Personality and work engagement among high-school teachers: The mediating role of negative emotions*

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INTRODUCTION

Research on teachers' emotions conducted over the past years clearly indicate that emotions are core components of teachers' lives (Sutton & Wheatley, 2003). Teachers experience a wide variety of both positive and negative emotions in relation to their students, colleagues, supervisor or principal, parents, and educational system. However, since interactions with students are regarded as the most powerful in terms of evoking emotions (Sutton & Wheatley, 2003), in this study we focused on emotions which teachers experience in relation to their students.

Moreover, we focused on teachers' negative emotions as we considered that they may have mediating role in the relationship between personality traits and work engagement, since previous studies indicated on negative relations between negative emotions and workplace well-being. Studies in this area so far have shown that teachers' emotions have important role in explanation of their cognition, motivation, quality of teaching, relationships with students, sense of professional identity, commitment, and well-being (Day & Gu, 2009; Frenzel, 2014; Frenzel, Goetz, Stephens & Jacob, 2009; Sutton & Wheatley, 2003).

In this study we focused on work engagement as less studied possible outcome of negative emotions.
Work engagement (Schaufeli & Bakker, 2003; Schaufeli, Taris & Van Rhenen, 2008; Schaufeli & Bakker, 2010) is defined as positive, fulfilling, work-related state of mind that is characterized by three components:
1) vigor (high levels of energy and mental resilience while working, willingness to invest time and effort in the job, and persistence even in the face of difficulties)
2) dedication (being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge)
3) absorption (being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work).

Moreover, since emotions arise from personal and contextual factors, we focused on some personality traits for which we considered that may have important role for explanation of negative emotions and work engagement:
-resilience (defined as ability to bounce back from stress, Smith, 2010)
-teacher self-efficiency (judgements or beliefs about one's own capabilities in teaching tasks, Bandura, 1997)
-positive and negative affect as traits (Watson et al, 1988).

THE AIM of this study was to examine the role of teachers' personality and emotions in explaining their work engagement.
More precisely, we tested the mediating role of negative emotions in explaining the relationship between personality and work engagement.

METHOD

Procedure and participants
The study was conducted on a sample of 935 Croatian high-school (secondary school) teachers (M_{age}=42.3, SD_{age}=10.1; 700 of them were female). Teachers filled out self-report scales measuring resilience, self-efficacy, positive and negative affectivity, work engagement, and negative emotions that they experience in relation to their students.

Instruments
•**Brief Resilience Scale** (BRS, Smith et al., 2008)
•**Teacher Self-efficacy Scale** (Schwarzer, Schmitz & Daytner, 1999)
•**Positive and Negative Affect Schedule** (PANAS, Watson et al., 1998)
•**Utrecht Work Engagement Scale** (UWES, Schaufeli & Bakker, 2010), subcales: **vigor, dedication** and **absorption**
•**Teachers Emotions Questionnaire** (TEQ, Burić, Macuka & Slišković, 2016) aimed at assessing emotions teachers experience in relation to their students (**exhaustion**, **anger,** and **helplessness**).
Cronbach alphas for all measures were satisfactory (Table 1).
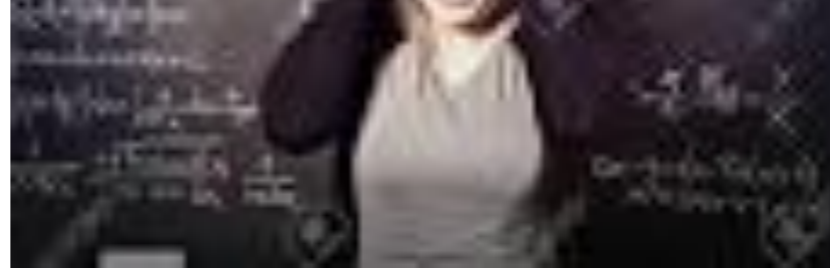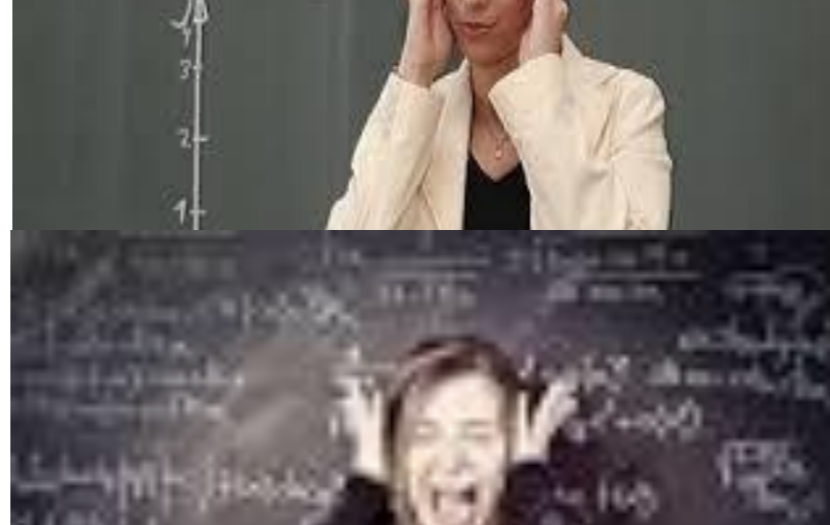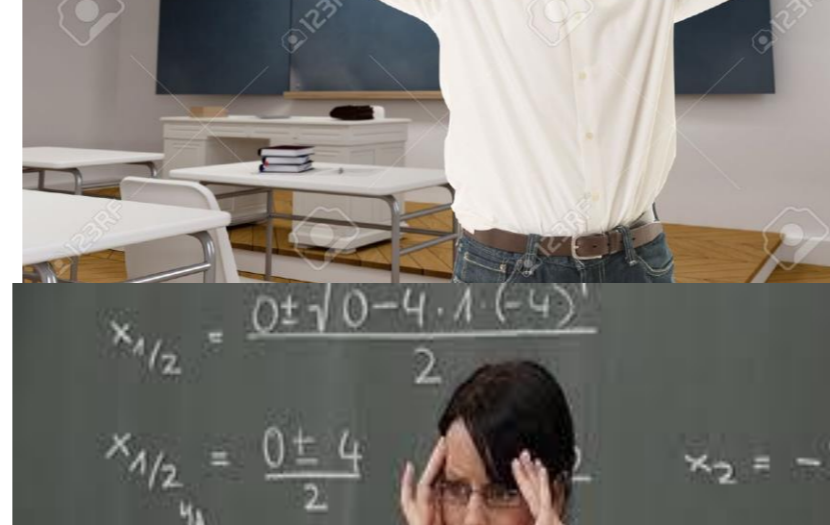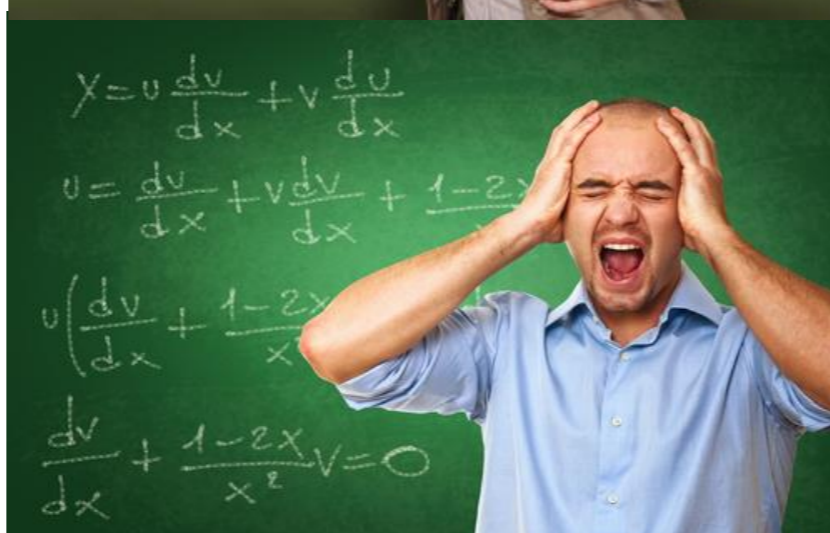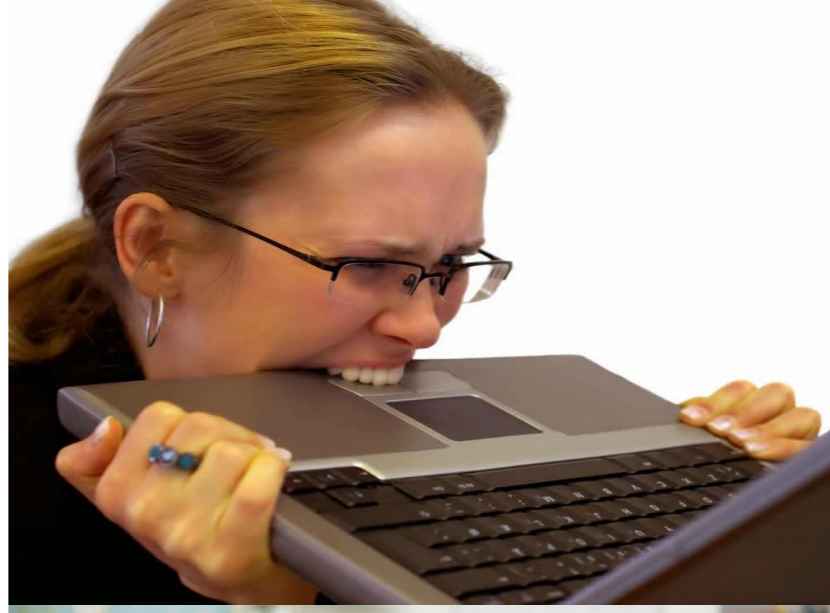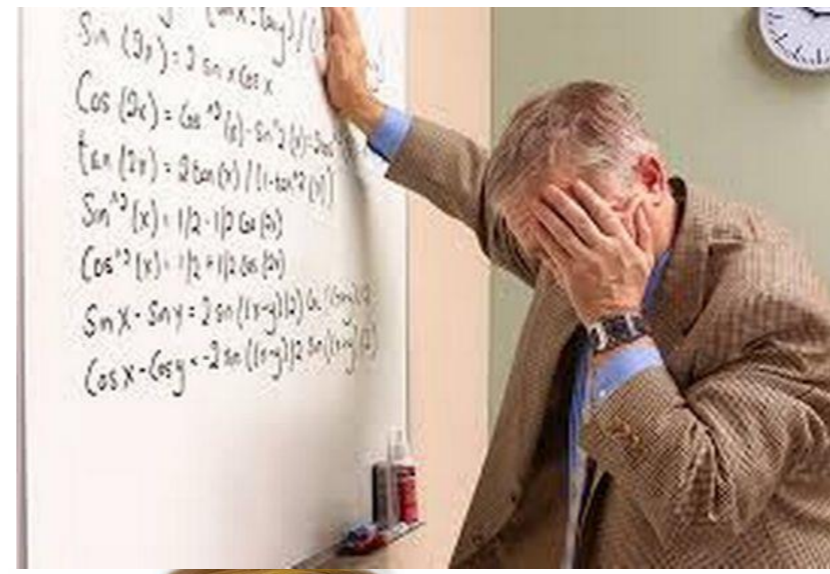
RESULTS

Descriptive statistics for all measures, and correlations between used measures are reported in Table 1.

Table 1. Descriptive statistics and intercorrelations between examined variables

	Vigor	Dedic.	Abs.	Exhaustion	Anger	Helpless.	Resil.	Self-efficacy	Pos. Affect	Neg. Affect
Vigor	-	.90**	.88**	-.29**	-.37**	-.37**	.30**	.59**	.59**	-.34**
Dedic.		-	.84**	-.40**	-.39**	-.40**	.33**	.48**	.53**	-.37**
Absorp.			-	-.32**	-.33**	-.32**	.25**	.46**	.49**	-.29**
Exhaustion				-	.66**	.62**	-.39**	-.24**	-.29**	.41**
Anger					-	.76**	-.41**	-.32**	-.25**	.47**
Helpless.						-	-.40**	-.38**	-.29**	.38**
Resil.							-	.28**	.30**	-.44**
Self-effic.								-	.46**	-.29**
Pos.affect.									-	-.25**
Neg.affect.										-
M	4.52	4.63	4.44	2.87	2.28	2.65	3.24	3.36	3.75	1.92
SD	.94	.88	.87	.92	.76	.74	.65	.41	.51	.67
α	.88	.82	.80	.92	.80	.85	.81	.85	.83	.90

Note: **p<.01

Using SEM, two competing models (i.e. partial vs. full mediation) were tested (results shown in Figure 1, Tables 2 and 3).
The obtained results clearly indicated better fit of the partial mediation model to the data (χ^2_{diff}=338.6, df=4, p<.01); all analysed personality variables except resilience explained the variance of work engagement both directly and indirectly via emotions. However, the indirect effect from positive affectivity on work engagement via negative emotions was not statistically significant (p>.05) indicating that positive affectivity directly predicts work engagement.
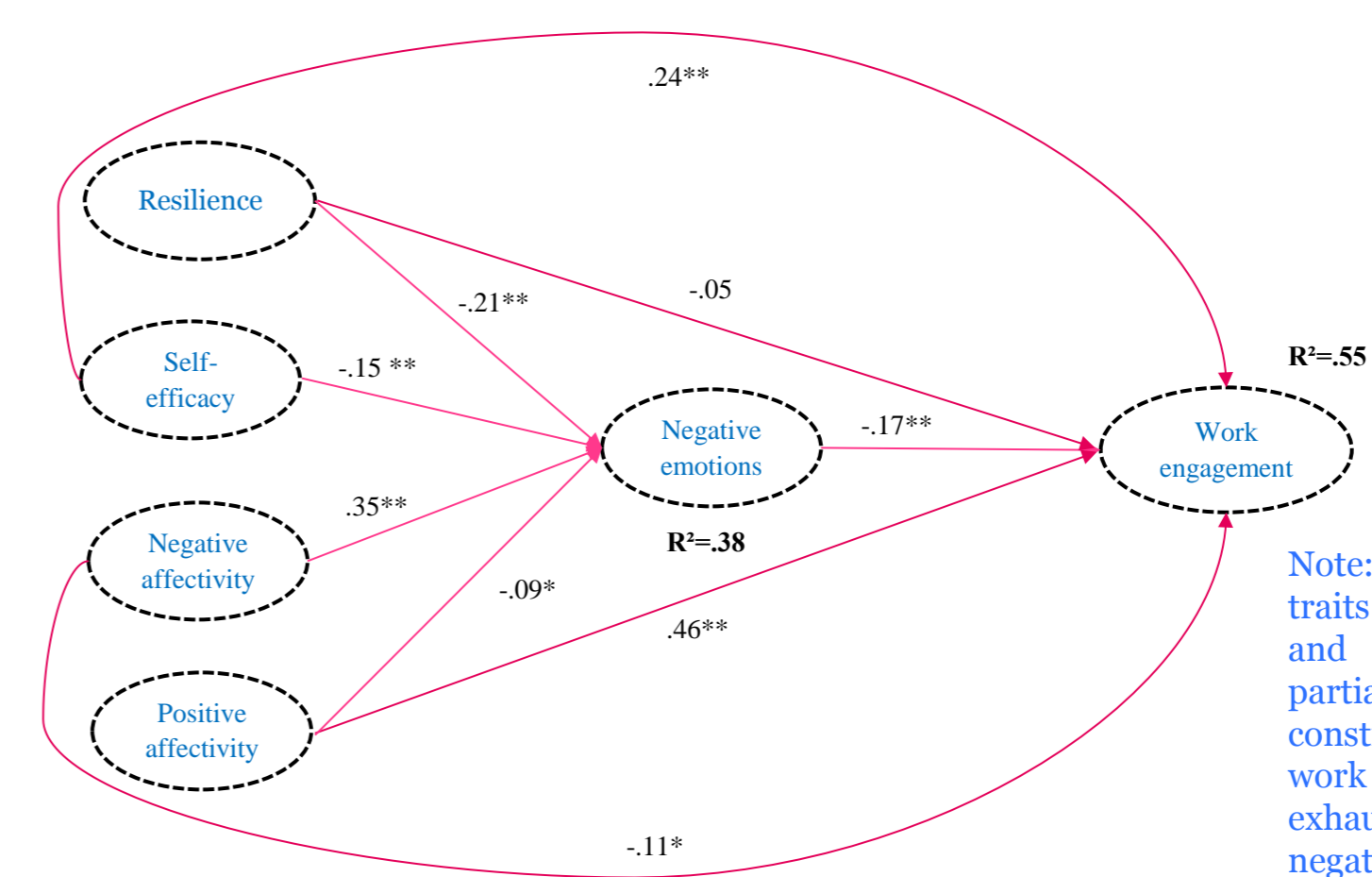

Figure 1. Partial mediation model

Note: For latent variables of personality traits (resilience, self-efficacy, negative and positive affectivity) special item partials were created and for latent constructs of negative emotions and work engagement subcales were used: exhaustion, anger and helplessness for negative emotions, and vigor, dedication and absorbtion for work engagement.

Table 2. Model fit indices

	Measurement model	Full-mediation model	Partial mediation model
χ^2	379.93*	718.53*	379.93*
df	75	79	75
CFI	.96	.92	.96
TLI	.95	.90	.95
RMSEA	.07	.09	.07
90% C.I.	(.060-.073)	(.087-.100)	(.060-.073)
SRMR	.04	.10	.04

Note: *<.001

Table 3. Test of indirect effects

Indirect effect	β	95 % C.I.
resilience → negative emotions →work engagement	.036**	.013, .059
self-efficacy → negative emotions → work engagement	.025*	.006, .045
positive affectivity → negative emotions → work engagement	.016	-.002, .033
negative affectivity → negative emotions → work engagement	-.058**	-.088, -.029

*p<.05 **p<.01; Note. Estimates of indirect effects were obtained based on bias-corrected bootstrap method (N=2000).

CONCLUSION:

The obtained results clearly indicated better fit of the partial mediation model to the data; personality measures explained the variance of work engagement both directly and indirectly via emotions. Exception is positive affectivity which predicts work engagement only directly. Furthermore, teachers with higher levels of resilience and self-efficacy and lower levels of negative affectivity experience less negative emotions. Also, teachers with lower levels of negative affectivity and negative emotions, but with greater perceived self-efficacy, are more engaged in their work.

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