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Teacher Self-Efficacy, Goal Orientations, and Work Satisfaction in Traditional and Virtual Classroom

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Abstract

The aim of this study was to examine the potential differences in teachers' self-efficacy self-assessment, goal orientations, and work satisfaction in the teaching process implemented in a traditional and in a virtual classroom, with regard to sociodemographic features (gender, years of teaching experience, place of work). The mediation role of self-efficacy between goal orientations and work satisfaction was also examined, especially regarding a traditional and a virtual classroom. The study included 445 participants, mainly primary school teachers from all parts of the Republic of Croatia. The following research instruments were applied: Teacher Self-Efficacy Scale, Work Domain Goal Orientation Scale and Job satisfaction questionnaire. The study was conducted as a quantitative correlational study. The findings revealed that the teachers ranked higher the teaching process implemented in a traditional classroom than in a virtual classroom, and that there are differences in terms of gender and place of work in both types of the teaching context, while differences in terms of the years of teaching experience were found only in a traditional classroom. The results of a mediation analysis indicate that self-efficacy is a significant mediator between goal orientations and work satisfaction.

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Introduction

Fast-paced global changes that have taken place in the last several decades, especially the COVID-19 pandemic, have all changed the way in which people function in all spheres of life. Education has not been an exception. Teachers, scientists, and politicians have tried to respond timely and adequately to the emerging needs regarding the organization of the teaching process in what seemed a new and unusual way – in an online form. Managing the computer-mediated environment and a transformed way of teaching required teachers to adapt to the new way of work. The transition to e-learning put great demands on teachers. They had to face numerous challenges: technical problems, the use of non-standard solutions, the search for solutions to increase the effectiveness of e-learning, the transfer of proven applications and programmes, problems with students, problems with parents, and the modernisation of workstations (Tomczyk & Walker, 2021). A majority of studies conducted on teaching in the virtual environment have focused on higher education; however, as the teaching process was delivered online at all levels of education, this study places emphasis on the primary education teachers. The study focuses on self-efficacy, goal orientations, and job satisfaction of teachers in the traditional and in the virtual environment.

The studies carried out so far have shown that self-efficacy correlates positively with job satisfaction, which means that teachers who are more satisfied with their job tend to have a higher level of self-efficacy, can motivate students better and implement the teaching process in a high-quality manner (Perera & John, 2020; Szabó et al., 2022; Tschannen-Moran & Hoy, 2001; Vidić & Miljković, 2019). In addition, self-efficient teachers tend to invest effort in achieving challenging goals and persist while dealing with difficulties. Self-efficacy and goal orientations are associated with situational contexts (Jiang et al., 2014), and working in the traditional and the virtual environment creates specific educational contexts.

Theoretical Background

Self-Efficacy

Self-efficacy as a concept was developed by Albert Bandura within his social cognitive theory. It implies “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). Tschannen-Moran and Woolfolk Hoy (2001) define teacher self-efficacy as an assessment of one’s own capabilities to achieve the desired outcomes of student engagement and learning, even in the situations when students are demanding or not motivated. These authors point out that self-efficacy is strongly related to numerous positive outcomes for teachers, such as enthusiasm, work commitment, and persistence, and positive outcomes for students, such as achievement, motivation, and self-efficacy awareness. Teachers with high beliefs in their own self-efficacy are more ready to introduce positive changes, exhibit more persistence in mastering various challenges, are more open to new ideas and use the teaching strategies even when they consider them risky (Cerit, 2019; Charalambous & Philippou, 2010). Apart from that, research has shown that teachers with a high level of self-efficacy tend to plan and implement the teaching process better, are more open to using new teaching methods and strategies, set more challenging goals for themselves and their students, are more focused on problem solving, and are ready to ask for support and assistance when facing difficult situations (Lazarides & Warner, 2020).

Bandura (2006) states that teachers can perceive themselves as very efficient in the teaching process in general, but due to the specific teaching practice and specific self-efficacy domain, they can feel less efficient. Some of these specificities are the application of digital technologies and learning in the virtual environment during the COVID-19 pandemic, which required a significant adjustment. Rahmawati and Wirza (2022) point out that teachers with a low level of self-efficacy find it more difficult to face the challenges posed by a virtual classroom.

Goal Orientations

Goal orientations have been studied in various fields, but the initial examination of goal orientations started in the field of education, and is still being conducted. Dweck (1991) defined goal orientations as individual differences in goal preferences in achievement situations, identifying two major classes: a learning goal orientation and a performance goal orientation. In the beginning, Dweck studied goal orientations as a one-dimensional construct, and the pronounced goal orientations on learning and performance were the opposite sides of the continuum (VandeWalle, 1997). The importance of goal orientations lies in the fact that they shape the mental framework within which one interprets the situation they have found themselves in and creates a response to this situation (Dweck, 1991). Later on, goal orientations were examined as a two-dimensional construct consisting of two dimensions: learning and performance goal orientations (e.g., Button et al. 1996; Farr et al., 1993).

VandeWalle (1997) believes that goal orientation is a three-dimensional construct consisting of the following dimensions: a learning goal orientation, a prove (performance) goal orientation, and an avoid (performance) goal orientation. A learning goal orientation is focused on the development of one's own competences by acquiring new skills and mastering new challenges. A prove goal orientation is focused on demonstrating one's own competence and performance, and gaining positive feedback from others. The third dimension, an avoid goal orientation, is focused on avoiding the performance in order to avoid gaining negative feedback from others. It is precisely this third dimension, relating to avoidance, that could be interesting for this study, as there is a possibility that some teachers have this kind of orientation while teaching in an online environment. This could enable a more accurate understanding of teachers' experiences and behaviour.

Butler (2007) points out that a school is an arena of achievements, not only for students but for teachers as well. She suggested that goal-oriented approach should be employed when studying teacher motivation. Teachers are expected to be high achievers continuously, while performing professional tasks. Kucsera et al. (2011) point out that teacher goal orientations are important for predicting their motivation and teaching efficacy, and are also important factors for the individual development of teacher competences (Nitsche et al., 2011).

The individuals with a more pronounced learning goal orientation are more focused on learning new skills and information in order to become efficient (Zhou, 2021). They perceive the challenges and difficulties they come across as positive, as an integral part of the road to success (Annosi et al., 2020) and professional development. Teachers with a strong prove goal orientation want others to know about their high-quality teaching skills, want to be praised and to get approval. However, those with an avoid goal orientation prefer easier tasks, perceive external reasons as the causes of all problems, are not likely to ask for assistance, evaluate themselves based on

the external standards, and show little interest in school obligations (Yıldızlı, 2021). A vast body of research on goal orientation has been focused on the participants' individual characteristics, while contextual factors which might influence them have remained unidentified (Annosi et al., 2020). That is why this study takes into consideration the individual teacher characteristics (self-assessment of their self-efficacy, goal orientations, and work satisfaction), as well as the teaching context (traditional vs. virtual classroom).

Work Satisfaction

According to one of the best-known definitions, job satisfaction is "…a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p. 1304). Job satisfaction includes the employees' physical and mental health, sense of happiness and social well-being (Grant et al., 2007). Many different work satisfaction components have been defined and examined within the general efforts invested in analysing and promoting this construct (Belias and Koustelios, 2014). Some scientists view work satisfaction as a multi-dimensional construct. Davis (2006) points out that work satisfaction consists of behavioural, affective and cognitive components. The behavioural component refers to the employee behaviour which organizations find more or less acceptable. The affective component is related to the employees' feelings about their work, so those with a high level of work satisfaction have positive feelings about work, while those who are dissatisfied with their work have negative feelings (Thompson and Phua, 2012). The cognitive component connects the employees' opinions about various work aspects with their overall positive effect (Reyes et al., 2019). Diener et al. (1985) claim that work satisfaction is a one-dimensional construct and place emphasis on measuring the cognitive component of work satisfaction. Gregson (1991) identified five work satisfaction dimensions: work, supervision, pay, promotion, and co-workers. Work satisfaction is one of the general job satisfaction aspects, and it is related with the feeling of happiness and fulfilment about our job. This dimension was used in this study.

As teachers play an essential role in fostering a stimulating learning environment, supporting student success, and shaping the future of society (Eryilmaz et al., 2025) it is not irrelevant whether they are satisfied with their job or not. Mostafa & Pál (2018, p. 15) define teachers' job satisfaction as "a sense of fulfilment and gratification resulting from being a teacher and from working in a particular teaching job". Numerous factors are at work in shaping teachers' job satisfaction: gender (Klassen and Chiu, 2010), teaching experience (Aytaç, 2015), workload (Perryman and Calvert, 2020), academic specialization and school climate (Toropova et al., 2021), leadership in educational settings (Boyd et al., 2011; Skaalvik & Skaalvik, 2011), and student discipline (Sims, 2020). The findings of numerous studies show a significant positive correlation between self-efficacy and job satisfaction (Kasalak & Dagyar, 2020; Karaçöp & İnaltekin, 2022; Vidić et al., 2021).

Pepe et al. (2017) point out that there are sources of teachers' dissatisfaction, such as frequent classroom disruptions and student misbehaviour, because they increase emotional fatigue, reduce the teaching efficacy and create a challenging work environment. Teachers' dissatisfaction was triggered by the forced online teaching during the COVID-19 pandemic, which required additional time for the preparation of various teaching materials, constant availability, without any breaks, and a lack of time for personal and family needs (Boljat, 2020). Studies have revealed that online teaching had a negative effect on teachers' psychological status and triggered low job

satisfaction (Ali et al., 2021).

Traditional and Virtual Classroom

Due to the availability of the Internet and digital technologies, there have been many changes in education. Alongside a traditional classroom, where teachers and students meet face-to-face in real time, a virtual classroom has emerged as well. The classroom, as a place where students meet for formal studying has been changing; the learning space design is now not only physical but also virtual (Oblinger, 2005). Virtual classrooms are defined in various ways: as the integration of information technology and the Internet for connecting teachers and students (Suryani, 2021); as an educational environment in which teaching and learning activities are implemented in a cloud, with the use of information technology (Willermark, 2021); as an online learning platform (Bowles & Sendall, 2020); as a synchronous classroom that allows instructors and students to interact in real time (Alshumaimeri & Abeer, 2021), and as an electronic classroom which offers an educational course that can be adapted in terms of content, space, and time (Elfeky & Elbyaly, 2021). All these definitions imply the use of information technology and the Internet. The teachers are expected to manage this kind of environment successfully, to teach students, manage the class and achieve the set learning outcomes. Since the COVID-19 pandemic required a fast, global, comprehensive transition to online teaching in virtual classrooms (at all levels of education), a question should be posed whether teachers were ready for these challenges and what their perceptions about teaching in a traditional and in a virtual classroom are.

The aim of this study was to examine if there are differences in teacher self-assessment of their self-efficacy, orientation goals, and work satisfaction while teaching in a traditional and in a virtual classroom, with regard to sociodemographic features (gender, years of teaching experience, and place of work). The mediation role of self-efficacy between goal orientations and work satisfaction was also examined, in a traditional and in a virtual classroom respectively.

Hypotheses

H 1. There are statistically significant differences in teacher self-efficacy, goal orientations and work satisfaction in a traditional and in a virtual classroom with regard to sociodemographic features (gender, years of teaching experience, place of work).

H 2.1 Self-efficacy is a significant mediator between learning goal orientations and work satisfaction in a traditional and in a virtual classroom. Teachers who have a higher level of learning goal orientation also have a greater level of self-efficacy and, consequently, greater work satisfaction.

H 2.2 Self-efficacy is a significant mediator between prove goal orientations and work satisfaction in a traditional and in a virtual classroom. Teachers who have a higher level of prove goal orientation also have a greater level of self-efficacy and, consequently, greater work satisfaction.

H 2.3 Self-efficacy is a significant mediator between avoid goal orientations and work satisfaction in a traditional and in a virtual classroom. Teachers who have a higher level of avoid goal orientation have a lower level of self-efficacy and, consequently, lower level of work satisfaction.

Methodology

The study was conducted as a quantitative correlational study. Goal orientations (learning, prove and avoid goal orientations) were independent variables, self-efficacy was a mediator variable, while work satisfaction was a dependent variable.

Procedure

For the needs of the study, the data were collected online, from April to June 2023. The links to online questionnaires were sent via e-mail to primary schools in the Republic of Croatia with a polite request to be forwarded to teachers. The teachers assessed the items on a Likert-type scale. Before filling out the questionnaire, the participants were informed about the aim of the study. It was pointed out that the results would be used for scientific purposes and that participation in the study was completely voluntary and anonymous. Filling out the questionnaire took approximately 20 minutes. The participants were able to withdraw from the study at any point, without an explanation. The consent to conduct the study was obtained from the Ethics Committee of the Faculty of Teacher Education, University of Zagreb.

Participants

The sample in the study comprised 445 primary school teachers (379 females and 65 males, while 1 participant did not declare gender). In Croatia, primary school lasts 8 years and is divided into classroom teaching (grades 1 – 4) and subject teaching (grades 5 – 8). Classroom teachers teach most of school subjects, while subject teachers specialize in a certain area and teach one or several related subjects (e.g., Chemistry and Biology). The sample in the study consisted of 163 classroom teachers and 282 subject teachers. With regard to the years of teaching experience, 24.3% of the participants had up to 10 years of teaching experience (n = 108), 31.9% of them had up to 20 years of teaching experience (n = 142), 21.1% had up to 30 years of teaching experience (n = 94), while 22.7% of the participants had more than 30 years of teaching experience (n = 101). A majority of teachers have not been promoted to a higher rank during their professional career (n = 349; 78.4%), while 96 participants (21.6%) have been promoted to the ranks of teacher mentor, teacher advisor, or teacher excellent advisor.

Measuring Instruments

The questionnaire consisted of three parts. In the first part, sociodemographic data (gender, years of teaching experience, promotion to a higher rank, and the county where they work) about the participants were collected. The second part was used to collect the data relating to teaching in a virtual classroom, while the third collected the data relating to teaching in a traditional classroom. In the second and in the third part, the participants assessed their self-efficacy, goal orientations and work satisfaction. The following instruments were applied: the Teacher Self-Efficacy Scale (Schwarzer et al., 1999), the Work Domain Goal Orientation Scale (VandeWalle, 1997), and the Job Satisfaction Questionnaire (Gregson, 1987). All these instruments have been widely used in the previous body of research in Croatia and have shown satisfactory features (e.g., Slišković et al., 2016, Mesić & Topolovčan,

2016; Vidić, 2009).

Self-Efficacy

Self-efficacy was measured with the Teacher Self-Efficacy Scale (Schwarzer et al., 1999), containing 10 items (e.g., *I am confident in my ability to be responsive to my students' needs even if I am having a bad day*.) assessed on a four-point scale, from 1 – *I totally disagree*, to 4 – *I totally agree*. A greater total score reflects a higher level of teacher self-efficacy. In order to determine the factor structure of the Teacher Self-Efficacy Scale, a factor analysis was performed using the principal components method for the results, for a traditional and a virtual classroom respectively. Before performing the factor analyses, the Kaiser-Meyer-Olkin test and Bartlett's test of sphericity were used to determine that the data were suitable for factorization (traditional classroom $KMO = .934$, $\chi^2(45) = 2985.396$, $p < .000$; virtual classroom $KMO = .917$, $\chi^2(45) = 2559.523$, $p < .000$). Both analyses resulted in one factor which explained 63.24% of the total self-efficacy variance in the traditional classroom environment and 57.99% in the virtual classroom environment. Cronbach alfa reliability coefficient was .93 (in the traditional classroom environment) and .92 (in the virtual classroom environment).

Goal Orientations

The Work Domain Goal Orientation Scale (VandeWalle, 1997) was used to measure the goal orientations. The original scale contains 16 items, but the version containing 13 items was used in the study (Brett & Vandewalle, 1999). These 13 items were assessed on a 7-point Likert-type scale, ranging from 1 – *I totally disagree* to 7 – *I totally agree*. All items were formulated affirmatively. Three types of goal orientations were measured: a learning goal orientation – 5 items (e.g., *I prefer to work in situations that require a high level of ability and talent*.), a prove goal orientation – 4 items (e.g., *I enjoy it when others at work are aware of how well I am doing*.) and an avoid goal orientation – 4 items (e.g., *I prefer to avoid situations at work where I might perform poorly*.).

In order to determine the factor structure of the Work Domain Goal Orientation Scale, a factor analysis using the principal components method with oblimin rotation was used for the results in a traditional classroom and a virtual classroom respectively. Before performing the factor analyses, the Kaiser-Meyer-Olkin test and Bartlett's test of sphericity were used to determine that the data were suitable for factorization (traditional classroom KMO = .900, $\chi^2(45) = 6193.457$, $p < .000$; virtual classroom KMO = .890, $\chi^2(45) = 5079.832$, $p < .000$). The analysis resulted in three factors both for a traditional and for a virtual classroom. Cronbach alfa reliability coefficient for the learning orientation scale was .94 (in the traditional classroom environment) and .97 (in the virtual classroom environment); for the prove orientation scale it was .92 (in the traditional classroom environment) and .94 (in the virtual classroom environment), while for the avoid orientation scale it was .92 (in the traditional classroom environment) and .94 (in the virtual classroom environment).

Work Satisfaction

The Job Satisfaction Questionnaire (Gregson, 1987) contains 30 items and measures five aspects of work

satisfaction: work, supervision, pay, promotions and co-workers. For the needs of this study, only the Work Satisfaction Subscale was used, containing five items (e.g., *My work is satisfying*.). The items measure the level of satisfaction, fulfilment and joy related to work, as well as the assessment of whether the job is the right one for the person or not, or whether the job is tiring. The participants assessed the items on a five-point Likert-type scale, ranging from 1 – *I totally disagree*, to 5 – *I totally agree*. A higher score indicates a higher level of work satisfaction.

To determine the factor structure of the Job Satisfaction Questionnaire, a factor analysis using the principal components method with oblimin rotation was used for the results in a traditional classroom and a virtual classroom, respectively. Before performing the factor analyses, the Kaiser-Meyer-Olkin test and Bartlett's test of sphericity were used to determine that the data were suitable for factorization (traditional classroom KMO = .755, $\chi^2(45) = 2596.768$, $p < .000$; virtual classroom KMO = .760, $\chi^2(45) = 2201.862$, $p < .000$). The KMO values are slightly lower than .800, but are still satisfactory. The work satisfaction factor explains 29.16% of the total variance in the traditional classroom environment and 33.01% of the variance in the virtual classroom environment. Cronbach alfa reliability coefficient for the work satisfaction scale was .80 (in the traditional classroom environment) and .87 (in the virtual classroom environment).

Results

Table 1 presents the descriptive indicators and correlations between the examined variables in a traditional classroom, while Table 2 presents these data in a virtual classroom. The skewness and kurtosis values ranged in the interval between -2 and +2, which is considered an acceptable and satisfactory proof of the normal univariate distribution (Tabachnick and Fidell, 2007).

Table 1. Descriptive Indicators and Correlations in a Traditional Classroom ($N = 445$)

	1.	2.	3.	4.	5.
1. Self-efficacy	1	.45**	.50**	.24**	-.12*
2. Work satisfaction		1	.44**	.10*	-.18**
3. Learning goal orientation			1	.48**	-.09*
4. Prove goal orientation				1	.36**
5. Avoid goal orientation					1
M	3.34	3.98	4.95	3.82	2.99
SD	0.49	0.65	1.33	1.51	1.40
Min- Max	1 - 4	1 - 5	1 - 7	1 - 7	1 - 7
Skewness	-.781	-.445	-.570	-.070	.353
Kurtosis	1.948	.383	-.198	-.729	-.614
Cronbach alpha	.93	.80	.97	.94	.94

**$p < 0.01$; *$p < 0.05$.

All the variables were given above-average assessment values, except the variable avoid goal orientation, which

was assessed with a slightly below-average value, both in the traditional and in the virtual classroom environment. Comparing the results obtained in various educational contexts (traditional-virtual), it can be seen in the examined variables that the variables related to a traditional classroom were given higher values. Correlations between the variables indicate that a learning goal orientation is in a statistically significant positive correlation with self-efficacy and work satisfaction, a prove goal orientation is in a statistically significant positive correlation with self-efficacy, while an avoid goal orientation is in a low, but statistically significant negative correlation with work satisfaction in the teaching process conducted in a traditional classroom. As for teaching in a virtual classroom, a learning goal orientation and prove goal orientation are in a statistically significant positive correlation with self-efficacy and work satisfaction, while no significant correlations were found regarding an avoid goal orientation. The prove goal orientations are in a statistically significant positive correlation with the learning goal orientations and with the avoid goal orientations, both in a traditional and in a virtual classroom.

Table 2. Descriptive Indicators and Correlations in a Virtual Classroom ($N = 445$)

	1.	2.	3.	4.	5.
1. Self-efficacy	1	.46**	.57**	.37**	-.06
2. Work satisfaction		1	.45**	.24**	-.09*
3. Learning goal orientation			1	.59**	-.03
4. Prove goal orientation				1	.30**
5. Avoid goal orientation					1
M	2.99	3.15	4.45	3.73	2.88
SD	0.53	0.83	1.32	1.45	1.33
Min - Max	1 - 4	1 - 5	1 -7	1 -7	1 -7
skewness	-.382	.172	-.294	-.012	.596
kurtosis	1.073	-.223	-.392	-.733	.028
Cronbach alpha	.79	.79	.92	.92	.93

**$p < 0.01$; *$p < 0.05$

To test the differences between the examined variables with regard to gender, a range of *t*-tests were performed. The variance homogeneity condition was not met only in the self-efficacy variable in a traditional classroom, so instead of the t-test, Welch's test was performed. The results indicate that female teachers have a greater level of self-efficacy than their male counterparts in a traditional classroom ($t = 2.533$, $p < .05$), they are more satisfied with work in a traditional classroom ($t = 2.832$, $p < .01$), and they exhibit a more pronounced learning goal orientation in a virtual classroom ($t = 2.398$, $p < .05$).

In order to examine the differences in the examined variables in a traditional and in a virtual classroom with regard to the years of teaching experience, a range of one-way variance analyses were performed, for a traditional and for a virtual classroom respectively. In terms of the years of teaching experience, the teachers were divided into four groups: up to 10 years of teaching experience, 11 – 20 years of teaching experience, 21 – 30 years of teaching experience, and 30 and more years of teaching experience. A statistically significant difference was found only regarding the work satisfaction variable in a traditional classroom ($F = 3.974$, $p < .01$). The Tukey test was used

to test the differences between the groups and the results revealed that there are differences between the groups of teachers with 11 – 20 years of teaching experience ($p < .01$) and those with 30 and more years of teaching experience ($p < .01$). The teachers with 30 and more years of teaching experience are significantly more satisfied with work than teachers with 11 – 20 years of teaching experience.

The differences in the examined variables with regard to the place of work (classroom or subject teaching) were tested using a range of t-tests. When the variance homogeneity condition was not met, Welch's t-test was performed. The differences were found for two variables, indicating that classroom teachers have a greater level of self-efficacy both in a traditional ($t = 2.625$, $p < .01$) and in a virtual ($t = 2.750$, $p < .01$) classroom, and that they are more satisfied with work both in a traditional ($t = 5.368$, $p < .001$) and in a virtual ($t = 2.402$, $p < .05$) classroom. As differences with regard to gender, years of teaching experience, and place of work were found for teaching in a traditional and in a virtual classroom only in some of the examined variables, the H1 hypothesis was partially supported.

Mediation Analyses

To test the mediatory role of self-efficacy in the relationship between goal orientations and work satisfaction, a range of mediation analyses were conducted. The independent variables were a learning goal orientation, a prove goal orientation and an avoid goal orientation. Self-efficacy was the mediator variable, while work satisfaction was the dependent variable. A *microcode PROCESS Procedure for SPSS Version 3.5.3.* (Hayes, 2018) was used for mediation analyses. The bootstrapping method based on 5,000 sample replications was employed to test the statistical significance of the indirect effect.

Self-Efficacy as a Mediating Variable between a Learning Goal Orientation and Work Satisfaction

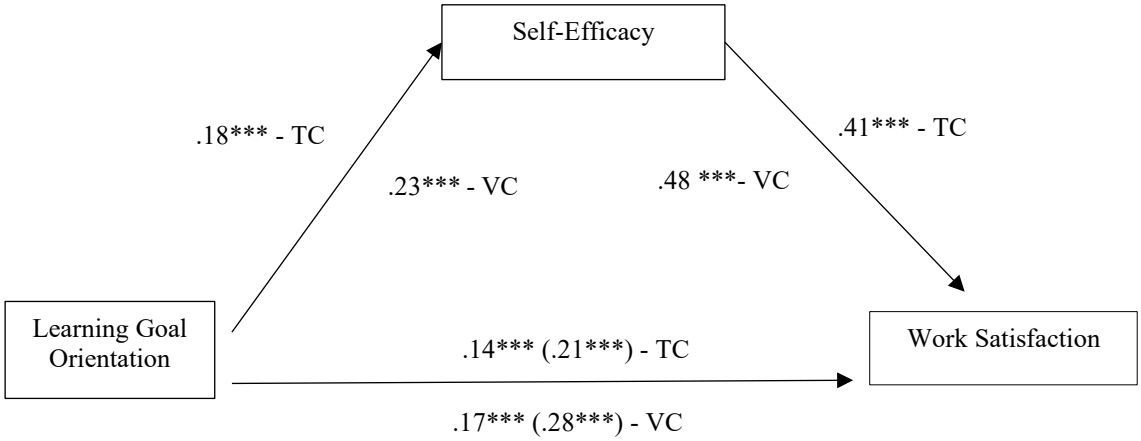
The mediation analysis results for a traditional classroom showed a significant positive total effect of the learning goal orientation on work satisfaction [$b = .21$, *CI* (.17, .25)] as well as a significant positive direct effect [$b = .14$, *CI* (.09, .18)]. The same effects are significant in a virtual classroom as well, with a significant positive total effect [$b = .28$, *CI* (.23, .34)] and a significant positive direct effect [$b = .17$, *CI* (.11, .23)]. According to Hypothesis 2.1, self-efficacy is a mediator between a learning goal orientation and work satisfaction. It is evident in Table 3 that, as has been expected, there is a significant positive indirect effect of self-efficacy in a traditional [$b = .08$, *CI* (.04, .11)] and in a virtual [$b = .11$, *CI* (.07, .15)] classroom.

Both in a traditional and in a virtual classroom, teachers with a more pronounced learning goal orientation tend to have a greater level of self-efficacy, which leads to greater work satisfaction (see Figure 1), thereby supporting Hypothesis 2.1. In both cases there is partial mediation, as a direct relationship between the learning goal orientation and work satisfaction is still significant. Therefore, both in a traditional and in a virtual classroom, teachers with a greater learning goal orientation are more satisfied with their work, and a part of this relationship is connected with self-efficacy.

Table 3. Mediatory Role of Self-Efficacy between a Learning Goal Orientation and Work Satisfaction

				Reliability interval	
	b	*SE*	*t*-value	Low limit	High limit
Traditional classroom					
Total effect	.21	.02	10.168***	**.17**	**.25**
Direct effect	.14	.02	5.948***	**.09**	**.18**
Indirect effect	.08	.02		**.04**	**.11**
Virtual classroom					
Total effect	.28	.03	10.554***	**.23**	**.34**
Direct effect	.17	.03	5.472***	**.11**	**.23**
Indirect effect	.11	.02		**.07**	**.15**

***$p < .001$



*Note: TC = traditional classroom; VC = virtual classroom; ***$p < .001$*

Figure 1. Mediatory Role of Self-efficacy between a Learning Goal Orientation and Work Satisfaction

Self-Efficacy as a Mediating Variable between a Prove Goal Orientation and Work Satisfaction

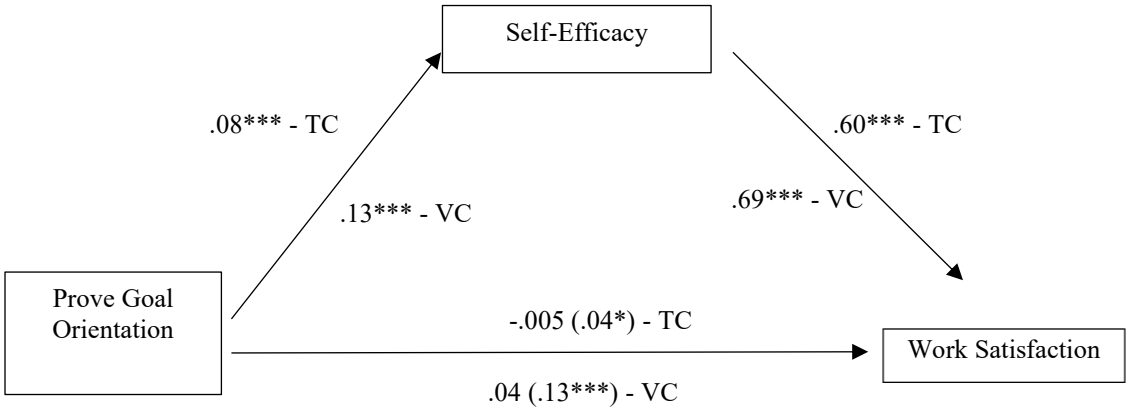
The mediation analysis results for a traditional classroom revealed a significant positive total effect of a prove goal orientation on work satisfaction [$b = .04$, *CI* (.002, .08)], but the direct effect is not significant [$b = -.004$, *CI* (-.04, .03)]. As for a virtual classroom, a positive total effect [$b = .13$, *CI* (.08, .19)] was obtained as well, but the direct effect is not significant [$b = .04$, *CI* (-.01, .09)]. According to Hypothesis 2.2, self-efficacy is a mediator between a prove goal orientation and work satisfaction.

As is evident in Table 4, there is a significant indirect effect of self-efficacy [$b = .05$, *CI* (.03, .07)] in a traditional classroom, as well as in a virtual classroom [$b = .09$, *CI* (.06, .12)]. The teachers who have a higher level of a prove goal orientation also have a higher level of self-efficacy, which leads to greater work satisfaction (Figure 2), confirming Hypothesis 2.2. Here, the complete mediation is present, as the direct relationship between a prove goal orientation and work satisfaction is not significant.

Table 4. Mediatory Role of Self-Efficacy between a Prove Goal Orientation and Work Satisfaction

				Reliability interval	
	b	*SE*	*t*-value	Low limit	High limit
Traditional classroom					
Total effect	.04	.02	2.083*	**.002**	**.08**
Direct effect	-.004	.02	-0.246	-.04	.03
Indirect effect (ab)	.05	.01		**.03**	**.07**
Virtual classroom					
Total effect	.13	.03	5.086***	**.08**	**.19**
Direct effect	.04	.03	1.670	-.007	.09
Indirect effect (ab)	.09	.02		**.06**	**.12**

*$p < .05$; ***$p < .001$



Note: TC = traditional classroom; VC = virtual classroom; ***$p < .001$; * $p < .05$

Figure 2. Mediatory Role of Self-Efficacy between a Prove Goal Orientation and Work Satisfaction

Self-Efficacy as a Mediating Variable between an Avoid Goal Orientation and Work Satisfaction

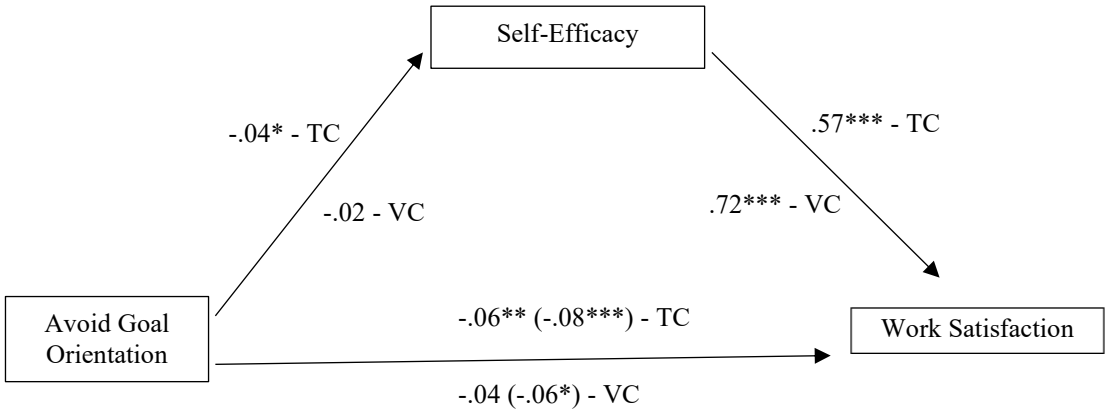
The mediation analysis results indicate that there is a significant total negative effect of an avoid goal orientation on work satisfaction [*b* = -.08, *CI* (-.13, -.04) in a traditional classroom, as well as a significant negative direct effect [*b* = -.06, *CI* (-.10, -.02)]. As for a virtual classroom, there is also a significant total negative effect [*b* = -.06, *CI* (-.12, -.0002)], but there is no significant direct effect [*b* = -.04, *CI* (-.09, .01)]. According to Hypothesis 2.3, self-efficacy is a mediator between an avoid goal orientation and work satisfaction.

It is evident in Table 5 that, as has been expected, there is a significant negative indirect effect of self-efficacy [*b* = -.02, *CI* (-.05, -0.03)] in a traditional classroom, but not in a virtual classroom [*b* = -.02, *CI* (-.05, .01)]. In a traditional classroom, the teachers with a greater avoid goal orientation have a lower level of self-efficacy, which leads to lower work satisfaction (Figure 3), thereby confirming Hypothesis 2.3. Here, a partial mediation is at work, as the direct relationship between an avoid goal orientation and work satisfaction is not significant.

Table 5. Mediatory Role of Self-Efficacy between an Avoid Goal Orientation and Work Satisfaction

				Reliability interval	
	b	*SE*	*t*-value	Low limit	High limit
Traditional classroom					
Total effect	-.08	.02	3.906***	**-.13**	**-.04**
Direct effect	-.06	.02	3.115**	-.10	-.02
Indirect effect (ab)	-.02	.01		**-.04**	**-.003**
Virtual classroom					
Total effect	-.06	.03	1.973*	**-.12**	**-.0002**
Direct effect	-.04	.03	1.603	-.09	.01
Indirect effect (ab)	-.01	.02		**-.05**	**.01**

*$p < .05$; ** $p < .01$; ***$p < .001$



Note: TC = traditional classroom; VC = virtual classroom; ***$p < .001$; * $p < .05$

Figure 3. Mediatory Role of Self-efficacy between an Avoid Goal Orientation and Work Satisfaction

Discussion

The findings of this study indicate that teachers tend to give a high assessment of their own self-efficacy, work satisfaction, a learning goal orientation and a prove goal orientation, while they tend to give a slightly lower self-assessment of their own avoid goal orientation. As the teachers with a higher level of an avoid goal orientation prefer easier tasks, have a greater extrinsic motivation and show little interest in school obligations (Yıldızlı, 2021), a lower assessment is considered a positive indicator. The first aim of this study was to examine the differences in teachers' self-efficacy self-assessment, goal orientations, and work satisfaction in the teaching process conducted in a traditional and in a virtual classroom, with regard to sociodemographic features (gender, years of teaching experience, the place of work). By examining the given variables with regard to the educational context, it is evident that teachers gave a higher assessment to the teaching process implemented in a traditional classroom. Teaching in a virtual classroom required from teachers to have developed digital competences, which some teachers did not have at the moment when the pandemic was declared. Therefore, it is not surprising that the mentioned variables were given lower assessment for the virtual classroom environment. Research has shown

that teachers feel less self-efficient in a virtual classroom and are less satisfied with their work due to the inadequate technical support and unavailability of the Internet connection (Radwan et al., 2022; Szabó et al., 2022), the inability to organize a high-quality teaching process (Hascher et al., 2021), and insecurity caused by introducing the digital technologies into the teaching process (Jaafar et al., 2021).

The results of the study have shown that female teachers tend to have a higher level of self-efficacy and greater work satisfaction in a traditional classroom, in comparison with their male counterparts, and that in a virtual classroom they have a greater learning goal orientation. In the virtual environment, these female teachers probably did not feel competent enough and were more focused on acquiring the digital competences in order to deal successfully with the challenges they were facing in the virtual environment. The findings of various studies show that male teachers perceive a greater ease of use of information and communication technologies in learning and teaching (Smojver-Ažić et al., 2020), while female teachers show a greater motivation for and interest in learning (Smojver-Ažić et al., 2020; Venkatesh et al., 2003).

Furthermore, with regard to the years of teaching experience, the differences were found only in a traditional classroom, for teachers with 30 and more years of teaching experience, whose assessment of work satisfaction was significantly higher than that of their colleagues with 11 – 20 years of teaching experience. The reason for this might be found in the fact that work experience of older teachers facilitates the way in which they deal with work demands, leading to their greater sense of satisfaction. Another explanation might lie in the fact that as they are nearing their retirement, they feel more relaxed in their approach to work. On the other hand, teachers with 11 – 20 years of teaching experience are at a stage in their lives when they are focused on coping with their family and existential issues, so work demands are an additional burden which reduces the level of their satisfaction. No significant differences were found in a virtual classroom, as virtual teaching was sudden and new for all age groups of teachers. All teachers were exposed to the same environmental factors and all of them shared similar experiences and challenges (technical issues, new methods and ways of work, new learning and teaching tools, balancing family life and work, interaction and cooperation with students and parents). Similar results were obtained in other studies, stating that teachers were facing various challenges which required them to be resourceful and innovative, regardless of how long their work experience was (Souza et al., 2023; Willermark & Islind, 2022).

With regard to the place of work, differences were found. Classroom teachers show a greater level of self-efficacy and work satisfaction in comparison with subject teachers, both in a traditional and in a virtual classroom. A possible explanation is that classroom teachers, who work with younger pupils and teach them continuously for four years, have a better insight into the needs and capabilities of their pupils and find it easier to maintain a positive learning environment both in a traditional and in a virtual classroom. Apart from that, by choosing their profession, they already know the age group of the pupils they will be working with, they are well prepared both in a didactic and methodological sense, unlike subject teachers, who do not know whether they will work in a primary or a secondary school, or they even have some other professional plans.

The second aim of the study was to examine the mediation role of self-efficacy between goal orientations and

work satisfaction, in a traditional and in a virtual classroom respectively. The results confirm the mediation role of self-efficacy in the relationship between a learning goal orientation, a prove goal orientation, an avoid goal orientation and work satisfaction. The teachers with a more pronounced learning goal orientation tend to exhibit a higher level of self-efficacy, which results in a higher level of work satisfaction, both in a traditional and in a virtual classroom. Numerous studies that have been conducted so far indicate a positive relationship between self-efficacy, the learning goal orientation, and work satisfaction (Gillet et al., 2014; Runhaar et al., 2010; Schiefele & Schaffner, 2015). The teachers who have a more pronounced learning goal orientation are more focused on developing their own competences, gaining new knowledge and skills to master new situations and challenges, at the same time feeling self-efficient. This, in turn, leads to a greater work satisfaction level. Moreover, both in a traditional and in a virtual classroom, self-efficacy is a significant mediator between a prove goal orientation and work satisfaction. The teachers who have a more pronounced prove goal orientation feel a need to present to others their competences and performance to obtain appraisal for their wok. This positive feedback increases their self-efficacy, leading to greater satisfaction with the content of their work. As for the mediation role of self-efficacy between an avoid goal orientation and work satisfaction, mediation was found only in a traditional classroom. This suggests that teachers with a greater avoid goal orientation exhibit a lower level of self-efficacy, resulting in a lower level of work satisfaction.

Conclusion

This article contributes to a growing body of empirical literature that examines teacher self-efficacy, goal orientations and work satisfaction. The contribution of this paper is reflected in the fact that it takes into account the teaching context (traditional vs virtual classroom). Our analyses suggest that there are differences with regard to gender and place of work in both teaching contexts, while the differences with regard to the years of teaching experience were found only in a traditional classroom. The findings of this study have significant implications for teachers. As certain groups of teachers exhibit a lower assessment of the variables mentioned above in a certain context, it is necessary to be aware of the need for support in the process of improving and developing the necessary competences. It is also necessary to organize systematic training to eliminate the challenges. The study indicates that self-efficacy is a significant mediator between a learning goal orientation, prove goal orientation, and work satisfaction, both in a traditional and in a virtual classroom. The teachers with a higher level of an avoid goal orientation are less self-efficient, and therefore less satisfied with their work. The study was conducted online, and it included the teachers who were willing to fill out a questionnaire. In order to generalize the findings, the sample should be representative, which is not the case. Also, in future studies, it would be interesting to consider some other variables, such as student characteristics, teacher resilience or school leadership.

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