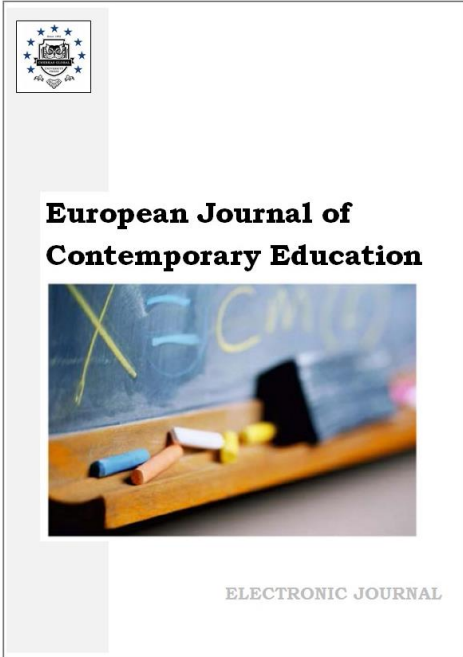




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Relationship between the Principal Support, Self-Efficacy, Collective Efficacy and Teacher Commitment in Primary School

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Abstract

Teacher commitment to school is an important factor of school efficacy and it has immediate influence on pupil success. It also conveys teachers' psychological attachment to the teaching profession. There are numerous positive results of teacher commitment to school. Committed teachers are more devoted to their work, are willing to contribute to the achievement of school goals and are less likely to leave their profession. Quality teacher retention has become a growing challenge in education systems across the world. Thus, it is important to determine the factors which affect teacher commitment. The aim of this study was to examine to which extent certain demographic and contextual teachers' characteristics, together with the perceived principal support, self-efficacy and collective efficacy contribute to the affective, normative and continuance teacher commitment to school. The results of the performed regression analyses indicate that principal support is the most significant predictor of affective and normative teacher commitment. Although principal support has had a significant contribution in explaining continuance commitment, this contribution is quite small. Teacher self-efficacy has not been proved to be a statistically significant predictor of teacher commitment, while collective teacher commitment has a statistically significant, but low contribution in explaining affective, continuance and normative teacher commitment.

Keywords: collective teacher efficacy, principal support, primary school, teacher commitment, teacher self-efficacy.

1. Introduction

1.1. Principal Support

According to The Primary and Secondary School Education Act of the Republic of Croatia, the school principal is a manager and expert leader who, among other responsibilities, monitors and analyzes the work performed by teachers, enables their professional development, provides

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their security, and makes sure their rights and interests are secured (Official Gazette, no. 87/08, Article 125). A school principal is a key to efficient schools. Therefore, researchers have been trying to determine the specific characteristics of such principals (DiPaola, 2012). Principals, as school leaders, have the central role in creating a positive teaching and learning environment (Liebowitz, Porter, 2019). They strengthen institutional culture by providing guidelines and support and provide the necessary teaching and institutional resources (Hughes et al., 2015). Intense interaction between principals and teachers creates opportunities for two-way communication in various areas of teachers' work, gives a sense of security and supports teachers' professional development and growth. Principal support is positively related to teacher satisfaction (Brown, Wynn, 2009; Grissom, 2011), teacher well-being (Liebowitz, Porter, 2019), teacher confidence in and teacher commitment to school/organization (Demirtaş et al., 2017), and teachers' work engagement (Rothmann, Fouché, 2018). On the other hand, it is negatively related to teachers' abandonment of the teaching profession (Brown, Wynn, 2009; Grissom, 2011). While measuring principal support for teachers, four dimensions were extracted: emotional support – accepting and encouraging teachers and their ideas; instrumental support – providing the necessary resources for teachers to perform their work; informational support – providing information necessary for work, and appraisal support – giving constructive feedback on teacher efficacy (Littrell et al., 1994). Evidently, principal support is a multidimensional construct, related to the professional work performed by teachers and functioning of school as an institution.

1. 2. Teacher Self-Efficacy

Self-efficacy is a person's confidence in their own organizational abilities and abilities to perform activities necessary for completing a certain task or achieving a certain goal (Bandura, 1977). People who perceive their self-efficacy as very high are committed to achieving their goals, they do not give up easily, no matter how demanding the tasks are, because they perceive them as challenges, not threats. They are focused on the tasks, and even if they fail, they regain the feeling of self-efficacy in a short time period (Bandura, 1993). Teacher self-efficacy has been in the focus of scientific research in the last fifty years. Teacher self-efficacy implies confidence in one's own abilities to achieve the learning outcomes and engage students in the teaching activities regardless of their abilities and motivation (Bandura, 1977; Tschannen-Moran, Woolfolk-Hoy, 2001). Creating a positive learning environment depends to a great extent on teacher self-efficacy (Bandura, 1993). Based on their analysis of numerous studies on measuring teacher efficacy, Tschannen-Moran and Woolfolk-Hoy (2001) developed an instrument which included three factors: efficacy for instructional strategies, efficacy for classroom management, and efficacy for student engagement. The results of a vast body of research indicate that teacher self-efficacy is related to students' positive attitudes to school (Miskel et al., 1983) and that teachers who are highly confident in their self-efficacy are more responsive to implementing didactic innovations in the teaching process (Guskey, 1988) and feel more responsibility when working with students with developmental difficulties (Allinder, 1994). It is important to point out the benefits for teachers – teacher self-efficacy is positively related to psychological well-being, satisfaction, and commitment to work, and it is negatively related to burn-out factors (Zee, Koomen, 2016).

1.3. Collective Efficacy

However, some teachers' confidence in their own self-efficacy is sometimes not high enough to enable them to feel satisfaction and success because achievements also depend on the ability to negotiate and cooperate with other people and their ability to work in synergy (Caprara et al., 2003). A feeling of group (or organization) collective efficacy strengthens the group ties and is based on the group's confidence in their ability to resolve problems it is facing (Bandura, 1986). A person's confidence in self-efficacy determines their actions at an individual level, while confidence in collective efficacy influences collective actions. Perceived collective efficacy implies a teacher's judgement that school "as a whole can organize and execute the courses of action required to have a positive effect on students" (Goddard et al., 2004: 4). In schools in which collective efficacy is at a high level, teachers help and support each other, communicate in a better way, and harmonize their work. Donohoo (2018) points out that the results of numerous studies have revealed the link between collective efficacy of teachers and a range of productive behavior patterns, because they are more focused on implementing the strategies which lead to school improvement, have high expectations and are interested in academic activities, have a higher level of job satisfaction, are more committed to the teaching profession and professional development,

and have more positive attitudes to teaching. Teachers who work in such schools have a direct impact on academic success of students, and they can also have influence on reducing negative consequences of social and demographic variables of students (Ramos et al., 2014). Furthermore, there is a positive link between collective efficacy and teacher commitment (Ross, Gray, 2006; Ware, Kitsantas, 2007; Al-Mahdy et al., 2018).

1.4. Commitment

Teacher commitment is an important factor of school efficacy. Quality teacher retention has become an increasing problem in education systems across the world. Teacher commitment is multidimensional and it implies psychological attachment of an individual to the teaching profession, professional associations and school, colleagues, parents and students (Nir, 2002; Park, 2005; Lee et al., 2011). Teacher commitment has numerous positive results. Committed teachers are more devoted to work, ready to work towards the achievement of school goals and are less prone to professional abandonment. Apart from that, they find it easier to face the challenges while teaching, they are more optimistic in finding solutions to pedagogical problems and they feel more responsible for their own success and failures in work (Fathi, Rostami, 2018). Meyer and Allen (1991) developed a three-component model of organizational commitment which includes affective commitment, normative commitment and continuance commitment. In the school context, affective commitment implies emotional attachment to and identification with school, as well as the wish to work in school, while normative commitment encompasses a sense of obligation to school. Continuance commitment implies fear of job loss and unwillingness to abandon school, because in that way teachers would face a certain form of loss or cost and jeopardize their own existence.

Schools are organizations in which constant interactions among teachers and between teachers and principals are at work. Their relationships influence their behavior, the flow of the teaching process and functioning of the school as a professional organization.

The aim of this study was to examine to which extent principal support, teacher self-efficacy and collective efficacy can account for teacher commitment to school. Taking into consideration the three-component model of commitment, it is assumed that the examined variables will significantly shed light on affective commitment of teachers to school, but not on normative and continuance commitment.

2. Materials and methods

Participants and Procedure

The research participants were 767 primary school teachers from all counties of the Republic of Croatia. According to the ISCED classification, one part of the sample teaches ISCED level 1: Primary education, and another part ISCED level 2: Lower secondary education. The analysis of univariate outliers resulted in the removal of two respondents, while the analysis of Mahalanobis distance led to the removal of 4 more respondents. Therefore, the basic sample consisting of 767 respondents was reduced to 761 respondents. A detailed overview of demographic and contextual characteristics of teachers is presented in Table 1.

Table 1. An overview of demographic and contextual characteristics of teacher participants (N = 761)

Demographics	Frequency	Percentage (%)	Workplace characteristics	Frequency	Percentage (%)
Gender			Workplace		
Male	51	6.7	Primary education	268	35.2
Female	710	93.3	Lower secondary education	493	64.8
Age			Total number of students in school		
30 and below	77	10.1	1-150	109	14.3
31-40	270	35.5	151-300	165	21.7
41-50	236	31.0	301-500	205	26.9
51-60	160	21.0			

61 and above	18	2.4	501-750	186	24.4
Work experience			751 and above	96	12.6
10 and below	250	32.9	Average number of students per class		
11-20	274	36.0	10 and below	85	11.2
21-30	167	21.9	11-20	387	50.9
30 and above	70	9.2	21-30	262	34.4
Professional qualification			30 and above	27	3.5
College degree	78	10.3			
University degree	664	87.3			
MA, PhD	19	2.5			

Data collection was conducted online, in closed teacher groups on a social network. Prior to completing the questionnaire, the participants were informed about the aim of the research and their anonymous and voluntary participation. All participants gave their consent to participate in the research. The completion of the questionnaire lasted approximately 15 minutes.

Measures

The Sociodemographic Questionnaire

Data were collected on sociodemographic characteristics of the respondents: gender, age, work experience, professional qualifications and county.

The Principal Support Scale (PSS)

The Principal Support Scale was used to measure principal support (DiPaola, 2012). The scale originally comprised 16 items used to measure two dimensions (expressive support and instrumental support).

Exploratory factor analysis was performed, applying the principal components analysis method with orthogonal (varimax) rotation ($KMO = .961$; Bartlett's test of sphericity $\chi^2_{df120} = 14767.70$; $p = .000$). A single factor structure was obtained, explaining 72.15 % of the principal support variance. Cronbach's alpha coefficient of scale reliability was $\alpha = .974$.

Teachers' Sense of Teacher Efficacy Scale (TSES)

A shortened version of the Teacher Sense of Teacher Efficacy Scale (Tschannen-Moran, Woolfolk Hoy, 2001) was used to measure teacher self-efficacy. The original scale contains 12 items measuring three dimensions of efficacy (efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management). Exploratory factor analysis was performed using the principal components analysis method with orthogonal (varimax) rotation ($KMO = .897$; Bartlett's test of sphericity $\chi^2_{df66} = 3980.370$; $p = .000$). A two-factor structure was obtained, explaining 57.38 % of the self-efficacy variance. The first factor, which includes the items efficacy in student engagement and efficacy in instructional strategies, has Cronbach's alpha coefficient of scale reliability $\alpha = .848$, while the value for the second factor, efficacy in classroom management, was $\alpha = .872$.

Collective Teacher Efficacy Scale (CTES)

A shortened version of the Collective Teacher Efficacy Scale survey (Goddard et al., 2000; Goddard, 2002) was used to measure collective teacher efficacy. The original scale contains 12 items measuring two dimensions of collective efficacy: task analysis and teaching competence. Exploratory factor analysis was performed using the principal components analysis method with orthogonal (varimax) rotation ($KMO = .831$; Bartlett's test of sphericity $\chi^2_{df36} = 2343.383$; $p = .000$). A two-factor structure was obtained, explaining 58.91 % of the collective efficacy variance. Factor loadings of individual indicators are statistically significant and have a satisfactory value (.64 and more), apart from loadings of three items which are significantly below .40 and which were therefore removed. The first factor – teaching competence, has 6 items which are in line with the original structure of the questionnaire, and the calculated reliability is $\alpha = .848$. The second factor, task competence, has three items, and the calculated reliability coefficient is $\alpha = .695$.

Teacher Commitment

The Three-Component Model (TCM) of commitment survey (Meyer, Allen, 2004) was used to measure teacher commitment to school. The survey consists of 24 items measuring three

dimensions: affective, continuance, and normative commitment. Factor analysis was performed using the principal components analysis method with orthogonal (varimax) rotation (KMO = .884; Bartlett's test of sphericity $\chi^2_{df=36} = 6515.461$; $p = .000$). The performed factor analysis resulted in extraction of three factors which match the original structure and explain 59.45 % of the commitment variance. After removing the items with low loadings or loadings on two factors, 17 items were kept. The obtained reliability coefficients were: $\alpha = .908$ for affective commitment, $\alpha = .754$ for continuance commitment, and $\alpha = .725$ for normative commitment.

3. Results

Table 2 presents an overview of descriptive parameters for all examined variables. The total result on each scale is the arithmetic mean of the estimates on the corresponding items.

Table 2. An overview of descriptive statistics for the entire sample (N = 761)

	Number of items	M	SD	Min	Max	Kolmogorov-Smirnov index	d Skew	Kurt
Principal support	16	3.50	1.13	1.00	5.00	.093*	-0.383	-0.932
Self-efficacy (SE)	12	4.20	0.41	2.92	5.00	.084*	-0.040	-0.044
SE engagement & instructions	8	4.16	0.67	1.50	5.00	.111*	-0.005	-0.227
SE classroom management	4	4.26	0.52	2.50	5.00	.186*	-0.239	-0.200
Collective Efficacy (CE)	9	3.32	0.59	1.44	5.00	.051*	-0.123	0.032
teaching competence	6	3.55	0.67	1.50	5.00	.064*	-0.053	-0.267
task analysis	3	2.86	0.74	1.00	5.00	.143*	-0.207	0.307
Commitment	17	3.35	0.61	1.29	4.94	.060*	-0.293	-0.074
affective commitment	8	3.70	0.94	1.00	5.00	.086*	-0.544	-0.423
continuance commitment	5	3.34	0.88	1.00	5.00	.080*	-0.165	-0.550
normative commitment	4	2.63	0.82	1.00	5.00	.077*	0.131	-0.161

As can be seen in Table 2, distributions of results of all used scales significantly deviate from the normal distribution, according to the Kolmogorov-Smirnov test. However, all scales have satisfactory indices of skewness and kurtosis (Kline, 2011), therefore parametric statistics was applied in further data analyses.

In order to examine to which extent demographic and contextual characteristics, principal support, self-efficacy and collective efficacy contribute to commitment, three regression analyses were performed. Prior to conducting these analyses, relationships between the variables were checked and it was determined that all correlations were small and moderate, but also significant (with 1 % risk). Therefore, it was concluded that the variables were suitable for regression analysis. Additional testing of the criteria which need to be met was conducted, in order to perform regression analysis. The results indicate that although not all variables had normal distribution, the distributions were not bimodal nor U distributions, and they were mostly symmetrically shaped. Additionally, the unexplained parts of criteria variance (residuals) were distributed normally. The value of the Durbin-Watson test was close to 2 (2.123); that is, it does not indicate multicollinearity, which is confirmed by VIF factors lower than 4 (values in the range between 1.000 and 1.516). Table 3 presents the results of regression analysis with information about regression coefficient $R=.640$, that is, about 41.0 % of the explained affective commitment variance based on the employed predictors.

Table 3. Results of hierarchical regression analysis for affective commitment criteria

	ΔR^2	β	<i>t</i>	<i>p</i>
Step 1				
gender		-		
age		-		
work experience		-		
workplace		-		
teacher educational qualification		-		
total number of students in school		-		
average number of students per class		-		
Step 2				
Principal support	.618**	.618	21.671	.000
$R = .618; R^2 = .382; \text{Adjusted } R^2 = .381; \Delta F_{(1/759)} = 469.628; p < .01$				
Step 3				
Classroom management	.006*	.077	2.277	.023
Engagement & Instruction		-.003	-.083	.934
$R = .623; R^2 = .388; \text{Adjusted } R^2 = .385; \Delta F_{(2/757)} = 3.501; p < .05$				
Step 4				
Teaching competence	.022**	.139	4.220	.000
Task analysis		.061	1.921	.055
$R = .640; R^2 = .410; \text{Adjusted } R^2 = .406; \Delta F_{(1/755)} = 13.849; p < .01$				

Note. *R* – multiple correlation coefficient; R^2 – multiple determination coefficient; ΔR^2 – change in multiple determination coefficient; * $p < 0.05$; ** $p < 0.01$.

The first step included sociodemographic factors, but they did not seem to have predictive value and were therefore removed from the analysis. The second step included the principal support dimension and 38.2 % of the affective commitment variance explanation was obtained. The obtained regression coefficient is statistically significant. The positive link between principal support and affective teacher commitment points to a conclusion that the increased result for principal support leads to an increased result for affective commitment. In the third step, self-efficacy dimensions were added and the percentage of the explained variance increased by 0.6 %. The increase proved to be statistically significant, but only for the classroom management dimension. Again, based on the links between the variables, the information on positive relationship was obtained; that is, the increase on the classroom management variable leads to the increase in the affective commitment result. Additional analyses indicate that in this step, the percentage of the explained variance by principal support variable remains the same – 38.2 %. Classroom management explains 0.6 % of the affective commitment variance. In the final step, two collective efficacy dimensions were added and the percentage of the explained variance increased statistically significantly by 2.2 %. The results further indicate that teaching competence is a statistically significant predictor, while task analysis has a limited significance. Collective efficacy is also positively related to affective commitment, that is, the increased results in collective efficacy lead to the increased result in affective commitment. Additional analyses showed that the percentage of the explained variance from the previous steps is reduced: principal support explains 33.4 % of variance, class management explains 0.7 % of variance, teacher engagement and instruction strategies explain -0.6 % of variance, teaching competence explains 5.5 % of variance and task analysis explains 1.9 % of variance.

The following regression analysis examined the influence of the variables on continuance commitment. Prior to the analysis itself, the preconditions were tested and they showed moderate correlations, lack of bimodal distributions and U distributions, while residuals were normally distributed. The value of the Durbin-Watson test was close to 2 (2.032); that is, it did not indicate the presence of multicollinearity, which is confirmed by VIF factors lower than 4 (ranging from 1.000 and

1.579). Table 4 presents regression analysis results which show the regression coefficient $R = .268$, that is, 7.2 % of the explained continuance commitment variance based on the employed predictors.

Table 4. The results of hierarchical regression analysis for continuance commitment criterion

	ΔR^2	β	t	p
Step 1				
gender		-		
age		-		
work experience		-		
workplace		-.138	-3.849	.000
teacher educational qualification		-		
total number of students in school		-.100	2.802	.005
average number of students per class		-		
$R = .171$; $R^2 = .029$; Adjusted $R^2 = .027$; $\Delta F_{(1/759)} = 11.408$; $p < .01$				
Step 2				
	.015**			
Principal support		-.124	-3.472	.001
$R = .211$; $R^2 = .044$; Adjusted $R^2 = .041$; $\Delta F_{(1/757)} = 12.054$; $p < .01$				
Step 3				
	.006			
Classroom management		-.090	-2.127	.034
Engagement & Instruction		.044	1.001	.317
$R = .224$; $R^2 = .050$; Adjusted $R^2 = .044$; $\Delta F_{(2/755)} = 2.281$; $p < .05$				
Step 4				
	.022**			
Teaching competence		-.037	-.895	.371
Task analysis		-.151	-3.712	.000
$R = .268$; $R^2 = .072$; Adjusted $R^2 = .063$; $\Delta F_{(1/753)} = 8.759$; $p < .01$				

Note. R – multiple correlation coefficient; R^2 – multiple determination coefficient; ΔR^2 – change in multiple determination coefficient; * $p < 0.05$; ** $p < 0.01$.

In the first step, only demographic variables were introduced, but only the teachers' workplace and the total number of students in school had a predictive value. Therefore, the remaining variables were removed from regression analysis. The total explained variance amounted to 2.9 % and it is statistically significant. A statistically significant regression coefficient was obtained for workplace, which explains 1.9 % of the variance, while the total number of students in school explains 1 % of the continuance commitment variance. Both variables are negatively related to continuance commitment, which means that primary school teachers seem to have a higher level of continuance commitment in comparison with lower secondary education teachers, and an increase in the total number of students in school leads to a decrease in the result for continuance commitment. In the second step, principal support results were introduced in the analysis and the percentage of the explained variance increased from 1.5 % to 4.4 %. By adding principal support in the second step, the explained variance by workplace remained 1.9 %, the total number of students in school increased to 1.1 % and principal support explained the added 1.4 % of the continuance commitment variance. Principal support is negatively related to continuance commitment, that is, an increase in the principal support variable decreases continuance commitment. In the third step, dimensions of self-efficacy were added, so the percentage of the explained variance increased by 0.6 %. However, this increase did not have any statistical significance. An overview of all dimensions revealed that the classroom management dimension is statistically significant. Additional analyses indicate that this step led to a decrease in the percentage of the explained variance by the workplace variable to 1.8 %, and to a slight increase in the variance explained by a total number of students in school to 1.2 % and principal support to 1.5 %. The percentage of variance explained by class management was 0.5 %, and by teacher engagement and teaching strategies 0.04 %. In the final, fourth step, two dimensions of collective efficacy were added, and the percentage of the explained continuance commitment variance increased statistically significantly, by 2.2 %. The results further indicate that task analysis is the

only statistically significant predictor. Additional analyses revealed that this step restored the percentage of explained variance by workplace to 1.9 %, reduced variance explained by total number of students in school to 0.9 % and by principal support to 0.7 %. The percentage of variance explained by class management is still 0.5 %, while the percentage explained by teacher engagement and teaching strategies is 0.1 %. Task analysis explains 0.5 % of the continuance commitment variance, while teaching competence explains 2.8 %. Both variables of collective efficacy are negatively related to continuance commitment.

The following regression analysis examined the influence of the variables in explaining normative commitment of teachers. The testing of the relationship among variables revealed moderate, but significant correlations with 1 % risk. The value of the Durbin-Watson test was close to 2 (2.084), not indicating multicollinearity, which was confirmed by VIF factors with value below 4 (ranging from 1.000 and 1.520).

Table 5 presents the results of regression analysis which provides information on regression coefficient $R = .501$, that is, on 25.1 % of the explained normative commitment variance based on the included predictors.

Table 5. Results of hierarchical regression analysis for the normative commitment criterion

	ΔR^2	β	t	p
Step 1				
gender		-		
age		-		
work experience		-		
workplace		-		
teacher educational qualification		-.148	-4.158	.000
total number of students in school		-.114	-3.193	.001
average number of students per class		-		
$R = .187$; $R^2 = .035$; Adjusted $R^2 = .032$; $\Delta F_{(1/758)} = 8.813$; $p < .01$				
Step 2				
	.194**			
Principal support		.443	13.794	.000
$R = .478$; $R^2 = .229$; Adjusted $R^2 = .226$; $\Delta F_{(1/757)} = 190.054$; $p < .01$				
Step 3				
	.005			
Classroom management		-.014	-.362	.717
Engagement & Instruction		.076	1.961	.050
$R = .483$; $R^2 = .233$; Adjusted $R^2 = .226$; $\Delta F_{(2/757)} = 2.281$; $p < .05$				
Step 4				
	.018**			
Teaching competence		.062	1.684	.093
Task analysis		.121	3.330	.001
$R = .501$; $R^2 = .251$; Adjusted $R^2 = .244$; $\Delta F_{(1/753)} = 8.991$; $p < .01$				

Note. R – multiple correlation coefficient; R^2 – multiple determination coefficient; ΔR^2 – change in multiple determination coefficient; * $p < 0.05$; ** $p < 0.01$.

The employed demographic indicators in the first step of the analysis showed that only teacher educational qualifications and the total number of students in school have a predictive value. Therefore, other variables were removed from regression analysis. The total percentage of explained variance is 3.5 %, and it has statistical significance. A statistically significant regression coefficient was obtained for teacher educational qualification, explaining 1.4 % of variance, and for total number of students in school, explaining 1.3 % of the normative commitment variance. Teacher educational qualification and total number of students in school are negatively related to normative commitment. In the second step, principal support was introduced, and the percentage of explained variance increased by 19.4 %, to 22.9 %. Principal support is significantly related to normative commitment. In the third step, self-efficacy dimensions were added and the percentage of explained variance increased by 0.5 %. However, the increase did not have statistical significance. An overview of the dimensions revealed that teacher engagement and teaching

strategies were statistically significant dimensions. Additional analyses show that this step reduced the percentage of explained variance by teacher qualification variable to 1.1 % and slightly increased the variance explained by total number of students in school to 0.9 %, while principal support was 19.7 %. The percentage of variance explained by class management was 0.1 %, while the percentage explained by teacher engagement and teaching strategies was 1.2 %. In the final, fourth step, two dimensions of collective efficacy were added, leading to a statistically significant increase in the percentage of the explained normative commitment variance by 1.8 %. The results further indicate that only task analysis was a statistically significant predictor. Additional analyses show that in this final step, the percentage of explained variance by the teacher educational qualification variable was 1.0 %, variance explained by total number of students in school was 1.2 %, while variance explained by principal support was 16.5 %. The percentage of variance explained by class management was -0.1 % and by teacher engagement and teaching strategies 0.7 %. Teaching competence explained 1.8 % of variance, while task analysis explained 3.4 % of variance.

4. Discussion

The aim of this study was to examine to which extent principal support, teacher self-efficacy and collective teacher efficacy can affect explanation of affective, continuance and normative commitment of teachers to school.

According to our research results, sociodemographic indicators did not have a predictive value in explaining teacher commitment in most of the conducted analyses. Similar results were obtained by Meyer et al. (2002), since the results of meta-analysis they had conducted pointed to generally small correlations between demographic variables and all three commitment components. In our research, a negative statistically significant relation was determined between workplace and total number of students in school and continuance commitment, and total number of students in school and teacher educational qualification and normative commitment. Primary education teachers, in comparison with lower secondary education teachers, exhibit more continuance commitment, which could be due to the fact that primary education teachers find it more difficult to find employment, so they might feel more fear of jeopardizing their existence. This can also be related to the total number of students in school, since the level of job security in smaller schools is lower. Teachers who work in schools with a larger number of students and who have higher teacher educational qualification exhibit a lower level of normative commitment; that is, they have a weaker feeling of commitment to school since their job is secure, and the higher level of educational qualification gives them a better position on the labor market.

As has become clear in this study, the results of the conducted regression analyses indicate that principal support is the predictor which has the greatest influence in predicting affective and normative teacher commitment. As a rule, affective commitment has been proved to be the strongest predictor of positive outcomes in organizational context (Marković et al., 2020). Although principal support has been proved to have statistical significance in explaining continuance commitment, its contribution was quite small. Principal support is positively related to affective and normative commitment, and negatively related to continuance commitment. Therefore, teachers who perceive a higher level of principal support are more emotionally attached to the school in which they work and have a stronger sense of obligation to school. At the same time, they feel less fear of losing their job. The literature supports these findings, since principal support determines whether teachers perceive school as a desirable workplace (Eğinli, 2021). Our findings suggest that principals should invest additional effort in creating an environment in which teachers will not feel fear of losing their job and will not continue working in school primarily to secure their existence.

Teacher self-efficacy has not been proved to have consistent relation to commitment. The classroom management dimension was shown to be a statistically significant predictor of affective and continuance teacher commitment, while dimensions teacher engagement and teaching strategies were statistically significant for normative commitment. Statistically significant positive relation between classroom management and affective commitment was determined, while a statistically significant negative relation was determined with continuance commitment. It is possible that teachers who are confident in their classroom management skills are able to establish a better relationship with students and teachers, so they might feel more comfortable in school, while at the same time they feel less pressure about the possibility of losing their job.

The dimension engagement and instruction is statistically significantly related to normative commitment, from which it can be concluded that teachers who are more engaged in work in school and who use efficient teaching strategies exhibit a greater level of commitment to school and are ready to stay in that school, although they may not benefit from that.

The findings of previous research indicate that collective teacher efficacy is a significant predictor of teacher commitment (Ross, Gray, 2006; Ware, Kitsantas, 2007; Lee et al., 2011). The results of our regression analysis show that, when collective teacher efficacy dimensions are analyzed, teaching competence is a statistically significant predictor of affective commitment, while task analysis is a statistically significant predictor of continuance and normative commitment. Furthermore, the results show that, among the mentioned dimensions, there is a negative relation only when it comes to task analysis and continuance commitment. Collective teacher efficacy implies exchange of knowledge, ideas, experiences, and pedagogical solutions with the aim of helping students grow and develop. Joint effort unites teachers in reaching the values important for everyone, increases an individual's readiness to adjust to the work environment and behave responsibly in the organization, develops a sense of attachment to school and encourages teachers to continue working in it, at same time reducing the level of anxiety related to a job loss. According to everything that has been mentioned, teachers who are committed to the organization in which they work are more likely to continue working in it for a longer period of time, are more likely to work towards the achievement of the goals of their organization and will invest more time and energy in their career (Yousef, 2000).

5. Conclusion

The results of this study are important for several reasons. First of all, the research included participants from all parts of Croatia, both primary and lower secondary education teachers, from schools with different number of students. At the same time, the sample is also a limitation of the study. Although data collected from over 750 teachers from all parts of Croatia were analyzed in the study, the sample was not representative, and the obtained results can be taken only as indications.

Secondly, teachers' perceptions of commitment can be related to some sociodemographic indicators, principal support, certain dimensions of teacher self-efficacy and collective efficacy. The findings indicate that principal support is the most significant predictor of commitment. That means that the amount of the perceived principal support influences the extent to which teachers share the same values, want to work in a certain school, and exhibit attachment and commitment to school.

Thirdly, this study extended the literature on relationships between principal support, self-efficacy, collective teacher efficacy and teacher commitment in primary school. We argue that our findings imply the need for constant investment not only in the development of school principals' competencies, but also in teacher competencies, in order to create a positive and encouraging work environment for all school employees.

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