

This is the 8th volume in the series *Emergent Issues in Research on Vocational Education and Training*, an outcome of the research work and international networking of the research group VETYL (Vocational Education & Training/Yrkeskunande och Lärande), at the Department of Education, Stockholm University. The chapters in the volume have been written by researchers who contributed with papers at the 8th Stockholm International Conference & Research Workshop on VET, May 11-13, 2022.

The title *Learning, Teaching and Policy Making in VET* is an umbrella for the presentation of research outcomes focusing on a variety of aspects influencing learning, teaching and policy making in VET in different national contexts. The publication of the 8th volume of the series celebrates the 10th anniversary of the Department of Education and the research group VETYL at Stockholm University.

The content of this volume is of interest for a diversity of readers including undergraduate students, in particular students in initial and in-service teacher training programs for VET, post-graduate students, researchers, and policy makers in Vocational Education & Training.

**AUTHORS:**

Angelo Riviezzo, Anne Traum, Arturo Garcia de Olalla Gutierrez, Bénédicte Gendron, Bill Esmond, Carme Pinya, Elena Quintana-Murci, Elsa Eiríksdóttir, Fernando Marhuenda, Francesca Salvà-Mut, Francesco Magni, Franz Kaiser, Gilda Antonelli, Hamid Asghari, Isabelle Huning, Janne Kontio, Kevin Orr, Lázaro Moreno Herrera, Lea Besser, Manos Pavlakis, Maria Tugores Ques, Marianne Teräs, Martin Frenz, Marvin Goppold, Matthias Pilz, Mattia Müller, Martin Frenz, Miquel F. Oliver-Trobat, Milla Räisänen, Oksana Melnyk, Olaya Álvarez García, Paloma Sepúlveda Parrini, Paloma Valdivia Vizarrreta, Petri Nokelainen, Petros Gougoulakis, Pilar Pineda Herrero, Rachel Terry, Renate Rau, Silke Thiem, Vera Braun, Verena Nitsch, Virginia Capriotti

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EMERGING ISSUES IN RESEARCH  
ON VOCATIONAL EDUCATION & TRAINING VOL. 8

LEARNING, TEACHING  
AND POLICY MAKING IN VET

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ON VOCATIONAL  
EDUCATION & TRAINING VOL. 8

Lázaro Moreno Herrera, Marianne Teräs, Petros Gougoulakis & Janne Kontio (eds.)

ATLAS AKADEMI



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## PREFACE

The variety of research questions and development tasks at the levels of vocational education and training systems (macro level), the organization and design of vocational training programs and institutions (meso level) and the analysis and shaping of education and learning processes (micro level) leads to the integration of different scientific disciplines and research traditions. VET research therefore can be organized only in an interdisciplinary way (Rauner & Maclean, 2008, p. 13)

This is the eighth volume in the research book series *Emerging Issues in Research on Vocational Education & Training*. The series is published by the research group VETYL (Vocational Education & Training/Yrkeskunnande och Lärande), at the Department of Education, Stockholm University, Sweden. VETYL was created in 2011 with twofold aims: contributing to the advance of knowledge in the intricate area of vocational education and training (VET) and strengthening the research basis of the teacher education program for VET that is offered at the Department of Education, Stockholm University. The Swedish term “yrkeskunnande och lärande” in the name of the research group translates as “vocational knowing” and indicates one of the major research focuses of the group.

The research book series started primarily as dissemination venue of selected papers, after a peer review process first presented at the international conferences organized yearly since 2012 by our research group VETYL. The conference has become a forum for sharing state of the art research in the field of VET and serving as a forum for networking and cooperation. The *Stockholm*

*International Conference of Research in VET* is one of the major scientific events organised in Europe as part of the *European Network for Vocational Education and Training* (VETNET).

This volume contains chapters that were first present as papers at the research conference held 11-13, May 2022. With the 8<sup>th</sup> volume we particularly celebrate two milestones in research and development at Stockholm University; the 10<sup>th</sup> anniversary of the creation of the Department of Education; and the 10<sup>th</sup> anniversary of the research group VETYL. Contributions in this volume show the diversity of research problems and national contexts in which VET systems operate and reflect the various research problems in focus within our research group and network.

The title of this volume *Learning, Teaching and Policy Making in VET* is an umbrella for the presentation of research outcomes focusing on a variety of aspects related to learning process, teaching strategies and challenges and policy making in VET systems internationally. The main aim of the volume is to present state of the art research in these areas. We are very happy with the variety of research contributions included in the volume from a diversity of national contexts, such as México, Malaysia, Germany, England, Spain, etc.

The chapters of the volume are grouped into two sections. Section 1: “Teaching and learning in VET” (Chapters 1-9) and Section 2: “VET systems and policy making” (Chapters 10-17). Each section is introduced with a separate brief presentation of the content of the included chapters.

The contributions in this volume show a diversity in theoretical frameworks of reference and methodological grounds. Even though some of the texts are case studies or national policy analyses, they will surely be of interest to an international audience.

This volume continues the tradition of our research book series to depict the diversity and complexity of research in the field of vocational education and training. We hope that it will meet the expectations of a variety of readers including undergraduate students, in particular students in initial and in-service teacher training programs for VET, post-graduate students, and policy makers.

Finally, we would like to thank the reviewers for valuable comments and constructive suggestions for improvement of the contributions to the chapter authors.

Ultimately, needless to say, this volume and the entire series would not have been possible without our Department's (Department of Education) support and of course without all the contributing authors.

*Lázaro Moreno Herrera,*

*Marianne Teräs,*

*Petros Gougoulakis*

*& Janne Kontio*

Stockholm, October 2022.

## REFERENCE

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## **An initial analysis of VET teachers' self-efficacy: the influence of teaching experience and VET instructional level**

Elena Quintana-Murci\*

University of the Balearic Islands

Department of Applied Pedagogy and Educational Psychology

Valldemossa Rd, km 7.5, 07122, Palma, Spain

E-mail: elena.quintana@uib.es

Carme Pinya-Medina

University of the Balearic Islands

Department of Applied Pedagogy and Educational Psychology

Valldemossa Rd, km 7.5, 07122, Palma, Spain

E-mail: carme.pinya@uib.es

Olaya ÁlvarezGarcía

University of the Balearic Islands

Department of Applied Pedagogy and Educational Psychology

Valldemossa Rd, km 7.5, 07122, Palma, Spain

E-mail: olaya.alvarez@uib.es

Arturo García de Olalla Gutiérrez

University of the Balearic Islands

Department of Applied Pedagogy and Educational Psychology

Valldemossa Rd, km 7.5, 07122, Palma, Spain

E-mail: a.garcia-de-olalla@uib.cat

Maria Tugores-Ques

University of the Balearic Islands

Department of Applied Economics

Valldemossa Rd, km 7.5, 07122, Palma, Spain

E-mail: maria.tugores@uib.es

Miquel F. Oliver-Trobat

University of the Balearic Islands

Department of Applied Pedagogy and Educational Psychology

Valldemossa Rd, km 7.5, 07122, Palma, Spain

E-mail: m.oliver@uib.es

Francesca Salvà-Mut

University of the Balearic Islands

Department of Applied Pedagogy and Educational Psychology

Valldemossa Rd, km 7.5, 07122, Palma, Spain

E-mail: f.salva@uib.es

\* Corresponding author

## **ABSTRACT:**

Teachers' teaching styles and pedagogical practices are factors that contribute to preventing students from dropping out of school. In Spain, vocational education and training (VET) is characterised by low participation and high dropout rates. This study explores the perception of VET teachers in relation to professional self-efficacy and in association with two variables (VET instructional level and years of teaching experience) as factors that can influence this belief. The sample comprised 260

VET teachers from the Balearic Islands (Spain) who completed a questionnaire that included the Teachers Self-Efficacy Scale (TSES). The results found that this efficacy is relatively high and that number of years of experience is an influential factor, although the VET instructional level is not. The implications of these results are discussed for the identification of practices that can be positively associated with the prevention of dropout in this educational stage.

**KEYWORDS:**

Vocational Education and Training, Dropout, Teacher's Self-Efficacy, Years of experience, Instructional VET Level

**1. INTRODUCTION**

One of the major current educational challenges in the European Union is the prevention of early leaving of education and training (ELET), as it limits the socioeconomic opportunities of young people. It is one of the main risk factors for inactivity, unemployment, job insecurity, poverty, and social exclusion (European Union Council, 2021; Verd et al., 2019).

The Spanish education system is characterised by high ELET rates and the polarisation of the educational level of the population. In relation to ELET, although this indicator has fallen significantly in recent years, specifically since the outbreak of the pandemic, Spain continues to show the highest rates in comparison with the average for European Union countries, standing at 16% in 2020 compared to 9.9% for the EU average (Eurostat, 2021a). In turn, this indicator shows a high interregional vari-

ation, with the Balearic Islands (the region where this study is carried out) being one of the Spanish regions with the highest ELET rates, standing at 21.3% (Ministry of Education and Vocational Training, 2021), far from the 9% set by the European strategic framework for education and training 2030 (European Union Council, 2021).

In addition, the educational level of the Spanish population is strongly polarised, characterised by a higher number of people with a low level of education (ISCED 0-2\*: 37.1% compared to 17.1% in the EU), a lower number of individuals with an intermediate level of education (ISCED 3-4: 23.2% compared to 46% in the EU) and a relatively high number of people with a high level of education (ISCED 5-8: 39.7% compared to 37.6% in the EU) (OECD, 2021). Educational attainment has a huge impact on youth school-to-work transitions and on the characteristics of future labour and personal pathways. More specifically, young people with low levels of education show higher levels of unemployment and poorer working conditions. In 2020, the youth unemployment rate stood at 29.2% and 40.4% for those with a low level of education (Eurostat, 2021b). Moreover, a recent study carried out in Spain on youth education and training transitions concluded that 58.1% of dropout students have a salary lower than 1000 euros, 67.7% work in low-skilled occupations

\* The International Standard Classification of Education adopted by UNESCO (2012) as a standard framework used to categorise and report cross-nationally comparable education statistics (ISCED-2012). The different levels are: ISCED 0 (Early Childhood Education); ISCED 1 (Primary Education), ISCED 2 (Lower Secondary Education), ISCED 3 (Upper Secondary Education), ISCED 4 (Post-secondary nontertiary education); ISCED 5 (Short cycle tertiary education); ISCED 6 (Bachelor); and ISCED 7 (Master) and ISCED 8 (Doctoral).

and 48.4% have temporary jobs (National Institute of Statistics, 2020).

In this context, a recent study by European Centre for the Development of Vocational Training [Cedefop] (2020b) concludes that over the next decade, 50% of job opportunities will be reserved for people with intermediate qualifications (intermediate and higher vocational education and training), and only 16% of jobs will require a low level of qualification. Therefore, vocational education and training (VET) has a strategic role in preventing dropout, reducing youth unemployment, and improving youth labour market insertion processes (Cedefop, 2016; 2020a; Marhuenda-Fluixà, 2019).

The Spanish VET system is organised into three levels: basic VET (BVET), intermediate VET (IVET), and higher VET (HVET) (all levels have a duration of two academic years). BVET is a vocational option established in Spain in 2014–2015 and is geared towards students who have not completed compulsory secondary education (ISCED 2) and are at risk of leaving education; it seeks to reduce ELET and ensure that youth remain in the educational system. Those who attend BVET start this training at the age of 14 and, in the end, receive a VET Level 1 credential that enables students to continue in IVET. However, IVET begins after the end of compulsory education (at the age of 16) and, once completed, allows access to a higher level of VET.

Nonetheless, despite efforts to bolster VET in Spain, vocational training is characterised by low participation and high dropout rates. In this sense, Spanish students show a clear preference for academic studies over vocational studies; only 36.3% are enrolled in VET programs compared to 67% in *Bachiller-*

*ato* (post-compulsory education: academic track). More specifically, in the 2018–2019 academic year, net enrolment rates stood at 8.1% in BVET, 28.3% in IVET, and 29% in HVET (Ministry of Education and Vocational Training, 2021). In addition, it is estimated that more than half of the students leave this training without the corresponding qualification (Martínez-Morales & Marhuenda-Fluixà, 2020; Salvà-Mut et al. 2020). A study carried out in the Balearic Islands concluded that the dropout rate in BVET is 54.6% and 43.9% in IVET (Cerdà-Navarro et al., 2019; Salvà-Mut, 2018).

In this sense, specifically in VET, the influence of previous negative educational experiences, particularly in compulsory secondary education, has been shown to increase the probability of dropout (Nielsen & Tanggaard, 2015; Niittylähti, et al., 2019). Thus, some students may arrive at VET with advanced disengagement processes and a greater disinterest in studies, a perception that the education system is not adapted to their needs, a sense of failure, and less confidence in their possibilities (Elffers, 2012). Van Houtte and Demanet (2015) conclude that the intention to drop out of vocational training is determined by students' feelings of uselessness and failure, with variables traditionally related to dropout such as gender, cultural origin or academic background not being determinant. In this way, the teachers' confidence in the students' abilities and the positive expectations regarding their potential become a fundamental factor in reducing the feeling of failure and are configured as an element of influence on the perseverance of students in this educational stage.

For all of the above reasons, we consider it essential to conduct an in-depth exploration of the variables that influence the

prevention of dropout in VET. Therefore, this study is focused on the role of teachers and teaching styles, considering the contributions of self-determination theory (Ryan & Deci, 2017). For this purpose, BVET and IVET teachers' self-efficacy beliefs (Tschannen-Moran & Woolfolk Hoy, 2001) and the influence of years of professional experience and instructional level in this construct are analysed.

## **2. THEORY AND METHODS**

### **2.1 THEORY**

Numerous studies on student engagement point to the importance of the teaching role and student-teacher engagement in preventing students from dropping out of school (Archambault et al., 2009; Cerdà-Navarro et al., 2019; Davis & Dupper, 2004; Fall & Roberts, 2012; Jang et al., 2010; Lessard et al., 2010; Whannell & Allen, 2011). In this sense, when students perceive a greater sense of closeness, support, help, and encouragement from teachers and when teachers have confidence in students' potential and abilities, feelings of belonging and school engagement increase (Eccles & Roeser, 2009; Nielsen & Tanggaard, 2015; Pinya et al., 2017; Tarabini et al., 2019; Van Houtte & Van Maele, 2012). Furthermore, teachers' teaching styles and pedagogical practices, understood as supporting student autonomy, providing an optimal teaching structure and a curriculum adapted to students' interests, positively influence students' increased autonomy and competence and are key elements for increasing school engagement and preventing dropout (Aelterman et al., 2019; Eccles & Roeser, 2009; Jang et al., 2010; Tarabini et al., 2019).

In this research, self-determination theory (SDT), developed by Ryan and Deci (2017), is the theoretical framework that considers the influence of teaching practices on teaching-learning processes, focusing on the types and sources of motivation and their impact on student behaviour. According to SDT, it is essential to consider teachers' perceptions of their professional autonomy, teaching competence and interpersonal skills as determinants not only of beliefs and intentions but also of teaching practice, establishing a direct relationship with the connection established with students (Deci & Ryan, 2000; Niemiec & Ryan, 2009; Van Uden et al., 2013). The SDT identifies two important dimensions concerning teachers' teaching styles: support for students' autonomy and the provision of structure in teaching. Both dimensions correlate positively and predict student behavioural engagement (Aelterman et al., 2019; Jang et al., 2010), enabling the satisfaction of students' basic psychological needs in terms of autonomy and competence (Sierens et al., 2009). At this point, it is necessary to highlight the research developed on the influence of teachers' self-efficacy beliefs on the teachers' degree of involvement, teaching practices, and, therefore, students' achievement and motivation.

According to Bandura (1997), self-efficacy refers to an individual's beliefs about his or her ability to act successfully. Self-efficacy is constructed based on four factors: successful management of experiences (understood as experience in overcoming obstacles through persevering efforts), vicarious experiences provided by social models (observing in the environment how other people with similar characteristics achieve success in similar activities); social persuasion (those who are verbally persuaded that they possess the necessary skills to master certain

activities are more likely to make a considerable and constant effort compared to those who doubt their abilities), and affective state (evaluating abilities based on their own psychological states).

In the educational context, teaching self-efficacy refers to teachers' beliefs in their abilities to organise and execute the actions required to perform a teaching task in a specific context (Tschannen-Moran et al., 1998). Scientific evidence has shown that self-efficacy beliefs influence teachers' efforts in developing classes and their ability to teach and facilitate learning processes (Tschannen-Moran & Johnson, 2011), consequently improving the quality of teaching and student achievement (Klassen & Chiu, 2011). Accordingly, teachers with a high level of self-efficacy plan and organise lessons more effectively (Milner, 2002), are better able to create an appropriate learning environment (Pas et al., 2012) and are more open to using innovative pedagogical methods to promote students' autonomy (Berger & Girardet, 2016). Moreover, studies demonstrate that teachers are more persistent in difficult situations, show a greater understanding of students with more difficulties (Pressley et al.; 2018; Tschannen-Moran et al., 1998) and have higher expectations of students' academic achievement (Fackler & Malmberg, 2016).

One of the variables studied for its influence on teachers' self-efficacy is the instructional level of teaching. In the case of nonvocational education (both compulsory and postcompulsory), studies suggest that this belief is stronger at lower levels of education (Guskey, 1987; Ross, 1992; Wolters & Daugherty, 2007), although this is controversial. Other studies have shown that this belief is stronger in secondary school teachers (Raudenbush et al., 1992), and some more current studies have found no

significant differences in levels of self-efficacy as a function of academic level (Presley & Ha, 2021).

Another variable extensively studied for its implications regarding the level of teacher's self-efficacy is the number of years of teaching experience. Although Bandura (1997) argued that self-efficacy remained stable once professional stability was achieved, some studies have analysed the influence of years of teaching experience on self-efficacy beliefs in different contexts and educational stages, obtaining divergent results.

In this sense, various studies have shown that teachers' self-efficacy beliefs increase as professional experience rises and remains stable once professional stability is acquired, as teachers have gained more successful management experiences over the years (Tschannen-Moran & Woolfolk Hoy, 2007; Wolters & Daugherty, 2007). Moreover, other studies have demonstrated that teachers' self-efficacy gradually decreases throughout their professional career: Klassen and Chiu (2010) argued the influence of years of teaching experience on teachers' self-efficacy is a nonlinear relationship, increasing as more years of teaching experience are attained but decreasing in the last professional stage. Furthermore, Covarrubias and Mendoza-Lira (2015) concluded that the highest level of self-efficacy is between 6 and 10 years of professional experience, decreasing in the later stages.

Despite the differences in these findings, a common conclusion of all mentioned research is that self-efficacy belief is not a fixed construct, although it may fluctuate throughout a teacher's professional career and may be influenced by environmental or individual variables. In this sense, promoting an optimal climate in the school and a good relationship and communication between teachers (Siciliano, 2016), receiving practical

and meaningful training courses (del Río et al., 2011; Fernández-Arata, 2008; Woolfolk Hoy & Burke Spero, 2005), being supported by school management through coaching or mentoring (O'Connor & Korr, 1996; Ross & Bruce, 2007) and having opportunities for professional development (Fackler & Malmberg, 2016) are factors that have been found to have a positive influence on increasing teachers' self-efficacy beliefs.

Finally, it is necessary to point out that none of the previous studies has been carried out in the framework of VET but rather in other educational contexts. Therefore, it is considered necessary for dropout prevention to analyse this construct and its relationship with academic level and professional experience in the framework of VET education. Nevertheless, it is also important to highlight that in previous studies, teachers' self-efficacy beliefs are studied overall as well as in relation to the three subscales that make up this construct: instructional strategies, classroom management, and student engagement. However, in this study, the analysis of this belief is considered in generic terms, even considering the limitations that may be derived in comparison with these studies.

## 2.2. METHOD

This study assesses whether self-efficacy among VET teachers is associated with variables such as the VET instructional level (BVET and IVET) and years of teaching experience. It is a descriptive study that aims to explore teachers' practices as a means of dropout prevention. The instrument used was the questionnaire. The first part collected demographic information about teachers, academic level, years of teaching experience,

instructional VET level of teaching, and lifelong learning or student academic achievement. To measure teacher self-efficacy, the Teachers Self-Efficacy Scale was used (Tschannen-Moran & Woolfolk Hoy, 2001). This scale measures the beliefs that teachers hold about their capability to influence student learning by performing certain actions related to three domains of self-efficacy: student engagement (8 items), instructional strategies (8 items) and classroom management (8 items), according to a Likert-type scale, where 1 means “not at all able” and 9 means “fully able”. Sample questions include “How well are you able to communicate with the most troubled students?”, “At what level are you able to establish routines so that the activities are carried out in an agile and uncomplicated way?” or “To what extent are you able to react in front of students who have a defiant attitude?” The questionnaire reliability and validity values are  $\alpha=0,94$  for the overall TSE and  $\alpha=0,87$ ,  $\alpha=0,91$  and  $\alpha=0,90$  for its scale, respectively.

The fieldwork was carried out online and via email with VET schools in the Balearic Islands (Spain) during the first semester of 2021, resulting in a total of 287 surveys. It is a representative sample of the region with a confidence margin of 90% and a sampling error of 5%. Of the initial 287 participants, after a revision and exclusion process, a final sample of 260 VET teachers was established for this study: 97 are BVET teachers, and 163 are IVET teachers. Among the professional fields, 47% of VET teachers developed their teaching practice in Administration and Management, Computer Science and Communications and Hospitality and Tourism; that is, these three fields are the most representative of VET in the Balearic Islands. They represent almost 45% of the sample in the case of BVET and 48% in the case of IVET.

To establish associations between teachers' self-efficacy and the variables under study, the statistical analysis focused on the comparison of means obtained by applying a t test and ANOVA. The VET instructional level was divided according to the Spanish VET system: basic VET (BVET) and intermediate VET (IVET). Teaching experience was measured according to years of teaching. In Spain, the average length of a professional teaching career is 30 years. Therefore, following previous studies (Wolters and Daugherty, 2007) and this pattern, it was considered a novice group with less than one year of teaching experience (Group 1,  $\leq 1$ ), an intermediate group in the middle of their professional career (2–15 years) and a third group in the last stages of the profession ( $>16$  years).

### 3. RESULTS

The average teacher's self-efficacy for the sample suggests that teachers have a relatively high belief in their efficacy, as the mean score for this value is 7,09 ( $SD=0,75$ ). This perception is also demonstrated according to the VET instructional level and years of experience, with mean scores of approximately 7 points (Table 1). However, teachers with less than one year of teaching experience have the lowest self-efficacy beliefs ( $M=6,78$ ,  $SD=0,153$ ).

		N	M	SD
<b>Overall</b>		260	7,09	0,75
<b>VET level</b>	<b>BVET</b>	97	7,07	0,76
	<b>IVET</b>	163	7,11	0,75
<b>Years of experience</b>	<b>1 (≤1y)</b>	24	6,78	0,153
	<b>2 (2-15y)</b>	152	7,04	0,062
	<b>3 (&gt;16 y)</b>	84	7,29	0,091

Table 1. Teachers' self-efficacy descriptive statistics

### 3.1. SELF-EFFICACY AND VET INSTRUCTIONAL LEVEL

When comparing teachers' self-efficacy based on the VET instructional level, the results indicate that BVET teachers have a slightly lower level of self-efficacy ( $M=7,07$ ,  $SD=0,76$ ) than IVET teachers ( $M=7,11$ ,  $SD=0,75$ ). However, the results indicate no significant differences in teachers' self-efficacy ( $t=-0,609$ ,  $p=0,988$ ) based on the VET type (Table 2).

VET level	N	M	SD	t	DF	Sig.
<b>BVET</b>	97	7,07	0,76	-0,609	259	0,988
<b>IVET</b>	163	7,11	0,75			

Table 2. Values from the t test for the relationship between self-efficacy and VET instructional level

### 3.2. SELF-EFFICACY AND YEARS OF TEACHING EXPERIENCE

The analysis of the relationship between teachers' self-efficacy and years of experience demonstrates that there are significant

differences in the three experience groups at the significance levels considered (Table 3 and Table 4). The results demonstrate that teachers with 1 or fewer years of experience have lower self-efficacy beliefs (Group 1,  $M=6,78$ ) than those who have more than 16 years of teaching experience (Group 3,  $M=7,29$ ), and teachers with between 2 and 5 years of teaching experience (Group 2,  $M=7,04$ ) have lower self-efficacy than Group 3 teachers. According to the mean scores for each group, it can be stated that self-efficacy beliefs among teachers increase along with the development of their professional careers.

Years of Teaching Exp.	N	M	DF	F	Sig.
1 ( $\leq 1y$ )	24	6,78			
2 (2-15y)	152	7,04	2	4,714	0.010*
3 (>16 y)	84	7,29			

Table 3. Values from the ANOVA test for the relationship between self-efficacy and years of teaching experience

Years of Experience (I)	Years of Experience (J)	Mean differences	SE	Sig.
1 ( $\leq 1y$ )	2 (2-15y)	-0,254	0,165	0,373
	3 (>16 y)	-0,504	0,178	0,015**
2 (2-15y)	1 ( $\leq 1y$ )	0,254	0,165	0,373
	3 (>16 y)	-0,251	0,110	0,072*
3 (>16 y)	1 ( $\leq 1y$ )	0,504	0,178	0,015**
	2 (2-15y)	0,251	0,110	0,072*

Note: \*\*\*Significant to  $\alpha=0,01$  \*\* significant to  $\alpha=0,05$  \* significant to  $\alpha=0,1$

Table 4. Values from the Bonferroni test for the relationship between self-efficacy and years of teaching experience

### 3.3. SELF-EFFICACY, VET INSTRUCTIONAL LEVEL AND YEARS OF EXPERIENCE

It was analysed whether teachers' years of experience as a function of VET instructional level influence self-efficacy beliefs (see Table 5 for descriptive statistics). Significant differences were found in some groups. The results demonstrate that BVET teachers who have more than 16 years of teaching experience (Group 3,  $M=7,29$ ) have better self-efficacy beliefs than those with 1 or fewer years of experience (Group 1,  $M=6,66$ ). Regarding IVET teachers, this difference was found among teachers with more than 16 years of experience (Group 3,  $M=7,29$ ) and between 2 and 15 years of teaching experience (Group 2,  $M=7,02$ ).

		M	SD
BVET	1 ( $\leq 1y$ )	6,66	0,216
	2 (2-15y)	7,06	0,095
	3 ( $>16 y$ )	7,29	0,156
IVET	1 ( $\leq 1y$ )	6,95	0,216
	2 (2-15y)	7,02	0,079
	3 ( $>16 y$ )	7,29	0,096

Table 5. Descriptive statistics for teachers' years of experience and VET instructional level

	Years of Experience (I)	Years of Experience (J)	Mean differences	SE	Sig.
BVET	1 ( $\leq 1y$ )	2 (2-15y)	-0,403	0,236	0,266
		3 (>16 y)	-0,635	0,266	0,054*
	2 (2-15y)	1 ( $\leq 1y$ )	0,403	0,236	0,266
		3 (>16 y)	-0,232	0,182	0,614
	3 (>16 y)	1 ( $\leq 1y$ )	0,635	0,266	0,054*
		2 (2-15y)	0,232	0,182	0,614
IVET	1 ( $\leq 1y$ )	2 (2-15y)	-0,105	0,230	1,000
		3 (>16 y)	-0,374	0,236	0,342
	2 (2-15y)	1 ( $\leq 1y$ )	0,105	0,230	1,000
		3 (>16 y)	-0,269	0,124	0,092*
	3 (>16 y)	1 ( $\leq 1y$ )	0,374	0,236	0,342
		2 (2-15y)	0,269	0,124	0,092*

Note: \*\*\*Significant to  $\alpha=0,01$  \*\* significant to  $\alpha=0,05$  \* significant to  $\alpha=0,1$

Table 6. Values from the Bonferroni test for the relationship between self-efficacy, years of teacher experience and VET instructional level

#### 4. DISCUSSION

The aim of this study was to determine the self-efficacy beliefs of VET teachers, as well as the relationship that may exist between self-efficacy and certain variables, such as the VET instructional level at which they teach and the years of teaching experience. The results obtained show that VET teachers have a fairly high sense of self-efficacy. It could be argued that these teachers feel confident in their classroom management, and, therefore, their learning styles may be positively influenced by this. Comparatively, previous studies on teachers' perceived self-efficacy in primary and secondary education show very similar values for

self-efficacy as in our research (Klassen & Chu, 2010; Wolters & Daugherty, 2007).

Concerning the analysis of the differences in self-efficacy beliefs depending on the VET instructional, our study has shown that there is no difference between BVET and IVET levels. This may be because teachers at both levels face the same situations in the classroom, regardless of the level of VET education. It could also be argued that any differences that might have existed have been reduced by the effect of COVID-19, equalising the difficulties that teachers face in the classroom, conditioning this belief of self-efficacy, as has been shown in a study on the impact of the pandemic on teachers' self-efficacy (Pressley & Ha, 2021).

One of the variables for which a positive association has been identified is the years of teaching experience. This research shows that as the number of years of teaching experience increases, self-efficacy beliefs also increase. Previous studies have identified similar results (Hoy & Woolfolk, 1993; Tschannen-Moran & Hoy, 2007; Wolters & Daugherty, 2007). However, it cannot be claimed that this is a common and generalised pattern, as other studies point to a nonlinear relationship on this efficacy, but rather that there is a decrease in self-efficacy beliefs in the later years of a professional teaching career (Covarrubias & Mendoza-Lira, 2015; Klassen & Chu, 2010). In any case, these results do not confirm the findings of Bandura (1997), who stated that teacher self-efficacy remains stable once it has been achieved.

In this sense, neither is it possible to affirm the existence of a clear pattern of teaching experience as a function of the VET instructional level of teaching. In this study, significant differences are identified that show higher levels of self-efficacy as a

function of years of experience for each VET instructional level, but this does not occur uniformly according to the different age groups of teaching experience.

## **5. CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH**

In a context characterised by low participation in and high dropout rates from vocational and educational training, it is important to explore in-depth the factors that improve the quality of the teaching-learning process, increase student motivation towards training and, therefore, prevent dropout.

Scientific evidence has shown that the role of teachers is fundamental since an educational response adapted to the different learning styles of students and the establishment of a positive relationship with students leads to greater student confidence in their abilities and potential and an increase in their motivation towards learning (Nielsen & Tanggaard, 2015). In addition, strong self-efficacy beliefs among teachers influences the effort they make in organising classes and their ability to teach and facilitate learning processes (Tschannen-Moran & Johnson, 2011), increasing both motivation and student achievement (Klassen & Chiu, 2011).

The results of the research presented here show that the level of self-efficacy of VET teachers, in the specific case of the Balearic Islands, is relatively high and is specifically influenced by the number of years of teaching experience. However, this finding needs to be analysed in greater depth, identifying those teaching practices and teaching styles associated with a high belief of self-efficacy and, on the other hand, establishing the resources needed to promote and generalise its application.

In this sense, developing effective teaching styles and pedagogical practices for the prevention of dropout requires teachers' support from the education administration, for example, by providing meaningful teacher training (Woolfolk Hoy & Burke Spero, 2005), opportunities for professional development (Fackler & Malmberg, 2016), support for teachers, especially through coaching or mentoring (O'Connor & Korr, 1996; Ross & Bruce, 2007), educational environments that promote teacher well-being and enhance teachers' optimal interpersonal relationships (Siciliano, 2016); and strategies that have been demonstrated to increase teacher self-efficacy.

In accordance with these recommendations, the project *Teaching Practices & Early Leaving from Vocational Education and Training: An Empirical Approach & Intervention* (PID2019-108342RB-I00), whose initial results are presented in this chapter, aims to identify and analyse those educational practices and teaching styles that positively influence student achievement, with the main objective of transferring and generalising their application in VET.

To this end, the project is structured into two phases of development. The first phase aims to identify the pedagogical practices and teaching styles of teachers that are positively correlated with student achievement. First, two standardised questionnaires were administered to teachers: Teachers' Sense of Efficacy Scale-TSE (Tschannen-Moran & Hoy, 2001) and the Situations in School Instrument (SIS) to analyse teaching styles (Aelterman et al., 2019). Second, on the basis of the results obtained, focus groups were held with teachers, students, education experts and stakeholders to identify pedagogical practices and teaching styles that promote student motivation and, there-

fore, improve students' educational achievement. In a second phase, the implementation of these successful educational practices in two schools is planned by monitoring, evaluating and collecting evidence of the whole process by conducting focus groups with students and interviews with teachers. The ultimate aim of this phase is to cocreate a catalogue of successful tools and educational practices for their transfer and application in continuous teacher training.

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