The Orienta4VET Interactive Guide: A Tool for Guidance in Vocational Education and Training

Marisol Galdames Calderón, Universitat Autonoma de Barcelona, Spain
Cecilia-Inés Suárez-Rivarola, Universitat Autonoma de Barcelona, Spain

The Barcelona Conference on Education 2024
Official Conference Proceedings

Abstract
The Orienta4VET project, a transnational Erasmus+ initiative, highlights the importance of guidance in Vocational Education and Training (VET) in Germany, Denmark, Portugal, Romania, and Catalonia (Spain). This article presents results from the Catalan context. The objective of the project is to raise the visibility of VET by analysing the risk factors that may affect its students and offer practical strategies to prevent school dropout. The team conducted semi-structured interviews and focus group discussions in 21 VET centres, including eight in Catalonia, focusing on four key dimensions: guidance, holistic approach, systematic approach, and empowerment. Data were organised in a Microsoft Word matrix to facilitate international collaboration and were thematically analysed using MAXQDA, employing coding and categorisation to identify connections between variables and dimensions. In Catalonia, 70 risk factors were identified across five dimensions: personal, family, social-relational, institutional, and structural-systemic, aiding in understanding the challenges faced by VET students. This analysis enabled the development of the Interactive Guide Orienta4VET, a dynamic and accessible tool for VET counsellors, administrators, and tutors. The Guide's strategies are organised according to the identified risk factors, facilitating their consultation and application based on the specific needs of VET centres. The Orienta4VET project represents a significant contribution to public policies and education. The Interactive Guide is useful for guidance professionals and offers a model for analysing factors affecting student trajectories in VET. By providing access to proven and innovative methods, the guide enhances the educational experience and success of VET students in Catalonia and other contexts.

Keywords: Dropout Risk Factors, Vocational Education and Training, Vocational Guidance, Dropout

iafor
The International Academic Forum
www.iafor.org

Introduction

The Orienta4VET initiative was implemented to address issues pertaining to socio-educational integration and enhance accessibility and retention in vocational education and training (VET). Funded by the European Erasmus+ Programme's Key Action 2 Vocational Education and Training (KA220-VET), the project aims to support disadvantaged youth. Its objectives include increasing the prominence of VET by identifying factors that contribute to student attrition and determining effective strategies for VET centre staff to mitigate dropouts. The project's primary deliverable is a user-friendly guide designed to facilitate the implementation of guidance and tutorial activities in VET environments. This resource is accessible on the Orienta4VET Project Website (www.orienta4vet.eu).

Theory and Context of Catalonia (Spain)

Catalonia, Spain has been focusing on addressing dropout rates in Vocational Education and Training (VET) programs (Mora et al., 2022). The introduction of the Dual VET system, which emphasises increased workplace learning and greater business involvement compared to traditional school-based VET, is one such initiative (European Commission, 2023). A comprehensive analysis of Catalonia's entire VET student population data spanning four academic years (2015-2016 to 2018-2019) revealed the positive effects of Dual VET on student grades and graduation rates (Mora et al., 2022).

The research considered various factors that could influence academic performance and graduation, including student characteristics, school features, and program specifics. The results showed that Dual VET had a significant and robust positive impact on grade and degree completion, even after accounting for selection bias and different model specifications. While factors such as online/blended learning and private school ownership also affect completion rates, Dual VET demonstrates a more pronounced influence (Mora et al., 2022).

Early leaving from education and training (ELET) remains a critical issue across Europe, affecting one in ten young people, with notable disparities observed across countries, regions, genders, and specific population groups (CEDEFOP, 2023). Addressing ELET is a key policy priority for many European nations, with the EU countries aiming to reduce the average proportion of early leavers to below 9% by 2030 (CEDEFOP, 2023).

CEDEFOP (2023) noted that vocational education and training (VET) programs in some countries face high dropout rates. However, high-quality, inclusive, and flexible VET provisions may help to prevent and address ELET. To address this issue, Cedefop conducts research on early departure from VET, collects and analyzes national data on dropout rates, and publishes comparative and national reports. Additionally, Cedefop has developed two resources: The VET toolkit for tackling early leaving, and The VET toolkit for empowering NEETs (young people not in education, employment, or training). These resources offer practical assistance to VET professionals and policymakers by providing materials from various European nations to stimulate reflection, discussion, and decision-making processes aimed at tackling early exits from VET or supporting young NEETs (CEDEFOP, 2023). In Catalonia, the ELET rate has seen a reduction of 2.5 percentage points over the past year, now standing at 14.8%, although it remains the 5th highest among Spanish autonomous regions (Fundació Bofill, 2022). Additionally, a notable gender disparity exists, with ELET rates of 9.9% for females and 19.4% for males. Other variables such as geographical

background, parental education level, and household income also influence ELET rates in Catalonia (Fundació Bofill, 2022).

Non-profit organisations play a vital role in tackling the issue of students leaving vocational education and training (VET) programs in Catalonia. These third sector entities often work in partnership with educational institutions and governmental bodies to deliver support services and implement strategies to improve student retention and achievement.

A notable illustration is the work of Fundació Catalana de l'Esplai, a non-profit organisation committed to promoting educational and social inclusion through recreational activities and community involvement (Salvà et al., 2019). They have created programs specifically aimed at preventing early school departure and assisting at-risk youth in completing their VET studies (Salvà et al., 2019). These initiatives frequently incorporate hands-on learning experiences, mentorship, and efforts to cultivate a sense of belonging in the educational community.

Furthermore, organisations such as Fundació Privada Ateneu Sant Roc collaborated with VET schools to provide comprehensive support to students (Rodríguez et al., 2012). These services encompass academic guidance, career advice, and personal growth workshops, all intended to address various factors that may contribute to dropout rates. By offering a holistic approach to student support, these third-sector organisations fulfil a crucial function in ensuring that students have access to the resources and guidance necessary for success in their VET programs.

Practical learning experiences and community engagement are crucial for improving retention rates in vocational education and training (VET) programs in Catalonia (Salvà et al., 2019). VET refers to educational courses designed to provide students with the practical abilities and knowledge required for specific occupations or trade (Salvà et al., 2019). Retention denotes the capacity to keep students enrolled and engage in VET programs (Salvà et al., 2019). A crucial element in enhancing retention rates is the integration of practical learning experiences into the VET programs. These hands-on components enable students to implement theoretical concepts in practical scenarios, cultivate a more profound comprehension of their chosen discipline, and boost their determination to complete the program. Such experiences encompass internships, apprenticeships, project-centred learning, and simulated work settings tailored to specific vocational domains.

Moreover, community initiatives have been shown to play a vital role in supporting student retention in VET courses. These endeavours typically involve cooperation among educational establishments, local enterprises, and community groups, generating opportunities for students to interact with their potential professional environments and develop a sense of connection within the wider community. These initiatives include mentoring schemes that connect students with industry professionals, vocation-related community service projects, networking events, job fairs, and lectures delivered by industry specialists.

By nurturing connections between students, educational institutions, and the local community, these initiatives can heighten students' motivation, expose them to real-world scenarios, and underscore the relevance of their VET studies. The analysis conducted in Catalonia likely involved quantitative data and metrics related to VET enrolment, completion rates, and other relevant outcomes. By examining the impact of experiential learning and community involvement strategies on these metrics, researchers and policymakers can gain

valuable insights into effective approaches to improve student retention and overall success in VET programs.

Studies on attrition rates in vocational education and training (VET) programs in Catalonia have employed a comprehensive methodology incorporating both macro- and micro-analyses (Gairín et al., 2012). The macro analysis used quantitative and qualitative data from the UNEIX platform, which contained information on 21,620 dropouts in the Catalan University system from 2000–2001 to 2001–2002 years (Gairín et al., 2012). These data offer insights into variables related to students' circumstances at the commencement of their degree, factors influencing the degree of abandonment, and post-dropout situations (Gairín et al., 2012). The microanalysis encompassed detailed and comprehensive examinations through in-person and telephonic interviews with a test group of students who left their studies. This qualitative method seeks to evaluate dropout rates with greater intricacy, taking into account variables like academic/vocational guidance, learning processes, degree motivation, student-institution interactions, institutional backing, and personal/economic elements (Gairín et al., 2012).

A separate investigation examined the degree to which VET learners utilised motivational and self-regulated learning (SRL) strategies, contrasting students in online and traditional classroom VET programs (Quesada-Pallarès et al., 2019). This study validated the adaptation of three scales measuring task value, effort regulation, and metacognitive self-regulation for Catalan VET students. The findings indicated no significant disparity in task value between online and classroom VET learners; however, online students exhibited higher levels of metacognitive self-regulation and effort-regulation (Quesada-Pallarès et al., 2019).

Moreover, a significant study explored the influence of Dual VET on students' grades and course completion in Catalonia. Dual-VET incorporates more practical training and business involvement than conventional school-based VET (Mora et al., 2022). The study revealed that Dual VET positively affects grades, with instrumental variable (IV) estimation showing a more substantial impact than ordinary least squares (OLS) results. Specifically, Dual VET enhances grades by 0.51 points on a 0-10 scale, or 0.93 standard deviations when standardising grades (Mora et al., 2022). It also boosted the likelihood of course completion by 1.77 percentage points, which is 3.88 times the average value. The study accounted for sample selection bias and employed an instrument related to the availability of Dual VET programs near students' schools to address endogeneity (Mora et al., 2022).

Methods

The Orienta4VET project employed a qualitative research methodology, specifically thematic analysis (Braun & Clarke, 2022; Sundler et al., 2019), to conduct this study. This approach was selected for its efficacy in examining the complex perspectives of principals and teachers serving as guidance counsellors in Vocational Education Training (VET) centres throughout Catalonia, Spain. This qualitative study investigated the pivotal role of guidance in VET, aiming to enhance both educational outcomes and successful integration into the workforce.

Data Collection

Eight locations in Catalonia, Spain, were selected for semi-structured interviews and group discussions. This approach was adopted because of its proven efficacy in obtaining comprehensive and contextually rich data, enabling a thorough investigation of participants' insights, expertise, and viewpoints (Cohen et al., 2018). These interactions play a crucial role

in understanding the intricate ways in which VET influences educational and occupational integration.

The data collection was structured around open-ended enquiries centred on four principal aspects: Guidance, Holistic approach, systematic approach, and focus on empowerment. These aspects were chosen to encompass the fundamental components essential for evaluating the efficacy of the VET programs. To enhance collaborative efforts among the international partners engaged in the project, the information was methodically arranged using Microsoft Word matrix. This platform was selected because of its widespread availability and user-friendly nature, which are vital for coordinating the intricate logistics of a research project spanning multiple countries (Braun & Clarke, 2022).

Analysis

After gathering the data, the next crucial phase involved transcribing interviews and discussions. This process, which converts oral communication into a written form, is essential for facilitating a more comprehensive and accessible analysis. Upon completion of transcription, initial coding was conducted using the MAXQDA software. This stage entailed breaking down the transcripts into discrete information units, which were then labelled with codes corresponding to preliminary themes based on the study's four dimensions.

The MAXQDA coding process enabled the identification and categorisation of similar themes across the dataset. This was accomplished through meticulous data synthesis to uncover recurring patterns and expressions related to the key dimensions. As themes emerged, they underwent continuous refinement and grouping, facilitating the discovery of connections between various themes and sub-themes (Williams & Moser, 2019; Rädiker & Kuckartz, 2021). This step is vital as it offers a profound understanding of the systemic and individual factors influencing dropout rates among young people in VET, as well as identifying strategies employed by teachers and counsellors to prevent such occurrences.

The analysis continued with an in-depth examination of how these themes interacted within the broader ecological framework provided by Bronfenbrenner's Ecological Systems Theory (Brofenbrenner, 1979). This theoretical approach aided in categorising and organising the identified themes into systemic levels, including personal, family, social-relational, institutional, and structural-systemic factors. Each category reflects a different layer of influence on students' educational experiences and outcomes, ranging from immediate personal interactions to wider societal and cultural forces.

The final stage involved synthesising the findings from this thematic analysis to develop the Interactive Guide, a key research output of the Orienta4VET project. This guide incorporates identified best practices and insights, addresses risk factors, and promotes innovative teaching and learning strategies. It is structured to assist practitioners and policymakers in implementing effective strategies to enhance VET education and reduce dropout rates, reflecting the interconnected nature of the risk factors affecting students in educational settings.

Results

Risk Factors for School Dropout in VET Youth

The development of the Interactive Guide was based on a comprehensive research approach rooted in Bronfenbrenner's ecological model complemented by insights from Stepanović-Ilić et al. (2017). This framework enables the systematic identification and examination of multi-tiered risk factors influencing VET students' educational paths. Employing Bronfenbrenner's perspective, the initiative sought to categorise the wider societal elements contributing to student attrition. This categorisation arranges risk factors into readily comprehensible groups, while recognising their interrelations across various levels (Brown et al., 2021):

- Personal Factors: Situated within the microsystem, encompassing aspects such as a learner's drive, mental state, and particular educational requirements, directly influenced by their immediate personal and social encounters.
- Family Factors: Positioned in the microsystem, these elements are shaped by household dynamics, backing, and aspirations. The mesosystem links these familial components to educational contexts, thereby impacting student outlooks and achievements.
- Social-Relational Factors: Embedded in the microsystem, this category encompasses interactions such as companionships and peer associations within the school setting. The mesosystem examines how these social connections influence students' interactions with the family and community, affecting both social and academic spheres.
- Institutional Factors: Spanning the exosystem and mesosystem. These elements include broader educational guidelines, assets, and managerial practices that indirectly shape students' learning environments. Their interplay with the family and community dynamics within the mesosystem is crucial for establishing supportive educational frameworks.
- Structural-Systemic Factors: Located in the macrosystem, these comprise the broader cultural, societal, and economic conditions that define the overarching context of the education system, influencing how education is valued, accessed, and aligned with labour market demands.

These categories demonstrate the multifaceted and interconnected nature of risk factors that affect students in their educational settings. Each plays a vital role in molding academic outcomes and experiences.

Creation of the Orienta4VET Interactive Guide

The creation of the Interactive Guide for Orienta4VET was a carefully planned initiative designed to address the significant attrition rate among VET learners. This project encompassed a multi-stage approach that blended research with practical applications guided by input from VET experts.

The initiative commenced with the comprehensive identification of multi-tiered risk factors affecting VET students. Extensive research has uncovered roughly 70 distinct risk factors across five primary categories: individual, family related, socio-relational, institutional, and structural-systemic. These factors were systematically categorised based on their characteristics and influence, establishing a solid foundation for understanding the intricate

challenges faced by VET students, which is essential for identifying areas that require targeted interventions.

The next phase involved assessing current orientation and tutorial approaches through interviews and dialogue with stakeholders from VET centres in Catalonia, Spain. This evaluation was crucial for gathering insights into existing practices and identifying areas for improvement. The feedback obtained during this stage was vital for understanding the efficacy of current strategies and their relevance to VET students' needs.

Utilising the insights gained from the preceding phases and contemporary research, the subsequent steps involved adapting and refining strategies to address the identified challenges. A set of 13 innovative strategies, each accompanied by specific actionable measures, were developed for implementation within VET centres to enhance educational outcomes and reduce attrition rates. These efforts culminated in the development of an Interactive Guide, as illustrated in Figure 1.

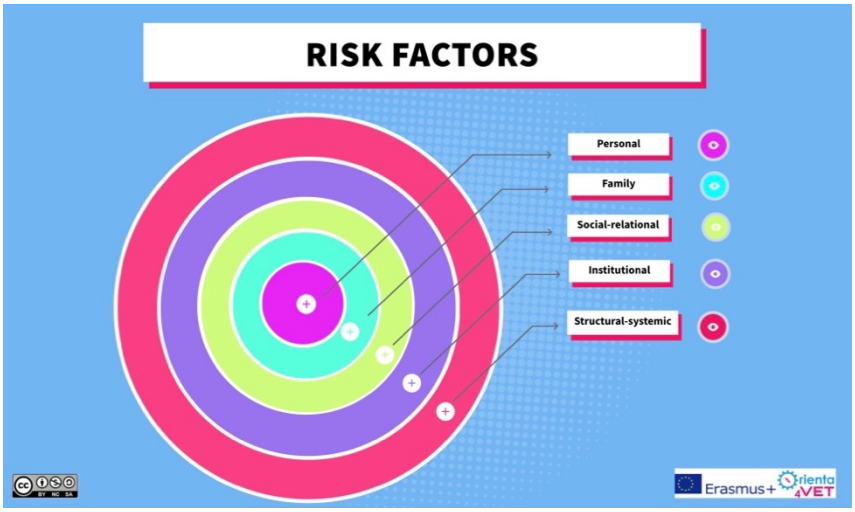

Figure 1: Orienta4VET Interactive Guide
Source: https://orienta4vet.eu/statics/view/interactive_guide

This Interactive Guide serves as a versatile and accessible resource for synthesising extensive research and proven methodologies to aid VET instructors and managers. By offering readily available access to established techniques and innovative approaches, the Interactive Guide acts as a crucial tool for improving the learning journey and outcomes of VET learners, thereby making a substantial contribution to the vocational education sector.

Discussion

The Orienta4VET initiative has made considerable progress in tackling the pressing issue of student attrition in vocational education and training (VET) throughout Catalonia, Spain. By identifying roughly 70 distinct risk factors across personal, family, social-relational, institutional, and structural-systemic domains, this project established a comprehensive framework for comprehending the complex challenges VET students encounter. This groundwork was crucial for identifying areas requiring targeted interventions and informing subsequent project phases.

An assessment of current guidence and tutorial approaches yielded valuable insights into the practices employed within VET centres. Conversations with stakeholders illuminated the strengths and weaknesses of these methods, offering a clear picture of the areas needing enhancement. Feedback from this stage was vital in refining strategies to better suit VET students' needs.

Drawing on these insights, this project devised a set of 13 innovative strategies, each accompanied by specific actionable measures aimed at improving educational outcomes and reducing dropout rates. The culmination of these efforts is an Interactive Guide, which is a dynamic and user-friendly tool that encapsulates the project's extensive research and tested strategies. By providing easy access to proven methods and novel approaches, the Interactive Guide serves as a crucial resource for VET educators and administrators.

The project's methodological approach, rooted in thematic analysis and informed by Bronfenbrenner's Ecological Systems Theory (Brofenbrenner, 1979), has demonstrated its effectiveness in capturing the intricate and interconnected nature of factors influencing VET student outcomes. This approach enables a nuanced understanding of how various environmental and individual factors interact to affect educational success, thereby providing a robust foundation for developing practical and actionable strategies.

Overall, the Orienta4VET project has made a significant contribution to the field of vocational education and training by offering a deeper understanding of the risk factors associated with school dropout and providing practical tools to address these challenges. The Interactive Guide, as a primary output, exemplifies the project's success in promoting educational and professional integration among disadvantaged young people in VET environments.

Conclusion

The Orienta4VET initiative has successfully crafted an interactive guide that combines the intricacies of multi-tiered risk elements with pragmatic approaches for guidance and tutorial interventions. This resource is invaluable for educators and administrators to bolster the educational journey and achievement rates of VET learners, particularly those from underprivileged backgrounds. The project outcomes make a substantial contribution to the VET sector by offering a flexible and scalable solution to curtail dropout rates and foster socio-educational integration.

The project's research revealed shared risk factors and useful measures to address them. A notable discovery was the effectiveness of the Dual VET system in mitigating dropout rates. The integration of workplace training and heightened corporate engagement not only enhanced academic performance but also improved student retention. This dual methodology shows the potential of blending practical work experiences with academic instruction to create a more captivating and pertinent educational experience for VET students.

Moreover, the project underscored the significance of robust guidance and support frameworks for reducing dropout rates. By delivering continuous assistance and personalized guidance, VET institutions can better cater to the diverse requirements of their students, particularly those at risk of leaving their studies. The involvement of skilled counsellors and implementation of structured tutorial actions play a pivotal role in nurturing a supportive learning environment.

Collaboration and community engagement have emerged as crucial elements in the success of VET programs. Involving local enterprises, community organisations, and other stakeholders ensures that educational offerings align with local labour market needs and that students receive comprehensive support throughout their educational journey. This collaborative approach not only enhances the relevance of VET programs but also cultivates a sense of belonging and community among students.

It is crucial to note that all measures identified and implemented through the Orienta4VET project are intrinsically linked to local systems. There is no universal solution; instead, interventions must be tailored to the specific contexts and needs of each community. This localisation ensures that the strategies are relevant and effective in addressing the unique challenges faced by VET students in different regions.

Further research is recommended to build upon the findings of the Orienta4VET project and to explore additional dimensions of VET effectiveness and student retention. Future studies should focus on investigating the long-term impacts of Dual VET programs on students' career trajectories and overall satisfaction, conducting comprehensive evaluations of different guidance and support systems to identify the best practices, and exploring various models of community engagement to develop more robust collaborative frameworks. Additionally, research should develop and test personalised intervention strategies catering to individual student needs, particularly those with complex risk profiles, and assess the role of technology in enhancing VET education, including the use of digital tools and platforms to deliver guidance and support services. By pursuing these research avenues, stakeholders can continue to improve VET programmes, making them more inclusive, effective, and responsive to the needs of all students.

References

Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. *Qualitative Psychology, 9*(1), 3–26 https://doi.org/10.1037/qup0000196

Brown, C., Rueda, P. O., Batlle, I. C., & Sallán, J. G. (2021). Introduction to the special issue: a conceptual framework for researching the risks to early leaving. *Journal of Education and Work*, *34*(7–8), 723–739. https://doi.org/10.1080/13639080.2021.2003007

Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiments by Nature and Design*. Harvard University Press.

CEDEFOP. (2023). Early leaving from education and training. https://www.cedefop.europa.eu/en/projects/early-leaving-education-and-training

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education.* Routledge.

European Commission. (2023). Preventing early leaving from education and training (ELET). Spain. Retrieved from https://national-policies.eacea.ec.europa.eu/youthwiki/chapters/spain/63-preventing-early-leaving-from-education-and-training-elet

Fundació Bofill. (2022). What does the new data on early school drop-out in Catalonia tell us? Retrieved from https://fundaciobofill.cat/en/blog/what-does-the-new-data-on-early-school-drop-out-in-catalonia-tell-us

Gairín, J., Triado, X. M., Feixas, M., Figuera, P., Aparicio-Chueca, P., & Torrado, M. (2014). Student dropout rates in Catalan universities: profile and motives for disengagement. *Quality in Higher Education, 20*(2), 165–182. https://doi.org/10.1080/13538322.2014.925230

Mora, T., Escardíbul, J. O., & Pineda-Herrero, P. (2022). The effect of dual vocational education and training on grades and graduation in Catalonia, Spain. *Educational Review*, 1–21. https://doi.org/10.1080/00131911.2022.2076656

Quesada-Pallarès, C., Sánchez-Martí, A., Ciraso-Calí, A., Pineda-Herrero, P. (2019). Online vs. Classroom Learning: Examining Motivational and Self-Regulated Learning Strategies Among Vocational Education and Training Students. *Frontiers in Psychology, 10*, 2795. https://doi.org/10.3389/fpsyg.2019.02795

Rädiker, S., & Kuckartz, U. (2021). *Análisis de datos cualitativos con MAXQDA. Texto. Audio. Video.* MAXQDA Press.

Rodríguez, D., Feixas, M., Gairín, J., & Muñoz, J. L. (2012). Understanding Catalan University Dropout from a Comparative Approach. *Procedia - Social and Behavioral Sciences, 46*, 1424–1429. https://doi.org/10.1016/j.sbspro.2012.05.314

Salvà, 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 6*(2), 153–173. https://doi.org/10.13152/IJRVET.6.2.3

Stepanović-Ilić, I., Lazarević, L., & Šimić, N. (2017). Social factors outside of family and school related to student dropout. *Psihološka istraživanja, 20*(1), 89–105. https://doi.org/10.5937/PSISTRA1701089S

Sundler, A., Lindberg, E., Nilsson, C. & Palmér, L. (2019). Qualitative thematic analysis based on descriptive phenomenology. *Nursing Open, 6*(3), 733–739 https://doi.org/10.1002/nop2.275

Williams, M., & Moser, T. (2019). The art of coding and thematic exploration in qualitative research. *International Management Review*, *15*(1), 45–55. http://www.imrjournal.org/uploads/1/4/2/8/14286482/imr-v15n1art4.pdf

Contact emails: marisol.galdames@uab.cat
ceciliaines.suarez@uab.cat