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Jadran Jelić
University of Split
Faculty of Science
jelicjadran@gmail.com
https://orcid.org/0009-0008-2166-3571

Stjepan Kovačević, PhD, Assistant Professor
University of Split
Faculty of Science
stjepan@pmfst.hr
https://orcid.org/0000-0002-7523-4632

Damir Purković, PhD, Associate Professor
University of Rijeka
Department of Polytechnics
damir@uniri.hr
https://orcid.org/0000-0002-2046-3972

JOB SATISFACTION AND OCCUPATIONAL BURNOUT OF TECHNICAL CULTURE TEACHERS

Abstract: *Teacher burnout is a serious 21st-century problem affecting education systems around the world, and it is closely related to sources of teacher satisfaction. The lower the level of job satisfaction is, the greater the susceptibility to burnout. The present study was conducted with the aim of determining the level of job satisfaction of technical culture teachers and investigating the relationship between job satisfaction categories and factors closely related to burnout syndrome. An online questionnaire was used for the research, and the research was conducted among 42 Technical Culture teachers from the area of the city of Zagreb. The results show that the highest satisfaction is in the categories "type of work" and "relations with colleagues", while satisfaction is moderate in the categories "relations with superiors", "job security" and "level of responsibility". Technical culture teachers are least satisfied with their salary and the awards and recognition they receive for their work. On the other hand, research findings indicate high levels of emotional exhaustion among technical culture teachers, which correlate strongly with the nine observed satisfaction categories. To the extent that satisfaction with a particular category of work increases, emotional exhaustion decreases, and* vice versa*. The obtained results indicate that a decrease in satisfaction causes an increase in emotional exhaustion among technical culture teachers in Zagreb primary schools.*

Keywords: *burnout syndrome, job satisfaction, Technical Culture teachers.*

INTRODUCTION

In recent decades, stress levels among workers in general and teachers in particular have been steadily increasing, considering the demands, volume of work, and responsibilities to which they are exposed on a daily basis. The increasing number of work tasks, prolonged working hours, constant increase in responsibilities, and general reduction in the number of workers in the educational system increase the

negative effects on psycho-physical health (Asunción & Oliveira, 2009). When inappropriate student behavior, a disturbed work environment, a lack of work materials and equipment, and a general unsafe situation in classrooms are added to the aforementioned elements (Araújo & Carvalho, 2009), the risk of negative consequences is even greater.

In addition to workplace stress, which can undoubtedly have serious consequences for teachers' mental health, there is a close connection to the concept of "occupational burnout," which occurs as a result of long-term stress exposure (World Health Organization, 2019) and is caused by all of the previously mentioned factors. However, to speak of occupational burnout, it is important to understand all the factors that contribute to teachers' job satisfaction, as their cause–effect relationship has been demonstrated in the literature. Indeed, numerous studies have shown that there is a positive relationship between low job satisfaction and burnout syndrome (Aziri, 2011; Fairbrither & Warn, 2003; Reddy, 2007; Terry et al., 1993; Weber & Jakel-Reinhard, 2000). Occupational burnout as a global phenomenon has been particularly studied in the context of education, as the teaching profession is considered one of the most stressful professions in the world (Boljat, 2020; Fanaj et al., 2022; Gallup, 2014; Wengel-Wozny, 2015) due to the high demands and responsibilities teachers face on a daily basis (Jarvis, 2002; Vousiopoulos et al., 2019; Weisberg & Sagie, 1999).

Job satisfaction, salary, and work environment are important to both the employees themselves and the organization. However, teachers' satisfaction with their jobs and work environment is not only an important aspect of school climate but also of society as a whole in the long run. Since teachers are educators, mentors, tutors, and facilitators of the educational process of students, they represent an important link in society on which the future of new generations largely depends (Hite et al., 2009). Therefore, it is important that they are motivated, enthusiastic, and committed to their work, and it has long been increasingly difficult to retain quality educational personnel (Kumari, 2008). In addition to the problem of retaining faculty, the problem of attracting future education staff to higher education institutions is also evident. This is underpinned by the fact that in the Republic of Croatia, the number of students enrolled in teaching faculties, especially teachers of technical subjects, is continuously decreasing. This is not only a Croatian peculiarity, but attracting new teachers and retaining them in the teaching profession has become a global problem (Holmqvist, 2019). The very problem of attracting and retaining good teachers, as well as the increasing demands and volume of work that teachers face on a daily basis, shows the need to be aware of all the factors that influence teachers' well-being and job satisfaction.

The relationship between job satisfaction, stress and occupational burnout

Employee well-being and satisfaction issues are more important today than ever before (Cropanzano & Wright, 2001) because a satisfied employee shows higher work motivation and better job performance and ensures higher productivity for the employer (Aziri, 2011; Kaliski, 2007). Job satisfaction is determined by numerous factors and is usually related to interesting job characteristics, working conditions, material resources to perform job tasks, good leadership, adequate salary, friendly work environment, and opportunity for career advancement (Fraser, 1983). When all the above factors are met, it is likely that the employee is satisfied with his job, and on the contrary, when one or more factors are not met, job dissatisfaction may occur, and long-term dissatisfaction causes occupational stress (Aziri, 2011). This has been noted by numerous authors who found a positive relationship between low job satisfaction and high levels of stress in their studies (Fairbrither & Warn, 2003; Terry et al., 1993). Stressors vary depending on the occupation, but their consequences are the same in most cases. Long-term stress exposure leads to anxiety, a whole range of psycho-physical difficulties, and burnout syndrome (World Health Organization, 2019), one of the most prevalent diseases in today's society (Weber & Jakel-Reinhard, 2000). Symptoms of burnout syndrome are described extensively in the literature and include fatigue and exhaustion, loss of motivation, a cynical view of work, a sense of failure (Schaufeli et al., 2009), the tendency of individuals to blame others for their own problems, increased absenteeism from work, and high involvement in conflicts and disputes with colleagues and supervisors (Reddy, 2007).

Job satisfaction in the teaching profession

In general, job satisfaction can be described as the result of various emotions that a person has toward his or her own work (Reddy, 2007), and it is divided into extrinsic and intrinsic satisfaction (Haider et al., 2015). Extrinsic job satisfaction is based on tangible aspects of the job, such as salary, pension, relationships with colleagues and supervisors, opportunities for promotion, and health insurance benefits (Haider et al., 2015). Intrinsic job satisfaction, on the other hand, refers to internal sources such as the complexity of the work performed, the amount of responsibility, morale and job security, the match of the job with the employee's competencies, the ability to help others, and the enjoyment of work tasks and challenges (Bozkurt & Aktas, 2022; Haider et al., 2015; Ozcan, 2002). The literature points to three basic aspects from which teachers' job satisfaction is derived, namely, the organizational culture of the school (Robiatun et al., 2020), the organizational structure of the school (Bibi et al., 2020), and the school climate (Zakariya, 2020). Each of the aforementioned aspects contains a whole set of subcategories of satisfaction, and research shows that teachers are generally most satisfied with the nature of their work, relationships with colleagues and supervisors (Kosi et al., 2015; Vidić, 2009), and their own competence to perform their work (Radeka & Sorić, 2006). They are somewhat less satisfied with the compensation system and opportunities for promotion in the profession (Guoba et al., 2022), and they are least satisfied with the salary (Bozkurt & Aktas, 2022; Guoba et al., 2022; Kosi et al., 2015; Ozcan, 2022; Vidić, 2009), working conditions, and the lack of social recognition of the teaching profession (Radeka & Sorić, 2006). Dissatisfied teachers are less motivated in their work, frequently take sick leave and are absent from work, and they often have poor relationships with colleagues (Hayes et al., 2012). In addition, job dissatisfaction often leads to leaving the job permanently to completely move away from the place, which causes dissatisfaction and stress (Farrell, 2000). Most of the studies on the relationship between job satisfaction and leaving the profession have been conducted in the United States of America, and the results show that in the first three years of work in a school, up to 30% of teachers leave their jobs and turn to other activities, while this number increases up to 50% in the first five years of work (Huling-Austin, 1990; Ingersoll, 2001; Liu, 2005). This statistic is devastating. Aside from the fact that schools are losing quality staff due to high turnover in the workforce, it is important to note that chronic job dissatisfaction has a direct impact on students (Anderman et al., 1991; Ingersoll, 2001). Consequently, job dissatisfaction leads to the development of burnout syndrome, the symptoms of which teachers often ignore and continue to work in schools for the rest of their lives. Exhausted, depressed, and lacking enthusiasm and interest, they continue to teach new generations, posing a significant threat to the quantity and quality of knowledge students receive from such teachers (Dworkin, 1986).

Stress and occupational burnout of teachers

Although some authors, such as Reddy (2007), equate occupational stress with occupational burnout, these two concepts are not the same. According to the definition by the Center for the Promotion of Health in the New England Workplace (CPH-NEW, 2018), stress at work means "harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker." On the other hand, occupational burnout is a state of physical, emotional, and mental exhaustion caused by long-term or chronic stress at work, typically characterized by exhaustion, feelings of cynicism, detachment from work, and a sense of lower personal accomplishment (Maslach, 2001). Stress is thus the most important predictor of burnout. Authors highlight several underlying stressors in the teaching profession, including dissatisfaction with pay and working conditions, inadequate classroom facilities, interpersonal relationships (Boshoff et al., 2018), lack of control over students, lack of recognition for their work, time pressures, and inadequate professional development opportunities (Burke et al., 1996; Chaplain, 1995). In his research, Boljat (2020) cites the demeaning attitude and communication of the relevant ministry toward teachers, the privileged position of parents, the lack of adequate infrastructure for conducting online classes, an inadequate reward system for teachers, and the lack of sanctions for "nonworkers" as additional stressors (Boljat, 2020).

It is noticeable that most of the stressors mentioned coincide with the main sources of job satisfaction, from which it follows that long-term dissatisfaction with a particular area of work generates teacher stress, which subsequently leads to the development of burnout syndrome. This term was introduced into the psycho-social literature in the mid-1970s by Freudenberger and Maslach to describe the gradual depletion of energy and motivation in counselors and therapists (Maslach et al., 2001). The authors describe the concept of burnout as a negative work-related outcome that develops in response to chronic stressors, and from its first appearance to the present, the phenomenon of burnout has been studied worldwide and in various industries (Schaufeli et al., 2009). Leiter and Harvie (1988) describe burnout as a result of a mismatch that occurs between an individual's expectations of fulfilling their job role and the structure established in the organization. In situations where the workplace does not support professional goals and the volume of work increases, professional efficiency decreases, and exhaustion and cynicism increase.

The literature highlights three basic dimensions of burnout: emotional exhaustion, depersonalization (cynicism), and diminished personal accomplishment (Maslach et al., 2001). The exhaustion component implies the individually stressful aspect of burnout and refers to the feeling of being overwhelmed and exhausting one's emotional and physical resources. Cynicism (also referred to as depersonalization or disengagement) is the psychological disengagement of employees from their work. The cynicism or depersonalization component represents the interpersonal contextual dimension of burnout, which refers to negative, uncaring, or overly detached reactions to various aspects of work. Finally, diminished personal accomplishment (also referred to as diminished personal effectiveness) refers to a worker's sense of incompetence and a lack of accomplishment and productivity at work. Emotional exhaustion and depersonalization are related to work stressors, while a lack of personal accomplishment is more strongly related to a lack of adequate resources (Bakker et al., 2000). Burnout has numerous negative consequences for individuals, and the most common are mental health problems (Cheng & Chan, 2008), anxiety and depression (Dekker & Schaufeli, 1995), increased psychological stress and psychosomatic complaints (De Witte et al., 2010), alienation from colleagues and friends (Schwab et al., 1986), lower productivity and efficiency among those who remain at work, and lower job satisfaction (Maslach et al., 2001). Burnout has also been found to have a "spillover" effect on colleagues and others in the work environment and even on employees' personal lives (Maslach et al., 2001).

From the literature review thus far, it is clear how important it is to examine all three elements together: job satisfaction, sources of stress in the teaching profession, and burnout syndrome. Although these topics are prominent in foreign literature, they have received more attention in Croatia only recently, so there are few studies (Boljat, 2020; Pavičić Dokoza et al., 2020; Pavin et al., 2005; Radeka & Sorić, 2006; Slišković et al., 2012; Slišković et al., 2016; Vidić, 2009) that address them. Considering the importance of this issue and the devastating impact of the burnout phenomenon on the education system, this area is still insufficiently researched in Croatia. Another problem is that only a few topics were addressed in the available studies. Namely, out of a total of six studies, only two studies examined teachers' job satisfaction and job burnout simultaneously (Boljat, 2020; Slišković et al., 2016), while the others dealt exclusively with the assessment of job satisfaction (Pavin et al. 2005; Radeka & Sorić, 2006; Vidić, 2009) or with the assessment of teachers' stress and its causes (Pavičić Dokoza et al., 2020; Slišković et al., 2012). In addition, it was found that authors focused on primary or secondary school teachers in general, but not a single study was devoted to subject teachers of a specific subject and thus not exclusively to technical culture teachers. Although the research conducted by Boljat (2020) also refers to teachers of technical culture, the specifics of the sources of stress or burnout among teachers of this class were not studied separately. Technical culture has been a legitimate compulsory subject in primary education in the Republic of Croatia for more than half a century. However, few other subjects have undergone paradigmatic, structural, and organizational changes from the 1990s to the present, such as technical culture (Kovačević 2012; Purković 2015), which is why it is important to study burnout among technical culture teachers separately.

The paradigm shift ranged from the concept of technical education as manual labor and production, technical education from a historical perspective, and technical education that focused on context-free content to a competency-based approach to technology. The aforementioned paradigmatic shifts also

brought about content changes that needed continuous professional development for technical education teachers. In addition, the transition of the educational focus from the acquisition of content to the acquisition of competencies needed continuous professional development in the methodological area. The professional and methodological training of teachers constitutes their professional obligation, but it must be remembered that technology itself is progressive and dynamic and that technical content very quickly loses its relevance and contextual significance. Therefore, it is justifiable to ask to what extent the competent institutions for professional training, which are constantly making new demands on them, provide technical culture teachers with opportunities for additional training.

Decisive structural changes in the subject of technical culture took place three decades ago and manifested themselves in a drastic reduction in the hourly rate of technical culture, i.e., the share of technical education in the total general and compulsory education. The reduction in the hourly rate was perceived by technical culture teachers as a fear of losing their jobs and an existential threat, and today, they consider the same hourly rate of one hour per week as a crucial factor influencing the (poor) quality of technical culture teaching (Kovačević 2012; Purković 2015; Purković & Kovačević, 2017; Purković et al., 2020).

Organizational changes in technical culture instruction are associated with paradigmatic and structural changes, i.e., a transition from a combination of theoretical and practical instructional methods to factorially pure instructional methods and a return to instructional methods appropriate for a competency-based approach to technical education. Additional confusion regarding the organization of technology instruction arose in 2019 with curriculum reform, when teachers were presented literally overnight with a new document, the curriculum, which is completely contrary in a philosophical sense to the previous teaching plan and program. Since the new curriculum contained no methodological or implementation instructions and no teacher training, the only thing that was clear was that "teaching technical culture implies a number of distinctive features that are manifested primarily in the focus on hands-on student activities and the learning and teaching of technology in a realistic, progressive, and dynamic technical context. Thus, technical culture teachers face numerous listed (and unlisted) challenges" (Kovačević et al. 2022, p. 214).

Purković (2015) and Purković et al. (2020) believe that the environment for the implementation of technical culture teaching is still unacceptable today, that teachers do not have enough time to implement the planned curriculum, that there is a lack of quality and stimulating assessment mechanisms for teachers, and that the success of the teaching itself depends almost entirely on the commitment, knowledge and skills of the teachers. The results of research on technical culture teaching under the circumstances caused by the COVID-19 pandemic (Kovačević et al. 2022) suggest that even then, technical culture teachers were left to their own devices by schools and relevant institutions in the organization and implementation of teaching.

If we take into account that the average working life of a technical culture teacher lasts 40 years, and if we take into account the dynamics and quantity of the mentioned changes in recent decades, it is appropriate to conclude that all the abovementioned factors can influence the job satisfaction or dissatisfaction of technical culture teachers. In addition, technical culture teachers often lack the material resources and conditions necessary for teaching, and quite a few of them work at more than one school. For example, Purković (2015) found in his research that 8.7% of the total 345 teachers surveyed work at three or more schools at the same time and that 47% of them do not have the basic tools, materials, and machines necessary for teaching technical culture (Purković, 2015). Therefore, the question arises as to how satisfied technical culture teachers are with their work, i.e., to what extent they perceive their work as stressful, considering the conditions in which they work every day.

METHODS

The problem and the aim of the research

The problem that this research focuses on is the job satisfaction and burnout syndrome of teachers in the subject of Technical Culture, which is a unique subject in the elementary school curriculum due to specific organizational, material, and content characteristics. The aim of this study is to determine the level

of job satisfaction of teachers in the subject of technical culture and the relationship with factors closely related to burnout syndrome.

Research participants

The research participants were teachers of the technical culture of primary schools in Zagreb. A total of 42 responded to the survey, which is slightly more than 5% of the total population of employed teachers of technical culture in the Republic of Croatia. Of the 42 respondents, 33.3% were women, and the remaining 66.7% were men. The average age of the respondents is 42 years, and the average teaching experience is 12.1 years. The majority of the technical culture teachers studied has completed master's studies (59.5%), followed by teachers who have completed other higher education (16.7%), then undergraduate (11.9%), and postgraduate (9.5%). Further data on the research participants are presented in Table 1.

Table 1

Sociodemographic characteristics of the respondents

GENDER	*n*	*f*
Female	14	33.3
Male	28	66.7
AGE (M±SD)	42.2 ± 6.8	
YEARS OF WORK EXPERIENCE (M ± SD)	12.1 ± 3.9	
EDUCATION	*n*	*f*
Higher school	7	16.7
Undergraduate	5	11.9
Graduate	25	59.5
Postgraduate	4	9.5
Other	1	2.4

Research procedure

For the research, an online questionnaire was created using the tools of the Google Forms internet platform. Teachers of technical culture from the city of Zagreb received an email with informed consent to participate in the research. The e-mail contained a link to the questionnaire as well as a brief description and the aim of the research. The survey was conducted from October 4 to October 10, 2023. Of a total of 110 technical culture teachers who received informed consent to participate in the study, 42 responded.

Instruments

Two measurement instruments were used in the study. A modified Teacher Job Satisfaction Questionnaire (TJSQ) developed by Lester (1982) was used to examine job satisfaction, originally consisting of a total of 77 items divided into nine subcategories: Relationship with Supervisors (17 items), Relationship with Colleagues (11 items), Salary (8 items), Working Conditions (5 items), Responsibility (6 items), Nature of Work (16 items), Job Security (3 items), Reward and Recognition (6 items), and Opportunities for Advancement (5 items). For the purposes of this work, the above questionnaire was expanded to include two additional items that are important for the implementation of technical culture classes and were derived from the research of Purković (2015). These are items within the subcategory "working conditions" that refer to the presence of a separate classroom for teaching technical culture and to the provision of didactic and material-technical resources and aids (in the modified version, the subcategory contains 7 items). According to the author, both are important factors that affect the quality of

teaching and, consequently, the overall satisfaction or dissatisfaction of teachers with their work. The rating of the items ranged from 1 (strongly disagree) to 5 (strongly agree).

Another measurement instrument is Maslach's burnout model, adapted for teachers by Kokkinos (2006). This instrument consists of a total of 22 items related to three subcategories: emotional exhaustion (9 items), depersonalization (5 items), and personal accomplishment (8 items). Scores ranged from 1 (strongly disagree) to 5 (strongly agree). The results of the conducted research are presented below. The data were processed using the SPSS software package and included descriptive statistics, factor analysis, and a correlation matrix.

RESULTS AND DISCUSSION

From the descriptive statistics data, the categories of job satisfaction of technical culture teachers can be seen. The minimum and maximum values, arithmetic mean, and standard deviation are given. The overall job satisfaction of technical culture teachers has an average value of 3.39, which can be considered a medium level of satisfaction. As seen in Table 2, teachers' satisfaction with each category of job satisfaction varies. Teachers in technical culture expressed the highest satisfaction in the categories of relationships with colleagues (M = 4.18) and nature of work (M = 4.01). They were moderately satisfied with the level of responsibility (M = 3.77), relationships with supervisors (M = 3.69), and job security (M = 3.52), while they indicated the lowest level of satisfaction in the categories of awards and recognition (M = 2.63) and salary (M = 2.66).

Table 2

Descriptive statistics of job satisfaction categories

Job satisfaction categories	*Min.*	*Max.*	*M ± SD*
1. Relations with supervisors	2	5	3.69 ± 0.71
2. Relations with colleagues	3	5	4.18 ± 0.82
3. Salary	1	4	2.66 ± 0.58
4. Work conditions	1	5	2.90 ± 0.17
5. Level of responsibility	2	5	3.77 ± 0.56
6. Nature of work	3	5	4.01 ± 0.67
7. Job security	1	5	3.52 ± 1.01
8. Awards and recognition	1	5	2.63 ± 0.44
9. Opportunities for advancements	1	4	2.87 ± 0.85
Overall job satisfaction			3.39 ± 0.54

The results obtained are largely consistent with previous findings in the literature, which cite the nature of work and relationships with colleagues as the main sources of satisfaction in the teaching profession (Kosi et al., 2015; Vidić, 2009), while salary, reward systems, and opportunities for advancement in the profession are the most common sources of dissatisfaction with work (Bozkurt & Aktas, 2022; Guoba et al., 2022; Kosi et al., 2015; Ozcan, 2022; Vidić, 2009).

Considering that there are no comparable studies in the Republic of Croatia that focus exclusively on teachers of technical culture and that when studying the factors of job satisfaction, usually only the total values of the assessed categories are presented, an explanatory factor analysis of the factors of job satisfaction was conducted here. Factor analysis using the principal component model extracted factors that are significant for deeper insight into the job satisfaction of technical culture teachers. The factor structure is shown in Table 3. The suitability of the correlation matrix for factor analysis was tested using the Kaiser-Mayer-Olkin test (KMO = 0.759), while Bartlett's test for sphericity also achieved statistical significance. Maximum likelihood extraction with direct orthogonal rotation was used in factor analysis. The original set contained a total of 79 items, 49 of which were discarded because they did not meet the quantitative value criterion. Considering the Guttman-Kaiser criterion for extracting factors with eigenvalues greater than 1,

a four-component solution was obtained for the remaining 30 items by factor analysis, which explained 43.6% of the total variance. Considering the content of the items of each component, the following labels were assigned: Factor 1: Positive aspects of the teaching profession (14 items), Factor 2: Insufficient salaries and advancement opportunities (9 items), Factor 3: Communication and relationships with supervisors (4 items), and Factor 4: Lack of autonomy (3 items). Here, the first factor explains 18.7%, the second explains 13.1%, the third explains 7.1%, and the fourth explains 4.7% of the total variance.

Table 3

Factor analysis of assessment of technical culture teacher job satisfaction

Item	*F1*	*F2*	*F3*	*F4*
F1: Positive aspects of the teaching profession				
3. Teaching provides the opportunity to use different skills.	.512			
17. I get along well with my colleagues.	.671			
21. Teaching gives me the opportunity to help my students learn.	.747			
22. I like the people I work with.	.595			
24. My students respect me as a teacher.	.612			
28. Teaching is a very interesting job.	.566			
35. My colleagues encourage me to do a better job.	.504			
39. I am responsible for planning my daily lessons.	.782			
51. Teaching encourages me to be creative.	.672			
50. Behavior problems interfere with my teaching.	-.519			
63. I have made lasting friendships among my colleagues.	.552			
64. The working conditions at my school are good.	.601			
68. I do my best to help my colleagues.	.713			
75. I get along well with my students.	.782			
F2: Insufficient salaries and advancement opportunities				
2. The teacher's income is sufficient for normal expenses.		-,536		
5. Insufficient income prevents me from living the way I want to.		,661		
9. I am not getting ahead in my current position as a teacher.		,672		
15. The teaching profession offers me a secure future.		,557		
23. The teaching profession offers limited opportunities for advancement.		,677		
42. I am paid well relative to my skills.		-,638		
46. The teaching profession gives me the opportunity to be my own boss.		-,514		
58. I receive too little recognition.		,663		
67. The teacher's income is less than deserved.		,696		
F3: Good communication and relationships with supervisors				
11. I receive recognition from my immediate supervisor.			,507	
70. When I give a good lesson, my immediate supervisor notices.			,552	
71. My immediate supervisor explains what is expected of me.			,688	
49. My immediate supervisor is not afraid to delegate work to others.			,561	
F4: Lack of the autonomy				
4. If instructions are insufficient, I do what I think is best.				,517
13. I am not free to make my own decisions.				,663
41. I am not free to judge.				,534

From the results of the factor analysis, it appears that technical culture teachers are satisfied with numerous aspects of their work, the most common of which is relationships with colleagues, as the largest number of extracted items relate to this. Then, there are factors related to the nature of the teaching profession, such as the interestingness of the work, the opportunity to use different skills in the work, good relationships with students, and the feeling of respect they receive from students. In the second factor, items

were extracted that indicate teachers' dissatisfaction, which is primarily due to salaries and insufficient opportunities for advancement. Teachers believe that their income is lower than they deserve and that it is only enough to cover basic living expenses. Similarly, they believe that they cannot advance in their current position as teachers and that they receive too little recognition for their work. The third factor indicates a positive perception of relationships with supervisors, with teachers indicating that supervisors give clear instructions about their expectations, give them recognition for good work and are always willing to delegate some of their work to others. In the last factor, only three items were extracted that strongly indicate a lack of autonomy among technical culture teachers, especially in terms of freedom to make decisions.

After determining which elements of their work the technical culture teachers are most or least satisfied with, the results were considered with a rating of burnout. The results are expressed by averages, and high Cronbach's alpha coefficients (Table 4) indicate high reliability of the consistency of the items within the factor.

Table 4

Indicators of technical culture teacher burnout

Dimensions of burnout	*M ± SD*	*Cronbach alpha*
Emotional exhaustion	4.46 ± 0.32	0.90
Depersonalization	1.72 ± 0.67	0.79
Personal achievements	2.35 ± 0.44	0.71

For the interpretation of the results, it is important to emphasize that for both emotional exhaustion and depersonalization, higher mean scores correspond to a higher degree of burnout. In contrast, lower mean scores for personal accomplishment correspond to higher levels of burnout. The results show that technical culture teachers assigned the highest scores to the items indicating emotional exhaustion (M = 4.46). At the same time, the items indicating the feeling of putting great effort into work show that working with people throughout the day exhausts them, and they generally agree that this work causes them frustration. For the second dimension of burnout, which refers to depersonalization, the results are significantly lower, and the mean is 1.72, which also means that they do not have significant problems with insensitivity to others and that they do not treat people as objects, which is common among people with high levels of depersonalization. Regarding the last dimension, personal accomplishment, technical culture teachers indicated moderate levels of burnout (M = 2.35). Although most of them do not feel energetic, technical culture teachers complete their work and tasks in a timely manner. However, they do not always deal effectively with everyday problems, nor do they always feel positive about working with students.

Table 5

Correlation matrix of job satisfaction categories and burnout dimensions

Categories	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
1. Relations with authorities	1											
2. Relations with colleagues	.051	1										
3. Salary	.001	.011	1									
4. Work conditions	.030	.210**	.052	1								
5. Level of responsibility	.008	.002	.068**	.091	1							
6. Nature of work	.26**	.003	-.058	.003	.212**	1						
7. Job security	.051	.002	.003	.027	.001	.062	1					
8. Prizes and awards	.013	.015*	.009	.010	.007	.004	.032	1				

9. Opportunities for advancements	.019	.007	.070	.114**	.059*	.060	.002	.091*	1			
10. Emotional exhaustion	-.219**	-.121**	-.097	-.171**	.122**	-.056*	-.329**	-.036	-.05	1		
11. Depersonalization	-.101*	.033*	-.115*	.148**	.059*	.033	.286**	-.112*	-.103*	-.192**	1	
12. Individual achievements	.128**	.122**	.318*	-.033	.104*	.221**	-.097*	.345**	.331**	.452**	-.392**	1

***p <0.01; *p < 0.05*

After the analysis of job satisfaction and burnout levels, the correlation matrix of the mentioned variables is presented in Table 5. The research results show that burnout and job satisfaction are correlated with each other, as all subcategories of job satisfaction are negatively correlated with the main aspects of burnout and emotional exhaustion. That is, as teachers' emotional exhaustion increases, their perceived job satisfaction decreases and vice versa. The highest coefficient was found for the relationship between reward recognition and personal accomplishment (r = 0.345). Thus, when the number of awards and recognitions increases, teachers' personal achievements also increase. Similarly, job security has the greatest impact on emotional exhaustion. The higher the job security, the lower the emotional exhaustion (r = -0.329).

CONCLUSION

The present study was conducted with the aim of determining the level of job satisfaction of technical culture teachers and examining the relationship between the categories of job satisfaction and the factors closely related to burnout syndrome. Although the study was conducted on a relatively small sample of technical culture teachers, it yielded similar results to previous findings in the literature. Namely, the highest levels of satisfaction were found to be related to the nature of work and relationships with colleagues, and respondents indicated that salaries, awards, and recognition were the causes of their dissatisfaction. Looking at the dimensions of occupational burnout, teachers of technical culture in Zagreb schools show a high level of burnout in the area of emotional exhaustion and a medium level of burnout in terms of personal achievements, which consequently affects higher levels of stress and mental health. The burnout level of Technical Culture teachers during depersonalization proved to be low.

Because this study used the Teacher Job Satisfaction Questionnaire, which contains a large number of items and thus examines various satisfaction factors, a detailed look at the responses to each item can be an important tool for identifying problems and thus finding solutions that promote additional satisfaction with the teaching job and reduce the extent of burnout. Despite the fact that this study has numerous limitations, especially in terms of sample size and regional homogeneity, education policymakers should pay more attention to this and similar studies. In this way, it would be possible to better understand the problem of professional burnout and, to some extent, help reduce teacher turnover and improve the quality of education itself. Depersonalization and emotional exhaustion significantly affect the quality of work and effectiveness of all teachers, including technical culture teachers. Consequently, the effectiveness of technical culture teachers affects the quality of teaching and student motivation, i.e., the quantity and level of learning outcomes achieved. Indirectly, this may affect the interest and motivation of students for further professional development in the fields of technology and engineering, which is important for the sustainability of any society.

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