Some Psychological Factors Related to Work Engagement in Teachers

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Abstract

This paper explores a number of psychological factors related to work engagement in teachers. Using a sample of 449 lower and upper secondary school teachers, it focuses on the Big Five personality traits, respondents' age, and several factors based on the teachers' subjective evaluation of their work – including the meaningfulness of their work, job satisfaction, and workload. The results indicate that teachers' work engagement is connected primarily with their job satisfaction and perception of the meaningfulness of their work (which functioned as predictors), as well as respondents' Big Five personality traits (of which extraversion and conscientiousness were predictors). Perceived workload emerged as a negative predictor.

Key words: *teachers, work engagement, meaningfulness of work, personality traits, job satisfaction, workload*

Introduction

Teaching is generally considered to be not only a demanding profession, but also one that is of high social importance in view of the role of teachers in educating the next generations and preparing them for life. Teachers are irreplaceable representatives of schools, and the effects of their activities are specific and distinct from the effects of other factors in the process of education and upbringing. This fact has given rise to the assumption (quite widespread among both the general

public and educational specialists) that the teaching profession is a form of higher calling. The effect of this assumption is that teachers are not infrequently expected to display strong professional motivation and to possess a high level of dedication and work engagement.

In this context, the present study sets out to determine the extent to which teachers are willing to accept and fulfil these expectations in the real-life conditions of their professional lives (conditions which are not always favourable) and to explore which factors influence this willingness. Besides the demanding nature of the educational process *per se*, the teachers' situation is also complicated by a range of disruptive influences (cf. Paulík, 2012) which, if they occur with increased intensity, or accumulate over time, may lead to stress (defined as a specific type of burden in which there is a marked imbalance between the demands placed upon an individual and that person's ability to adapt to and cope with those demands).

Research Problem

This study explores teachers' work engagement alongside a number of other relevant factors which may be connected with the formation of teachers' attitudes to their work and their willingness to engage fully in it.

The concept of work engagement (job engagement) is a construct that is used alongside other similar concepts such as work commitment, organizational commitment, job involvement, job embeddedness, etc. There is no single accepted definition of the concept. The phenomenon to which it refers has been widely studied by researchers for almost three decades (cf. Kahn, 1990; Simpson, 2009) in connection with the role of humans as key bearers of creative potential in organizations, whether in industry, services, culture or education. Numerous researchers (cf. Yalabik, Popaitoon, Chowne, & Rayton, 2013) agree that this phenomenon probably effects job performance, and that organizations should therefore pay more attention to their employees' needs and interests in order to ensure that staff are willing to devote their full efforts to carrying out their duties and job tasks. An organization seeking to maximize the effectiveness of its labour force should systematically utilize knowledge of psychological factors related to work engagement and apply this knowledge in its practical policies and measures. The educational sector is no exception. Engaged (committed) teachers, convinced of their usefulness to the school and the students, are willing to devote their full efforts to their job, despite the difficulty presented by the demands of the profession and the disruptive influences which complicate their work. Moreover, such teachers have high job satisfaction and are better able to cope with the demands placed upon them (cf. Høigaard, Giske, & Sundsli, 2012).

One study of teachers' work engagement systematically conducted by the Gallup organization and carried out in the 15 most populous states of the USA (Hastings & Agrawal, 2015) found that between 22% and 35% of teachers are engaged in their jobs, while 10%–17% are actively disengaged from them. In 2014, a survey conducted across the entire USA found that 31% of teachers were engaged and 12% were actively disengaged. According to the categorization used, engaged teachers are fully involved in their work, entirely committed and dedicated to it, while actively disengaged teachers are unhappy and dissatisfied with their jobs, perform poorly and have a negative effect on their co-workers' efforts in the workplace. These results have remained relatively stable, with no significant change since 2011.

Various authors list a number of phenomena associated with work engagement. Teachers' work engagement can be considered a factor which buffers against feelings of excessive workload and its negative consequences. Some authors consider it to be an opposite of burnout (Maslach & Leiter, 1997). Strongly engaged teachers also feel better both physically and mentally, and display positive emotions towards their work, which also has a positive effect on their co-workers (i.e. engaged teachers transfer their own engagement to their colleagues).

The present study focuses on teachers' work engagement, primarily with regard to its connection with age, personality traits (the Big Five model), and respondents' subjective evaluation of their jobs and working conditions, which are reflected in their perceptions of their workload, job satisfaction and the meaningfulness of their work. The study draws from previous studies by the author as well as work by other researchers. Issues related to the sources and consequences of stress among teachers are discussed in detail elsewhere (cf. Paulík, 2012).

The lack of a unified conceptual framework in the field of work engagement has methodological consequences, as various different methods are used in researching the phenomenon. This study applies a concept of work engagement that is currently very widespread (Schaufeli, Bakker, & Salanova, 2006), consisting of three components: vigour, dedication and absorption; the study also uses the method developed in conjunction with this concept.

Research Focus

The aim of this research can be concretized in the following research questions:

1. What level of work engagement can be found among teachers at lower and upper secondary schools?
2. How does teachers' work engagement depend on their age, or their length of service in the teaching profession?

3. How does teachers' work engagement depend on their evaluation of their jobs and working conditions, expressed in subjective perceptions of workload, job satisfaction, and the meaningfulness of their work?
4. How does teachers' work engagement depend on their Big Five personality traits?

Research Methodology

Research Sample

The research sample consisted of 449 teachers. Respondents were recruited by the author and instructed students of psychology as part of their seminar tasks. The selection process involved the occasional and targeted selection of qualified teachers at lower and upper secondary level in the Czech Republic who were willing to participate. Of the respondents, 179 (39.9%) taught at lower secondary level, and the rest taught at upper secondary level: 49 (10.9%) at secondary vocational schools and 221 (49.2%) at high schools. 322 respondents (71.7%) were women, and 127 (28.3%) were men. The respondents' age ranged from 24 to 73 years, and their length of service in the profession from 0 to 48 years. More details of the research sample in terms of age and length of service are given in Table 1.

Table 1. Research sample in terms of age and length of service

Variables	Men		Women		Total	
	M	SD	M	SD	M	SD
Age (years)	41.83	9.69	44.17	9.59	43.52	9.67
Length of service (years)	15.39	9.57	18.40	10.32	17.56	10.19

M=mean, SD=standard deviation

Instrument and Procedures

Similarly to other studies of work engagement in teachers and members of other professions, this study applied the following pencil-and-paper methods:

1. The UWES (Utrecht Work Engagement Scale) by Schaufeli, Bakker, & Salanova (2006), in a Czech version verified by back-translation. The respondents evaluated 17 items characterizing their attitudes to their jobs,

using a 7-point scale from 0 (never) to 6 (every day, always). The total possible score thus ranges from 0 to 102. The authors of the scale state that their method has been verified on more than 10 000 respondents, demonstrating its acceptable validity and internal consistency; this has also been confirmed (Cronbach's alpha approx. 0.8 to 0.9) by other researchers (e.g. Paulík, 2017a; 2017b; Strom, Sears, & Kelly, 2014).

2. The Work and Meaning Inventory (WAMI) (Steger, Dik, & Duffy, 2012), whose Czech version was likewise verified by back-translation. Respondents were asked to assess the validity of 10 statements about their own jobs, using a 5-point scale from 1 (not valid at all) to 5 (completely valid). The total possible score thus ranges from 10 to 50. Based on a comparison with other methods, the authors of the scale state that it displays adequate construct, predictive and discriminatory validity, as well as internal consistency. The author's previous studies (Paulík, 2017) showed Cronbach's alpha values of approx. 0.8 for this scale.
3. The NEO Five Factors Inventory (NEO FFI), modified and standardized for the Czech population by M. Hřebíčková and T. Urbánek (see Paulík, 2017a). The inventory comprises 60 items identifying the Big Five factors (neuroticism, extraversion, openness to experience, agreeableness, conscientiousness). Each factor is assessed by 12 items evaluated on 5-point scales from 0 = not valid at all to 4 = completely valid. The total possible score for each individual factor thus ranges from 0 to 48. The reliability of the individual scales ranges from 0.67 to 0.81. The construct, convergent and discriminatory validity was verified by comparison of self-assessment and external assessment, and by comparing the measurement of one trait with the results given by various other methods.
4. Two 5-point scales with evident validity which the author has used for a number of years, determining the demands imposed on a person by a job and an individual's job satisfaction. The scales range from minimum (1) to maximum (5) values for the variable.

Respondents' age and length of service was also determined.

Research Results

Table 2. Descriptive characteristics of the investigated variables

	M	SD	α
Workload	3.42	1.04	–
Job satisfaction	4.32	1.03	–
Choice of same profession	4.02	1.27	–
Neuroticism	21.16	6.37	0.84
Extraversion	30.72	7.25	0.86
Openness to experience	26.80	5.95	0.69
Agreeableness	31.94	5.04	0.68
Conscientiousness	34.50	6.12	0.82
Work engagement	71.57	4.74	0.92
Meaningfulness of work	37.64	6.15	0.84

M = arithmetic mean, SD = standard deviation, α = Cronbach coefficient

Based on the mean evaluation of workload (71.57 out of 102 possible points, i.e. a sten score of 7), alongside the calculated mean evaluation 4.21 on the 6-point scale for all 17 items in the UWES, work engagement in the investigated sample can be considered relatively high. Dividing the respondents into three groups by mean and standard deviation, the group of strongly engaged teachers (more than 1 SD above the mean) constituted 14.9% of respondents, the group of averagely engaged teachers (mean $\pm$ 1 SD) constituted 68.4% of respondents, and the group of weakly engaged teachers (less than 1 SD) constituted 15.6% of respondents.

Based on the data shown in Table 3, it is evident that teachers' work engagement has a statistically significant correlation with the meaningfulness of their work ($r = 0.61$) and their job satisfaction ($r = 0.22$). Workload correlated negatively with work engagement ($r = -0.23$). Correlations with age and length of service in the teaching profession were not significant. Statistically significant correlations with work engagement were found for all Big Five personality factors. The correlation with neuroticism was negative. These correlations are low to medium (so it is necessary to take into consideration the effects of other variables not investigated in this study), and they cannot be used to draw conclusions regarding the causality of the associations found.

A regression analysis was then carried out.

Table 3. Pearson correlations between the investigated variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Age		444	448	448	448	448	448	448	448	448	448
2. Length of service	0.94***		444	444	444	444	444	444	444	444	444
3. WL	0.12*	0.11*		449	449	449	449	449	449	449	449
4. JS	0.06	0.06	0.14**		449	449	449	449	449	449	449
5. NEO-N	-0.12*	-0.11*	0.20***	-0.22***		449	449	449	449	449	449
6. NEO-E	-0.03	-0.01	-0.12**	0.20***	-0.33***		449	449	449	449	449
7. NEO-O	-0.01	-0.01	0.16***	0.05	0.05	0.13**		449	449	449	449
8. NEO-A	0.10*	0.11*	-0.06	0.06	-0.31***	0.27***	0.09		449	449	449
9. NEO-C	0.10*	0.10*	-0.09*	0.11	-0.27***	0.29***	0.06	0.23***		449	449
10. UWES	-0.02	0.01	-0.23***	0.22***	-0.24***	0.39***	0.11*	0.21***	0.30***		449
11. WAMI	-0.07	-0.05	-0.17***	0.21***	-0.23***	0.30***	0.09	0.18***	0.23***	0.61***	

* $p < 0.05$; ** $p < 0.05$; *** $p < 0.05$.

Note: The part of the table to the left of the diagonal shows correlation coefficients, the part to the right shows the numbers of respondents for which the correlations were calculated (pairwise deletion).

WL= workload; JS= job satisfaction; NEO-N= neuroticism; NEO-E= extraversion; NEO-O= openness to experience; NEO-A= agreeableness; NEO-C= conscientiousness; UWES= work engagement; WAMI= work meaningfulness.

Table 4. Linear regression (stepwise method) with work engagement (UWES) as the dependent variable

Predictors	Step 1			Step 2			Step 3			Step 4		
	B	SE _B	β	B	SE _B	β	B	SE _B	β	B	SE _B	β
Constant	23.367***	1.064		11.921***	2.435		9.698***	2.461		0.305	2.297	
Woman	0.456	0.501	0.043	-0.128	0.479	-0.012	-0.168	0.455	-0.016	-0.293	0.398	-0.028
Age	-0.010	0.023	-0.020	-0.020	0.021	-0.040	-0.004	0.021	-0.007	0.013	0.018	0.027
NEO-N				-0.066	0.037	-0.089	-0.006	0.036	-0.008	0.015	0.031	0.021
NEO-E				0.185***	0.031	0.283	0.140***	0.030	0.214	0.110***	0.027	0.168
NEO-O				0.046	0.035	0.058	0.060	0.033	0.087	0.038	0.029	0.048
NEO-A				0.064	0.044	0.068	0.058	0.042	0.062	0.038	0.037	0.041
NEO-C				0.137***	0.036	0.177	0.124***	0.034	0.160	0.082**	0.030	0.106
WL							-0.886***	0.196	-0.195	-0.609***	0.173	-0.134
JS							0.377***	0.219	0.082	0.329***	0.191	0.071
WAMI										0.369***	0.032	0.479
F(df _W ; df _R)	0.47 (445; 2)			16.29 (7; 440)***			17.66 (10; 437)***			33.38 (11; 436)***		
R ²	0.002			0.206			0.288			0.457		
adj. R ²	0.000			0.193			0.271			0.443		
ΔR^2	0.002			0.204			0.082			0.169		
$\Delta F(df_{W_1}; df_R)$	0.47 (445; 2)			22.57 (5; 440)***			16.77 (3; 437)***			135.99 (1; 436)***		
RMSE	4.743			4.255			4.043			3.534		

*p < 0.05; **p < 0.01; ***p < 0.001.

WL = workload, JS = job satisfaction, WAMI = work meaningfulness, RMSE = root mean squared error (standard deviation of residuals).

Table 4 shows the results of a linear regression analysis with work engagement (UWES) as the dependent variable. The analysis used the stepwise method. The necessary conditions for such an analysis were fulfilled (linear relation between predictors and the dependent variable, independence of residuals and their approximately normal distribution, same variance of the dependent variable for various levels of predictors – homoscedasticity, absence of perfect multicollinearity).

In the first step, demographic variables (sex and age) were input into the model as predictors, followed in the second step by personality variables (NEO), in the third step by perceived workload (WL) and job satisfaction (JS), and in the fourth and final step by meaningfulness (WAMI). It is evident that significant predictors of work engagement were extraversion, conscientiousness, perceived workload (negative), job satisfaction, and meaningfulness. The final model explained approx. 46% of the variance in work engagement.

Discussion and Conclusions

The analysis of the psychological factors related to work engagement among teachers has focused primarily on factors that can be expected to be relevant to teachers' engagement both on the basis of previous research and on the basis of everyday observation. The results of the study indicate that work engagement in teachers can be evaluated as relatively high; this corresponds with expectations generated by the fact that teaching is often considered a form of higher calling. Most of the respondents (83%) can be evaluated as displaying medium to strong engagement. 15% of the respondents showed strong engagement, and 15% displayed weak engagement. Similar results were also found in a previous study (Paulík, 2017a). The expectation of a relatively high degree of work engagement in teachers is also supported by research into work engagement in members of other (non-teaching) professions, determined using the same method (Paulík, 2017b); engagement in members of these non-teaching professions was found to be lower than in teachers. The transversal methodology used in this study did not provide evidence of significant links between teachers' work engagement and either their age, or their length of service in the teaching profession. This suggests that work engagement probably remains relatively stable during the course of a teacher's professional career. In order to gain stronger evidence of possible changes in teachers' work engagement during their careers, it would be necessary to carry out longitudinal, or qualitative, research. However, teachers' work engagement

was found to correlate with factors based on their evaluation of their job and working conditions. The values of correlations with perceived workload indicate a non-random relationship, but other factors not investigated in this study are also likely to have contributed to this relationship. There appear to be stronger correlations between work engagement and two other measured factors – job satisfaction and meaningfulness. Both these variables functioned as predictors of work engagement; this relation was also found with other samples of teachers (Paulík, 2017a) and members of non-teaching professions (Paulík, 2017b). Similarly to previous research by the author of this paper as well as other authors (e.g. Inceoglu & Warr, 2011; Woods & Sofat, 2013), the study presented here found correlations between work engagement and personality traits from the Big Five model. In view of the nature of work engagement, significant correlations with Big Five factors are to be expected, particularly in the case of conscientiousness, agreeableness or extraversion, which proved to be predictors of work engagement.

In conclusion, the results of this study can be summed up as follows: despite all the demands associated with the teaching profession, work engagement among teachers is relatively high (over four-fifths of respondents displayed average or higher-than-average engagement) in comparison with the situation in non-teaching professions. On the basis of this research, it is possible to conclude – in accordance with previous research – that work engagement is related both to personality factors and to factors originating in individuals' subjective evaluation of their jobs and working conditions. Among personality factors, extraversion and conscientiousness have particularly strong positive effects. Teachers' job satisfaction and their perception of their work as meaningful likewise have positive effects, while their perception of workload had a negative effect. Similarly to other studies, this study did not reveal a correlation between work engagement and age, or length of service in the teaching profession.

Limitations of the Research

The results presented in this paper should be approached with a certain degree of caution. The generalizability of the results is limited by the fact that the research was based on a cross-sectional questionnaire survey, as well as the fact that a representative selection of teachers was not available. The research also did not differentiate between teachers at different types of schools, as no significant differences were visible for the investigated variables. Nevertheless, in general terms, it is necessary to take into consideration possible differences related to different

types of schools. Future research will probe further into the details and the broader contexts outlined here.

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