

## WORK CLIMATE, BASIC PSYCHOLOGICAL NEEDS AND BURNOUT SYNDROME OF PRIMARY SCHOOL TEACHERS AND UNIVERSITY PROFESSORS <sup>a</sup>

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### Abstract

According to recent studies, the teaching profession is stressful because of the complexity of professional roles and great social responsibility. Bad interpersonal relationships and a non-stimulating work environment are also the factors that increase professional stress. A long-term exposure to stress may lead to the burnout syndrome, which is characterised by emotional exhaustion, depersonalization, and a decrease in work efficiency. This research is aimed at studying the relationships between work climate, basic psychological needs, and teachers' burnout. The sample includes elementary school teachers (105) and university professors (95) in order to examine if there are any differences in the relations of the aforementioned variables depending on the level of education. One of the goals of the research was also to verify whether the basic psychological needs have a mediating effect on the relationship between the work climate and the burnout of teachers. According to the Self-Determination Theory, the conceptual framework of this study, every human being has three inherent needs – autonomy, competence, and relatedness. According to the research problem, the Work Climate Questionnaire (WCQ), the Basic Need Satisfaction Scale at Work (BNSSW), and The Teacher Burnout Scale (TBS) were used. The results showed that teachers estimated their work climate as satisfactory, their basic psychological needs as moderately satisfied, and their burnout as low. Work climate was a positive predictor of the need for autonomy and competence and a negative predictor of the teachers' burnout. Autonomy was the only mediating variable, i.e. the variable that mediates in the relationship between work climate and burnout in both elementary school teachers and university professors. The findings could be partly explained from the perspective of the Self-Determination Theory, and they contribute to a better understanding of the relationship between the psychological needs, work context, and subjective well-being of the education sector employees.

**Key words:** self-determination theory; need for autonomy, competence, and relatedness; work climate; burnout syndrome; teachers

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## РАДНА КЛИМА, БАЗИЧНЕ ПСИХОЛОШКЕ ПОТРЕБЕ И ИЗГАРАЊЕ НАСТАВНИКА ОСНОВНИХ ШКОЛА И ФАКУЛТЕТА

### Апстракт

Наставничка професија је, према новијим истраживањима, стресогена због комплексности професионалних улога и велике социјалне одговорности. Лоши међуљудски односи и нестимулативна радна клима такође су чиниоци који повећавају професионални стрес. Дуготрајна изложеност стресу може довести до синдрома изгарања, који карактерише емоционална исцрпљеност, деперсонализација и опадање радне ефикасности. Предмет овог истраживања је испитивање релација између радне климе, базичних психолошких потреба и изгарања на послу код наставника. Узорак чине наставници основних школа (105) и наставници факултета (95) да би испитали да ли постоје разлике у релацијама поменутих варијабли зависно од нивоа образовања. Интересовало нас је, такође, да ли психолошке потребе имају медијаторски ефекат у односу радне климе и изгарања наставника. Концептуални оквир рада је Теорија самоодређења, која претпоставља да човек има три инхерентне психолошке потребе – аутономија, компетенција и повезаност са другима. Сагласно проблему, примењени су следећи инструменти: Упитник радне климе, Скала задовољења базичних психолошких потреба на раду, Скала синдрома изгарања код наставника. Резултати показују да наставници процењују да је радна клима задовољавајућа, умерена је задовољеност психолошких потреба, а изгарање је ниско. Радна клима је позитиван корелат потребе за аутономијом и компетенцијом, а негативан корелат изгарања. Аутономија је једина медијатор варијабла и посредује у односу радне климе и изгарања, и код основношколских и код универзитетских наставника. Налази се делом могу објаснити из угла теорије самодетерминације, а доприносе бољем разумевању релација између психолошких потреба, радног контекста и субјективног благостања запослених у образовању.

**Кључне речи:** Теорија самоодређења, потреба за аутономијом, компетенцијом и повезаношћу, радна клима; синдром изгарања; наставници

### INTRODUCTION

#### *The Burnout Syndrome*

Teachers are not merely the persons who transmit knowledge; they also have other professional roles related to the encouragement of students' personality development and realisation of cooperation with the immediate environment and with the broader social community. The Competence Standards for Teachers and Their Professional Development (2011), adopted by the National Educational Council of the Republic of Serbia, also acknowledge the complexity of teaching and the recognition of a large social responsibility of this profession. The complexity of their roles requires a continuous professional development of teachers, which is not always possible to implement without stress. The demanding curricula, unfavourable social status, and insufficient appreciation of this profession in our society represent a disadvantage, which makes these pressures even bigger.

Therefore, it should not be surprising that numerous studies indicate a high level of stress of the teaching profession nowadays (Dorman, 2003; Cheek, Bradley, Parr & Lan, 2003; Hogan & McKnight, 2007; Ioannou & Kyriakides, 2006; Maslach, Schaufeli & Leiter, 2001). The main effects of professional stress of teachers are: exhaustion and fatigue, a sense of frustration, a sense of overload, the transfer of stress to home, a sense of guilt, and a sense of irritation (Carter, 1994; according to Bjekić and Zlatić, 2008: 160). Stress leads to a decrease in concentration, impulsive behaviour, increased anxiety, as well as some psychosomatic disorders and health deterioration. Prolonged stress can turn into the burnout syndrome, which represents “a state of physical, emotional and mental exhaustion, caused by prolonged investment in emotionally demanding situations” (Lackritz, 2004). For Christina Maslach, one of the most influential researchers of these phenomena, burnout represents “a prolonged response to chronic exposure to emotional and interpersonal stressors at work” (Maslach, 2003, according to Hogan & McKnight, 2007). It is characterised by emotional exhaustion, depersonalisation, and low personal accomplishment. The teachers’ burnout is defined as a mental state which has a negative influence on the work performance of teachers and attitudes toward education in general (Mabry, 2005). Most authors agree that professional burnout starts with the feeling of anxiety, distress, and bitterness, accompanied by the feeling of chronic fatigue and over-saturation with work.

Since teachers are one of the pillars of education, it is very important to focus the research on the investigation of the relevant factors that lead to the decrease of work capacities and motivation for work, because this also threatens the quality of the educational process. Apart from situational factors as the sources of stress and burnout, studies have shown that there are also personal factors that make individuals more sensitive to stress and more prone to burnout. The majority of researchers have been resorting to classic psychobiological models, such as Eysenck’s theory of personality, or the models arising from psycholexical studies, which are best represented by a very influential five-factor model of personality, which in turn shows that there is a connection between the dimensions of personality and work behaviour (Krapić, 2005). It can be concluded from the aforementioned studies that Neuroticism, understood as emotional instability, is a predisposing factor of stress, which is also confirmed on various samples of teachers. On the other hand, a higher score on personality dimensions Conscientiousness and Extraversion is accompanied by a lower professional stress of teachers, which is also supported by recently conducted studies in Serbia (Stojiljković and Dosković, 2014). Extraversion and empathy are predictors of the choice of those professions that involve working with people and cordiality in relations, which applies to all the service sector professions, which also include the teaching profession. The compliance of professional choice with personality traits is the foundation for the

expectation that stress will be lower and job satisfaction higher, which is also confirmed by empirical findings. On the sample of 284 subject teachers from Serbia and Montenegro, it was shown that profession satisfaction is the best predictor of teachers' professional identity. Socio-demographic variables, self-respect, self-assessment of personal success, and family satisfaction were also investigated (Živković and Ranđelović, 2013).

The problem of personal correlates of stress and burnout has drawn some attention during the last few decades, but it is still a dominant approach from the perspective of the trait theories. There is still a small number of studies in our country that are based on different approaches to the study of personality, although, for example, the Self-Determination Theory is broadly accepted in foreign literature and it represents a good heuristic model. Likewise, primary and secondary school teachers have been more frequently studied than university professors, which is the case in both foreign and domestic studies. One of the rare studies of the burnout syndrome in Serbia designed in that way was conducted by Ranđelović and Stojiljković (2013), and the subject of their research was the relationship between ego orientation and burnout of teachers.

#### *Basic Psychological Needs in the Self-Determination Theory*

Self-Determination Theory – SDT (Deci & Ryan, 1985; Ryan & Deci, 2000) – offers one of the possible explanations of the development mechanism and burnout maintenance in teachers. According to this theory, the context in which we live and work affects the satisfaction of the basic psychological needs, after which they produce their effect on the health and well-being of an individual.

One of the assumptions of SDT is that human beings are oriented towards growth and development and the search for the optimal environment in order to actualise their potentials. The theory assumes that people possess innate aspirations towards the actualisation of their potentials, acquisition of knowledge, search for knowledge, and exploration of the environment. However, these inherent aspirations cannot be automatically achieved, as they require an adequate social environment. Therefore, the dialectically-realised relationship between an active organism and the social context allows the prediction of an individual's development and behaviour. Hence, the environment can contribute to psychological growth and health, but it can also disturb them, resulting in the manifestation of maladaptive behaviour. In that way, SDT takes into account two different modes of functioning of human beings – optimal and maladaptive functioning, and it studies the conditions that encourage or obstruct them (Ryan & Deci, 2000).

Through the concept of basic psychological needs, SDT explains the influence of the social milieu on survival, health, integrity, and development of an individual. Depending on the extent to which conditions allow the satisfaction of these needs, a person will have different possibilities

to realise his/her potentials and to function in a healthy or dysfunctional manner (Randelović and Smederevac, 2011). Environmental factors that allow the satisfaction of psychological needs enhance self-motivation, whereas those that do not, lead to its reduction or transformation into undesirable forms of behaviour.

According to SDT, every human being has three basic, innate, psychological needs: autonomy, competence, and relatedness to others (Deci & Ryan, 2000). *Autonomy* implies the need to make our own decisions on our behaviour, i.e. to behave in accordance with our interests and values (Ryan & Deci, 2000). A person can also have the feeling of free choice if the environment puts forward some demands in front of that person. That may happen only if some meaningful explanation for compliance with a request is offered (compatible with personal values and interests) and if that person's feelings are taken into account. In this respect, the concept of autonomy within SDT is different from the autonomy in the sense of personal freedom and independence, which is often used in occupational and organisational psychology (Van den Broeck, Vansteenkiste, De Witte, Lens, 2008). *Competence* refers to the need to feel successful and capable (Deci & Ryan, 2000). Namely, it is the need to feel capable of mastering the environment, achieving desired outcomes, and coping in different situations (Van den Broeck, Vansteenkiste, De Witte, Lens, 2008). This need drives people to look for optimal challenges in which they could realise their potentials and feel successful. The need for competence is not the need for the development of skills and capacities, but the need of a person to feel 'up to something' and competent and to have the feeling of self-efficacy. The satisfaction of this need helps a person develop his/her skills and adapt to the complex and ever-changing social environment. *Relatedness* represents the need to be connected to other people and social groups, as well as the feeling of care, love, warmth, and significance to others (Deci & Ryan, 2000). This need is satisfied when people experience a sense of community and when they have close and intimate interpersonal relationships. Employees who feel as a part of the team or who feel free to express their work-related or personal problems have their need for relatedness satisfied to a greater extent than the employees who feel lonely and less accepted, i.e. who do not feel like they belong to the team.

SDT assumes that the satisfaction of basic psychological needs is the predictor of development, integrity, and optimal motivation (self-motivation), i.e. health and subjective well-being of an individual. What is considered important for the positive processes of human development and health is the degree to which the basic psychological needs are satisfied, not their strength. From a practical perspective, these assumptions suggest that teachers can best be motivated by supporting the development of their potentials. Therefore, according to SDT, teachers will probably exhibit optimal performance and good health in a work environment that encourages and nurtures their inherent tendencies.

When motivation of teachers and motivation of employees in general is concerned, this theory not only distinguishes between different levels of motivation (from amotivation to motivation), but it also distinguishes between the quality of motivation (whether a person is controlled by others or self-determined) (Deci et al., 1989). What the motivation of the employees will be partially depends on the manager who creates a certain quality of the climate. On the one hand, work climate can be based on the manager's support of self-determination of employees – by supporting their experience of freedom, initiatives, and success, which ensures the satisfaction of the needs for autonomy, competence, and relatedness. On the other hand, work climate can be based on the manager's control – through the pressure of employees to accept a certain way of thinking and behaviour, thereby circumventing the satisfaction of their basic needs.

Studies show that the support of employees' autonomy is one of the key contributing factors to their self-determined motivation, as well as their success and adaptability at work (Baard et al., 2004). If the manager has an understanding for employees and is ready to accept their opinions, giving them adequate information without manipulation and the possibility of choice, and encouraging their initiative, he/she creates a work climate that supports autonomy. When the manager creates such a work climate, the employees have more trust in the organisation and they are more satisfied with their job. In such a work environment, the employees feel more competent and better related to their associates and managers, as well as more willing to engage in doing their work. In contrast to this, there is a climate in which employees do not have opportunities to express their opinions or to make choices, in which they get unclear feedback, etc. The employees in such organisations are less satisfied with their jobs, less productive, and, at the same time, more prone to developing the burnout syndrome at work.

Since teachers represent the key factor in the educational process, this paper focuses on the study of work climate, degree of satisfaction of psychological needs, and burnout syndrome in teachers working in primary schools and faculties.

## *METHOD*

### *Subject and Goals of Research*

The subject of this research is to investigate the relationship between work climate, basic psychological needs, and occupational burnout of teachers who work at different levels of education.

The primary aim is to investigate the nature of the relationship between work climate, satisfaction of basic psychological needs at work, and burnout of teachers who work in primary and higher education, as well as to see whether there are certain particularities of these relations

depending on the level of education. Therefore, the following specific goals were established: a) to determine what kind of variable intercorrelations there are in primary school teachers and university professors; b) to investigate whether there is a potential mediator effect of the basic psychological needs in the relationship between work climate and burnout; c) to investigate, by using the mediation test, if certain psychological needs have an intermediary effect on the relationship between work climate and burnout.

### *Sample and Procedures*

The research included two sub-samples of the members of the teaching population. The first consisted of 105 primary school teachers (45.7% males and 54.3% females) and the second consisted of 95 university professors working at different faculties (51.6% males and 48.4% females). Age and years of service were approximately of the same range, average value, and variability in the framework of both samples (ES: age from 25 to 64 (AM = 44.94; SD = 10.43)); years of service from 1 to 39 (AM = 16.38; SD = 10.59); faculty: age from 25 to 68 (AM = 42.21; SD = 11.22); years of service from 1 to 40 (AM = 14.08; SD = 10.14). This research was conducted on the territory of the City of Niš with the consent of the primary school and faculty managements. The examination was group and individual (depending on respondent availability), and it included eight primary schools and three faculties of the University of Niš.

### *Instruments*

*The Work Climate Questionnaire* (WCQ) (Deci & Ryan, 2002) was used for the investigation of the perception of employees on the extent to which their managers support their basic need for autonomy, competence, and relatedness. In this paper, we used the longer version of this questionnaire, which includes 15 items with the proposed 7-point response scale (1 – strongly disagree; 4 – neutral; 7 – strongly agree). The total score is obtained as the arithmetic mean of the responses to all individual claims. The examples of these items are: “The manager gives me the ability to choose”, “The manager has confidence in my capabilities to successfully do my job”, or “I am accepted by my manager”. A higher score indicates the perception of the employee that the manager provides a higher degree of support to his/her autonomy, competence, and relatedness, i.e. that the work context is optimal for the satisfaction of psychological needs. The reliability of measurements with this scale is high, which has been reported in numerous papers, some of which involved research of the teaching population in Serbia (Đigić & Stojiljković, 2011). In this research, we also determined a high internal consistency of the scale on the sample of both primary school teachers and university professors (Cronbach’s alpha coefficient was 0.96 and 0.97, Tables 1 and 3).

*The Basic Need Satisfaction Scale at Work* (BNSSW) (Deci & Ryan, 2000) consists of 21 items, which are used to assess the satisfaction of three psychological needs at work: autonomy (7 items), competence (6), and relatedness (8). The response scales are Likert-type seven-point scales (1 – not at all true; 7 – very true). The examples of the items are: “I feel that I can decide how to do my job on my own” (autonomy); “People at work tell me that I am good at what I do” (competence), and “I get along with people at work very well” (relatedness). The reliability of subscales, expressed by the alpha coefficient, ranged from 0.68 to 0.71, which is considered to be satisfactory for research purposes.

*The Teacher Burnout Scale* (TBS) (Richmond, Wrench & Gorham, 2001) is used to measure the degree of burnout of teachers at work. It consists of 20 items and a five-point Likert scale for responses (1 – strongly disagree; 5 – strongly agree). The examples of the items are the following: “I feel sick to my stomach when I think about work” and “My job does not excite me anymore”. The authors constructed the scale in order to also obtain the scores on three intentional measuring items: emotional exhaustion, depersonalisation, and low self-efficacy, in addition to the general burnout score. However, the application of the scale on similar samples of teachers in our country showed that TBS can be considered a one-dimensional instrument (Kašić and Stojiljković, 2009). The reliability of the measurement was high in both sub-samples of respondents.

### *Hypotheses*

In accordance with the reference framework of this research, there are two basic hypotheses:

- 1) It is expected that there should be a mediating effect of certain basic psychological needs in the relationship between work climate and burnout of employees in the two levels of education;
- 2) It is expected that certain psychological needs should be the mediating variable between work climate and burnout at work in both sub-samples of respondents.

### *Data Processing*

Data processing had several steps. In order to determine the relationship between work climate and burnout syndrome, with the basic psychological needs as possible intermediary variables of this relationship, the Pearson's correlation coefficients between the variables were calculated first. In order for a variable to be the mediator, it is necessary that the predictor significantly predict the criterion, that the predictor significantly predict the mediating variables, and that the mediating variables significantly predict the criterion but after the statistical removal of the predictor variable effects on the criterion, respectively (Baron & Kenny, 1986).



Accordingly, in order to determine the potential mediating role of the basic psychological needs in the relationship between work climate and burnout, the hierarchical regression analysis was applied. A total of six separate hierarchical regression analyses were conducted (three for each sub-sample). In both sets of analyses, the sequence of predictor insertion was the same. In the first step, the predictor was the work climate, and in the second step the basic psychological needs were added (one per analysis) in order to determine the role in the prediction of burnout after the statistical removal of the effect of the first predictor variable, i.e. work climate. Burnout was the criterion variable. After establishing the justification of the investigation of the mediating role of psychological needs, their mediating effect on the relationship between work climate and burnout was investigated by using the procedure for multiple mediation testing, proposed by Preacher and Hayes (2008). The full mediation occurs when the direct effect of the predictor on the criterion is missing after the introduction of the mediating variable, and the indirect effect remains significant. However, when both the direct and indirect effects of the predictor on the criterion are significant, it is an instance of partial mediation (Preacher & Hayes, 2004). The authors believe that mediation is a special case of the indirect effect: when there is significant mediation, as well as the total effect of the predictor on the criterion. In contrast, the indirect effect does not necessarily include a statistically significant total effect – a variable can have a significant direct effect even though the total effect of that variable is not statistically significant. Finally, in order to examine the similarities in the effects of work climate and psychological needs on burnout, and taking the teaching position into account, the general linear model was applied.

## *RESULTS*

### *Initial Analyses of the Sub-sample of Primary School Teachers*

The overview of descriptive data in the sub-sample of primary school teachers (Table 1) shows a moderate degree of agreement with the scale statements, which indicates that teachers assess their work climate as satisfactory and their psychological needs as relatively well satisfied. In addition, the respondents reported a low level of agreement with the statements related to the occupational burnout syndrome. What supports the value deviations from the normal distribution on three scales (work climate, autonomy, and burnout) are the data related to skewness and kurtosis ( $+ > 1$ ) as well as the significance of the Kolmogorov–Smirnov test.

*Table 1. The descriptive data and metric characteristics of the instruments used in the sub-sample of primary school teachers (N=105)*

Variables	Range	AM	SD	Sk	Ku	K-S	$\alpha$
Work climate	1.53-7.00	5.26	1.30	-1.01	.75	.15**	.96
Autonomy	3.00-6.57	4.96	.76	-1.01	-.26	.11**	.69
Competence	3.33-6.67	5.16	.76	.003	-.74	.08	.70
Relatedness	3.38-7.00	5.10	.75	.030	-.38	.09	.68
Burnout	1.00-2.75	1.46	.48	1.34	1.08	.17**	.90

\*\*p<.01; K-S: Kolmogorov–Smirnov test

By using the Pearson's correlation coefficient, it was determined that work climate is a moderate positive correlate of autonomy and relatedness and a moderate negative correlate of burnout (Table 2). Autonomy moderately and positively correlates with competence and relatedness, whereas the relationship between competence and relatedness is missing. Burnout is in a negative moderate correlation with autonomy and in a negative low correlation with competence and relatedness.

*Table 2. Intercorrelations of research variables in the sub-sample of primary school teachers (N=105)*

Variables	Work climate	Autonomy	Competence	Relatedness	Burnout
Work climate	–				
Autonomy	<b>.30**</b>	–			
Competence	-.04	<b>.47**</b>	–		
Relatedness	<b>.39**</b>	<b>.44**</b>	.19	–	
Burnout	<b>-.32**</b>	<b>-.46**</b>	<b>-.25**</b>	<b>-.25*</b>	–

\*\*p<.01

Initial analyses of the sub-sample of university professors

As was the case with the sub-sample of primary school teachers, professors working at faculties also show a relatively moderate level of agreement with the statements that represent the indicators of work climate and fulfilment of psychological needs. The level of agreement with the items that are used for the assessment of burnout is low, as well. Although the results of the Kolmogorov–Smirnov test indicate the deviation of values from the normal allocation to four scales, only the skewness and kurtosis values on the burnout syndrome scale go outside the scope of normal distribution values (+ - > 1).

*Table 3. The descriptive data and metric characteristics of the instruments used in the sub-sample of university professors (N=95)*

Variables	Range	AM	SD	Sk	Ku	K-S	$\alpha$
Work climate	1.40-7.67	4.97	1.53	-.60	-.47	.10*	.97
Autonomy	2.57-7.00	4.88	.93	-.29	-.11	.08	.68
Competence	2.50-7.00	5.56	.87	-.74	1.08	.10*	.71
Relatedness	2.13-6.63	5.07	.93	-.74	.47	.11**	.68
Burnout	1.00-3.15	1.40	.39	1.54	3.55	.16**	.87

An insight into the results of intercorrelation of research variables in the sub-sample of faculty professors shows that work climate is in a positive correlation with two psychological needs (autonomy and relatedness), whereas it is in a negative correlation with burnout. Furthermore, autonomy is in a positive correlation with the other two needs, and in a negative correlation with burnout. Competence represents a positive correlate of relatedness and a negative correlate of burnout. The need for relatedness negatively correlates with burnout (Table 4). Thus, both work climate and all three psychological needs represent negative correlates of the burnout syndrome, as was the case with primary school teachers, the only difference being the intensity of correlation.

*Table 4. Intercorrelations of research variables in the sub-sample of university professors (N=95)*

Variables	Work climate	Autonomy	Competence	Relatedness	Burnout
Work climate	–				
Autonomy	<b>.26*</b>	–			
Competence	.10	<b>.43**</b>	–		
Relatedness	<b>.24*</b>	<b>.56**</b>	<b>.39**</b>	–	
Burnout	<b>-.35**</b>	<b>-.49**</b>	<b>-.24*</b>	<b>-.40**</b>	–

\*\*p<.01; \*p<.05

*The relationship between work climate, psychological needs, and burnout in the sub-sample of primary school teachers*

The results of hierarchical regression analysis conducted on a sub-sample of primary school teachers (Tables 6, 7, and 8) show that in all three sets of analyses work climate is a significant predictor of burnout. The direction of the Beta coefficient indicates the following: the better the work atmosphere, the lower the probability of the development of the burnout syndrome. The introduction of autonomy in the next step of the analysis increases the percentage of the explanation of the burnout variance (from 10.2% to 24.9%), but it decreases the independent contribution of work climate in the prediction of burnout, whereby the autonomy is also a significant predictor. This presumes the potential mediating role of autonomy in the relationship between work climate and burnout.

*Table 6. Work climate and autonomy as predictors of burnout in the sub-sample of primary school teachers (N=105)*

Model	R	R <sup>2</sup>	Change in R <sup>2</sup>	β	p
Step I	.319**	.102**	/		
Work climate				-.319**	.001
Step II	.499**	.249**	.148**		
Work climate				-.210*	.020
Autonomy				-.399**	.000

\*\*p<.01

By adding competence in the second step of the second analysis set, the predictive power of work climate is increased; at the same time, competence is also a significant predictor of burnout. This leads to conclusions on the possible moderating role of competence in the relationship between work climate and burnout syndrome.

*Table 7. Work climate and competence as predictors of burnout in the sub-sample of primary school teachers (N=105)*

Model	R	R <sup>2</sup>	Change in R <sup>2</sup>	$\beta$	<i>p</i>
Step I	.319**	.102**	/		
Work climate				-.319**	.001
Step II	.415**	.173**	.071**		
Work climate				-.329**	.000
Competence				-.266**	.004

Finally, the last set of the analysis shows that the introduction of relatedness decreases the  $\beta$  coefficient of work climate, so this psychological need is not a significant predictor of burnout. Therefore, one of the basic conditions for the possible existence of mediation is not met – a significant relationship between the variable that is supposed to be the mediator and the criterion, after the control of the effect of the predictor variable (work climate) on the criterion.

*Table 8. Work climate and relatedness as predictors of burnout in the sub-sample of primary school teachers (N=105)*

Model	R	R <sup>2</sup>	Change in R <sup>2</sup>	$\beta$	<i>p</i>
Step I	.319**	.102**	/		
Work climate				-.319**	.001
Step II	.346**	.120**	.018		
Work climate				-.261*	.011
Relatedness				-.147	.149

*The relationship between work climate, psychological needs, and burnout in the sub-sample of university professors*

When university professors are considered, the hierarchical regression analysis showed in its first step that work climate is a statistically significant predictor of burnout. The introduction of autonomy reduces the predictive value of work climate, whereby the work climate itself is a significant predictor of burnout (Table 9). The same can be observed for the remaining two sets of analyses, that is, for the investigation of the possible mediating role of competence and relatedness in the relationship between work climate and burnout (Tables 10 and 11).

*Table 9. Work climate and autonomy as predictors of burnout in the sub-sample of university professors (N=95)*

Model	R	R <sup>2</sup>	Change in R <sup>2</sup>	$\beta$	<i>p</i>
Step I	.345**	.119**	/		
Work climate				-.345**	.001
Step II	.539**	.291**	.172**		
Work climate				-.232*	.013
Autonomy				-.430**	.000

*Table 10. Work climate and competence as predictors of burnout in the sub-sample of university professors (N=95)*

Model	R	R <sup>2</sup>	Change in R <sup>2</sup>	$\beta$	<i>p</i>
Step I	.345**	.119**	/		
Work climate				-.345**	.001
Step II	.401**	.161**	.042*		
Work climate				-.324**	.001
Competence				-.205*	.035

*Table 11. Work climate and relatedness as predictors of burnout in the sub-sample of university professors (N=95)*

Model	R	R <sup>2</sup>	Change in R <sup>2</sup>	$\beta$	<i>p</i>
Step I	.345**	.119**	/		
Work climate				-.345**	.001
Step II	.474**	.225**	.106**		
Work climate				-.263**	.007
Relatedness				-.336**	.001

*Testing of the effects of mediation of psychological needs on the relationship between work climate and burnout in the sub-sample of primary school teachers*

The results of the application of procedures for multiple mediation testing, or the indirect effects on the sub-sample of primary school teachers (Table 12), show that the relationship between work climate and burnout is mediated by autonomy, whereas competence and relatedness are not prominent as mediating variables. Bearing in mind that it is also a statistically significant direct effect of the work climate on burnout when autonomy is kept under control (*c'*), and that the indirect effect is also significant (*ab*), we can speak of partial mediation. Therefore, a part of the work climate effect on burnout is realised directly and a part is realised indirectly through autonomy. The better the work climate and the higher the satisfaction of the need for autonomy, the lower is the level of burnout.

*Table 12. The effects of work climate on burnout mediated by psychological needs in the sub-sample of primary school teachers (N=105)*

Predictor	Mediators and effects	a	b	c	c'	ab	Total indirect effect
Work climate	Autonomy	.07**	-.64**			-.05*	
	Competence	-.009	-.21	-.16**	-.11*	.002	-.04
	Relatedness	.12**	.02			.003	

*Note:* a = the effect of the predictor on the mediator, b = the effect of the mediator on the criterion, c = the total effect of the predictor on the criterion, c' = the direct effect of the predictor on the criterion when the assumed mediators are kept under control, ab = the indirect effect, i.e. the effect of the mediator in the relationship between the predictor and the criterion

\*\* p < .01; \*p < .05

*Testing of the effects of mediation of psychological needs on the relationship between work climate and burnout in the sub-sample of university professors*

In the case of university professors, out of all psychological needs, only autonomy stands out as a variable that mediates in the effect of the work climate on burnout. This is also partial mediation. The more optimal the work climate and the higher the satisfaction for the autonomy at work, the more it leads to the reduction of burnout at work.

*Table 13. The effects of work climate on burnout mediated by psychological needs in the sub-sample of university professors (N=95)*

Predictor	Mediators and effects	a	b	c	c'	ab	Total indirect effect
Work climate	Autonomy	.07*	-.41**			-.03*	
	Competence	.02	-.02	-.12**	-.07*	-.0004	-.04*
	Relatedness	.08*	-.16			-.012	

*Testing of the effects of interaction between the teacher's work position and work climate/psychological needs on burnout*

In order to compare the two sub-samples of teachers, we conducted the analysis of testing the effects of interaction between the teacher's work position, on the one hand, and work climate and psychological needs, on the other hand, on the occurrence of burnout. The analysis was performed with the help of the general linear model, in which the factor is one of the teaching positions (primary school or faculty), the predictor variables are work climate and psychological needs, whereas the criterion is the burnout syndrome. The findings indicate the importance of work

climate ( $F_{(1)} = 11.29$ ;  $p < .001$ ) and autonomy ( $F_{(1)} = 19.99$ ;  $p < .001$ ) as the predictors of burnout, regardless of the teacher's work position. As previously mentioned, work climate and autonomy represent negative and moderate correlates of burnout, in the sample of both primary school teachers and university professors (see Tables 2 and 4). Work position did not turn out to be a significant variable for the prediction of teacher burnout ( $F_{(1)} = .161$ ;  $p = .206$ ), as well as for the satisfaction of the need for competence ( $F_{(1)} = .787$ ;  $p = .376$ ) and relatedness ( $F_{(1)} = .439$ ;  $p = .508$ ). There are not any significant effects of the interaction between the work position and work climate ( $F_{(1)} = .545$ ;  $p = .461$ ) or of the interaction between the work position and psychological needs (autonomy:  $F_{(1)} = .929$ ,  $p = .336$ ; competence:  $F_{(1)} = .576$ ,  $p = .449$ ; relatedness:  $F_{(1)} = .843$ ,  $p = .360$ ). The obtained results show that the teachers working in primary schools and faculties have common characteristics, which is primarily related to belonging to the same profession.

#### *DISCUSSION AND CONCLUSION*

The main goal of this paper was to investigate the relationship between work climate, satisfaction of basic psychological needs at work, and burnout in teachers who work in primary and higher education, as well as to investigate the particularities of these relations depending on the educational level. The main goal was broken down into several specific and narrower goals: first to determine the intercorrelations of variables in primary school teachers and university professors, and then to investigate whether there is a potential mediating effect of basic psychological needs in the relationship between work climate and burnout. Finally, the goal was also to investigate, by using the mediation test, if certain psychological needs have a mediating effect on the relationship between work climate and burnout.

The results of descriptive statistics are in favour of the moderate agreement with the items that are the manifestations of work climate and satisfaction with the three basic psychological needs in teachers of both educational levels. The level of agreement with the items that are the indicators of burnout indicates low burnout of both primary school teachers and university professors. These findings show that the context in which these two categories of teachers work is moderately optimal, which also provides a moderate satisfaction of the need for autonomy, competence, and relatedness to others. It can therefore be understood why burnout is not expressed. In other words, the work climate at the aforementioned educational institutions provides relatively adequate conditions, which enable teachers to feel autonomous, as well as to have a positive feedback on the successful completion of their work. In addition, there are also certain challenging requirements that enable the realisation of teachers' potential and the sense of competence. A moderate satisfaction of the

need for relatedness can be explained with the feeling of belonging to one's immediate work environment and with relatively good relations with colleagues and pupils or students. In accordance with such a work context, there are no reasons for teachers to suffer from the excessive burnout syndrome. However, these findings should be taken with some caution because for the used instruments there are no norms for the population of teachers in Serbia, so the question is what kind of context this is really about – optimal or not so adequate. Furthermore, the data are based on self-assessments, so we should be more reserved towards the obtained results. It can be concluded from the results thus obtained that there certainly is some space for improvement of the teachers' work climate, and thus for a higher level of satisfaction of the basic needs for personal growth and personality development. The practical implications of the findings would certainly follow that direction.

After examining the intercorrelations between work climate, basic psychological needs, and burnout, which was the focus of this paper, we noticed a relatively similar connection pattern on the investigated sub-samples of teachers, which is confirmed by the analyses conducted by means of the general linear model. On both sub-samples, work climate is a positive correlate of autonomy and competence and a negative correlate of burnout, whereas the correlation with relatedness was not found. In other words, an adequate work climate has a positive effect on the satisfaction of primarily two psychological needs and a negative effect on burnout, which is certainly a finding that supports one of the basic assumptions of SDT – satisfaction of the basic psychological needs is in the function of the work context, and therefore in the function of the increase/decrease of the well-being of employees (burnout) (Ryan & Deci, 2000). The absence of the relationship between work climate and the need for relatedness with others can indicate that the work context both at the primary schools and at faculties is such that there is not much emphasis on the quality of interpersonal relationships and the sense of belonging. It is possible that the relations between employees in both educational levels are based more on cooperation for the sake of interest, that is, to get the job done, and less on interpersonal relations that provide a sense of relatedness and belonging.

Burnout is in a negative relation with all three basic psychological needs on both sub-samples, which confirms the importance of the satisfaction of these needs in order to prevent the development of the burnout syndrome. Since some of the scale items for the assessment of the burnout syndrome in teachers include metapathological states, such as apathy, alienation, etc., we believe that this is in favour of the humanistic orientation of SDT. Namely, if we draw a parallel between Maslow's theory of needs (Maslow, 1982) and SDT (Deci & Ryan, 2002), it becomes clear that the basic psychological needs are the needs of a Being and that their dissatisfaction leads to metapathological states (e.g. malice, cynicism,



sarcasm, alienation, apathy, etc.). In that way, the negative association between psychological needs and burnout is expected and explicable.

The positive intercorrelations between the basic psychological needs on both sub-samples suggest that these are the needs whose satisfaction leads to the same development goal – optimal development and maturity of personality. Thus, these are not mutually opposing needs in the sense of hierarchical order in strength and satisfaction. Therefore, the obtained results are expected and they support the basic provisions of SDT.

After reviewing the results of the hierarchical regression analysis, it was determined that in the sub-sample of primary school teachers work climate was consistently a negative correlate of burnout, that the introduction of autonomy reduced the independent predictor contribution of work climate, and that autonomy was also a significant negative predictor of burnout. The insertion of competence even increased the independent predictor contribution, and it was itself a significant negative correlate of burnout. Regarding the need for relatedness, it did not have an effect on the independent contribution of work climate, since it was not a statistically significant predictor of burnout. Consequently, it can be concluded that in the sub-sample of primary school teachers autonomy can be regarded as a potential mediator variable, competence as a possible moderator variable, whereas relatedness cannot be considered as relevant for any of the abovementioned relationships. Further data analysis, which included the application of the procedure for the examination of the mediation effects, determined that autonomy was the only mediator variable, i.e. the variable that mediated in the relationship between work climate and burnout. Specifically, work climate on one hand directly produced an effect on burnout of primary school teachers, and on the other hand it had an indirect effect through satisfaction of the need for autonomy.

In the sub-sample of university professors, the results of the hierarchical regression analysis are somewhat different. Namely, in addition to the fact that work climate was consistently a negative correlate of burnout, the individual addition of psychological needs into the model showed that all three needs were potential mediators in the relationship between work climate and burnout. However, the findings of the mediation test confirmed only the mediating effect of autonomy, as was the case with the sub-sample of primary school teachers. There were grounds for the assumption that some of the obtained differences in the association between the investigated variables can be placed in a direct relationship with the particularities of the work in different educational levels. This also justifies that fact that the draft of this research required that separate data analyses of the sub-samples were performed first,

followed by the analysis of similarities of obtained results in the two groups of teachers, which makes this paper even more complex.

The results obtained by using the general linear model indicate that teachers working at different levels of education constitute a unique profession and that (in spite of some differences) they represent a relatively homogenous professional group. They are determined by psychological characteristics more than by the institution in which they work, and there is a lot of theoretical and empirical argumentation in favour of the idea that teachers, as well as other members of the so-called service sector professions, have similarities regarding the basic structure of personality (Stojiljković, 2014). As previously stated, the results of comparison of the two sub-samples show that, regardless of the work position, only work climate and need for autonomy stand out as individual negative correlates of burnout at work. This shows the significance of the sense of autonomy and an adequate work climate for the mental health of teachers working in both primary schools and faculties. In addition, work position does not moderate the relationship between work climate and psychological needs on the one hand and burnout on the other hand, and this is a significant finding since it supports the homogeneity of the teaching population and the desirability of adequate work conditions for their optimal functioning.

From everything stated above, it can be concluded that there is only partial justification and confirmation of one of the basic assumptions of SDT, which is related to the idea that the social (work) context, through the satisfaction of the basic psychological needs, has an effect on the development and health of people. Hence, a part of the truth lies in the relationship pattern between the context, needs, and health of teachers, and no explanation for the other part is offered by SDT. One possible clarification can be sought in other domains of personality. Since needs belong to the conative part of personality, the findings of this research suggest the expansion of the list of predictor variables to the dispositional and cognitive domain of personality. In that way, a broader picture would be offered for understanding the effects of the work environment on the development and psychological and physical health of the people employed in educational institutions.

This paper has not determined the mediating effect of relatedness and competence, but with the lack of previous empirical findings from our environment, there is not enough justification to conclude that these psychological needs are not significant in the context of the work environment and their effect on the health of employees. Therefore, an effort should be made to further develop this issue and to investigate broader teaching populations with the inclusion of other relevant variables (e.g. personality traits, attitudes, values, organisational commitment, etc.).

Finally, it seems there are reasons to conclude that it is necessary to offer an extended version of SDT in order to offer a more inclusive and adequate explanation of the phenomena significant for the understanding not only of the teaching population, but also of other service sector professions and domains of life.

### REFERENCES

- Baard, P.P., Deci, E.L., & Ryan, R.M. (2004). Intrinsic need satisfaction: a motivational basis of performance and well-being in two work settings. *Journal of Applied Social Psychology, 34*(10), 2045-2068.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality & Social Psychology, 51*, 1173-1182.
- Bjekić, D., & Zlatić, L. (2008). Profesionalni stres i ostvarivanje profesionalnih uloga nastavnika [Professional stress and realization of teachers' professional roles]. In: Stojiljković, S., Nešić, V., Marković, Z. (eds.) *Ličnost, profesija i obrazovanje [Personality, profession and education]* (153-172). Niš: Filozofski fakultet.
- Cheek, R. J., Bradley, J. L., Parr, G. & Lan, W. (2003). Using Music Therapy Techniques to Treat Teacher Burnout. *Journal of Mental Health Counseling, 25*(3), 204-217.
- Deci, E.L. & Ryan, R.M. (2002). *Handbook of self-determination theory research*. Rochester: University of Rochester Press.
- Deci, E. L. & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227-268.
- Deci, E.L., Connell, J.P., Ryan, R.M. (1989). Self-determination in a work organization. *Journal of Applied Psychology, 74*(4), 580-590.
- Deci, E. L. & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Đigić, G. & Stojiljković, S. (2011). Classroom management styles, classroom climate and school achievement. *Procedia – Social and Behavioral Sciences, 29*, 819-828. <http://www.sciencedirect.com/science/journal/18770428>
- Dorman, J. (2003). Testing a model for teacher burnout, *Australian Journal of Educational & Developmental Psychology, 3*, 35-47.
- Ioannou, I. & Kyriakides, L. (2006). Structuring a Model for the Determinants of Vocational Teacher Burnout. Paper presented at the *Commonwealth Conference of Educational Administration and Management Conference*, University of Cyprus, 12-14 October, Nicosia, Cyprus.
- Hogan, R. L. & McKnight, M. A. (2007): Exploring burnout among university online instructors: An initial investigation. *Internet and Higher Education, 10*, 117-124.
- Kašić, K. & Stojiljković, S. (2009). Neke psihometrijske karakteristike skale za ispitivanje sindroma izgaranja na poslu kod nastavnika [Some psychometric characteristics of the Teacher Burnout Scale]. In: Stojiljković, S., Nešić, V., Hedrih, V. (eds.) *Ličnost, profesionalno usmerenje i radni kontekst [Personality, professional orientation and work context]* (41-52). Niš: Filozofski fakultet.
- Krapić, N. (2005). Dimenzije ličnosti petofaktorskog modela i radno ponašanje [The five-factor personality dimensions and work behaviour]. *Psiholojske teme, 14*(1), 39-55.
- Lackritz, J. R. (2004). Exploring burnout among university faculty: incidence, performance, and demographic issues. *Teaching and Teacher Education, 20*, 713-729.

- Mabry, D. R. (2005). Teacher burnout factors: A study of teachers in the Maury County, Tennessee, school system. *Dissertation Collection for Tennessee State University*. Paper AAI3187599.
- Maslov, A.H. (1982). *Motivacija i ličnost* [Motivation and Personality]. Beograd: Nolit.
- Maslach, C. (2003). Job burnout: New directions in research and intervention. *Current Directions in Psychological Science*, 12(5), 189-192.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717-731.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879-891.
- Randelović, K. & Stojiljković, S. (2013). Personalni faktori sindroma izgaranja kod nastavnika u okviru teorije samoodređenja [Personal factors of burnout syndrome in teachers in the framework of self-determination theory]. *Zbornik Instituta za pedagoška istraživanja*, 45(2), 260-281. DOI: 10.2298/ZIPI1302260R
- Randelović, K. & Smederevac, S. (2011). Relacije životnih ciljeva, bazičnih psiholoških potreba i dobrobiti [The relationship between life goals, basic psychological needs and wellbeing]. *Primenjena psihologija*, IV/3, 263-278.  
<http://primenjena.psihologija.edu.rs/index.php?godina=2011&broj=3>
- Richmond, V. P., Wrench, J. S., & Gorham, J. (2001). *Communication, affect, and learning in the classroom*. Acton, MA: Tapestry Press.
- Ryan, R. M. & Deci, E. L. (2000). Self-determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55, 68-78.
- Standardi kompetencija za profesiju nastavnika i njihov profesionalni razvoj [Standards of competences for the teaching profession and their professional development] (2011). Nacionalni prosvetni savet Republike Srbije.
- Stojiljković, S. (2014). *Psihološke karakteristike nastavnika* [Psychological characteristics of teachers]. Niš: Filozofski fakultet.
- Stojiljković, S. & Dosković, M. (2014). Osobine ličnosti i profesionalni stres nastavnika [Personality traits and professional stress of teachers]. In: *Nauka i globalizacija* [Science and globalization], 08, vol. 2/2 (pp. 1161-1178). Pale: Filozofski fakultet Pale, Univerzitet u Istočnom Sarajevu. DOI 10.7251/NSFF14011161S
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout and engagement. *The role of basic psychological need satisfaction*. *Work & Stress*, 22(3), 277-294.
- Živković, P. & Randelović, D. (2013). Korelati profesionalnog identiteta nastavnika [Correlates of teachers' professional identity]. *Teme*, 37(2), 647-666.

## **РАДНА КЛИМА, БАЗИЧНЕ ПСИХОЛОШКЕ ПОТРЕБЕ И ИЗГАРАЊЕ НАСТАВНИКА ОСНОВНИХ ШКОЛА И ФАКУЛТЕТА**

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### **Резиме**

Наставник није само преносилац знања већ има и бројне друге професионалне улоге, везане за подстицање развоја личности ученика и остваривање сарадње са непосредним окружењем и са широм друштвеном заједницом. Наставничка професија је, према новијим истраживањима, стресогена због комплексности професионалних улога и велике социјалне одговорности. Лоши међуљудски односи и нестимулативна радна клима такође су чиниоци који повећавају професионални стрес. Дуготрајна изложеност стресу може довести до синдрома изгарања, који карактерише емоционална исцрпљеност, деперсонализација и опадање радне ефикасности. Теорија самоодређења нуди једно од могућих објашњења механизма развоја и одржања синдрома изгарања код наставника.

Према овој теорији, контекст у коме живимо и радимо утиче на задовољење основних психолошких потреба, а оне затим остварују ефекат на здравље и добробит појединца. Свако људско биће има три основне, урођене психолошке потребе: аутономију, компетенцију и повезаност са другима. Теорија самоодређења претпоставља да је задовољење базичних психолошких потреба предиктор развоја, интегритета, оптималне мотивације, здравља и субјективне добробити појединца. Стога ће наставници, према овој теорији, вероватно испољити оптимални учинак и добро здравље у радној средини која подстиче и негује њихове инхерентне тенденције. Када је у питању мотивација наставника и уопште запослених, ова теорија не само да разликује различите нивое мотивације (од амотивације до мотивације), већ прави разлику и између квалитета мотивације (да ли је особа контролисана од стране других или самодетерминисана). Каква ће бити мотивација запослених једним делом зависи од руководиоца који креира одређени квалитет климе. Радна клима може, с једне стране, да се заснива на подршци руководиоца самодетерминацији запослених – кроз подршку њиховом доживљају слободе, иницијативе и успешности, што обезбеђује задовољење потреба за аутономијом, компетентношћу и повезаношћу. Насупрот томе, радна клима се може заснивати на контроли од стране руководиоца – кроз притисак на запослене да прихвате одређени начин мишљења и понашања, чиме се осујећује задовољење њихових основних потреба.

Предмет овог истраживања је испитивање релација између радне климе, базичних психолошких потреба и изгарања на послу код наставника. Узорак чине наставници основних школа (105) и наставници факултета (95) да би испитали да ли постоје разлике у релацијама поменутих варијабли зависно од нивоа образовања. Интересовало нас је, такође, да ли психолошке потребе имају медијаторски ефекат у односу радне климе и изгарања наставника. Концептуални оквир рада је Теорија самоодређења, која претпоставља да човек има три инхерентне психолошке потребе – аутономија, компетенција и повезаност са другима. Сагласно проблему, примењени су следећи инструменти: Упитник радне климе, Скала задовољења базичних психолошких потреба на раду, Скала синдрома изгарања код наставника. Резултати показују да наставници процењују да

је радна клима задовољавајућа, умерена је задовољеност психолошких потреба, а изгарање је ниско. Радна клима је позитиван корелат потребе за аутономијом и компетенцијом, а негативан корелат изгарања. Аутономија је једина медијатор варијабла и посредује у односу радне климе и изгарања, и код основношколских и код универзитетских наставника. Из свега се може закључити да постоји само делимична оправданост и потврда једне од основних претпоставки Теорије самоодређења, која се односи на то да социјални (радни) контекст преко задовољења базичних психолошких потреба остварује ефекат на развој и здравље људи. Дакле, део истине лежи у таквом обрасцу повезаности контекста, потреба и здравља наставника, а за други није понуђено објашњење у оквиру Теорије самоодређења. Једно од могућих објашњења може се потражити у другим домена личности. Наиме, како потребе припадају конативном делу личности, истраживачки налази из овог рада сугеришу проширење варијабли на диспозицијски и когнитивни домен личности. На тај начин била би понуђена шира слика у разумевању ефеката радног окружења преко целокупне личности на развој и здравље запослених. На крају може се закључити да постоји потреба за увођењем извесног проширења Теорије самоодређења како би се омогућило обухватније истраживање релевантних варијабли и адекватније објашњење значајних феномена, не само у оквиру наставничке популације већ и других професија и домена животног функционисања.