

FLOW AS A PROTECTIVE FACTOR FOR TEACHERS' INTENTIONS TO QUIT

Ana BUTKOVIĆ, Aleksandra HUIĆ
University of Zagreb, Faculty of Humanities and
Social Sciences, Zagreb, Croatia

Irena BURIĆ
University of Zadar, Department of Psychology,
Zadar, Croatia

UDK:
Original scientific paper

Received: February 14, 2025

Increasing teacher attrition rates are a large problem in countries around the world. Therefore, researchers are trying to examine both risk and protective factors for teachers' intentions to quit. This study examined teachers' flow at work as a potential protective factor for teachers' intentions to quit. Teachers' intentions to quit were measured at the beginning and the end of the school year with two items, while flow at work was measured with WOLF scale in the middle of the school year, involving 726 teachers with an average of 16 years of teaching experience participating across three time points. Results have shown that teachers' intentions to quit were quite stable during the school year. Teachers' intentions to quit both at the beginning and at the end of the school year were negatively associated with flow experienced in the middle of the school year. The tested mediation model showed that flow while teaching was a partial mediator of the association between teachers' intentions to quit during the school year, pointing to its protective role for teachers.

Keywords: teachers, intentions to quit, flow at work, longitudinal study



Ana Butković, Department of Psychology, Faculty of
Humanities and Social Sciences, University of Zagreb,
Ivana Lučića 3, 10000 Zagreb, Croatia.
E-mail: abutkovic@m.ffzg.hr

INTRODUCTION

In 2015 all United Nations Member States, including Croatia, adopted the 2030 Agenda for Sustainable Development which has as one of its goals to substantially increase the supply of qualified teachers (UNESCO, 2016). A recent study analysed teacher shortage in Croatia and concluded that there is a shortage of qualified staff for teaching positions, especially in the second phase of compulsory education (Domović & Drvodelić, 2025). The problem lies in both the lack of qualified staff for teaching positions and in teacher attrition, namely teachers leaving the teacher profession. Global teacher attrition rates have been increasing in the 2015–2022 period, with higher attrition rates observed for male and novice teachers (UNESCO, 2023). Understanding the personal, professional and organisational factors leading teachers to quit the profession have therefore been investigated extensively. In addition, researchers are trying to define both risk factors for teacher attrition and protective factors which contribute to teacher retention. Since intentions are considered the most proximal predictor of behaviour in the Theory of planned behaviour (Ajzen, 1991), teacher attrition has often been measured with teachers' intentions to quit the profession (Madigan & Kim, 2021).

Given the complex factors associated with teachers' intentions to quit, it is important to investigate it in different countries and educational systems. Croatia has a top-down educational system, with government-mandated curricula, criteria for employment, working hours and teacher tasks. So, it is not surprising that Croatian teachers often feel they have limited professional freedom in choosing teaching methods, materials, or making curriculum adjustments (Borić, 2018). Although data from the 2018 TALIS survey show that over 90% of Croatian teachers are highly qualified and hold university degrees and over 90% report being satisfied with their jobs, the majority (again over 90%) does not believe the Croatian society values the teaching profession, which is quite higher than in other countries (OECD, 2019). In addition, Croatian teachers face a large volume of non-teaching tasks such as filling out reports, attending unnecessary meetings, and adapting to frequent curriculum changes (Slišković et al., 2016). A significant number of Croatian teachers also reports on moderate to high levels of stress at work (OECD, 2019), which could lead to burnout and quitting the profession at some point in their career.

The meta-analytic examination of the relationship between burnout, job satisfaction and teachers' intentions to quit has shown that both burnout and job satisfaction are related to teachers' intentions to quit, with burnout conferring more risk than job satisfaction protection (Madigan & Kim, 2021). Besides job satisfaction, teachers' resilience has also been indicated as

a protective factor for teachers' intentions to quit. Arnup and Bowles (2016) have investigated teachers' intentions to quit, their job satisfaction and resilience among Australian primary and secondary teachers. Less resilient teachers have reported a stronger intention to leave teaching, and resilience was a predictor of teachers' intentions to quit after controlling for job satisfaction and demographic variables. Li and Yao (2022) have indicated twelve protective factors for turnover intention based on their meta-analysis: trust, professional identification, organisational commitment, job satisfaction, climate, justice, support, work engagement, and intrinsic motivation, and three risk factors: burnout, workload and stress. Recently, Pelly (2023) has shown that when comparing different workers' well-being indicators as predictors of their intention to quit in terms of their explanatory power, they can be ranked in the following order: engagement, job satisfaction, affect and basic psychological needs. Engagement was conceptualised in their study as a positive and fulfilling affective-cognitive state of mind which is characterised by high levels of dedication, vigour, and absorption (Bakker & Demerouti, 2008). In line with this, studies on teachers' intention to quit have also found that work engagement as a total score (Mérida-López et al., 2022) and all three work engagement subscales (Høigaard et al., 2012) are negatively associated with teachers' intention to quit. Teacher work engagement was also examined as a mediator of the relationship between the climate for service and teachers' job satisfaction and intention to leave work among teachers in Israel (Eldor & Shoshani, 2017). Flow at work, as an experiential state with some similarities to work engagement, could be another possible protective factor for teachers.

Although work engagement and flow are related, they are also distinct constructs. Both flow and engagement can significantly predict job satisfaction, commitment, citizenship behaviours, and burnout, with flow predicting unique variance in those outcomes even after controlling for engagement (Van Ittersum, 2015). In addition, the same study showed that a one-factor model of flow and engagement fitted data the worst. Flow at work is defined as a short-term peak experience that is characterised by absorption, work enjoyment, and intrinsic work motivation (Bakker, 2005). Flow at work is part of the broader flow construct defined by Csikszentmihalyi (1990) as the state when people are so involved in the activity and their experience is so enjoyable that nothing else matters. It is easy to imagine that experiencing such a state during work would be beneficial for remaining at work. Flow at work is positively related to various indicators of job performance (Bakker & Van Woerkom, 2017). In a recent meta-analysis, it has been shown that flow at work has significant and positive effect on

work engagement, job satisfaction, job commitment, job performance and creativity, as well as positive well-being (Liu et al., 2023). Aust et al. (2022) concluded in their systematic review that there is a negative association between flow and burn-out symptoms, both cross-sectionally and longitudinally, and that flow can be interpreted as a protective factor against burn-out symptoms. Yan and Donaldson (2023) did a systematic review of positive interventions designed to enhance flow and work engagement, and from it drew conclusions about the potential differences between flow at work and work engagement on seven aspects (concept, duration, embodiment, intensity, fluctuation, context, level of challenge). They concluded that flow is, compared to work engagement, a more complex, holistic and a short-term, momentary experience at work. It is an embodied experience as manifested by body sensation awareness during flow activities, that could be an intense, discrete, optimal experience of absorption and immersion in work, which fluctuates substantially within-person across time and activities and may always occur during a specific task or activity episode, with activity for flow mostly involving high challenges and skills. These specific characteristics of flow and differences compared to work engagement warrant a more thorough examination of its unique contributions to work behaviour. Specifically, flow at work is interesting as a possible protective factor against teacher attrition since studies have shown that secondary school teachers experience flow more frequently than tile workers (Llorens et al., 2013), and that school teachers experience more flow during work than during free-time (Bassi & Delle Fave, 2012). However, although there is research showing benefits of experiencing flow for teachers, researchers have not focused on its associations with intentions to quit.

As far as we are aware, no study has investigated flow at work related to teachers' intentions to quit. At the same time, given its beneficial effects for teachers' occupational well-being, experiencing flow could have a buffering effect for teachers exhibiting negative well-being in their job. In addition, not much is known about the dynamics regarding flow or teachers' intentions to quit during the academic year. Wang and Klassen (2023) have shown that teachers' intentions to quit the profession are quite stable after five months among Canadian teachers ($r = 0.87, p < 0.001$). Goodwin et al. (2019) have shown that starting teachers' retention intention changes over three years, dropping between entering and exiting teaching practicum in schools, and further dropping after one year of working in schools. However, longitudinal studies examining teachers' intentions to quit are scarce. With this study we want to add new knowledge in the area of teacher attrition, and provide insights into the following questions:

- 1) Do teachers' intentions to quit in Croatian secondary schools change during a school year and how?
- 2) Is flow at work associated with teachers' intentions to quit?
- 3) Is flow at work a mediator of the change in teachers' intentions to quit during the school year?

Our hypotheses were that teachers' intentions to quit will be quite stable during one school year, that flow will be negatively associated with teachers' intentions to quit, and that flow will mediate the change in teachers' intentions to quit during the school year.

METHOD

Participants and procedure

Over a thousand teachers ($N = 1\,137$; 77.5% women) from 73 Croatian high schools participated in the study. On average they were expert teachers with $M = 16.34$ ($SD = 9.438$) years of teaching experience (12.6% up to 5 years, 18.1% between 5 and 10 years, 18.1% between 10 and 15 years, 16.1% between 15 and 20 years, 15.1% between 20 and 25 years, 11.5% between 25 and 30 years, and 8.5 more than 30 years). A little over a half were from grammar schools (56.5%) and the rest taught in vocational schools (43.05%). They were heterogeneous regarding the school subject (e.g., languages, STEM subjects, history, geography, arts) and grades taught (1st grade = 241; 2nd grade = 295; 3rd grade = 295; 4th grade = 258; 5th grade = 5).¹

Teachers were recruited through schools with the help of school counsellors and matched with one class of students to avoid the cross-classification of data. Teachers received a link to an online questionnaire – at the beginning (in October), the middle (in December) and at the end of the school year (in May). A total of 1108 teachers participated in T1 (October), 978 teachers participated in T2 (December), and 864 teachers participated in T3 (May), with 726 teachers having all data across three time points. Given the attrition of teachers across time points, Little's MCAR test was conducted, $\chi^2(9) = 15.59$, $p = 0.076$. Since the result was not statistically significant, we assumed that the data were missing completely at random (MCAR), implying that listwise deletion would not bias parameter estimates (Allison, 2001). Teachers filled out the intentions-to-quit measure in the first and last time point (T1 and T3) and provided information on their flow at work while teaching in the middle of the school year (T2). The study was approved by the Ethics Committee of the University of Zadar, Croatia, and all participants provided informed consent prior to completing all the surveys. A third of the teachers (selected randomly) received a small reward for their participation.

Instruments

Intentions to quit were measured with two items (*I am thinking about leaving the teaching profession; I intend to leave the teaching profession*) to which participants indicated their agreement on a scale from 1 (*completely disagree*) to 5 (*completely agree*). We averaged these two items in both time points to get teachers' intentions to quit, as they were highly correlated at both time points ($r_{T1} = 0.87, p < 0.001, r_{T3} = 0.89, p < 0.001$).

Flow at work was measured with the *Work-Related Flow Inventory* (WOLF; Bakker, 2008), a 13 items instrument describing teachers' experiences of flow while teaching. Participants indicated how often they experienced elements of flow from 1 (*never*) to 7 (*always*). We averaged all items to get a measure of total flow at work. This inventory had high reliability in this sample of teachers ($\alpha = 0.94$).

In addition, teachers answered general questions about themselves and their teaching experience.

RESULTS

Descriptive statistics and correlations between measures are presented in Table 1. At both time points, at the beginning and the end of the school year teachers in our sample reported low intentions to quit, while in the middle of the school year they reported moderately high levels of flow while teaching. Their intentions to quit were highly stable from the beginning to the end of the school year ($r = 0.704, p < 0.001$). In addition, teachers' intentions to quit showed in general no significant associations with their gender or teaching experience, since the only significant association found was between intentions to quit at the beginning of the school year and teaching experience ($r = -0.095, p = 0.002$). Teachers with less teaching experience had higher intentions to quit at the beginning of the school year. However, this association was non-significant at the end of the school year.

Teachers' intentions to quit both at the beginning ($r = -0.283, p < 0.001$) and at the end ($r = -0.285, p < 0.001$) of the school year were negatively moderately and significantly associated with flow experienced in the middle of the school year. In other words, teachers who experienced higher levels of flow had lower intentions to quit at the beginning and the end of the school year. Again, we did not find significant associations between flow and teaching experience and gender.

Although teachers' intentions to quit were quite stable, and those teachers with higher intentions to quit at the beginning of the school year had higher intentions to quit at the end of the school year, this association was moderately high,

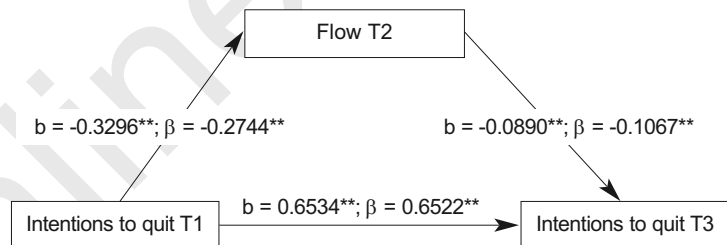
meaning that there could be underlying mechanisms which can help explain teachers' intentions to quit besides their initial levels of these intentions. So, we further conducted a mediation analysis² with teachers' intentions to quit at the beginning of the school year (intentions to quit T1) as a predictor, their experienced flow in the middle of the school year (flow T2) as the mediator, and their intentions to quit at the end of the school year (intention to quit T3) as the criterion. Analysis was conducted using Hayes (2018) Process MACRO. Statistical significance of the indirect effects was assessed using the Bootstrap technique for confidence intervals at 95% (Hayes, 2018). The results of the tested mediation model are depicted in Figure 1.

TABLE 1
Descriptive statistics
and zero-order
correlations among
variables

	<i>M</i>	<i>SD</i>	<i>N</i>	2	3	4	5
1 Intentions to quit T1	1.67	0.999	1089	0.704**	-0.283**	-0.095*	-0.070
2 Intentions to quit T3	1.62	0.971	868		-0.285**	-0.078	-0.050
3 Flow T2	5.18	1.131	920			0.084	0.053
4 Teaching experience in years	16.34	9.438	1103				0.148**
5 Gender			1081				

Note. ** $p < 0.001$; * $p < 0.01$; given the large sample only coefficients significant at the 0.01 level or 0.001 level are presented as significant.

FIGURE 1
The tested model
($N = 726$)



Experiencing flow while teaching was a significant mediator between teachers' intentions to quit at the beginning and the end of the school year (indirect effect = 0.0296, BootLLCI = 0.0124, BootULCI = 0.0497). This mediation was only partial, given the significant direct effect from T1 to T3 intentions to quit (direct effect = 0.6534, BootLLCI = 0.5983; BootULCI = 0.7086). The total variance explained was 47.5% with flow mediating 4.34% of the total variance. This effect size would be interpreted according to Cohen's (1988) definitions of the proportion of variance accounted for in one variable by another as a small effect. It seems experiencing flow while teaching during the school year can be a potential buffer, lowering teachers' intentions to quit at the end of the school year.

Given the previous findings in the literature on the associations between intentions to quit and teaching experience,

and a small bivariate correlation found in this sample, we tested the same mediation model with teaching experience as a covariate. In addition, we tested the mediation model with the type of school the teachers worked in (grammar vs. vocational) as a covariate. However, the significance of all direct and indirect effects remained the same, so we are reporting the original model for simplicity.

DISCUSSION

Increasing teacher attrition rates are a large problem in countries around the world. Therefore, researchers are trying to examine both risk and protective factors for teachers' intentions to quit. As far as we know, this is the first study examining teachers' flow at work as a potential protective factor for teachers' intentions to quit. Data on intentions to quit were collected at the beginning and the end of the school year, and flow while teaching was measured in the middle of the school year.

We first examined the stability of teachers' intentions to quit from the beginning to the end of the school year. We found that across 8 months teachers' intentions to quit were highly stable ($r = 0.704, p < 0.001$). This finding is in line with our hypothesis and similar to Wang and Klassen's (2023) correlation of teachers' intentions to quit across five months among Canadian teachers ($r = 0.87, p < 0.001$). Our results also showed that in the sample of our teachers, their teaching experience was very weakly associated with their intentions to quit, and our results on their intentions to quit did not differ based on whether they were novice or expert teachers. This is not in line with some studies showing that early career teachers experience higher levels of burnout and other factors usually associated with higher levels of intentions to quit (Dicke et al., 2018; Madigan & Kim, 2021), nor with studies reporting on higher levels of teacher attrition among novice teachers (Galant & Riley, 2017). However, at the same time, it seems that some factors associated with higher levels of teachers' attrition, such as work-life balance and professional identity tensions, actually increase with job tenure (Schaap et al., 2021). Future studies should look into the link between teaching experience and teachers' intentions to quit in more detail and contextualise their association to specific factors.

Next, we hypothesised that flow at work will be negatively associated with teachers' intentions to quit. Intentions to quit at the beginning of the year were negatively associated with flow at work in the middle of the school year, and flow at work in the middle of the school year was negatively associated with intentions to quit at the end of the school year. Teachers with higher intentions to quit at the beginning of the school year experienced significantly less flow in the middle of

the school year. At the same time, teachers who experienced higher levels of flow while teaching in the middle of the school year, reported lower levels of intentions to quit at the end of the school year. Although flow at work has not been examined with teachers' intentions to quit, a similar construct of work engagement was indicated as an important protective factor for intentions to quit (Li & Yao, 2022; Pelly, 2023) and negatively associated with teachers' intentions to quit (Høigaard et al., 2012; Mérida-López et al., 2022).

However, these studies examined the association between work engagement and teachers' intentions to quit using a cross-sectional design while in our study the data were collected longitudinally. Therefore, we could investigate the mediation model to see if flow at work in the middle of the school year is a mediator of the teachers' intentions-to-quit stability during the school year. The tested mediation model showed that flow while teaching in the middle of the year is a partial mediator of the association between teachers' intentions to quit at the beginning and the end of the school year. Given the high stability of intentions to quit across the school year, the effect size of flow as a mediator of this relationship was small. However, this finding is significant and in line with the hypothesis that flow at work could be a protective factor for teacher attrition. The more teachers are absorbed in what they are doing, i.e. "in the zone" during the school year, the more likely it is that their intentions to quit will lower by the end of the year. In addition, our findings do not seem to depend on teachers' gender, nor work experience, nor school type. Our results are in line with other studies showing very low or null associations between gender and working experience and experiencing flow at work (Liu et al., 2023).

Since the teaching profession is a profession where flow at work can be experienced more easily than in some other professions or free-time (Bassi & Delle Fave, 2012; Llorens et al., 2013), and we have seen in this study as well that teachers are on average experiencing moderately high levels of flow at work, it seems that enabling flow at work could be a potential route for decreasing teacher attrition. A recently published meta-analysis on antecedents of flow (Liu et al., 2023) has shown that job resources, specifically job autonomy and social support, are positively related to flow, as well as proactive behaviours, and authentic and transformational leadership. These results can be helpful in guiding how teachers' flow at work could be encouraged and increased within the educational system. This might be easier for teachers with more pronounced personality traits of conscientiousness, extraversion and agreeableness, which all show moderate levels of association with experiencing flow at work (Liu et al., 2023). Future studies

should look into personality characteristics and other individual teachers' characteristics which make it easier or harder for teachers to experience flow while teaching.

This study also has some limitations. We measured flow only in the middle of the year and do not have information about flow at the beginning of the school year. The measurement of flow at the beginning of the school year and its inclusion as a covariate in the mediation model would strengthen the interpretation of effects flow might have on intentions to quit over time. Intentions to quit were measured with only two items and we do not have the information how many teachers from our sample have left the teacher profession. It would be interesting to compare experiences of flow while teaching between teachers who decide to stay and those who decide to leave the profession, or at least to those who switch schools or populations, or change work tasks (e.g., decrease the hours of teaching in relation to hours of administrative work). Furthermore, the design of our study precludes us from making causal conclusions about the direction of the relationship between flow and intentions to quit. Currently, there are some longitudinal findings in the literature which focus on work engagement, showing that work engagement is a precursor to lower intentions to quit (Bogaert et al., 2019), or that there are reciprocal effects between the two (de Lange et al., 2008). Future studies should try to test assumptions about the possible reciprocal relationship between flow and intentions to quit by employing more time points and focusing on a within-person level of analysis in order to give a firmer answer to this question. Moreover, including more time points in future studies could allow for a more detailed within-person analysis which could inform us how flow changes during the school year, and upon which factors these changes are contingent.

In addition, future studies should try to use different sources of data instead of just self-report, which always bring problems of socially desirable responding and common method variance. Observational data, mixed method designs and/or using multiple sources of data (teachers, colleagues, students, principals) could enrich the field and further contextualise these findings. For example, little is known about how experiences of flow in teachers change during the school year, or in light of different situational contexts (e.g., while using different teaching methods, or during times of heightened stress). Furthermore, given that experiences of flow have been linked to higher experiences of autonomy (Liu et al., 2023), future studies could compare educational contexts in which teachers have more or less autonomy (e.g., countries with a teacher-led vs. government-mandated curriculum).

As flow at work is something that would be desirable both from a perspective of the employer and teachers as employees, and that results show that flow can be facilitated both from the organisational perspective (e.g., inspirational leadership, support for employers such as workshops and training) and from a personal perspective (e.g., identify effective proactive behaviours, person-environment fit), both teachers themselves and the educational system as a whole should work toward facilitating flow experiences (Liu et al., 2023). The first step would be to inform them all about how valuable flow experiences can be for teachers' well-being and job performance. Norsworthy et al. (2023) show that even a short 3-hour workshop aimed to enhance flow can have a significant impact for teachers, not just enhancing the flow experience, but having additional effects on flow's outcomes, such as lowering stress and anxiety, and increasing well-being and intrinsic motivation. In addition, researchers could use the results of their research to create science-based guidebooks for teachers which include practical guidelines and workshop ideas (e.g., see Sorrić & Burić, 2025). The second step could be to support transformational leadership practices from principals, while at the same time increasing job resources (e.g., higher autonomy, more social support) and lowering teachers' job demands (e.g., eliminating time pressures, lessening administration) (Skaalvik & Skaalvik, 2009; 2020; Liu et al., 2023). More broadly, state-level educational reforms should involve more support for teachers, lowering their administrative tasks, and giving them more autonomy in their work. Working towards lowering most common sources of stress should create an environment for both more frequent experiences of flow, and lower intentions to quit. In addition, teachers' personal initiative and different job crafting behaviours could include creating opportunities and contexts for experiencing greater flow while teaching (Huang et al., 2022). Furthermore, one study found that the more flow experiences the teachers reported, the higher the frequency of comparable experiences among their students (Bakker, 2005). Working with students seems to create spill-over effects for teachers' occupational well-being, as has been shown and advocated for in recent studies (Berger et al., 2022; Burić et al., 2024).

In conclusion, teachers' intention to quit seem to be quite stable throughout the school year. Regardless of this high stability, we showed, with a longitudinal design, that experiencing flow while teaching during the year is a protective factor associated with lower intentions to quit at the end of the year. We added to the available literature on flow in teachers and to the literature examining determinants of teachers' intentions to quit, trying to fill an existing gap in the literature. From a

practical standpoint, our findings call for schools to try to create climates conducive to greater flow experiences among teachers. These endeavours should involve providing more autonomy and support for teachers by governing bodies and principals, but also more personal initiatives by teachers to craft their jobs including working with students in ways which create flow experiences.

Funding

This research was supported by the Croatian Science Foundation (Grant No. IP-04-2019-5472).

NOTES

¹ Most Croatian high school programmes last 3 or 4 years, with only some vocational medical school programmes lasting 5 years, which explains the low number of teachers from such programmes.

² To examine the assumptions underlying the mediation analysis, scatterplots of the study variables were inspected and indicated approximately linear relationships. In addition, skewness and kurtosis indices were computed for all variables, with all values falling below |2|, suggesting that departures from normality were not severe (West et al., 1995). Taken together, these results indicate that the assumptions of linearity, normality, and homoscedasticity were adequately met, supporting the validity of the mediation analyses.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

Allison, P. D. (2009). Missing data. In R. E. Millsap & A. Maydeu-Olivares (Eds.), *The Sage handbook of quantitative methods in psychology* (pp. 72–89). Sage Publications Ltd. <https://doi.org/10.4135/9780857020994.n4>

Arnup, J., & Bowles, T. (2016). Should I stay or should I go? Resilience as a protective factor for teachers' intention to leave the teaching profession. *Australian Journal of Education*, 60(3), 229–244. <https://doi.org/10.1177/0004944116667620>

Aust, F., Beneke, T., Peifer, C., & Wekenborg, M. (2022). The relationship between flow experience and burnout symptoms: A systematic review. *International Journal of Environmental Research and Public Health*, 19(7), 3865. <https://doi.org/10.3390/ijerph19073865>

Bakker, A. B. (2005). Flow among music teachers and their students: The crossover of peak experiences. *Journal of Vocational Behavior*, 66(1), 26–44. <https://doi.org/10.1016/j.jvb.2003.11.001>

Bakker, A. B. (2008). The work-related flow inventory: Construction and initial validation of the WOLF. *Journal of Vocational Behavior*, 72(3), 400–414. <https://doi.org/10.1016/j.jvb.2007.11.007>

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209–223. <https://doi.org/10.1108/13620430810870476>

- Bakker, A. B., & Van Woerkom, M. (2017). Flow at work: A self-determination perspective. *Occupational Health Science, 1*, 47–65. <https://doi.org/10.1007/s41542-017-0003-3>
- Bassi, M., & Delle Fave, A. (2012). Optimal experience among teachers: New insights into the work paradox. *The Journal of Psychology, 146*(5), 533–557. <https://doi.org/10.1080/00223980.2012.656156>
- Berger, E., Reupert, A., Campbell, T. C., Morris, Z., Hammer, M., Diamond, Z., Hine, R., Patrick, P., & Fathers, C. (2022). A systematic review of evidence-based wellbeing initiatives for schoolteachers and early childhood educators. *Educational Psychology Review, 34*(4), 2919–2969. <https://doi.org/10.1007/s10648-022-09690-5>
- Bogaert, K., Leider, J. P., Castrucci, B. C., Sellers, K., & Whang, C. (2019). Considering leaving, but deciding to stay: A longitudinal analysis of intent to leave in public health. *Journal of Public Health Management and Practice, 25*, S78–S86. <https://doi.org/10.1097/PHH.0000000000000928>
- Borić, E. (2017). Zadovoljstvo poslom, motivacija učitelja za rad i poticanje razvoja kompetencija učenika [Teachers' job satisfaction, work motivation, and encouragement of competences among pupils]. *Metodički ogleđi, 24*(2), 23–38. <https://doi.org/10.21464/mo46.124.2338>
- Burić, I., Huić, A., & Sorić, I. (2024). Are student engagement and disaffection important for teacher well-being? A longitudinal examination of between- and within-person effects. *Journal of School Psychology, 103*, 101289. <https://doi.org/10.1016/j.jsp.2024.101289>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Academic Press.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper Perennial.
- de Lange, A. H., De Witte, H., & Notelaers, G. (2008). Should I stay or should I go? Examining longitudinal relations among job resources and work engagement for stayers versus movers. *Work & Stress, 22*(3), 201–223. <https://doi.org/10.1080/02678370802390132>
- Dicke, T., Stebner, F., Linninger, C., Kunter, M., & Leutner, D. (2018). A longitudinal study of teachers' occupational well-being: Applying the job demands-resources model. *Journal of Occupational Health Psychology, 23*(2), 262–277. <https://doi.org/10.1037/ocp0000070>
- Domović, V., & Drvodelić, M. (2025). Teacher shortage in Croatia – A challenge for educational policy, initial teacher education and educational institutions. *European Journal of Teacher Education, 48*(1), 64–80. <https://doi.org/10.1080/02619768.2024.2430251>
- Eldor, L., & Shoshani, A. (2017). Are you being served? The relationship between school climate for service and teachers' engagement, satisfaction, and intention to leave: A moderated mediation model. *The Journal of Psychology, 151*(4), 359–378. <https://doi.org/10.1080/00223980.2017.1291488>
- Gallant, A., & Riley, P. (2017). Early career teacher attrition in Australia: Inconvenient truths about new public management. *Teachers and Teaching, 23*(8), 896–913. <https://doi.org/10.1080/13540602.2017.1358707>
- Goodwin, A. L., Low, E. L., Cai, L., & Yeung, A. S. (2019). A longitudinal study on starting teachers' retention intentions: Do pre-teaching work experience and length of working years make a difference? *Teaching*

and Teacher Education, 83, 148–155. <https://doi.org/10.1016/j.tate.2019.03.015>

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.

Høigaard, R., Giske, R., & Sundslø, K. (2012). Newly qualified teachers' work engagement and teacher efficacy influences on job satisfaction, burnout, and the intention to quit. *European Journal of Teacher Education*, 35(3), 347–357. <https://doi.org/10.1080/02619768.2011.633993>

Huang, X., Sun, M., & Wang, D. (2022). Work harder and smarter: The critical role of teachers' job crafting in promoting teaching for creativity. *Teaching and Teacher Education*, 116, 103758. <https://doi.org/10.1016/j.tate.2022.103758>

Li, R., & Yao, M. (2022). What promotes teachers' turnover intention? Evidence from a meta-analysis. *Educational Research Review*, 37, 100477. <https://doi.org/10.1016/j.edurev.2022.100477>

Liu, W., Lu, H., Li, P., van der Linden, D., & Bakker, A. B. (2023). Antecedents and outcomes of work-related flow: A meta-analysis. *Journal of Vocational Behavior*, 144, 103891. <https://doi.org/10.1016/j.jvb.2023.103891>

Llorens, S., Salanova, M., & Rodríguez, A. M. (2013). How is flow experienced and by whom? Testing flow among occupations. *Stress and Health*, 29(2), 125–137. <https://doi.org/10.1002/smi.2436>

Madigan, D. J., & Kim, L. E. (2021). Towards an understanding of teacher attrition: A meta-analysis of burnout, job satisfaction, and teachers' intentions to quit. *Teaching and Teacher Education*, 105, 103425. <https://doi.org/10.1016/j.tate.2021.103425>

Mérida-López, S., Sánchez-Gómez, M., & Extremera-Pacheco, N. (2022). Leaving the teaching profession: Examining the role of social support, engagement and emotional intelligence in teachers' intentions to quit. *Psychosocial Intervention*, 29(3), 141–151. <https://doi.org/10.5093/pi2020a10>

Norsworthy, C., Dimmock, J. A., Nicholas, J., Krause, A., & Jackson, B. (2023). Psychological flow training: Feasibility and preliminary efficacy of an educational intervention on flow. *International Journal of Applied Positive Psychology*, 8(3), 531–554. <https://doi.org/10.1007/s41042-023-00098-2>

Organisation for Economic Co-operation and Development (OECD) (2019). *Teaching and Learning International Survey (TALIS) 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*. OECD Publishing. <https://doi.org/10.1787/1d0bc92a-en>

Pelly, D. (2023). Worker well-being and quit intentions: Is measuring job satisfaction enough? *Social Indicators Research*, 169(1), 397–441. <https://doi.org/10.1007/s11205-023-03166-x>

Schaap, H., van der Want, A. C., Oolbekkink-Marchand, H. W., & Meijer, P. C. (2021). Changes over time in the professional identity tensions of Dutch early-career teachers. *Teaching and Teacher Education*, 100, 103283. <https://doi.org/10.1016/j.tate.2021.103283>

Skaalvik, E. M., & Skaalvik, S. (2009). Does school context matter? Relations with teacher burnout and job satisfaction. *Teaching and Teacher Education*, 25(3), 518–524. <https://doi.org/10.1016/j.tate.2008.12.006>

Skaalvik, E. M., & Skaalvik, S. (2020). Teacher burnout: Relations between dimensions of burnout, perceived school context, job satisfaction and motivation for teaching. A longitudinal study. *Teachers and Teaching, 26*(7-8), 602–616. <https://doi.org/10.1080/13540602.2021.1913404>

Slišković, A., Burić, I., & Knežević, I. (2016). Zadovoljstvo poslom i sagorijevanje na poslu kod učitelja: važnost podrške ravnatelja i radne motivacije [Job satisfaction and burnout in teachers: The importance of perceived support from principal and work motivation]. *Društvena istraživanja, 25*(3), 371–392. <https://doi.org/10.5559/di.25.3.05>

Sorić, I., & Burić, I. (Eds.). (2025). *Kako biti zadovoljan i uspješan nastavnik? Priručnik za nastavnike i stručne suradnike [How to be a satisfied and successful teacher? Guidebook for teachers and counselors]*. Morepress Books. <https://doi.org/10.15291/9789533315058>

UNESCO (2016). Unpacking Sustainable Development Goal 4: Education 2030. <https://unesdoc.unesco.org/ark:/48223/pf0000246300>

UNESCO (2023). *Global report on teachers: Addressing teacher shortages*. United Nations Educational, Scientific and Cultural Organization.

Van Ittersum, K. W. (2015). *The distinctiveness of engagement and flow at work* [Doctoral dissertation]. Kansas State University.

Wang, H., & Klassen, R. M. (2023). Longitudinal relationships between teachers' utility values and quitting intentions: A person-organization fit perspective. *Teaching and Teacher Education, 127*, 104109. <https://doi.org/10.1016/j.tate.2023.104109>

West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56–75). Sage.

Yan, Q., & Donaldson, S. I. (2023). What are the differences between flow and work engagement? A systematic review of positive intervention research. *The Journal of Positive Psychology, 18*(3), 449–459. <https://doi.org/10.1080/17439760.2022.2036798>

Zaštitna uloga doživljaja zanesenosti nastavnika protiv namjere napuštanja profesije

Ana BUTKOVIĆ, Aleksandra HUIĆ
Sveučilište u Zagrebu, Filozofski fakultet, Zagreb, Hrvatska
Irena BURIĆ
Sveučilište u Zadru, Odjel za psihologiju, Zadar, Hrvatska

Sve veće stope nastavnika koji napuštaju profesiju postaju sve veći problem u svijetu. Stoga se istraživači usmjeravaju na ispitivanje rizičnih i zaštitnih faktora nastavničkih namjera napuštanja profesije. Ovo istraživanje usmjerilo se na potencijalnu zaštitnu ulogu koju doživljaj zanesenosti kod nastavnika može imati u smanjivanju njihove namjere napuštanja nastavničkoga posla. Namjere napuštanja

profesije ispitane su na početku i kraju školske godine dvjema česticama, dok je zanesenost tijekom poučavanja ispitana WOLF skalom sredinom školske godine. Ukupno je kroz tri vremenske točke sudjelovalo 726 nastavnika srednje škole, prosječnoga staža od 16 godina. Rezultati su pokazali visoku stabilnost namjere napuštanja profesije tijekom jedne školske godine. Nastavničke namjere napuštanja profesije i na početku i kraju godine značajno su negativno povezane s doživljajem zanesenosti na poslu tijekom godine. Testirani medijacijski model pokazao je značajnu djelomičnu medijaciju doživljaja zanesenosti na namjere napuštanja profesije kod nastavnika tijekom školske godine, potvrđujući očekivanu zaštitnu ulogu doživljaja zanesenosti kod nastavnika.

Ključne riječi: nastavnici, namjere napuštanja profesije, zanesenost na poslu, longitudinalna studija



Međunarodna licenca / International License:
Imenovanje-Nekomercijalno / Attribution-NonCommercial