision-making includes teachers' perception of their involvement in making decisions that are important for the school, as well as the teaching process itself;
- School resources refers to the availability of financial means, material and technical resources, and the availability of expert associates;
- Student relations are expressed through the responsible relationship between teachers and students, and through discipline (Johnson, Stevens and Zvoch 2007).

In addition to the above, there are also broader models of school climate dimensions, which, aside from the physical environment, interpersonal relationships and teaching process, also include *safety* as part of the school climate (Cohen, McCabe, Michelli and Pickeral 2009; National School Climate Center, 215; Zullig, Coopman, Patton and Ubbes 2010).

## TEACHER MOTIVATION

Per the general definition, the term *motivation* refers to psychological processes that move people to perform a certain activity and exhibit certain behavior (Rot 2004).

The theoretical framework for researching motivation in this work is the Self-Determination Theory (Deci and Ryan 1985), which understands human behavior as the result of a complex interactive process of external and internal control. External control denotes extrinsic, and internal denotes autonomous or intrinsic processes. The prevalence of intrinsic over extrinsic processes means achieving a higher level of self-determination, i.e. moving away from extrinsic to intrinsic motivation. The self-determination theory shows motivation on a continuum that starts with *amotivation*, goes through different levels of extrinsic motivation (*external regulation, introjected regulation, identified regulation*) and finally ends with intrinsic motivation (*internal regulation*).

- Amotivation is defined by Ryan and Deci (2000) as the absence of any will to act in relation to the physical and/or social environment;
- External regulation is the least autonomous form of extrinsic motivation. It refers to motivation by means of punishment and rewards;
- Introjected regulation is internal but still (externally) controlled regulation of behavior, in which a person resorts to a certain behavior in order to avoid feelings of guilt or anxiety, or to achieve a sense of satisfaction and empowerment of the personality;
- Identified regulation implies a higher level of autonomy and greater freedom of choice compared to introjected regulation, because this behavior is more in line with personal goals and identity;
- Intrinsic motivation is recognized in activities an individual performs for personal pleasure (he finds pleasure in performing the activity itself) without visible external benefit. Guay, Mageau, and Vallerand (2003) point to three types of intrinsic motivation: motivation towards knowledge, motivation towards accomplishment, and motivation towards stimulation.

*The self-determination theory* is consistent with Herzberg's *Two-Factor Theory of Motivation* (Gagné and Deci 2005), which implies that the determinants of human behaviour in the workplace are *hygiene factors* and *motivators*. Motivators (Herzberg, Mausner and Snyderman 1959), which are in the domain of intrinsic motivation, include *success, responsibility, recognition, advancement, interest, and personal development*. Hygiene factors are, among others, *interpersonal relationships, work conditions and personal life*. They are primarily in the domain of external motivation. Only the satisfaction of motivators leads to job satisfaction and high motivation, while solely satisfying hygiene factors positions motivation on the neutral part of the motivational continuum (Herzberg, Mausner and Snyderman 1959).

In researching teacher motivation, Dinham (2008) identified classroom conditions as *motivators*, which are mainly under the teacher's control, and which include his *inner satisfaction in working with students and monitoring their progress*, and *opportunities for professional development*. *Hygiene factors* are *broad context conditions*, which are under the responsibility of education authorities, and which can mostly have only a negative effect on teacher motivation. These include *the social perception of the teaching profession*, *the policy of shaping and directing the education system*, *education reforms* and *work overload*. As a third group, Dinham (2008) lists *intermediate-level factors*, which can be both motivators and hygiene factors. These include *school management*, *decision-making*, *school climate*, *communication*, *teaching aids* and *school reputation in the local environment*.

There are numerous other factor models of teacher motivation that indicate its complexity and where elements of Self-Determination Theory can be recognized (Abdullah and Noor 2020; Gayomal-Sala 2020; Khan 2014; Nzowa 2020).

## RESEARCH METHODOLOGY

### *Research aim*

The aim of the research was to analyze the relationship between the perception of school climate and teacher motivation to perform work tasks. It was assumed that the perception of school climate is related to teacher motivation to perform work tasks.

### *Respondents*

The sample, characterized as convenient (non-probabilistic sample), consisted of 467 classroom and subject teachers from all 25 primary schools in the wider city area of Tuzla. According to the data collected in the schools, the total number of teaching positions at the time of the survey was 744, which corresponds to the number of printed and distributed sets of questionnaires. However, it should be emphasized that the actual number of teachers is less than 744 (it was impossible to obtain accurate data by looking at individual school databases), because a certain number of individuals, in order to accumulate work hours for their job to be considered full-time, were employed in more than one school. In such cases, teachers were advised to fill in the questionnaires in the school in which they have the largest number of working hours.

The return of valid questionnaires was slightly less than 63%. The gender distribution of respondents in the sample is asymmetric, which is a reflection of population imbalance: 307 (65.7%) female teachers and 89 (19.1%) male teachers, while 71 (15.2%) respondents did not state their gender in the questionnaire. The age of the respondents ranged from 24 to 64 years ( $M=43.12$ ;  $s=9.15$ ;  $Sk=0.18$ ;  $K=-0.55$ ). There were no statistically significant differences in age between the male and female subsample of respondents, as well as no differences in length of service.

### ***Research methods and procedures***

The methodological framework of the empirical part of the paper is comprised of the survey method, which is represented through survey and scaling techniques. In addition to descriptive statistics procedures, multiple regression (OLS) has been used. The IBM SPSS software package was used for statistical data processing.

### ***Research instruments***

*School Level Environment Questionnaire (SLEQ)* and the *Work Tasks Motivation Scale for Teachers (WTMST)* were used to collect data in the research.

The School Level Environment Questionnaire (Johson, Stevens and Zvoch 2007) consists of 21 statements, divided into five subscales, where each subscale corresponds to one dimension of the school climate: *instructional innovation* (4 items), *collaboration* (6 items), *decision-making* (3 items), *school resources* (4 items) and *student relations* (4 items). All items are given in the form of five-point Likert scales (with modalities of  $-2 = \text{completely disagree}$ ,  $-1 = \text{disagree}$ ,  $0 = \text{do not know}$ ,  $1 = \text{agree}$  to  $2 = \text{completely agree}$ ).

The Work Tasks Motivation Scale for Teachers (WTMST) (Fernet, Senecal, Guay, March and Dowson 2008) consists of 90 statements, divided into six subscales, where each subscale corresponds to one group of teacher work tasks (*class preparation, teaching, student evaluation, classroom management, administrative tasks and complementary tasks*). Each subscale lists three statements for each of the five types of regulation (*intrinsic motivation, identified regulation, introjected regulation, external regulation and amotivation*). Respondents express their agreement with the statements on a seven-point scale, where the answers range from  $1 = \text{completely disagree}$ ,  $2 = \text{somewhat agree}$ ,  $3 = \text{slightly agree}$ ,  $4 = \text{moderately agree}$ ,  $5 = \text{strongly agree}$ ,  $6 = \text{very strongly agree}$ , up to  $7 = \text{completely agree}$ .

Another short questionnaire was used to collect basic information on the socio-demographic characteristics of the respondents – gender, age and work experience.

As a review of the relevant literature showed that in our country no serious study has yet been conducted on a sample of teachers using the *School Level Environment Questionnaire* and *Tasks Motivation Scale for Teachers*, an evaluation of these instruments was performed. After checking the factor validity through confirmatory factor analysis and a detailed review of other relevant measurement properties, it was determined that the instruments used have satisfactory measurement properties. Indicators of reliability, representativeness and homogeneity are shown in Table 1.

**Table 1.** Indicators of reliability, representativeness and homogeneity for the *Work Tasks Motivation Scale for Teachers* and *School Level Environment Questionnaire*

Subscales	$\alpha$	$\beta$	$\lambda_1$	$\lambda_6$	MSA	H2	N
<b>Intrinsic motivation</b>	0.92	0.92	0.87	0.95	0.89	0.60	18
<b>Identified regulation</b>	0.92	0.92	0.87	0.94	0.89	0.67	18
<b>Introjected regulation</b>	0.95	0.95	0.90	0.96	0.95	0.83	18
<b>External regulation</b>	0.93	0.93	0.88	0.94	0.93	0.78	18
<b>Amotivation</b>	0.94	0.94	0.88	0.95	0.94	0.79	18
<b>Instructional innovation</b>	0.69	0.70	0.52	0.65	0.70	0.89	4
<b>Collaboration</b>	0.74	0.75	0.62	0.74	0.72	0.76	6
<b>Decision-making</b>	0.30	0.41	0.22	0.30	0.64	0.83	3
<b>Resources</b>	0.66	0.93	0.50	0.61	0.70	0.87	4
<b>Student relations</b>	0.79	0.79	0.60	0.75	0.93	0.79	4

*Note.*  $\alpha$  - Cronbach - reliability coefficient;  $\beta$  - Lord - Kaiser - Caffrey reliability coefficient of the first principal component;  $\lambda_1$  - Gutman - absolute lower limit of reliability,  $\lambda_6$  - Gutman - absolute upper limit of reliability; MSA - normalized Kaiser - Meyer - Olkin representativeness coefficient; H2 - Momirović - relative size of the variance of the first principle image component; N - number of scale items.

The internal measuring characteristics of the *School Level Environment Questionnaire* are modest, which is largely determined by the small number of items in the subscales. Although the measured characteristics on three subscales of *instructional innovation*, *resources* and *decision-making* are below the conventional level, we believe that it makes sense to keep the two subscales, while the third one should be discarded. This is because the analysis of internal measurement characteristics indicates that the *decision-making* scale has no basis for its own existence, since the *decision-making* factor and the associated items do not contribute to the reduction of the measurement error. It is assumed that the very nature of the items increased the variance of the respondents' responses, in such a way that respondents showed significant dif-

ferences in their perception of the given items, which further contaminated the measurement characteristics of the *decision-making* scale.

As stated in the sample description, 744 sets of questionnaires were printed and distributed. The questionnaires were delivered to the schools in open envelopes in a number that corresponded to the number of the engaged teachers, after which they were handed over to the teachers by expert associates pedagogues-psychologists. After filling in the questionnaires, the teachers returned them to the pedagogues-psychologists in closed envelopes. The process took an average of five workdays in each school.

### **Results**

Table 2. shows the basic descriptive statistics for dimensions of the school climate, as well as for the dimensions of teacher motivation, which are presented through summative scores and average scale values.

**Table 2.** Average values and standard deviations for the subscales of the School Level Environment Questionnaire and the Work Tasks Motivation Scale for Teachers

Subscales	<b>M</b>		<b>σ</b>	
	<b>jlk</b>	<b>psv</b>	<b>jlk</b>	<b>psv</b>
<b>Collaboration</b>	19.41	3.80	3.57	0.71
<b>Student relations</b>	15.09	3.77	3.20	0.80
<b>Resources</b>	11.20	2.80	3.63	0.90
<b>Instructional innovation</b>	14.64	3.66	2.88	0.72
<b>Intrinsic motivation</b>	85.02	4.72	20.58	1.14
<b>Identified regulation</b>	100.92	5.60	17.92	0.99
<b>Introjected regulation</b>	87.20	4.84	25.15	1.40
<b>External regulation</b>	94.85	5.27	21.94	1.22

*Note.* *M* - arithmetic mean;  $\sigma$  - standard deviation; *jlk* - summative score created as a simple summation; *asv* - average scale value.

The summative scores and average scale values for the school climate dimensions show that the teachers gave the highest ratings to collaboration—it leans towards ‘very good’, if we look at the descriptive values of the instrument. The relationship between teachers and students and instructional innovation are around the same. The dimension of school climate referring to school resources received the lowest ratings from the teachers.

Summative scores and average scale values for all five dimensions of motivation show that teachers are moderately to highly motivated to work, while the amotivation

factor is very weak to weak. Identified regulation, as the highest level of external regulation, is close to intrinsic motivation, and together they are slightly ahead of other types of motivation.

The relationships between the experience of school climate and teachers' motivation to perform work tasks were evaluated through standard regression analysis. Factors and facets of the school climate form a set of four predictor variables (*instructional innovation, collaboration, school resources* and *student relations*) while criterion variables consist of five dimensions of teacher motivation (*Intrinsic Motivation, Identified regulation, Introjected regulation, External regulation* and *Amotivation*). A separate regression model was used for each dimension. An overview of general model efficiency indicators is shown in Table 3.

**Table3.** Multiple correlation coefficient and determination coefficients for models of teacher motivation assessment

Model	<i>R</i>	<i>R</i> <sup>2</sup>	<i>ΔR</i> <sup>2</sup>	<i>Standard error</i>
<b>Intrinsic motivation</b>	0.26	0.06	0.05	19.89
<b>Identified regulation</b>	0.31	0.10	0.09	17.04
<b>Introjected regulation</b>	0.19	0.03	0.02	24.79
<b>Externalregulation</b>	0.19	0.03	0.02	21.62
<b>Amotivation</b>	-0.30	0.09	0.08	21.78

*Note.* *R* – multiple correlation coefficient; *R*<sup>2</sup>– multiple determination coefficient; *ΔR*<sup>2</sup>– corrected *R*<sup>2</sup>

The table shows that the regression solution for the score prediction model on the *Identified regulation* dimension proved to be the most effective, where about 10% of the variance (*R*=0.31; *R*<sup>2</sup>=0.10, *p*<0.0001) of teacher motivation was explained. In the case of the prediction of *Amotivation*, the regression solution explained 9% of the variance (*R*=-0.30; *R*<sup>2</sup>=0.09, *p*<0.0001). In the regression solution for the prediction of *Intrinsic motivation*, about 6% of the variance is captured through different aspects of school climate perception (*R*=0.26; *R*<sup>2</sup>=0.06, *p*<0.0001). The remaining two solutions for *Introjected Regulation* and *External Regulation* gave a significantly more modest scope of prediction – in both cases 3% of the explained variance of teacher motivation (*R*=0.19; *R*<sup>2</sup>=0.03, *p*<0.004).

Data on the significance of the regression models tested through the analysis of variance are shown in table 4. All five models of variance analysis are statistically significant at *p*<0.01 or a higher significance level. This once again confirms that the models have their *existence*, even if their contribution is modest, because the predictor variables are considerably homogeneous.

**Table 4.** Summative indicators of variance analysis for the testing of the regression models

Model		SS	Df	MS	F	p
<b>Intrinsic motivation</b>	regression	13685.07	5	2737.01	6.91	0.000
	residual	183242.89	463	395.77		
	<b>total</b>	<b>196927.96</b>	<b>468</b>			
<b>Identified regulation</b>	regression	15280.28	5	3056.05	10.51	0.000
	residual	134547.62	463	290.60		
	<b>total</b>	<b>149827.91</b>	<b>468</b>			
<b>Introjected regulation</b>	regression	10652.75	5	2130.55	3.46	0.004
	residual	284660.11	463	614.81		
	<b>total</b>	<b>295312.86</b>	<b>468</b>			
<b>External regulation</b>	regression	8132.56	5	1626.51	3.47	0.004
	residual	216595.72	463	467.80		
	<b>total</b>	<b>224728.29</b>	<b>468</b>			
<b>Amotivation</b>	regression	22305.96	5	4461.19	9.39	0.000
	residual	219771.59	463	474.66		
	<b>total</b>	<b>242077.55</b>	<b>468</b>			

Note. *SS* – sum of squares; *df* – degrees of freedom; *MS* – mean squares; *F* – Fisher F ratio

The contribution of predictors *Student relations* ( $\beta=0.15$ ,  $t=3.14$ ,  $p<0.01$ ) and *Instructional innovation* ( $\beta=0.16$ ,  $t=2.99$ ,  $p<0.01$ ) to the first regression model *Intrinsic motivation* is statistically significant. *Collaboration* ( $\beta=0.12$ ,  $t=2.30$ ,  $p<0.05$ ), *Student relations* ( $\beta=0.10$ ,  $t=2.11$ ,  $p<0.05$ ) and *Instructional innovation* ( $\beta=0.19$ ,  $t=3.61$ ,  $p<0.01$ ) statistically significantly contribute to the regression model for the solution of the *Identified regulation* prediction. There are no predictors that statistically significantly contribute to the explanation of *Introjected Regulation*. *External regulation* has significant ties with predictors *Collaboration* ( $\beta=0.12$ ,  $t=2.27$ ,  $p<0.05$ ) and *Student relations* ( $\beta=0.11$ ,  $t=2.29$ ,  $p<0.05$ ). *Collaboration* predictor is the only one that contributes statistically significantly to the *Amotivation* prediction model ( $\beta=-0.23$ ,  $t=-4.29$ ,  $p<0.001$ ). Data on partial contribution of (significant) predictor variables expressed through standardized and non-standardized coefficients are presented in Table 5.

**Table5.** Partial contributions of predictor variables from the set of perceived school climate to the prediction of teacher motivation

Model		B	Std. error	$\beta$	t	P
<b>Intrinsic motivation</b>	<i>Constant</i>	53.748	6.466		8.312	0.00
	<i>Student relations</i>	0.971	0.309	0.151	3.142	0.02
	<i>Instructional innovation</i>	0.151	0.059	0.154	2.574	0.01
<b>Identified regulation</b>	<i>Constant</i>	66.375	5.541		11.979	0.00
	<i>Collaboration</i>	0.521	0.226	0.124	2.303	0.02
	<i>Student relations</i>	0.587	0.265	0.104	2.217	0.02
	<i>Instructional innovation</i>	1.129	0.313	0.199	3.611	0.00
<b>External regulation</b>	<i>Constant</i>	82.788	7.030		11.776	0.00
	<i>Collaboration</i>	0.653	0.287	0.127	2.274	0.02
	<i>Student relations</i>	0.769	0.336	0.112	2.291	0.02
<b>Amotivation</b>	<i>Constant</i>	86.787	7.081		12.256	0.00
	<i>Collaboration</i>	-1.242	0.289	-0.233	-4.293	0.00

*Note.* **B** – unstandardized regression coefficient;  $\beta$  – standardized beta coefficient; **t** – Student’s t test.

## DISCUSSION

*Considering the above, it can be concluded that the school climate, as perceived by teachers, has a predictor value related to their motivation to perform work tasks. Nevertheless, the small amount of explained variance is an indicator that teacher motivation in its entirety is mostly determined by the sum of the actions of other factors.*

The relationship between the teachers’ perception of school climate, as a dimension of school life that is, in comparison to others, more difficult to observe and measure, and their motivation to perform work tasks became a focus for researchers a little later compared to the relationship between the climate and academic achievement of students (Coleman, Campbell, Hobson, McPartland, and Mood 1966; Coleman, Hoffer, and Kilgore 1982). When it comes to teacher motivation, the connection was most often studied in its relationship with the leadership style of school principals (Alasad 2017; Eres 2011; Eyal and Roth 2011). For this reason, the amount of available research on the relationship between the perception of the school climate and the motivation of teachers is significantly smaller. However, there are findings about the predictor value of school climate dimensions based on teacher motivation (Hamid, Ahmed and Rashid 2020; Ladyong 2014; Raman, Ling and Khalid 2015).

By looking at the descriptive statistics of school climate dimensions, we can see that teachers gave relatively high ratings to collaboration with other members of the school collective, relations with students and the level of instructional innovation. In contrast, the school resources dimension is only slightly above the neutral rating. These results are not surprising if we consider the fact that investment in the education system mainly goes to the salaries of employees, and that a proportionally small part of the funds is allocated for material and technical school resources. The high scores for collaboration among teachers can be partly explained by the small number of school employees (the smallest school faculty had 16 and the largest 47 teachers), which creates a prerequisite for better acquaintance and closer professional relations among faculty members. However, we should not ignore the fact that providing material and technical resources to schools is primarily a responsibility of the founder/system, while relations with other teachers, relations with students, and innovation in the teaching process are largely the responsibility of teachers. Unlike collaborative relationships with other teachers, instructional innovation and relationships with students fall outside of the sphere of personal relationships, and can be seen as an indicator of success in work performance. Therefore, being aware of their own responsibility, teachers might have been less critical in evaluating these three variables than when evaluating school resources.

Descriptive statistics for motivation dimensions suggest that teachers are primarily driven by extrinsic motivation to perform their work tasks. True, the average scale value for identified regulation, which presents a type of extrinsic motivation that is closest to intrinsic, is slightly higher compared to strictly external regulation. Although the difference is insignificant, intrinsic motivation has a lower average scale value compared to all three types of extrinsic motivation. Due to the indication of an almost equal presence of four different types of regulation, these results confirm previous knowledge about the complexity of motivation, but also about the need to simultaneously satisfy both *hygiene factors* and *motivators* in order to achieve a high level of overall motivation for performing work tasks (Herzberg, Mausner and Snyderman 1959). The result on the *Amotivation* subscale is encouraging, as it suggests that teachers only *rarely* or *very rarely* find themselves in situations where they do not see the purpose in doing their work or do not know the reason why they are doing a certain task. Although no such analysis was performed for the purposes of this paper, it would be worth investigating whether the nature and intensity of teacher motivation differ in relation to the type of work tasks. It is possible that teachers see less sense in performing administrative tasks, and that intrinsic motivation is more present when

teaching. Without a separate analysis of the nature and intensity of motivation in relation to type of work tasks, the level of each type of regulation, including amotivation, is viewed integrally.

Multiple correlation coefficients show a low correlation between the school climate perception, on one side, and identified regulation, amotivation, and intrinsic motivation, each separately, on the other. In the case of the remaining two models the correlation is insignificant. The largest percentage (10%) of the regulation explained by the school climate belongs to identified regulation. This specific type of regulation has the largest number of predictor variables – three (collaboration, student relations and instructional innovation). This means that the more teachers communicate with their colleagues, cooperate in class preparation and perceive that the school promotes teamwork, the more they will be aware of the importance of performing their work tasks and the success of their students. The same applies to the perceived degree of appropriate behavior and involvement of students in work, as well as the perceived openness of the school to introduce new teaching methods, the use of new teaching aids, and innovation in general.

The dimension of collaboration, as well as the dimension of school climate pertaining to student relations, have a predictor value in three of the four models. In the case of amotivation, collaboration is the only variable with a predictor value, with the correlation having a negative value and thus an opposite direction. In other words, more communication with colleagues, more cooperation, more class preparation and greater awareness of the existence of teamwork means that teachers will less often be in situations where they do not know the reason why they are doing a task or do not see the purpose of doing it.

Student relations and instructional innovation showed a predictor value for intrinsic motivation as well. Accordingly, we can expect that the more teachers perceive that students behave appropriately and are involved in work, and the more they think the school is open to new teaching methods, the use of new teaching aids, the more comfortable they will feel when performing work tasks, they will like their work and enjoy the work process more.

The results of this research are in line with the results of previous studies, with the notion of a lower predictor value of the dimensions of the school climate. Ladyong (2014) used the perception of the school climate to explain 35.20% of the variance in motivation, while Hamid, Ahmed and Rashid (2020) explained 27% of the variance of the teachers' commitment to work with perception of the school climate. In a survey of teachers' opinions, Raman, Ling and Khalid (2015) found that as many as 88%

of respondents believe that the school climate contributes to their motivation for work. A possible explanation for the difference in results between this and the first two studies lies in potential differences in the satisfaction level of hygiene factors among the respondents. The far greater contribution of the school climate to teacher motivation, as determined by the respondents in the third study, suggests that the real connection between school climate and teacher motivation is significantly smaller than it is thought to be.

## **CONCLUSION**

The hypothesis set at the beginning of the research was confirmed. It can be concluded that the school climate, as perceived by teachers, has predictor value in relation to their motivation to perform work tasks. Among the dimensions of the school climate, collaboration between teachers and student relations stand out in terms of predictor value for identified regulation, amotivation and intrinsic motivation. Nevertheless, a small amount of explained variance is an indicator that teacher motivation is in its entirety mostly determined by the sum of the actions of other factors. Taking these results into account, it would be beneficial to cultivate collaborative relationships among teachers, improve their relationships with students, promote instructional innovation, and make sure schools are better equipped with material and technical resources, to ensure greater dedication of teachers in their work and, thus, a higher achievement of school tasks.

The advantage of this research paper is reflected in the lack of empirical papers, especially in Bosnia and Herzegovina, on the relationship between the perception of the school climate and teacher motivation. The limitation of this paper is reflected in the specific sample of respondents, determined by the characteristics of the school system. Future research could, therefore, be conducted on a different sample of teachers, and take into consideration potential differences in the nature and intensity of motivation in relation to the type of work.

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## ODNOS DOŽIVLJAJA ŠKOLSKE KLIME I MOTIVACIJE KOD NASTAVNIKA

### Sažetak

Odnos organizacijske klime i motivacije zaposlenih jedno je od temeljnih pitanja na polju istraživanja radnog učinka. Dosadašnja istraživanja pokazuju da povoljniji socijalni, emocionalni i radni kontekst doprinose većem angažmanu zaposlenih i njihovoj većoj produktivnosti. Predmet istraživanja bio je odnos doživljaja školske klime i motivacije za obavljanje radnih zadataka kod nastavnika. U radu su predstavljeni rezultati istraživanja provedenog na 467 nastavnika iz 25 osnovnih škola na širem gradskom području Tuzle. Za prikupljanje podataka korišteni su Skala školske klime (SLEQ) i Skala nastavničke motivacije (WTMST). Dobijeni rezultati sugeriraju da školska klima, kako je doživljavaju nastavnici, ima prediktorsku vrijednost u odnosu na njihovu motivaciju. Po prediktorskoj vrijednosti za identificirajuću regulaciju, amotivaciju i unutarnju motivaciju ističu se međusobna saradnja nastavnika i odnosi sa učenicima. Ipak, mala količina objašnjene varijance indikator je da je nastavnička motivacija u svojoj ukupnosti većinski određena sumom djelovanja drugih faktora. Na ovaj način je, međutim, objašnjen mali dio ukupne varijance motivacije, što sugerira da je motivacija većinski određena sumom djelovanja drugih faktora.

**Ključne riječi:** motivacija nastavnika; školska klima; Teorija samoodređenja

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