

Student engagement in Vocational Education and Training: differential analysis in the province of Valencia¹

Implicación del estudiantado en Formación Profesional: análisis diferencial en la provincia de Valencia

DOI: 10.4438/1988-592X-RE-2021-394-505

Almudena Adelaida Navas Saurin

Miriam Abiétar López

Joan Carles Bernad i García

Ana Isabel Córdoba Iñesta

Elena Giménez Urraco

Esperanza Meri Crespo

Universitat de València

Elena Quintana-Murci

Universitat de les Illes Balears

Abstract

Given the high rate of Early School Leaving in Spain, the analysis of *student engagement* acquired relevance in the educational field, since it allows the analysis of educational pathways by delving into the processes that can lead to school dropout. Although this analysis has been mainly focused on Primary and Secondary Education, in this article we focus on Vocational Education and Training (VET).

⁽¹⁾ This article is based on research carried out as part of a state research project funded under the RDI Programme for Social Challenges run by the Ministry of Economy, Industry and Competitiveness, the State Research Agency (in Spanish, AEI) and the European Regional Development Fund (ERDF) ("Pathways that lead to success and drop-out in level-1 and level-2 Vocation Education and Training of the educational system" (EDU2013-42854- R). This state project is continued through the regional project "Pathways that lead to success and drop-out in level-1 and level-2 Vocation Education and Training of the educational system of the province of Valencia" (GV/2018/038).

The study we present here has been developed in the province of Valencia within the framework of a state research project with continuity at a regional level whose main objective is the analysis of the itineraries of the VET students. It follows a longitudinal methodology and includes the analysis of official data and the passing of questionnaires in 49 centers selected on the basis of professional family, geographical location and ownership. The data presented correspond to the first pass of questionnaires, obtained in the 2016-2017 academic year to 737 students of Basic Vocational Education and Training (BVET) and 1.240 of Intermediate Level Vocational Education and Training (IVET). We carried out a differential analysis in relation to the student engagement between both levels of VET starting from the general hypothesis that there will be a greater school engagement among the students of IVET.

The results obtained have allowed us to confirm our initial hypothesis; however, we will highlight nuances in each of the dimensions of *student engagement*. We conclude with contributions that emphasize the effects of social structures and school institutions as explanatory dimensions of educational processes.

Key words: Vocational Education and Training, student engagement, student motivation, academic aspiration, student development, comparative analysis.

Resumen

Ante la alta tasa de Abandono Temprano de la Educación y la Formación en el Estado español, el estudio del *student engagement* ha adquirido relevancia en el campo educativo al permitir el análisis de los itinerarios educativos profundizando en los procesos que pueden derivar en abandono. Si bien este análisis se ha situado principalmente en Educación Primaria y Secundaria, en este artículo nos centramos en Formación Profesional (FP).

El estudio que presentamos ha sido desarrollado en la provincia de Valencia en el marco de una investigación estatal con continuidad a nivel autonómico que tiene como principal objetivo el análisis de los itinerarios del alumnado de FP. Sigue una metodología longitudinal e incluye el análisis de datos oficiales y el pase de cuestionarios en 49 centros seleccionados en base a familia profesional, situación geográfica y titularidad. Los datos presentados corresponden al primer pase de cuestionarios, realizado en el curso 2016-2017 a 737 estudiantes de Formación Profesional Básica (FPB) y 1.240 de Formación Profesional de Grado Medio (FPGM). Realizamos un análisis diferencial del *student engagement* entre ambos niveles de FP partiendo de la hipótesis general de que habrá una mayor vinculación escolar entre el alumnado de FPGM. Los resultados obtenidos permiten confirmar nuestra hipótesis, aunque aparecen matices en cada una de las dimensiones del *student engagement*. Concluimos con aportaciones que enfatizan los efectos de las estructuras sociales y las instituciones escolares como dimensiones explicativas de los procesos educativos.

Palabras clave: Formación Profesional, implicación del estudiante, motivación del estudiante, aspiración académica, desarrollo del estudiante, análisis comparativo.

Introduction

One of the most critical indicators of our education system is the Early School Leaving (ESL) rate, which refers to the percentage of the population aged 18-24 who have not completed any post-compulsory secondary education and are not involved in any kind of training. Spain has the highest rate among European countries: 17.3% in 2019 (Ministry of Education and Vocational Education and Training [in Spanish, MEFP], 2020). This indicator is still well above the European average, which stood at 10.3% in 2019, although it has gradually fallen in recent years. In 2008, it reached 31.7% and in the years covered by this study, it has fallen from 19% in 2016 to 18.3% in 2017 and 17.9% in 2018.

Faced with this situation, the fight against ESL is now one of the strategic objectives of the current European framework for Education and Training ET2020. More specifically, this objective states that it is necessary to “strengthen preventive approaches, establish closer cooperation between the general education and vocational education and training sectors and remove barriers that prevent early school leavers from returning to education and training”. It aims to reduce drop-out rates to below 10%, while in Spain the target figure is 15%. This interest shows the EU’s concern for post-compulsory education as a key factor in the transition between training and employment, since compulsory schooling is a necessary but insufficient condition for guaranteeing success in society and employment.

In this context, significant attention has been paid in recent years to the study of *student engagement*, understood here as involvement (bonding, engagement, commitment) in the educational process from different levels and structures (Reschly and Christenson, 2012; Fredricks, Reschly and Christenson, 2019) owing to its relevance for understanding the diversity of pathways students follow. In particular, research on engagement makes it possible to study the phenomena of absenteeism, failure and ESL in greater detail.

Although school disengagement starts to develop in primary school, it is in secondary school where it becomes more visible and starts to generate difficulties in classroom management (González González & Cutanda López, 2015; Salvà-Mut, Oliver-Trobat & Comas-Forgas, 2014). It is a gradual process of disengagement from learning and school life. It involves different factors and gradually distances students from a positive educational experience (Rumberger, 2011). Students in this situation are not a homogeneous group even though they share socio-economic, family, cultural and academic factors considered 'risk factors'. In a review of the state of the art, González González (2017) points out that the heterogeneity of these students is evident and leads to different measures and support.

On the other hand, Ramos-Díaz, Rodríguez-Fernández, Fernández-Zabala and Zuazagoitia (2016) conclude that, "Family support and peer support activate general self-concept as a mediating variable which, together with the influence of teacher and family support, directly affects school engagement" (p. 349). The results of this study reveal the important mediating role of general self-concept in the indirect influence social support has on school engagement. Thus, it is worth emphasising the importance of the teaching role (proximity, support given to students and confidence in their abilities) in motivating students—especially those with previous negative educational experiences—and increasing their engagement (Truta, Parv and Topala, 2018 Van Houtte and Demanet, 2015). Similarly, in a recent study, Gil, Antelm-Lanzat, Cacheiro-González and Pérez-Navío (2021) first of all highlight the existence of a direct relationship between students' socialisation skills and their commitment to the education system and, secondly, the mediating role played by family support in the link between students' skills and their behavioural commitment.

Thirdly, they emphasise that the analysis of school engagement is sometimes reduced to measuring good school behaviour, and less observable cognitive, affective or emotional aspects are neglected. The work of Aina Tarabini and her team (Curran, 2017; Tarabini, Curran, Montes and Parcerisa, 2019) suggests focusing on these three dimensions and studying them together to gain an overall view that might offer relevant information. Their work points out that the 'centre effect' acts on (dis)engagement and it follows that both the social composition and the mechanisms of attention to diversity influence the process. It is important

to remember, therefore, that the type of working dynamics followed at school can be a determining factor for engagement.

Finally, bearing in mind that the lack of student engagement cannot be attributed to one single cause, it is also worth noting the importance of one of these causes, which “has to do with a school curriculum compartmentalised into subjects, with a very academic imprint, disconnected from the student’s life outside school and often developed in classrooms with ‘traditional’ methodologies” (González González and Cutanda López, 2015, p. 15). It seems logical to deduce that if these teaching-learning dynamics do not work in primary education, a different approach should be considered for secondary and vocational education and training (VET) to extend students’ permanence in the education system and improve their academic achievements.

Based on the relevance of engagement as a concept that allows us to address learning pathways and the specific processes that can lead to ESL, absenteeism and/or school failure, in this paper we address the concept in different VET contexts. Accordingly, we consider the relevance of this training as a strategic area, as a safety net (Cedefop, 2016, 2020) capable of reducing high ESL and school failure rates, thus favouring permanence in or a return to the education system. In turn, this would lead to an increase in the level of qualification of the population and the inclusion of young people at risk of educational exclusion in society and employment.

This consideration of VET as a context that remedies previous pathways in Compulsory Secondary Education (in Spanish, ESO) is particularly evident at the first level, embodied in our education system as Basic Vocational Education and Training (BVET) programmes. However, the access requirements and their use as a programme to counter ESL, together with measures such as Curricular Diversification Programmes, reveal a contradiction in this function: the target population is precisely characterised by ESL risk factors, especially in terms of schooling, which presents a previous learning pathway marked by experiences of failure that have culminated in the student not completing Compulsory Secondary Education (ESO). The next level of VET, Intermediate Vocational Education and Training (IVET), has a significantly different role in the education system: the access conditions profile a different population, at least in terms of the previous learning pathway, which makes it possible

to anticipate a lower risk of students dropping out. However, as a post-compulsory secondary education, it is key to reducing ESL rates.

Despite this role of VET as a context for reducing ESL in Spain and Europe, students' pathways are not monitored to determine completion or drop-out rates at this level. The lack of a specific indicator for ESL in VET and/or of more information in the indicators already available (Cedefop, 2016), together with the scarcity of research on educational practices that can prevent drop-out at this level in Spain (Pinya Medina, Pomar Fiol and Salvà-Mut, 2017), makes it difficult to obtain detailed knowledge of the pathways students follow. On the one hand, this hinders the proposal of specific policies to help reduce ESL in these contexts. On the other, it makes it difficult to study VET in our education system. Thus, we believe this level of education should be valued not only as a preventive policy to remedy what happens in ESO and tackle a structural problem that affects our education system, but also as a level *per se* that offers training for a professional career. Therefore, our main aim is to analyse the learning pathways of BVET and IVET and compare student engagement between the two levels in all three areas: cognitive, affective and behavioural. We start with the hypothesis whereby the level of school engagement in all three areas will be higher in IVET.

Method

This article presents the main results obtained in the first phases of the state research project titled "Pathways that lead to success and drop-out in level-1 and level-2 Vocational Education and Training of the education system" (EDU2013-42854- R), led by the research group *Educació i Ciutadania* of the University of the Balearic Islands. The objectives of the project were to obtain new knowledge on the phenomenon of school drop-out in VET and develop action proposals to prevent, control and correct the phenomenon². In Valencia, the research was continued through the regional project titled "Pathways that lead to success and drop-out in level-1 and level-2 Vocational Education and Training of the education system of the province of Valencia", funded by the Regional Department of Education, Research, Culture and Sport of Valencia

⁽²⁾ <http://www.itinerariosfp.org/es/p/3/el-proyecto.html>

(GV/2018/038). Based on the state research project, this study consists of two phases:

- Statistical data analysis and mapping of student registrations for VET levels 1 and 2. In the province of Valencia, the available data with which we started the project is for the 2016-17 academic year.
- Three-year longitudinal questionnaire survey. In the province of Valencia, the Q1 questionnaire was carried out during the 2016-17 academic year, Q2 was carried out during the 2017-18 academic year and Q3 during 2018-19.

The data presented in this article corresponds specifically to the Q1 results obtained in the 2016-17 academic year. As for the relevance and topicality of the results presented here, it should be noted that the research continued until the 2018-19 academic year, when we completed the third round of questionnaires. It was from this academic year onwards that we had all the data, which allowed us to start the analysis strategy and study the pathways of VET students in greater detail. Here, we aim to show the differences in student engagement between students studying IVET and those studying BVET, based on the general hypothesis of disengagement among the latter being higher. Likewise, we must understand this work as a descriptive and exploratory approach to both groups that allows an initial approach to the study of VET pathways from the possibilities offered by student engagement. Given the multifaceted nature of the concept referred to above, we have looked at some of its influences, understanding it as adaptation to the school context or the degree to which students are engaged with the school and their own learning process. Following Reschly and Christenson (2012), we can differentiate three dimensions of student engagement (emotional; behavioural and academic; and cognitive), as will be explained later.

Sample

When designing the project, we stratified the sample according to three criteria: professional family; geographical distribution (inside or outside the metropolitan area of Valencia); and ownership of the school. In order to have as representative a sample as possible, we also included Secondary Education Schools (in Spanish, IES) and Integrated Public

Vocational Education and Training Centres (in Spanish, CIPFP). With these stratification criteria, we started with the student registration data provided by the Directorate General for Vocational Education and Training and Special Regime Education (in Spanish, DGFPERE) at both level 1 (BVET) and level 2 (IVET) to choose the centres at which to collect data for Q1.

According to official data, the population of our study in BVET was 5,288 students registered in the first year of BVET in the province of Valencia for the academic year 2016-2017. The optimal sample design, with a confidence level of 95% and a sampling error of 3%, indicated that we needed to obtain a total of 894 questionnaires. However, a total of 737 questionnaires were obtained, which gives an actual sampling error of 3.35%. Table I shows the sample finally obtained for level 1, with details of the data for each professional family. The planned sampling points were distributed among 43 schools and 73 classes, but since two private schools chose not to participate in the project, the questionnaires were finally collected at 41 schools and 71 classes.

According to official data, the population of our study in IVET was 21,246 students registered in the first year of IVET in the province of Valencia for the academic year 2016-2017. The optimal sample design, with a confidence level of 95% and a sampling error of 3%, indicated that we needed to obtain a total of 1,028 questionnaires. We actually obtained 1,240 questionnaires, which gives an actual sampling error of 2.27%. Table I shows the sample finally obtained for level 2, with details of the data for each professional family. The planned sampling points were distributed among 43 schools and 85 classes. At this level, all the centres contacted agreed to take part.

TABLE I. Sample obtained for BVET and IVET in the province of Valencia

Professional families	Questionnaires obtained in BVET	Questionnaires obtained in IVET	% of total sample
Physical activities and sports	0	49	2.5
Administration and management	173	111	14.4
Agriculture	52	21	3.7
Graphic arts	9	0	0.5
Trade and marketing	50	34	4.2
Building and civil works	11	8	1.0
Electricity and electronics	107	177	14.4
Mechanical manufacturing	28	51	4.0
Wood, furniture and cork	7	12	1.0
Hospitality and tourism	39	44	4.2
Sound and image	0	83	4.2
Personal image	21	38	3.0
Food industries	9	10	1.0
ICT	162	94	13.0
Installation and maintenance	6	27	1.7
Chemistry	0	21	1.1
Health	0	259	13.1
Safety and the environment	0	21	1.1
Socio-cultural and community services	0	78	3.9
Transport and vehicle maintenance	47	81	6.4
Textiles, clothing and leather	8	21	1.5
Glass and ceramics	8	0	0.4
Total	737	1,240	

Source: author(s)

As shown in table I, of the total number of questionnaires, the most common professional families are Administration and management, Electricity and electronics, Health and ICT. All of them account for more than 50% of the total number of questionnaires obtained.

Socio-demographic characteristics of the study participants

We now go on to describe the sample of study participants, taking into account basic socio-demographic characteristics of the students and their families.

Table II shows the basic data of the persons included in the sample in relation to a set of socio-demographic variables: sex, age, housing, employment status, VET level and ownership of the school. There is a greater presence of male students, students between the ages of 16 and 24, living with their parents/guardians and not in employment. There is also a greater presence of IVET students and students studying in state schools.

TABLE II. Description of the sample: sex, age, housing, employment status, VET level and ownership of the school.

Sex	Female			Male	
	35.7%			64.1%	
Age	15 or younger	16	17	18-24	25-61
	9.2%	28.1%	25.4%	30.1%	7.2%
Housing	Pupils living with their parents/guardians			Pupils not living with their parents/guardians	
	92.6%			7.3%	
Employment status	Students in employment			Students not in employment	
	12.8%			86.7%	
VET level	BVET			IVET	
	739 (37.5%)			1,234 (62.5%)	
School ownership	State			Private	
	1,652 (83.7%)			321 (16.3%)	

Source: author(s)

Table III shows data on the level of studies and employment status of the parents and/or guardians of the students in the sample. As we see, the mothers' studies are mostly between Compulsory Secondary Education Graduate (in Spanish, GESO) and Baccalaureate, and the

fathers' studies are between Primary Education and GESO. However, the DK/NO percentages are very high in both cases. In relation to the employment situation, we see that most of the mothers and fathers are in employment, although the percentage of the fathers is 10 points higher than that of the mothers.

TABLE III. Distribution of students by parents' education and employment status

Mother's level of education	No education	Primary Education	GESO	Baccalaureate	IVET	FPGS ³	University	DK/NO
	8.4%	20.6%	21.9%	10.2%	7.8%	5.0%	10.1%	15.9%
Father's level of education	No education	Primary Education	GESO	Baccalaureate	IVET	FPGS	University	DK/NO
	10.2%	18.5%	20.5%	8.9%	5.2%	5.6%	9.1%	21.7%
Mother's employment status	In employment			Not in employment			DK	
	59.9%			37.3%			2.8%	
Father's employment status	In employment			Not in employment			DK	
	70.4%			22.2%			7.3%	

Source: author(s)

Instrument

The data we present in this study was obtained through a questionnaire designed specifically for the research project "Success and drop-out pathways in level-1 and level-2 Vocational Education and Training of the education system" (EDU2013-42854-R). The design of the questionnaire took into account the approach to engagement proposed by Reschly and Christenson (2012), thus relating the students' context (family, peers, school and community), the dimensions of engagement (emotional, cognitive, behavioural and academic) and the academic, social and emotional results. Furthermore, as Cerdà-Navarro, Salva-Mut and Comas (2019) point out, various instruments were taken into consideration to

³ Advanced Vocational Education and Training.

assess both student engagement and student perceptions of dropping out of school.

The questionnaire (Q1) covers three dimensions of engagement (behavioural and academic, emotional and cognitive) through 13 sub-dimensions. The items are answered on a Likert-type scale with four responses possible: strongly disagree, disagree, agree and strongly agree.

- Behavioural and academic dimension, in reference to the level of commitment and involvement the student thinks he/she shows at behavioural and academic level. This dimension is broken down into:
 - Academic effort: which refers to the level of effort each student puts into the tasks to be performed.
 - Indiscipline: refers to disruptive behaviour in the classroom (misbehaviour in class, cheating in exams or unjustified absences).
 - Academic adherence: which measures the predilection to attend school or not.
 - Participation in leisure and free time activities outside school: in reference to whether they spend several hours a week (or not) on activities (sport, music, gymnasium, etc.).
 - Participation in extracurricular activities at school.
- Emotional dimension, in reference to the emotional involvement the student feels he/she has in their studies. This dimension is broken down into:
 - Teacher relations: focusing on how they treat, communicate with and approach their teachers.
 - Peer relations: in reference to their proximity and communication with the class-group.
 - Family support: focusing on how the family cares for and supports the students when they encounter difficulties and how they take an interest in their progress.
 - Perception of parental engagement: this refers to the extent to which families support the student in trying to succeed at school.
- Cognitive dimension, in reference to the commitment the student thinks he/she has with his/her studies at a cognitive level. This dimension is broken down into:
 - Monitoring and relevance of academic work: this concerns the completion of tasks and the effort put into them.

- Future aspirations and achievements and expectations of professional results: perception of their studies as a good option at a professional level and for the future.
- Intrinsic motivation: motivation for what they are doing as a purpose in itself.
- Professional identity: perception of how well-suited their studies are to their personal characteristics, as well as how attractive their studies are.

There are also four other dimensions:

- Personal and family characteristics, which refers to variables traditionally related to the risk of early school leaving: sex, age and family situation, specified in the level of education and the employment situation of the mother and father.
- Studies, focusing on the educational pathway prior to VET studies when the questionnaire was taken.
- Employment and training pathway, related to the students' situation in employment and/or training, distributed monthly throughout the year before the questionnaire was taken.
- Life events, which take the form of relevant events in the subject's pathway.

Procedure

The questionnaire was handed out on paper and completed by the students in the presence of at least one person from the research team and a person of reference from the school, usually the tutor of each group. In the 2016-2017 academic year, to which the data presented here refers, the questionnaire was handed out between the first and second quarters of the academic year, more specifically between 28 November 2016 and 17 February 2017.

In order to identify significant differences between BVET and IVET students in each of the three dimensions —behavioural and academic; emotional; and cognitive— and for each of the sub-dimensions, different Analyses of Variance (ANOVAs) were carried out.

Results

In this section we will look at the differential analysis of the sample based on the abovementioned dimensions and sub-dimensions that define student engagement according to the reference authors (Reschly and Christenson, 2012).

We do so by presenting the results for each of the three dimensions of engagement separately for the sake of clarity. We also include an overall score for each of the three dimensions, showing the average scores in the different sub-dimensions of each dimension.

■ Behavioural and academic dimension:

Table IV shows the means and results of the comparison between BVET and IVET from the ANOVAs performed throughout the various sub-dimensions within the behavioural and academic dimension.

TABLE IV. Table of means and results of the ANOVAs, differentiating between VET levels and in relation to the sub-dimensions and overall score of the behavioural and academic dimension

	N		Mean		DT		F	gl	p
	BVET	IVET	BVET	IVET	BVET	IVET			
Academic adherence	734	1,228	1.61	1.92	.925	.776	63.515	1	.000
Academic effort	739	1,232	1.96	2.03	.57219	.56986	6.318	1	.012
Indiscipline	736	1,229	.64	.46	.55613	.50546	54.913	1	.000
Participation in activities outside school/college	733	1,230	1.96	1.95	1.086	1.016	.004	1	.947
Participation in extra-curricular activities at school/college	731	1,223	1.15	.94	1.082	1.019	18.485	1	.000
Overall score	739	1,234	1.81	1.88	.48979	.42351	11.109	1	.001

Source: author(s)

As we see, at behavioural and academic level, there are significant differences worthy of mention: on the one hand, IVET students show greater academic effort ($F_{(1)} = 6.318, p = .012$) and feel more attached to

the school ($F_1 = 63.515, p < 0.001$). In contrast, BVET students are perceived as significantly more undisciplined ($F_1 = 54.913, p < 0.001$) and participate more actively in extracurricular activities at school ($F_1 = 18.485, p < 0.001$). Finally, with regard to their participation in leisure and free time activities outside school, there are no significant differences between IVET and BVET students.

The overall score is significantly higher in IVET ($F_1 = 11.109, p = 0.001$), which implies that IVET students have higher behavioural and academic engagement than BVET students.

■ Emotional dimension

The following table shows the data for the means and results of the comparison between BVET and IVET based on the ANOVAs for the emotional dimension (Table V).

TABLE V. Table of means and results of the ANOVAs, differentiating between VET levels and in relation to the sub-dimensions and overall score of the emotional dimension

	N		Mean		DT		F	gl	p
	BVET	IVET	BVET	IVET	BVET	IVET			
Teacher relations	692	1,162	1.96	2.06	.52	.433	17.864	1	.000
Peer relations	716	1,214	2.11	2.2	.02	.01	15.364	1	.000
Family support	705	1,173	2.38	2.36	.02	.02	.386	1	.535
Perception of parental commitment	692	1,138	2.26	2.17	.02	.02	14.248	1	.000
Overall score	618	1,038	2.2	2.2	.01	.01	.125	1	.724

Source: author(s)

On an emotional level, there are also significant differences (Table V): IVET students see themselves as having higher levels in both teacher ($F_1 = 17.864, p < 0.001$), and peer ($F_1 = 15.364, p < 0.001$) relations. However, in relation to perceived parental commitment, significantly higher scores were found among BVET students ($F_1 = 14.248, p < 0.001$). Finally, neither group shows significant differences in perceived family support ($F_1 = 0.386, p = 0.535$).

In this dimension, the overall score also shows no significant differences between the two samples ($F_1 = 0.125, p = 0.724$).

■ Cognitive dimension

The following table shows the results obtained by comparing both levels –BVET and IVET– in the various sub-dimensions of the cognitive dimension (Table VI).

TABLE VI. Table of means and results of the ANOVAs, differentiating between FP levels and in relation to the sub-dimensions and overall score of the cognitive dimension

	N		Mean		DT		F	gl	p
	BVET	IVET	BVET	IVET	BVET	IVET			
Monitoring and relevance of academic work	713	1,218	2.19	2.27	.49	.45	11.951	1	.001
Future aspirations and achievements and expectations of professional results	703	1,209	2.24	2.29	.54	.5	4.195	1	.041
Intrinsic motivation	727	1,227	2.03	2.31	.92	.81	46.981	1	.000
Professional identity	726	1,225	1.99	2.21	.8	.68	41.799	1	.000
Overall score	733	1,231	2.11	2.27	.02	.01	11.936	1	.000

Source: author(s)

Finally, at cognitive level, we see how IVET students have significantly higher scores in all the sub-dimensions, as well as in the overall score of this dimension (Table VI). Thus, IVET students perceive themselves as having greater control and relevance of academic work ($F_1 = 11.951$, $p = 0.001$), as well as greater future aspirations and achievements and expectations of professional results ($F_1 = 4.195$, $p = 0.041$). They also see themselves as more motivated in their studies ($F_1 = 46.981$, $p < 0.001$) and more identified with the profession they are learning ($F_1 = 41.799$, $p < 0.001$). They also score significantly higher overall in the cognitive dimension, i.e. they are clearer about the profession they would like to do than BVET students ($F_1 = 11.936$, $p < 0.001$).

Discussion and conclusions

Summarising the results obtained in relation to our general hypothesis, we see that it holds in several of the dimensions and sub-dimensions of student engagement, but not in all of them. The hypothesis is confirmed in the cognitive dimension, both at a general level and in each component. However, it is only partially confirmed in relation to the academic and behavioural dimension. It is confirmed in relation to the overall score of this dimension and in two of its sub-dimensions. In contrast, BVET students show higher scores for indiscipline and participation in extracurricular activities at school; and there are no significant differences in relation to activities outside school. However, as it is an inverse relationship between indiscipline and academic and behavioural engagement, the result does not refute the general hypothesis, but rather confirms it, albeit indirectly.

The results are different when it comes to student participation in extracurricular activities at school, as significantly more active participation is observed among BVET students. Future research would need to investigate this further and improve its measurement. It is very likely that the fact of using only one item to query these issues does not make room for the necessary nuances for the results to be understood.

Finally, in relation to the emotional dimension of student engagement, the hypothesis is only partially confirmed, since differences appear in two of the sub-dimensions: teacher and peer relations. However, the hypothesis does not hold for perceived parental engagement, since it is seen to be significantly higher in BVET students and the overall score reveals no differences between the two sample groups. For future research, we would need to look more closely at these results to try to identify the elements that make their understanding possible.

Even with the nuances referred to above, we can affirm that IVET students show a greater engagement with school in general terms; or, in other words, BVET students feel more detached from school. This result is in line with the Social Guarantee Programmes (in Spanish, PGS) (Merino, García and Casal, 2006), Initial Vocational Qualification Programmes (in Spanish, PCPI) (Amores and Ritacco, 2015; González González and Porto Currás, 2013) and Second Opportunity Schools (González González, 2017), where students are usually portrayed with such disengagement. However, IVET students are among the students working within the ordinary pathways designed to respond to the disparity of interests and

academic results in formal education, but without the stigma attached to BVET.

On the other hand, from a more psychological viewpoint, several studies highlight the possibility of influencing student engagement, especially when disengagement is more acute, by encouraging perceived self-efficacy and self-esteem. This breaks up the demotivation processes that affect this type of student and can lead to school dropout (Salanova, Cifre, Llorens and García-Renedo, 2006).

Other studies focus mainly on educational practice and the relationships established in the classroom to stimulate student engagement (Amores and Ricatto, 2015; González González and Cutanda López, 2015; Thornberg, Forsberg, Hammar-Chiriach and Bjereld, 2020). Along these lines, González González and Porto Currás (2013) emphasise the emotional dimension—mainly in the relationship between teachers and students—as one of the elements to be considered to increase student engagement. Likewise, in relation to educational practices, the authors highlight that the most relevant curricular activities in these contexts follow the guidelines of an education in which students play a passive role. This means that “the path followed by students to re-engage with the education system is a not very encouraging experience” (González González and Porto Currás, 2013, p. 231). Moreover, it is very similar to that of their secondary education pathway, which led to VET as a context for remedying potential academic failure. From these considerations, teacher training becomes a primary route for facilitating student (re)engagement (Escudero, González, Moreno, Nieto and Portela, 2013; González González and Bernárdez-Gómez, 2019). We also find studies that focus on the role of the family and the relationship between the family and teachers as a central issue for anticipating and intervening early in drop-out processes (Ball and Srizypek, 2019; Chen, Wiium, Dimitrova, and Chen, 2019; Gil et al., 2021).

These approaches also need to be complemented by contributions that stress the importance of the school and the associated relationships as a factor that encourages drop-out by students who are less engaged at school. Thus, beyond explanations that focus on the individual, the school context stands out as a generator of school engagement (González González and Bernárdez-Gómez, 2019; Tarabini et al., 2019). At this level, from our subjective experience as researchers who have done the empirical work, we perceive that BVET receives differential treatment in the organisation of the schools where it is taught if we

compare it with IVET. Although we were very well received by teachers and managers at most schools, we believe that in the near future the physical distance between the classrooms on each level and the common areas of educational organisations needs to be measured. Furthermore, with regard to teaching and albeit with some exceptions, we found that the BVET teachers we contacted are temporary teachers who have opted for teaching after professional retraining.

These elements suggest that the school treats BVET students differently, in the meaning given to this term by Axel Honneth's Theory of Recognition, which brings the classic Pygmalion Effect up to date (Rebelo, Hernández and Herzog, 2017); understanding contempt as a treatment of non-recognition, an invisibilisation of a group that is relegated physically and symbolically to the outer edges of the centre. Excluded, with most of their teachers lacking expertise and working under insecure conditions, this group has a "school experience" that may explain why they decide to drop out early (Mena Martínez, Fernández Enguita and Riviére Gómez, 2010). It is an educational experience where flexibility, adaptation and the reduction of content and evaluation criteria are permanent. This makes it a 'friendly' experience that in most cases marks the end of the educational system before they are sent to the more inhospitable world of employment, where 'they are neither present nor expected' and become part of the great reserve army of our productive system (Castel, 1997).

In this sense, we must not overlook the elements of social structure that continue to affect the educational process in a notorious way. The dimensions of class and sex continue to be decisive in explaining the abovementioned data on student failure and drop-out. This contrasts with the notorious interest in other types of variables of a more micro (intra-individual) nature, such as engagement, which can lead us to ignore the impact of the social structure on the future of students and end up on the slippery slope that leads to attributing school failure and drop-out to idiosyncrasies of the subject. This avoids collective responsibility and puts most of the blame on the already strained backs of students and their families.

When students no longer feel like a number, but are recognised by teachers (Savelsberg, Pignata and Weckert, 2017), programmes become successful. This is why, as these authors remind us, second opportunity or equity programmes need to be comprehensive, structural and adapted

to vocational pathways. Whether or not programmes are flexible and adapted does not depend on teachers, as education policies have been subjected to the strong neoliberal current sweeping through education systems (Apple, 2006). As Baroutsis, McGregor and Mills (2016) insist, it is important to remember the contextual constraints that limit teachers' performance and thus restrict students' democratic participation at school. According to Te Riele (2008), one important aspect of effective student engagement, especially students who are vulnerable to ESL, has to do with school size: smaller schools may be better positioned to try different approaches thanks to the fact that students, teachers, families and even the education inspectorate accept their different purposes; moreover, staff at these schools are willing to change default school practices and find out what works best for their students if we start with teacher training in the risks of ESL and mechanisms to address them (Salvà-Mut, Pinya, Álvarez and Calvo, 2019). Authors such as Sureda-García, Jiménez-López, Álvarez-García and Quintana-Murci (2021) show how teachers' skills in dealing with diversity, listening to students and providing them with emotional support are factors that influence behavioural engagement.

Although when we began our research we encountered a scarcity of empirical research on student engagement in VET, we can now consider the possibility of carrying out a meta-analysis based on research in this field —such as that presented in this text— so as to go beyond local geographical contexts. Further research should also include teachers' perceptions and reflections on teaching styles and pedagogical practice and their relationship with student engagement.

References

- Amores, J. & Ritacco, M. (2015). De los Programas de Cualificación Profesional Inicial (PCPI) como medida de prevención del fracaso escolar a la Formación Profesional Básica. Un estudio sobre el éxito y fracaso de alumnos en riesgo de exclusión educativa en Educación Secundaria. *Revista de Investigación en Educación*, 13(1), 105-120.
- Apple, M. W. (2006). *Educating the "Right" Way. Markets, Standards, God and Inequality* (2^o ed.). New York: Routledge.

- Ball, A., & Skrzypek, C. (2019). Closing the broadband gap: A technology-based student and family engagement program. *Children & Schools*, 41(4), 229–237.
- Baroutsis, A., McGregor, G. & Mills, M. (2016). Pedagogic voice: Student voice in teaching and engagement pedagogies. *Pedagogy, Culture & Society*, 24(1), 123-140. DOI: 10.1080/14681366.2015.1087044
- Castel, R. (1997). *La metamorfosis de la cuestión social. Una crónica del asalariado*. Buenos Aires: Paidós.
- Cedefop. (2016). *Leaving education early: putting vocational education and training centre stage. Volume I: investigating causes and extent (Vol. Cedefop research paper; No 57)*. Luxembourg: Publications Office of the European Union. DOI: 10.2801/893397 Retrieved from: <https://www.cedefop.europa.eu/en/publications-and-resources/publications/5557>
- Cedefop (2020). *On the way to 2020: data for vocational education and training policies. Indicator overviews: 2019 update*. Luxembourg: Publications Office of the European Union. Retrieved from: <http://data.europa.eu/doi/10.2801/62708>
- Cerdà-Navarro, A., Salva-Mut, F. & Comas Forgas, R. (2019). A typology of students in intermediate vocational education and training programmes based on student engagement factors, sociodemographic characteristics and intentions of dropping out. *European Journal of Education. Research, development and policy*, 54, 635-650. DOI: 10.1111/ejed.12361
- Chen, B.-B., Wium, N., Dimitrova, R., Dimitrova, R. & Chen, N. (2019). The relationships between family, school and community support and boundaries and student engagement among Chinese adolescents. *Current Psychology*, 38(3), 705–714.
- Curran, M. (2017). *¿Qué lleva a los jóvenes a dejar los estudios?: explorando los procesos de (des)vinculación escolar desde una perspectiva de clase y género*. (Doctoral thesis). Universitat Autònoma de Barcelona, Barcelona. Retrieved from: https://ddd.uab.cat/pub/tesis/2017/hdl_10803_405662/mcf1de1.pdf
- Escudero, J.M., González, M^a T., Moreno, M., Nieto, J.M. & Portela, A. (2013). *Estudiantes en riesgo, centros escolares de riesgo: Respuestas educativas al alumnado en situaciones de vulnerabilidad*. Murcia: DM.

- Fredricks, J. A., Reschly, A. L. & Christenson, S. L. (Eds.). (2019). *Handbook of student engagement interventions: working with disengaged students*. Academic Press.
- Gil, A.J., Antelm-Lanzat, A.M., Cacheiro-González, M.L. & Pérez-Navío, E. (2021) The effect of family support on student engagement: Towards the prevention of dropouts. *Psychology in the Schools*, 1–14. DOI: 10.1002/pits.22490
- González González, M^a T. (2017). Desenganche y abandono escolar, y medidas de re-enganche: algunas consideraciones. *Profesorado, revista de currículum y formación del profesorado*, 21(4).
- González González, M^a T. & Bernárdez-Gómez, A. (2019). Elementos y aspectos del centro escolar y su relación con la desafección de los estudiantes. *Revista de Investigación en Educación*, 17(1), 5-19.
- González González, M^a T. & Cutanda López, M^a T. (2015). La formación del profesorado y la implicación (*engagement*) de los alumnos en su aprendizaje. Teacher training and *engagement* of the students in their learning. *Revista Iberoamericana de Educación / Revista Iberoamericana de Educação*, 69(2), 9-24.
- González González, M^a T. & Porto Currás, M. (2013). Programas de Cualificación Profesional Inicial: valoraciones e implicación de los alumnos en la Comunidad Autónoma de Murcia. *Revista de Educación*, n^o extraordinario, 210-235. DOI: 10.4438/1988-592X-RE-2013-EXT-247
- Mena Martínez, L., Fernández Enguita, M. & Riviére Gómez, J. (2010). Desenganchados de la educación: procesos, experiencias, motivaciones y estrategias del abandono y del fracaso escolar. *Revista de Educación*, n^o extraordinario, 119-145.
- Merino, R., García, M. & Casal, J. (2006). De los Programas de Garantía Social a los Programas de Cualificación Profesional Inicial. Sobre perfiles y dispositivos locales. *Revista de Educación*, 341, 81-98.
- Ministerio de Educación y Formación Profesional (2020). *Sistema estatal de indicadores de la educación. Edición 2020*. Retrieved from: <https://sede.educacion.gob.es/publiventa/sistema-estatal-de-indicadores-de-la-educacion-2020/espana-organizacion-y-gestion-educativa/23979>
- Pinya Medina, C., Pomar Fiol, M. I. & Salvà-Mut, F. (2017). Prevenir el abandono educativo en la Educación Secundaria Profesional: aportaciones del alumnado y del profesorado. *Profesorado: revista de currículum y formación del profesorado*, 21(4), 95-117.

- Ramos-Díaz, E., Rodríguez-Fernández, A., Fernández-Zabala, A., Revuelta, L. & Zuazagoitia, A. (2016). Apoyo social percibido, autoconcepto e implicación escolar de estudiantes adolescentes. *Revista de psicodidáctica*, 21(2), 339-356. DOI: 10.1387/RevPsicodidact.14848
- Rebelo, M., Hernandez, F. J. & Herzog B. (2017). La sociología de la educación y la teoría del reconocimiento de Axel Honneth. *Revista de Sociología de la Educación*, 10(1), 80-89. DOI: 10.7203/RASE.10.1.9451
- Reschly, A. L. & Christenson, S. L. (2012). Jingle, Jangle, and Conceptual Haziness: Evolution and Future Directions of the *Engagement* Construct. In S. L. Christenson, A. L. Reschly & C. Wylie (Eds.), *Handbook of Research on Student Engagement* (pp. 3-20). New York: Springer.
- Rumberger, R.W. (2011). *Dropping out. Why students drop out of high school and what can be done about it*. Harvard University Press. DOI: 10.4159/harvard.9780674063167
- Salanova, M., Cifre, E., Llorens, S. & García-Renedo, M. (2006). Antecedentes afectivos de la autoeficiencia docente: un modelo de relaciones estructurales. *Revista de educación*, 339, 387-400.
- Salvà-Mut, F., Oliver-Trobat, M. & Comas-Forgas, R. (2014). Abandono escolar y desvinculación de la escuela: perspectiva del alumnado. *magis, Revista Internacional de Investigación en Educación*, 6(13), 129-142.
- Salvà-Mut, F., Pinya, C., Álvarez, N. & Calvo, A. (2019). Dropout prevention in secondary VET from different learning spaces. A social discussion experience. *International Journal for Research in Vocational Education and Training (IJRVET)*, 6(2), 153-173. DOI: 10.13152/IJRVET.6.2.3
- Savelsberg, H., Pignata, S. & Weckert, P. (2017). Second chance education: barriers, supports and engagement strategies. *Australian Journal of Adult Learning*, 57 (1), 36-57.
- Sureda-García, I., Jiménez-López, R., Álvarez-García, O. & Quintana-Murci, E. (2021). Emotional and Behavioural Engagement among Spanish Students in Vocational Education and Training. *Sustainability*, 13(7), 3882. DOI: 10.3390/su13073882
- Tarabini, A., Curran, M., Montes, A. & Parcerisa, Ll. (2019). Can educational engagement prevent Early School Leaving? Unpacking the school's effect on educational success. *Educational Studies*, 45(2), 226-241. DOI: 10.1080/03055698.2018.1446327

- Te Riele, K. (2008). Are alternative schools the answer. *New Transitions: Re-Engagement Edition*, 12(1), 1-6.
- Thornberg, R., Forsberg, C., Hammar-Chiriach, E. & Bjereld, Y. (2020). Teacher–Student Relationship Quality and Student Engagement: A Sequential Explanatory Mixed-Methods Study, *Research Papers in Education*. DOI: 10.1080/02671522.2020.1864772
- Truta, C., Parv L. & Topala, I. (2018). Academic Engagement and Intention to Drop Out: Levers for Sustainability in Higher Education, *Sustainability* 10(12), 4637. DOI: 10.3390/su10124637
- Van Houtte, M. & Demanet, J. (2015). Vocational students' intention to drop out in Flanders: the role of teacher beliefs. *Profesorado, Revista de Currículum y Formación del Profesorado*, 19(3), 178-194.

Contact address: Míriam Abiétar López, Universitat de València, Facultat de Filosofia i CC de l'Educación, Departament Didàctica i Organització Escolar. Av. Blasco Ibáñez, 30, CP 46010, Valencia. E-mail: mialo5@uv.es