

Differential factors in Vocational Education and Training itineraries: A longitudinal study

Factores diferenciales en los itinerarios en Formación Profesional: un estudio longitudinal

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Abstract

The study presented here is part of a national research project, which was then continued at a regional level, focusing on the pathways of students at the initial level of Vocational Training (Basic Vocational Education and Training, hereinafter BVET) and the intermediate level (Intermediate Vocational Education and Training, IVET). In this article we present a longitudinal study of the pathways of VET students in the region of Valencia, which aims to identify the variables that make the difference between those who have completed their studies and those who are repeating them or have dropped out, considering socio-demographic variables, variables on their previous pathway, as well as the different dimensions of engagement. The research was conducted by passing questionnaires over three academic years, starting in 2016-2017. The results have been analysed using a Generalised Linear Model for the whole sample and, subsequently, the analysis is also presented for students at both levels, with the aim of explaining the differences between the three proposed pathways. The results indicate that those students who feel that they work hard to do their schoolwork, who enjoy attending school, who value the good relationship they have with their peers, and who see their studies as a value for their professional future, are those who complete their VET studies, although there are some important differences in each of the subsamples. Finally, we highlight as a key factor for the completion of studies among VET students the importance of giving future meaning to the current training process.

Keywords: Vocational Education and Training, longitudinal study, pathways, engagement, early school leaving.

Resumen

El estudio que presentamos se enmarca en una investigación estatal, que tuvo continuidad a nivel autonómico, centrada en conocer los itinerarios del estudiantado del nivel inicial de Formación Profesional -FP- (Formación Profesional Básica -FPB-) y del intermedio (Formación Profesional de Grado Medio -FPGM-). En este artículo presentamos un estudio longitudinal de los itinerarios del estudiantado de FP de la provincia de Valencia, que tiene por propósito identificar las variables que nos permitan diferenciar entre aquellas personas que finalizaron sus estudios, frente a las que están repitiéndolos o los abandonaron; considerando variables sociodemográficas, variables sobre su itinerario previo, así como las diferentes dimensiones del *engagement*. La investigación se concretó en el pase de cuestionarios durante tres cursos académicos, comenzando en 2016-2017. Los resultados se han analizado mediante un Modelo Lineal Generalizado para toda la muestra y, posteriormente, se presenta también el análisis para alumnado de FPB y de FPGM, con el objetivo de poder explicar las diferencias entre los

tres itinerarios propuestos. Los resultados nos indican que aquel alumnado que siente que se esfuerza en cumplir con sus tareas escolares, que le gusta asistir al centro educativo, que valora la buena relación que mantiene con sus iguales, y que entiende sus estudios como un valor para su futuro profesional, es aquel que finaliza sus estudios de FP, aunque aparecen algunas diferencias importantes en cada una de las submuestras. Finalmente, destacamos como una clave central para la finalización de los estudios entre el alumnado de FP el dotar de sentido futuro el proceso formativo presente.

Palabras clave: Formación Profesional, estudio longitudinal, itinerarios, *engagement*, abandono educativo temprano.

Introduction

Increasing the educational level of the population is one of the key points of the dominant educational discourse: promoting inclusive, equitable, quality education that favours lifelong learning is proposed as a framework for action towards which educational policies should be orientated (UNESCO, 2015), emphasizing the relationship between the educational pathway followed and the possibilities of socio-occupational integration. From this perspective, vocational educational training (VET) stands out as a key to both personal development and the productive development of the state in terms of human capital.

Currently, the training offer of the Spanish VET system (Organic Law 3/2022 on the organisation and integration of Vocational Training) integrates the offer included in basic education, that included in VET studies of the educational system, that linked to the professional competence standards of the National Catalogue of Professional Competence Standards, and that aimed at specific groups. VET studies of the educational system include three levels: Basic Vocational Education and Training (hereinafter, BVET), Intermediate Vocational Education and Training (IVET) and Higher Vocational Education and Training (HVET). The system is organised in such a way that the initial level is accessed from the third year of Compulsory Secondary Education (CSE), a derivation that reinforces the compensatory nature of this level. Access to the intermediate level (IVET) is proposed for those who have obtained the Certificate of Compulsory Secondary Education (CCSE) or BVET certificate. In general terms, this level is proposed in parallel to the Baccalaureate studies in the transition from compulsory to post-compulsory education, thus differentiating an

academic pathway from a vocational one. Finally, access to the higher level (HVET) is established for those who have a Technical Degree, giving continuity to IVET, although it can also be accessed from other degrees, such as the Baccalaureate or a university degree.

Although these are the pathways included in the current educational system, it is important to consider the different routes that students can take, “de-standardising” the regulatory proposals that pose a linearity between compulsory and post-compulsory studies in which the academic pathway (CSE and Baccalaureate) continues to have a higher status than the vocational training pathway (IVET and HVET). As an example of this diversification, we can think of those who decide to take an IVET after accessing the Baccalaureate, those who take a HVET after completing their university studies or those who take several programmes in a process of accumulation of degrees. In view of this diversity, research on pathways allows us to understand the different ways in which students navigate the educational system beyond the regulatory proposals.

From these initial considerations, in this article we address training itineraries, understanding them as processes developed by students along the pathways established by the educational system, leading to various possibilities for professional transition and transition to adult life (Casal et al., 2006). In addition, the research we present here focuses specifically on the first two levels of VET (BVET and IVET). We approach VET as an educational context in its own right that enables the development of professional careers, despite the fact that its position in the educational system reinforces its condition as a secondary pathway, the main exponent being the basic level, aimed at those persons in a situation (or at risk) of educational exclusion; a fact that since the General Education Law (approved in 1970) has supported the subsidiary nature of vocational training (Merino, 2013).

In this sense, successive reforms of the Spanish education system, including of the VET system, have addressed comprehensiveness. The comprehensive approach in education marks a turning point and a change of course from the academicist, selective and elitist practices that characterised the educational system before and during the dark years of the dictatorship and well into the 1980s (De Puelles, 1999). This approach clearly differs from the previous ones, among other aspects, in that it defends the need to attend to the diversity contained in educational centres, reducing the rigidity of educational tools, with the evident

intention of achieving the civic ideal of education for all (Bernad & Molpeceres, 2006). But this updating of the civic commitment of education presents a very significant peculiarity; namely, it raises the need to be more flexible and to adapt the contents to the students' skills, that is, to introduce dynamics within the educational system that favour its flexibility and adaptability (Martínez et al., 2015).

In this reformist context, in which the various stages that make up the education system have been brought together, one of the debates surrounding the compulsory secondary stage is whether it should have a finalist or a propaedeutic sense (Abiétar & Navas, 2017). In this debate, the meaning of VET also comes into play, considering its position in the system as a whole. In this way, one should emphasise its comprehensive function as it is an alternative to academic education both in the compulsory and post-compulsory stages. Although it is the BVET that is explicitly linked to the compensatory programmes within the framework of the second opportunity, it is worth noting that both the IVET and the HVET provide other possible paths for students, broadening the training options and, therefore, the continuity of the itineraries.

The inclusion of VET in the secondary stage and its connections with the other pathways that make up the compulsory and post-compulsory stages have been regulated differentially, for example, by modifying access or qualification requirements. These regulatory changes in turn imply changes in the possible itineraries, as they modulate the costs and benefits of their development. In this sense, in addition to institutional resources, the biographical dimension should be taken into account (Casal et al., 2006), assuming that the construction of itineraries is influenced by the individual's own choices, framed in turn by the constraints of the environment.

Taking itineraries as the object of study, and assuming the biographical perspective as a perspective to analyse them, the longitudinal methodological approach allows us to better understand the processes followed by students in the educational institutions (Casal et al., 2011). That is to say, it makes it possible to approach the processes of construction of the formative itineraries beyond the paths established by the system.

One of the difficulties in developing this methodological approach is the availability of data to reconstruct the itineraries. Educational statistics periodically provide us with a description of the situation of the system (for example, with enrolment and graduation data), but they are not sufficient

for such a reconstruction since we do not have all the elements to allow us to match one situation with another. In this sense, as proposed by Garcia et al. (2022, p. 118), it would be necessary to complete the statistics with “an annual registry of students from the moment they begin their journey in the educational system (...) that allows us to follow and analyse their educational itineraries throughout their schooling, a registry which, in fact, already exists in some autonomous communities”.

Recent precursors of longitudinal studies in the context of Spain include the exploitation of the retrospective survey ETEFIL 2005 (Encuesta Transición, Educación, Formación e Inserción Laboral), which allowed a “longitudinal and biographical approach that reconstructs training and work itineraries” (Garcia et al., 2013, p. 65). Broadly speaking, the analysis carried out by the Grup de Recerca en Educació i Treball (GRET) showed a distribution by thirds of the itineraries: one third of the students finished CSE and left the system; another third continued with post-compulsory education and finished either with a Baccalaureate degree or with a vocational training degree (IVET or HVET) and did not continue their education; and the remaining third went on to university, thus developing a prolonged school itinerary.

Based on the same data, GRET carried out a specific analysis of the training and employment pathways of VET students (Merino et al., 2011). In this case, the terminal nature of the IVET stands out, since 75% of those who graduated at this level did not continue their training itinerary. It should be noted that these data refer to 2001, and, therefore, to a context of economic boom in which early school dropout increased significantly in favour of insertion into the labour market. However, the phenomenon of specialisation through the accumulation of VET programmes is also reported: 6% in IVET and 8% in HVET. In fact, at this last level, the analysis indicates that the extension of the itineraries was more generalised; most significantly, with 30% of the students going on to university. Thus, only 57% of the graduates entered the labour market with only one degree.

If we look at more recent data, a first analysis of the 2019 Survey of educational-training transition and labour market insertion, presented by the National Statistics Institute (INE), highlights that 45.2% of those who graduated in IVET in 2013-14 dropped out of the educational system, 10.6% continued in HVET the following year and 11.1% dropped out and later rejoined HVET (INE, 2019).

The statistics of the Ministry of Education and Vocational Training (MEFP), in which VET itineraries can be analysed to a certain extent, include both the educational continuity of those who graduate and their labour market insertion. Focusing on the first element (“Subsequent educational follow-up of Vocational Training graduates”¹) and placing ourselves in the courses closest to our research, the results relating to people who graduate from VET and, in the following courses, enrol in other studies indicate that, in the three years following graduation in 2016-2017, 64.6% of those graduating from BVET accessed IVET; 42.8% of people graduating from IVET started HVET; and 27.1% of those graduating from HVET pursued University Studies.

On the other hand, the results show that age is a relevant variable as regards to continuity in the system, so that, as it increases, the percentage of students who continue studying decreases. Likewise, the professional family is another aspect to be considered, with relevant differences in the offer as a whole; most significantly, the continuity in Graphic Arts (71.1%), Computer Science and Communications (68.9%) from BVET to IVET and in Computer Science and Communications (72.9%) and Physical and Sports Activities (68.4%) from IVET to HVET.

The MEFP also offers the academic results for each level of VET, which would allow an approximation of the cohort itineraries, although not the reconstruction of itineraries in the sense previously proposed. However, the statistics available for the province of Valencia do not allow us to track enrolment and graduation for the same academic year. Thus, the data presented here complete these statistics, in part because they do not only include the itineraries of those who graduate, but of the entire population enrolled in vocational training, including the initial level, which is left out of the official statistics.

Moreover, it should be noted that we do not approach VET from the perspective of a choice in the transition from compulsory to post-compulsory studies. Our starting point is the population already enrolled in vocational training, at the initial or intermediate level, from which we intend to study the pathways followed. Thus, the previous itinerary in the compulsory stage is one more variable to be considered in our study. Specifically, in the proposal we present with the aim of studying

¹ <https://www.educacionyfp.gob.es/servicios-al-ciudadano/estadisticas/laborales/seguimiento.html>

VET pathways, we take into account, in addition to the previous pathway, sociodemographic variables (gender, parents' education and family socioeconomic situation) and the different dimensions of engagement (behavioural and academic, emotional and cognitive).

In the case of the previous itinerary, as detailed by Garcia et al. (2022), there are several indicators that make it possible to measure educational traceability - understood as “the ways in which young people move toward compulsory education” (p. 102). Specifically, they highlight the relationship that previous experiences of grade repetition, as well as “situations of rupture and educational interruptions”, may have with the development of “non-linear” or non-traditional trajectories, such as those characterised by situations of repetition, reorientation, discontinuity, or abandonment:

Some research studies have analysed the repetition experiences of students and their impact on academic performance, showing that students with repetition experiences have higher probability of presenting dismal results in PISA tests (Calero et al., 2010) and increasing detachment and low motivation (Krüger et al., 2015) and present attitudinal problems and school disaffection (Méndez & Cerezo, 2017). (Garcia et al., 2022, p. 102).

With regard to sociodemographic variables, in the words of Jacovkis et al. (2020, p. 284), “the literature confirms the relevance of socioeconomic and cultural factors in the analysis of educational trajectories and questions the foundation of discourses centred on individual skills as defining elements of educational success”. Many research studies have shown that it is young people with low cultural and economic capital who are most represented in school dropout pathways (Garcia et al., 2013; Julià, 2018; Valdés, 2019; as cited in Garcia et al., 2022). In this sense, Garcia and Valls (2018) identify four academic itineraries, finding that young men whose parents have no education or only compulsory education are overrepresented in the dropout and repetition itineraries. In the same sense, there is abundant evidence that the probabilities of having greater school success increase with higher educational levels of the parents (Carabaña, 1993; Calero, 2007; Forquin, 1985; Jackson et al., 2007; as cited in Torrents et al., 2018). In fact, the latest report on the National System of Education Indicators (MEFP, 2021), confirms, in line with previous reports, the importance of the parents' level of education in dropout rates, especially that of the mother. Specifically, the percentage varies from 3.6% in the case of young people whose mothers have higher

education to 10.1% if they have a second stage of secondary education. The percentage rises to 20.5% for lower secondary education and 39.2% for primary education or lower. According to Boudon (1974, as cited in Garcia et al., 2022), the effects of the social origins not only act directly on academic results, they also impact unequal individual and family aspirations and expectations, with the perception of risk and success of a given educational option and its economic and opportunity costs.

As regards engagement, we start from the proposal of Reschly and Christenson (2012), this being the theoretical reference of the research work on which the results presented are based. This research work is explained in the following section. Specifically, these authors explain that engagement “is considered multidimensional, involving aspects of students' emotion, behaviour (participation, academic learning time) and cognition” (Reschly & Christenson, 2012, p. 3). In other words, engagement does not only refer to cognitive issues, but also to other dimensions, such as the emotional and behavioural dimensions. This extends the educational process to other contexts and agents beyond the classroom and the relationship between the teacher and students, such as the family and peer relationships. In this vein, Reschly and Christenson (2012) themselves present different studies that confirm the relationship between interventions focused on fostering student engagement and the prevention of educational dropout.

From another position, the relationship between engagement and the “centre effect” is proposed, focusing on the influence of the social composition and the mechanisms for attending to diversity (Tarabini et al., 2019), i.e., referring to the dynamics of the centres and their influence on the students' engagement in their studies. Also focusing on the operating dynamics of the centres, González and Bernárdez (2019) stress the relevance of the educational experience provided by the centres themselves, addressing issues such as the climate and the relationships that are formed or the support that students may receive at various points in their educational itinerary.

Thus, engagement is a variable to be considered in the analysis of pathways insofar as it is related to the students' experience in their educational process and, specifically, to whether they continue or drop out of their studies. Considering engagement on a multidimensional level broadens the understanding of the educational experience and, therefore, the variables that can enable us to understand the construction of itineraries in a given structure.

In summary, our objective is to analyse which variables have an impact on the different pathways of success, repetition or dropout, taking into account relevant sociodemographic variables, variables related to the educational trajectory, and the different dimensions of engagement.

Method

In this article we present the analysis of the data obtained in the national research project “Itineraries of success and dropout in Vocational Training in level 1 and 2 of the education system” (EDU2013-42854-R). This research had continuity through the regional research project “Itineraries of success and dropout in Vocational Training in level 1 and 2 of the education system of the province of Valencia” (GV/2018/038), which replicated part of the national research with a year's difference. Both research works focused on studying dropout in VET and developing proposals for its prevention, intervention and remediation. They were based on a longitudinal methodology that combined several methods for data collection: statistical data analysis and longitudinal questionnaires over three years.

Sample

The sample for the design of the regional project was based on enrolment data of BVET and IVET in the province of Valencia in the academic year 2016-17, provided by the General Directorate of Vocational Training and Special Regime Studies of the Valencia Regional Government. Specifically, the sample universe was 5,288 students in BVET and 21,246 in IVET. The sample was stratified by professional family, geographic location and type of centre.

The sample for the three courses of the research is specified in the data presented in Table I. In BVET, the optimal sample design, with a confidence level of 95% and a sampling error of 3%, consisted of 894 questionnaires; while in IVET, of 1,028 questionnaires. With the questionnaires obtained in the first course, the real error of the sample was 3.35% in BVET and 2.27% in IVET.

TABLE I. Sample for the longitudinal analysis of itineraries in the province of Valencia.

	Questionnaires obtained in BVET			Questionnaires obtained in IVET		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Total	739	398	411	1,234	498	676

Source: Compiled by authors

Specifying the composition of the sample obtained (described in detail in Navas et al., 2021) and considering the results presented below, it should be noted that more than 50% of the questionnaires obtained refer to the following professional families: Administration and Management, Electricity and Electronics, Healthcare, and Computer Science and Communications.

The results presented here correspond to a cross-analysis between the data from the first and third years of the research. We had responses from 1,087 subjects, 411 of whom were enrolled in the first year in BVET and 676 in GM, implying a sample loss of about 45% in both cases.

Instrument

The instrument used was designed ad-hoc for the research project “Itineraries of success and dropout in Vocational Training in level 1 and 2 of the education system”, having as a theoretical reference the concept of engagement from the proposal of Reschly and Christenson (2012), as detailed by Cerdà-Navarro et al. (2019). From this perspective, the questions included three dimensions related to engagement (behavioural and academic, emotional and cognitive), as well as four others to complement the information on the students: personal and family characteristics, previous educational pathways, occupational and training pathways and life events (Table II).

The third questionnaire also included questions relating to the current situation, both economic (economic independence, difficulty in making ends meet) and educational (situation with respect to studies started in 2016-17). In this article we focus on the latter, relating it to the previous itinerary, sociodemographic variables and engagement.

TABLE II. Dimensions and variables included in questionnaire Q1.

Behavioural and academic dimension	School effort
	Indiscipline
	School adhesion
	Participation in leisure and free time activities outside the centre
	Participation in leisure and free time activities within the centre
Emotional dimension	Relationships with teachers
	Relationships with peers
	Family support
	Perception of parental commitment
Cognitive dimension	Control and relevance of schoolwork
	Future aspirations and achievements and expectations of professional results
	Intrinsic motivation
	Professional identity
Personal and family characteristics	
Studies (previous educational itineraries)	
Occupational and training itinerary	
Life events	

Source: Compiled by authors based on Navas et al., 2021 (pp. 201-202).

Procedure

In the first two phases of the research, the questionnaire was handed over on paper in the selected centres. In the third phase, telephone interviews were conducted from the sample obtained in the first phase, which made it possible to recover subjects lost in the second year due to different reasons such as absenteeism, change of studies/centre, or dropout.

Regarding the analysis of the data obtained, three general linear models were used to determine the variables that best explained dropout, year repetition or completion of studies. The generalised linear model is a type of linear regression that allows analysis with ordinal or discontinuous

variables and determines the explanatory variables with respect to the dependent variables of the study.

The first model considered the two levels of FP, both BVET and IVET, with an Akaike index (AIC) of 1,146.06. The second focused on BVET cases and the third on IVET students. The latter two considerably improved the Akaike index with 457.53 for BVET and 717.25 for IVET. However, we will present the results of the three models in order to give a more complete picture. Another generalised linear model was performed to test whether the AIC improved when including the FP Level variable as an explanatory variable and the interactions of this variable with the rest of the explanatory variables. However, in this case the Akaike index was even higher, reaching 1,164, so this analysis was not included.

In the three models, we analysed each of the dimensions of engagement (behavioural, cognitive and affective) as explanatory variables, as well as each of the factors that compose them. Furthermore, sociodemographic variables that were considered more relevant to the research were analysed: sex, level of education of the mother and father, and whether they (the students) had economic difficulties. Another object of analysis was the number of years repeated in ESO and whether the students had been suspended or expelled from school.

As a dependent variable, we considered the possible itineraries when studying FP, where the alternatives were: dropout, repetition or completion.

Results

Generalised linear model for the two levels of VET

In the model focused on the two levels of VET, significant differences were observed in different variables. With respect to behavioural engagement, we found significant differences in school effort ($\chi^2=15.47$, $p<0.001$), where the greater the school effort, the greater the probability of completion, with a clear upward trend where dropout has an average of 1.78 (0.54) and completion of 2.14 (0.54).

With respect to the activities performed, only those conducted outside the centre were significant ($\chi^2=6.5$, $p=0.011$). Students with a dropout (2.07 (0.97)) or repetition profile in FP (2.07 (0.91)) participate in more activities outside the centre, and fewer with a completion profile perform such activities (1.92 (1.07)).

Regarding affective engagement, significant differences were only observed in relationships with peers ($\chi^2=7.19$, $p=0.007$) with a less clear trend. It is observed that better relationships favour both repetition ($\bar{x}=2.19$ (0.54)), i.e., staying at the centre with the intention of finishing, and completion ($\bar{x}=2.18$ (0.47)). The result is lower in the case of dropout ($\bar{x}=2.15$ (0.49)).

Differences in cognitive engagement were found in Future Aspirations and Achievements ($\chi^2=4.27$, $p=0.039$). A clear downward trend is observed, so that higher aspirations mean higher probabilities of completion ($\bar{x}=2.35$ (0.48)), followed by repetition ($\bar{x}=2.24$ (0.46)) and dropout ($\bar{x}=2.06$ (0.55)).

Differences were also found in School Adherence ($\chi^2=5.89$, $p=0.017$). In this case the results are very similar for both repetition ($\bar{x}=1.98$ (0.85)) and completion ($\bar{x}=1.94$ (0.77)), with greater adherence in both cases compared to dropout ($\bar{x}=1.45$ (0.9)).

As for the sociodemographic variables, we only found differences in some variables. In this regard, the one referring to the mother's studies was clearly significant ($\chi^2=21.07$; $p=0.004$). There are differences to be seen between the group that repeated a grade ($\bar{x}=2.81$ (2.32)) and the rest, which shows a higher score. This would indicate that the higher the mother's level of education, the higher the probability of completion ($\bar{x}=3.35$ (2.35)) followed by dropout ($\bar{x}=3.16$ (2.44)).

With respect to the previous pathway, the variable Number of Years Repeated in ESO is significant ($\chi^2=11.52$; $p=0.042$). A clear downward trend is observed, so that the fewer years repeated in ESO, the greater the probability of completion ($\bar{x}=0.97$ (0.85)) compared to that of repetition ($\bar{x}=1$ (0.79)) and dropout ($\bar{x}=1.19$ (0.72)).

Finally, the fact of having been suspended or expelled from the centre was also significant ($\chi^2=4.56$; $p=0.033$). In cases of suspension there is a higher probability of abandonment (0.63 (0.48)). The other two cases have similar scores: repetition ($\bar{x}=0.84$ (0.37)) and completion ($\bar{x}=0.83$ (0.37)).

Generalised linear model for BVET students

Secondly, we performed a generalised linear model with the same variables mentioned in the previous model, exclusively for BVET students, to identify the variables that explain completion, repetition or dropout. In

this case, we observed that there were no significant differences in any variable in any of the engagement cases. Nor were there significant differences with respect to the previous itineraries for BVET.

Generalised linear model for IVET students

Finally, we performed a generalised linear model for the IVET students. In this case, the variables that are significant correspond mostly to the significant variables of the general analysis, where both levels of FP are taken into account, observing differences at the level of behavioural engagement in school effort ($\chi^2=20.04$; $p<0.001$). There is a clear upward trend from lower to higher school effort from dropout ($\bar{x}=1.74$ (0.5)) to success ($\bar{x}=2.18$ (0.54)), as happens in the general analysis.

The variable referring to the activities that students carry out outside the centre also turned out to be significant ($\chi^2=4.75$; $p=0.029$). In this instance, a downward trend is observed, so that the more time dedicated to activities outside the centre, the lower is the degree of completion among students, with an average dropout rate of 2.14 (0.95), a repetition rate of 2 (0.91) and completion rate of 1.9 (1.05), similar to the results of the general analysis.

Regarding affective engagement, as in the case of the general analysis, differences were found according to relationships with peers ($\chi^2=15.68$; $p<0.001$), although a great variability was observed that does not appear in the general analysis; thus, very similar scores were found both in the cases of abandonment ($\bar{x}=2.22$ (0.46)) and completion ($\bar{x}=2.21$ (0.45)), with the highest score for repetition ($\bar{x}=2.26$ (0.54)), which would indicate that better relations with peers promotes cases of repetition and, to a lesser extent, of completion and dropout.

Regarding cognitive engagement, there are differences in School Adherence ($\chi^2=5.91$; $p=0.015$) in the same way as in the general analysis, although the trend is significantly modified. Here the difference is observed between dropout ($\bar{x}=1.59$ (0.82)) and the rest, so that there is clearly less adherence in the cases of abandonment compared to repetition, which has somewhat higher scores ($\bar{x}=2.07$ (0.82)) than the cases of completion ($\bar{x}=2.03$ (0.69)).

With respect to sociodemographic variables and previous itineraries, we found no significant differences.

Discussion

We now establish a dialogue between our results and the work presented in the introduction, as well as with other contributions relevant to their understanding. To do so, we will analyse results related to the sample in general and we will focus on those cases where we have found differences between the complete sample and the BVET and IVET subsamples.

With regard to the total sample, the scientific literature stresses the importance of the previous itinerary. Our results concur in highlighting past events such as repetition in high school and having been suspended or expelled from school. Both facts seem to feed the disengagement with the centre and its dynamics, favouring student dropout (Garcia et al., 2022).

Variables that do not have a significant impact are repetition in primary school and the professional family in which the students are being trained. In the first case, the non-significance may be based on the exceptional nature of the measure in the primary stage, where teachers operate with a higher level of comprehensiveness and less rigidity regarding the achievement or non-achievement of objectives in each grade, placing value on the continuity of the class group and the relationships among its students.

In the second case, the lack of a sufficient sample in each professional family and the imbalances between them led us to group them into the three basic productive sectors, which blurs some possible differences and unites professional families as distant as, for example, Health and Administration & Management within the tertiary sector. It seems necessary to obtain a sufficient sample in each of the families to be able to study their effect, for which it would be essential to handle data on a larger territorial scale so that they could be statistically exploitable.

Regarding sociodemographic variables, our results mark a somewhat different line from what has been identified in the scientific literature (Jacovkis et al., 2020; Torrents et al., 2018). In our study, we see how variables such as sex and family economic difficulties do not discriminate between those who drop out, repeat or complete their studies; with the exception of the role of the parents' education, where there is a clear influence of the level of education attained by the mother, but not by the father (MEFP, 2021), although this only happens when the complete VET sample is taken. Another key factor, age, was not considered since most

of the groups were of the same age, a fact which became almost a constant in our research. The lack of significance of the sex variable may be due to the fact that, in general, we are working in training areas focused on applied and manual knowledge, with low academic demands, where motivation, vocation and disinterest seem to be more equally distributed among students of both sexes. Historically, the context of VET has been socially undervalued and marked by class but also gender structuring, as Martínez and Merino (2011) point out, although the class perspective has predominated when analysing the context of VET (Niemeyer & Colley, 2015). Studies in this area emphasise that divisions by social class become evident when comparing academic and career paths, while gender division is more clearly seen when confronting different career paths (Nylund et al., 2018). The lack of studies that consider the sex and/or gender variable in VET suggests the need for future research that includes this perspective as its central focus.

Also striking is the apparent independence between the economic difficulties of families and the students' academic trajectories. We believe that this hides the fact that we are dealing with a training programme mainly attended by students of similar socioeconomic levels. On the other hand, one type of cultural capital (Bourdieu, 2001), represented by the mother's level of education, maintains its discriminatory capacity, where the higher the mothers' level of education, the greater the probability of completing the studies. The lack of influence of the father's education and the significance of the mother's refer us to educational patterns centred on the traditional distribution of gender roles within the family context, where it is the woman who to a greater extent accompanies the formative process of her children. Therefore, differences in their cultural capital have a significant influence on their children's trajectories.

In relation to the role of engagement, we see that all its dimensions show the ability to discriminate in one sense or another. In the academic and behavioural dimension, both school effort and school adherence in the full sample as well as the IVET sample score significantly higher among students who completed their studies. This was not confirmed in the BVET sample. Something similar happens in the emotional dimension in terms of their assessment of the relationships they establish with their peers in class, as well as in the cognitive dimension as regards their aspirations, achievements, and expectations, although this was only significant in the full sample. Thus, in line with previous work (Reschly &

Christenson, 2012), our work confirms the importance of engagement when studying student pathways. However, our research allows us to further refine this aspect, thanks to the concrete identification of the different components of the dimensions of engagement that show discriminatory capacity, thus presenting a picture that allows us the audacity to predict that those students who feel that they are making an effort to fulfil their obligations, who like to attend school, who consider that they maintain good relationships with their peers and who understand their studies as a value for their professional future, will be those who most likely will complete their studies.

The results of two components of the academic and behavioural dimension of engagement deserve a separate mention: the significance of participation in leisure and free time activities outside the school context for both the complete sample and the IVET sample and, on the other hand, the non-significance of participation in extracurricular activities within the school. Both cases are contradictory to each other and do not show clear explanatory elements, so that in future works we shall have to fine-tune the data collection elements in order to try to explain them more clearly.

Furthermore, it is worth paying attention to the set of components of the three dimensions of engagement that do not seem to be able to make a difference as regards the different trajectories: in the academic and behavioural dimension, the component referred to would be indiscipline; in the emotional dimension, we refer both to the valuation of relationships with teachers and to family support and commitment; and, finally, in the cognitive dimension, we mean the relevance of school work, motivation and identification with the profession for which they are preparing.

Starting with indiscipline, we see that it does not behave as we would expect. We consider that the low general levels reported by students make it difficult for this variable to show any type of discriminative capacity. We would need to be able to triangulate the students' information with that of other significant agents, since we are probably faced with the fact that what the students do not consider 'indiscipline' can be understood as such by the teachers.

As for the components of the emotional dimension that do not show significance, it looks like the referents of the adult world do not play a relevant role regarding the different educational trajectories of the stu-

dents. We could say that students evolve independently of the relationships and involvement of teachers and parents, whereas their peers do play a significant role. This allows us to venture into explanatory hypotheses that take into account the central role of the peer group at these ages.

In connection with the components of the cognitive dimension that do not show significance, those that can give meaning to the training experience, such as the relevance of the activities we carry out, how motivated we are by the training we receive, or whether we feel we can be professionals in the field, do not show discriminatory capacity. It would seem as if everything related to intrinsic motivation, to the value of training in itself, does not play a relevant role as regards the likelihood of finishing, repeating or dropping out. In other words, finding meaning in training in itself does not seem to be the key. Their approach seems to be more strategic, more pragmatic: it is the students who give future meaning to their present training who complete their studies the most (as opposed to those who repeat and those who drop out), which would be expected in studies whose clear purpose is insertion into the labour world. In short, it is the students that can give a meaningful answer in their lives to the difficult question: "What's the point of all this?"

If the above shows an overall picture of the entire group surveyed, the separate analysis for each sample group also reveals some differences.

When we look exclusively at students in BVET, we find that none of the variables studied attain significance, and therefore do not allow us to distinguish between students who finish, repeat or drop out.

The fact that none of the variables discriminate sufficiently suggests, at least, a couple of issues to continue working on: on the one hand, that the BVET sample, in relation to these variables, is markedly homogeneous or that its variability does not respond to a pattern linked to the completion, repetition or abandonment of studies. This could be affected by the circumstance that these students begin the BVET at the age of compulsory school attendance and have been referred to this training after a pathway of failure in CSE. Furthermore, given the weakness in the significance of the two aforementioned variables, we must also accept that we are still facing an analysis model that needs other variables to better understand why these students finish, repeat or drop out. Future studies should delve into other aspects that may have a more significant influence, such as the possibility or not of finding employment through

informal or family networks, as well as the rural or urban context in which they live, and the disparity of employment opportunities offered to them.

In contrast, the IVET subsample seems to respond better to the full sample picture, which is not surprising given that they are overrepresented in the total sample. However, it presents some differences: in this group, the weight of the relationship with the teacher loses intensity, whereas the discriminatory capacity of the relationship with peers increases instead, which would indicate the fundamental role of this relationship in the affective bond that is established (González & Bernárdez, 2019) and that has the effect of a higher rate of completion of studies in those students who feel supported by their peers. On the other hand, expectations, future aspirations and achievements do not seem to show discriminatory capacity in this group, which would seem to indicate that these students show a greater intrinsic interest in the studies they receive, although we must admit that the measurement of student motivation does not reach any degree of significance when distinguishing between those who complete, repeat or drop out of the IVET.

As a final comment, the results obtained lead us to ask ourselves: What makes one person see in his or her training process the scaffolding for his or her professional future and another not? On what do each anchor their expectations? Our results seem to indicate that a key aspect, although not the only one, is the fact of endowing the training process with future expectations. Along these lines, Tarabini and Curran (2015, p. 21) remind us that:

although there are pragmatic, instrumental and rational elements in young people's decisions, these cannot be understood apart from the horizons of action that restrict and/or make them possible. Horizons that are the result of the intersection between the objective opportunities available to social actors and their subjective perceptions.

Therefore, in view of the dominant discourse that advocates increasing the educational level of the population, factors such as engagement, especially in its emotional and cognitive dimensions, must be taken into account in the design of educational policies, not only in terms of practices in the centres, but also in the territorial configuration of the offer, so that the educational experience has a sense of professional future for the students.

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