

## THE ROLE OF MOTIVATION AND JOB SATISFACTION IN THE USE OF MODERN TEACHING MODELS

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### Abstract

The aim of this paper is to examine the role of some socio-economic characteristics, familiarity with the concept of advanced teaching models, job satisfaction and motivation to work with children in the use of modern teaching models.

A total of 83 teachers of Technical Education participated in the research. An online questionnaire was created to collect data, which consisted of 4 scales (SES; Job Satisfaction, Motivation to work with children, and Familiarity with advanced teaching models).

Most teachers are very satisfied with their work and are highly motivated to work with children. The results show that 84.21% of teachers are familiar with some advanced teaching models. Job satisfaction has a statistically significant influence on the use of modern teaching models (project teaching, problem teaching, flipped classroom, interactive teaching, team teaching). Familiarity with advanced teaching models positively contributes to the use of modern teaching models.

We conclude that job satisfaction is a very important segment in all organizations. A satisfied employee will be more productive. Each school should examine employee satisfaction and provide training on modern teaching models, which is going to contribute to the quality of the educational process.

**Keywords:** *Job satisfaction, motivation, modern teaching models.*

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### 1. Introduction

Teaching is joint activity of teachers and students with the aim of achieving educational goals. Given the ongoing speed of change in technology on a daily basis, it is necessary to make educational activity more effective than ever before. Teaching is often superficial, full of monologues that turns students away from the subject itself and the teaching content, it is often formalized and verbalized, which greatly reduces the lasting effect of knowledge and connecting theory with real life. Such instruction needs to be replaced with modern teaching techniques in order to encourage students to be independent, to learn by identifying and solving problems. Technical education introduces students to the world of technology and enables them to understand the technical environment around them, including knowing the benefits and possible dangers it represents to humanity and the environment, as well as the responsible and critical application and active participation in the creative development of technology.

Today, there are many models of modern teaching, but we will highlight only some of them in this paper, specifically: team teaching, project teaching, problem teaching, flipped classroom and interactive teaching. Quinn & Kanter (1984) define *team teaching* as “simply team work between two qualified instructors who, together, make presentation to an audience”. Meyer (2002) provides the following definition of a project: “*Project-based learning* is a joint attempt by teachers and students to connect life, learning and work so that a socially relevant problem related to the interests of participants is processed together (=process) leading to results (=product) that have useful value for the participants.” *Problem-based learning* is “an instructional (and curricular) learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem” (Savery, 2015:9).

*The flipped classroom* is a new pedagogical method, which employs asynchronous video lectures and practice problems as homework, and active, group-based problem-solving activities in the classroom (Bishop & Verleger, 2013:1). *Interactive teaching* implies that all elements of the teaching process (content-related, psychological, cognitive, sociological and organizational) are functionally connected and form a harmonious whole (Drobnjak, 2007:81).

According to the results of previous studies (Huang et al., 2013), the teacher's job satisfaction plays a significant role in the quality of teaching. If teachers are satisfied, then they are more committed and involved in their work (Sargent & Hannum, 2005). It is expected that a school which has teachers with high levels of job satisfaction provides qualified education and brings up successful students (Demirtas, 2010). According to Snipes et al. (2005) job satisfaction consists of several facets, specifically: satisfaction with the supervisor, work, pay, advancement opportunities and the quality of cooperation with colleagues.

Motivational factors, especially working with children and the perception of one's own teaching abilities, are important predictors of job satisfaction (Šimić Šašić et al., 2013). Borić (2017) states that the most important factors motivating teachers to work are job satisfaction, realization that the work they do is valued and the atmosphere of collegiality. A review of previous research shows that there is a considerable number of studies that have dealt with teacher's job satisfaction or their motivation for work, but there is a lack of research that comprehensively addresses the role of these factors in the use of modern teaching methods.

## 2. Design

The aim of this paper is to examine the role of some socio-economic characteristics, familiarity with the concept of advanced teaching models, job satisfaction and motivation to work with children in the use of modern teaching models.

### 2.1. Respondents, procedure and measurement instruments

A total of 83 teachers, specifically 54 female primary school teachers and 29 male primary school teachers of Technical Education from several cities in the Republic of Croatia participated in the study. The data was collected in October 2021 using an online Google Form. A questionnaire was created for the purpose of this study, which consisted of general questions (gender, years of service, educational/non-educational study program, training), Job satisfaction scale (7 statements), Job motivation scale (7 statements) and Familiarity and use of modern teaching methods scale (5 subscales: project teaching, problem teaching, flipped classroom, interactive teaching and team teaching, and each subscale presents 5 statements). In all the Scales, respondents measured their agreement with presented statements on a scale from 1=strongly agree to 5=strongly disagree.

## 3. Results

The results of descriptive statistics show that teachers have an average of 9.18 years of service with an average deviation from the arithmetic mean of 9.81 years. The teacher with longest service has 32 years of service.

The largest number of teachers have completed graduate studies (n=74; 89.15%) in education – polytechnics (n=50; 60.24%). Almost the same number of teachers did and did not partake in additional teaching education or training (n=42: 50.60%).

The largest number of teachers rated their job satisfaction with a numerical value of 4 (n=43; 51.80%), while the average satisfaction rating was 3.87 with an average deviation from the arithmetic mean of 0.73.

Almost 90% of teachers rated their motivation for work with numerical values of 4 (n=33; 39.75%) and 5 (n=42; 50.60%) while the average motivation rating was 4.39 with an average deviation from the arithmetic mean of 0.67.

The average rate of use of modern teaching models is 2.60, a value lower than the limit value of 3, that is, the rate of use of modern forms of teaching is low (Table 1).

*Table 1. Descriptive statistics of the use of modern teaching models.*

	M	SD	N
Using modern teaching models	2.60	.63	83

All teachers believe that project teaching can be applied in instruction of some contents of Technical Education while 81 teachers (97.59%) consider that team teaching is applicable. The smallest number of teachers, that is, 57 teachers (68.67%) believe that the flipped classroom model can be used in teaching some contents of Technical Education (Table 2).

Table 2. Descriptive indicators of the possibility of applying certain teaching models.

	Project-based learning	Problem-based learning	Flipped classroom	Team teaching	Interactive teaching
Use	100.00	94.74	68.42	97.59	89.47
Do not use (%)	0	5.26	31.33	2.63	10.53

The value of the coefficient of determination is 0.436, that is, 43.6% of the sum of squares of deviations in the use of modern teaching models (project teaching, problem teaching, flipped classroom, interactive teaching, team teaching) is interpreted by the estimated regression model. The estimated model has a lower level of representativeness ( $R^2 < 0.70$ ) (Table 3).

Table 3. Representativeness of the regression model.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.660 <sup>a</sup>	.436	.280	.5351

a. Predictors: gender, years of service, study program (educational/engineering), professional development, job satisfaction, motivation to work with children, familiarity with modern teaching models.

b. Dependent Variable: Using modern teaching models

ANOVA test is used to examine the statistical significance of the estimated model.

The empirical F ratio is 2.80, that is, it shows that the estimated model is statistically significant. The empirical level of significance is 0.020 (Table 4).

Table 4. Results of ANOVA analysis.

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.416	8	.802	2.801	.020 <sup>b</sup>
Residual	8.304	29	.286		
Total	14.720	37			

a. Dependent Variable: Using modern teaching models

b. Predictors: gender, years of service, study program (educational/engineering), professional development, job satisfaction, motivation to work with children, familiarity with modern teaching models.

The following table shows the results of regression analysis (Table 5).

Table 5. Results of regression analysis.

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.107	.760		1.456	.156		
Gender	-.107	.190	-.083	-.565	.576	.935	1.070
Years of service	-.004	.012	-.067	-.377	.709	.635	1.574
Study program (educational/engineering)	-.186	.212	-.139	-.876	.388	.807	1.239
Professional development	.266	.220	.214	1.213	.235	.653	1.531
<b>Job satisfaction</b>	<b>.341</b>	<b>.150</b>	<b>.401</b>	<b>2.270</b>	<b>.031</b>	.650	1.539
Motivation to work with children	-.114	.164	-.123	-.695	.492	.648	1.544
<b>Familiarity with modern teaching models</b>	<b>.888</b>	<b>.256</b>	<b>.520</b>	<b>3.467</b>	<b>.002</b>	.902	1.109

a. Dependent Variable: Using modern teaching models

Job satisfaction has a statistically significant influence on the use of modern teaching models (project teaching, problem teaching, flipped classroom, interactive teaching, team teaching). The estimated parameter has a value of 0.341, that is, for every increase in job satisfaction, an increase in the level of use of modern teaching methods can be expected and vice versa, with the value of other variables remaining the same. The estimated parameter is statistically significant ( $p=0.031<0.050$ ).

Familiarity with the concept of advanced teaching models positively contributes to the use of modern teaching models (project teaching, problem teaching, flipped classroom, interactive teaching, team teaching), that is, for every one unit increase in the familiarity with the concept of advanced teaching models, an increase by 0.89 points in the use of modern teaching models can be expected and vice versa, with the value of other variables remaining the same. The estimated parameter is statistically significant ( $p=0.002<0.050$ ).

#### 4. Discussion

The descriptive results of this research show that primary school teachers of Technical Education do not sufficiently use modern teaching models. A possible explanation for this result may be that primary school teachers are not familiar with modern teaching models or do not have the opportunities and material working conditions, which is consistent with results of other similar studies (Anđić & Vidas, 2021). Descriptive statistics show that primary school teachers are satisfied with their work, and at the same time job satisfaction is a statistically significant predictor for the use of modern teaching models. This result can be interpreted as teachers being satisfied with their relationship with children and achieved educational goals (Türkoglu et al., 2017; Toropova et al., 2021). They are also satisfied with cooperation with colleagues, achieved working success, the quality of their work being recognized by their supervisors and advancement opportunities, which cumulatively contributes to teachers' job satisfaction (Borić, 2017). Familiarity with modern teaching methods is a statistically significant predictor for using the same, which is logical, since modern teaching models cannot be implemented in instruction unless teachers possess sufficient knowledge on their application, planning and realization in instruction, and unless they know how to encourage such forms of work that will activate the students (Holubová, 2010; Anđić, & Vidas, 2021).

#### 5. Conclusion

The results of this research showed that primary school teachers of Technical Education do not sufficiently use advanced teaching methods. They believe that project teaching is most applicable in Technical Education, and the flipped classroom the least. According to the respondents' self-reports, their job motivation is very high. More than half of the respondents are very satisfied with their job. It was found that job satisfaction and familiarity with modern teaching models are statistically significant predictors for using modern advanced models. Based on the obtained results, we conclude that it is necessary to conduct continuous workshops and seminars for teachers in order to acquaint them with advanced models and encourage them to apply them.

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