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Career Guidance in Basic Vocational Training Programs. A Systematic Review

Orientación para el desarrollo de la carrera en los ciclos formativos de grado básico. Una revisión sistemática

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Abstract

The reform of vocational training systems has entailed the implementation of policies aimed at improving their quality and equity, including the promotion of career guidance for the prevention of early school leaving among students in vulnerable situations, such as those enrolled in basic vocational training programs. The aim of this study is to find out the implications of guidance, within the context of basic vocational training programs, for preventing school dropout and fostering the inclusion of students enrolled in these courses. To do so, a systematic review has been carried out, following the PRISMA methodology. Primary studies were searched in two databases (WoS and Scopus), and twenty-two publications that met the established eligibility criteria were analyzed. The descriptive and narrative analysis of the data focused on the general, substantive, methodological and extrinsic characteristics of the studies. Results report on the organisation and operation of basic vocational training programs, career guidance processes, drop-out prevention and the development of career management skills of vulnerable students. We conclude by highlighting the need to promote research and intervention processes from a

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socio-community and lifelong guidance approach and to encourage the personalisation of guidance processes that allow for greater levels of socio-occupational integration in the most vulnerable groups.

Keywords: career guidance; vocational training; disadvantaged youth; social inclusion; systematic review; PRISMA.

Resumen

La reforma de los sistemas de formación profesional ha supuesto la implementación de políticas encaminadas a la mejora de su calidad y equidad, entre las que destaca el impulso de la orientación profesional para la prevención del abandono educativo del alumnado en situación de vulnerabilidad, como es aquel que cursa los ciclos formativos de grado básico. El objetivo es conocer las implicaciones que la orientación tiene, en el contexto de los programas de formación profesional de grado básico, para la prevención del abandono temprano y su contribución a la inclusión del alumnado matriculado en dichas enseñanzas, para lo que se ha realizado una revisión sistemática, siguiendo la metodología PRISMA. La búsqueda de estudios primarios se realizó en dos bases de datos (WoS y Scopus), analizándose veintidós publicaciones que cumplieron con los criterios de elegibilidad establecidos. El análisis, descriptivo y narrativo de los datos, se ha centrado en las características genéricas, sustantivas, metodológicas y extrínsecas de los estudios. Los resultados informan sobre la organización y funcionamiento de programas de formación profesional de grado básico, los procesos de orientación para la carrera, la prevención del abandono educativo y el desarrollo de competencias en gestión de la carrera del alumnado en situación de vulnerabilidad. Concluimos destacando la necesidad de promover procesos de investigación e intervención desde un enfoque sociocomunitario y a lo largo de la vida y fomentar la personalización de los procesos de orientación que permitan alcanzar mayores niveles de inclusión sociolaboral en los colectivos más vulnerables.

Palabras clave: orientación profesional; formación profesional; jóvenes desfavorecidos; inclusión social; revisión sistemática; PRISMA.

Introduction and objectives

The reform of vocational training systems in different European countries has involved the implementation of policies focused on improving the key competences of students, the professional development of teachers, the access of students to this type of training, the reinforcement of guidance actions and the improvement of the quality of the vocational training system (*European Centre for the Development of Vocational Training* [Cedefop] and *European Training Foundation* [ETF], 2020).

In Spain, Organic Law 3/2022 of 31 March on the organisation and integration of vocational training (hereinafter, Vocational Training Law) recognises the importance of vocational guidance in promoting equal opportunities and reducing early school leaving rates (Ministry of Education and Vocational Training, 2020).

Likewise, the aforementioned Law establishes, as a general principle of the vocational training system, the flexibility and continuity of the degrees (A: Partial accreditation of competence; B: Certificate of competence; C: Professional certificate; D: Training cycle, and E: Specialisation course), and their correspondence with the levels of professional competence (1, 2 and 3) of the National Catalogue of Standards of Professional Competence (art. 3, 5 and 28).

These levels are related to those set out in the *European Qualifications Framework* (EQF, European Union, 2018) and in different international classifications, such as the *International Standard Classification of Education: ISCED 2011* (UNESCO, 2012).

The context of the present work is framed in the basic grade training cycles (Grade D-Level 1, EQF 2-3 and ISCED 353), which have a duration of two years and are aimed at students who have not completed their compulsory secondary education (ESO), but wish to continue their training (Vocational Training Act, 2022, art. 44). These are students who have had, throughout their schooling, a complex trajectory with situations of school failure, emotional problems, learning difficulties, and for whom ordinary support measures have not been effective (Martín, 2019; Martínez, 2011), entailing the risk of dropping out of the education system and social exclusion.

These programmes are an opportunity for students to obtain a vocational certificate that recognises a level 1 of the National Catalogue of Vocational Competence Standards, but they require support and tutoring adapted to the specific needs of each student (Vocational Training Act, 2022, art. 44).

In the European context, according to the database designed by Cedefop and ReferNet (2019), initial qualification vocational training programmes present a plurality of approaches and structures, being considered as formal education programmes, within the vocational training system, and non-formal, as second chance programmes, which present the following characteristics:

- Its aim is to promote the educational, social and labour inclusion of different student
 profiles: those who are at risk of dropping out of the education system or who have
 experienced situations of school failure at previous levels of education, students
 with special educational needs or learning difficulties, migrant students and
 students who are socially and economically disadvantaged.
- They recognise a vocational qualification at EQF and ISCED 2 and 3 level, which
 allows the performance of simple and basic tasks in the labour market and, in most
 cases, the continuation of the learner in higher levels of the VET system.
- And they contemplate guidance actions aimed at promoting personalised advice on labour market insertion pathways, emotional support and curricular integration of career guidance, ensuring the coordination and integration of joint work between different educational, social and labour agents.

Thus, educational and vocational guidance can contribute, from an inclusive and inclusive approach, to help these students identify their needs and the potential offered by their environment to rebuild their personal trajectories and develop their life projects (Azorín et al., 2017; Cedefop, 2016; United Nations [UN], 2015).

The study and analysis of career development guidance and its implications for the education and vocational training system (Echeverría and Martínez, 2019), has sought to link educational, social and work environments to promote the formation of people capable of facing current and future challenges Cedefop et al., 2021).

The need to promote an integrated vocational guidance system is called for, as an axis to overcome the shortcomings of the current training model and to eradicate inequalities (Romero-Rodríguez et al., 2020; Romero-Rodríguez et al., 2022a).

Some systematic reviews (Martínez et al., 2022; Torrecilla-Sánchez et al., 2022) highlight the scarcity of scientific productions linking career development guidance and vocational training.

Echeverría and Martínez (2021a, 2021b) warn of the need to promote the creation of an integrated ecosystem of research on vocational training in Spain (IFPE), which articulates the participation of different governmental, educational and socio-professional agents.

Among the priority lines of research are those related to educational and vocational guidance, socio-occupational inclusion or the role of vocational training in the prevention of early school leaving (Echeverría and Martínez, 2020).

These lines take on special significance when analysing the role of educational and vocational guidance from a social justice approach (Romero-Rodríguez, 2022b), or from an ecological and emancipatory perspective Irving and Malik-Liévano, 2019).

Furthermore, the importance of the topic (Gessler and Siemer, 2020) calls for the need to promote methodologically rigorous review studies based on transparency and reproducibility.

This study proposes to carry out a systematic review of the state of career guidance in basic vocational education and training in order to obtain relevant information on the trends, challenges and challenges to be faced in this field.

To this end, we pose the following research questions:

- 1) What is the background of career guidance in basic vocational education and training addressed in the scientific literature?
- 2) What kind of career guidance interventions are carried out in basic vocational education and training?
- 3) What is the relationship between career guidance processes in basic vocational education and the prevention of early school leaving?
- 4) What are the implications of career guidance processes in basic vocational education and training for the development and achievement of socio-vocational competences?

In order to answer these questions, a systematic review of the literature has been proposed, a strategy that allows, among other aspects, a broad and in-depth knowledge of the state of the art in a given subject (García-Peñalvo, 2022).

Method

The work has been carried out following the PRISMA 2020 guidelines (Page et al., 2021), after the elaboration of an "ad hoc" protocol (Sánchez-Meca, 2022) including essential aspects for the research. The steps that have guided the process are: the search for studies, the selection of the sample based on defined criteria and data analysis.

Search for studies and sample selection

The search for primary studies was conducted between January and February 2023 in two electronic databases, *Web of Sciencie Core Collection* (Clarivate, 2023) and *Scopus* (Elsevier, 2023).

This process consists of two phases: first, the analysis of the concepts and constructs involved in the research topic (career guidance and basic vocational training), and second, the search for primary studies for the selection of the sample, based on the definition of eligibility criteria.

The first phase was carried out with the aim of being able to group the largest number of terms related to the topic of study in order to avoid biases when establishing the final search equation. This first search for terms related to the research constructs was carried out in the *Digital Europa Thesaurus* (European Union, 2021), in Cedefop documents (2014; Cedefop et al., 2021) and in the UNESCO *Thesaurus* (UNESCO, 2022). In addition, an analysis of vocational education and training programmes was carried out through the database *Vocational education and training in Europe* (Cedefop and ReferNet, 2019), analysing a total of 143 programmes. These programmes were considered according to the following characteristics:

- They were vocational programmes in secondary education that, following the *International Standard Classification of Education: ISCED 2011* (UNESCO, 2012), recognised an ISCED level 2 (*lower secondary vocational education*) and/or 3 (*upper secondary vocational education*) qualification. For countries where the ISCED framework does not apply, the EQF was used as a reference, considering levels 2 and 3 (European Union, 2018).
- That its purpose was aimed at the prevention and reduction of early school leaving. Consideration was given to the school situation of the target group, pupils at risk of dropping out or failing at school, in a situation of socio-educational vulnerability and/or with learning difficulties.
- Other characteristics, such as age (from 15 years old), duration of the programme (two years) and the qualifications or diplomas obtained at the end (initial qualification for access to the labour market in basic tasks and/or Secondary Education Graduate).

As a result of this first phase, terms and types of programmes that could be related to the topic of study were organised and defined. In order to ascertain their relevance, a preliminary search was carried out including the search equations shown in Table 1, with the aim of being able to establish a single final search equation that would integrate the terms relevant to the object of study. These initial equations arise from the analysis of the terms and the existing vocational training programmes in each of the countries at European level.

Table 1

Results of the initial search terms for the elaboration of the final search equation

Research topic		WoS Results	Scopus
	Search equation		results
Career	ALL (Educational guidance)	32433	1205
development	ALL (Career guidance)	7582	6603
guidance	ALL (Career counselling)	6032	10383
	ALL (Career development)	124115	81982
	ALL (Career* information, advice and	90	15
	guidance)	80	15
	ALL (Vocational counselling)	2344	1634
	ALL (Vocational guidance)	4187	12510
Basic	ALL ((Vocational program*) OR (VET		
vocational	program*)) AND ((Belgium) OR	7240	186
training	(Luxembourg) OR (Sweden)))		
· ·	ALL ((Lower secondary VET program*)		
	OR (Upper secondary VET program*))	12	0
	AND (Slovakia)		
	ALL (Initial VET program*) AND		
	((Bulgaria) OR (Croatia) OR (Cyprus) OR		
	(Czechia) OR (Estonia) OR (Finland) OR		
	(Hungary) OR (Ireland) OR (Italy) OR	536	1
	(Lithuania) OR (Malta) OR (Romania) OR		
	(Iceland) OR (Norway) OR (United		
	Kingdom))		
	ALL ((Basic VET program*) OR (Basic		
	vocational training program*)) AND	1243	6
	((Spain) OR (Denmark) OR (Germany) OR	1243	O
	(Latvia) OR (Slovenia) OR (Switzerland)))		
	ALL ((Pre-VET program*) OR		
	(Prevocational training program*)) AND	1	0
	(Austria)		
	ALL ((VET program* for young people)	465	1
	OR (CEF program*)) AND (Portugal)	400	1
	ALL (First stage sectoral programme*)	4	0
	AND (Poland)	1	U
	ALL ((VET program* to obtain a	0	0

professional skills certificate) OR (VET program* leading to a Federal VET Certificate)) AND ((France) OR (Switzerland))

It was decided to establish a single search equation that was as comprehensive as possible, in English and adapted to the requirements of each database, using the Boolean operators OR and AND:

((Educational guidance) OR (Career guidance) OR (Career counselling) OR (Career development) OR (Career* information, advice and guidance) OR (Vocational counselling) OR (Vocational guidance)) AND ((Vocational training) OR (Vocational education and training) OR (Basic VET) OR (Basic vocational training) OR (Initial VET) OR (Lower secondary vocational education) OR (Upper secondary vocational education)).

The second phase consisted, after the previous analysis, of the search for primary studies, applying the final search equation in the two aforementioned databases. For this second phase, the eligibility criteria were established (Table 2), following the PICO approach (Sánchez-Meca, 2022). This allowed a total of 2709 records to be identified.

Table 2

Eligibility criteria

Criteria	Inclusion	Exclusion
Time band	Published between 2013 and 2022	Published outside the selected
		period
Type of	Peer-reviewed articles, proceedings	Non-article publications,
publication	and article reviews	proceedings and reviews of peer- reviewed articles
Language of	English, Spanish, French, German,	Other language than those selected
the study	German, Portuguese, Italian and Spanish.	
Type of study	Primary empirical studies and	Theoretical studies, with the
	reviews of literature, policies and/or	exception of literature reviews,
	practices related to the object of the	policies and/or practices related to
	study.	the object of study.
Research	No criteria apply	No criteria apply
design		
Paradigm	Quantitative, qualitative and mixed	No criteria apply
Accessibility	Access to full text	Non-accessible texts
Participants	Young people between 15 and 21	Other educational stages and/or
•	years of age at risk of dropping out	other groups
	of school, in initial vocational	· 1
	training programmes.	
	01 0	

Interventions	Studies involving research and/or evaluation of career guidance	Other fields or areas of educational guidance
	actions and processes	
Comparison	No criteria apply	No criteria apply
group		
Outcome	Analysis of the implications for the	Publications that do not answer
variables	prevention of drop-out and for the	the research questions
	acquisition of socio-professional	1
	competences	

The registration and management of the information was carried out using an *Excel database* (Microsoft Corporation, 2021). Duplicate records were removed and titles, abstracts and full text were analysed, eliminating records that did not meet the eligibility criteria. Simultaneously, studies were identified using other methods: citation searching of the records included so far and studies included in previous literature reviews (Figure 1).

In order to reduce the risk of bias, the studies that could be included in the review were assessed according to the quality criteria established in the Scale for Evaluating Scientific Articles in Social and Human Sciences-EACSH (López-López et al., 2019): introduction, methodology, results and discussion.

At the end of the process, the search identified 22 documents, which constitute the study sample (appendix, Table A1).

Data analysis

The treatment of the information focused on the descriptive, narrative and content analysis of the primary studies, following an inductive process, based on an exhaustive reading of the full text. To organise the information, the generic and substantive characteristics were categorised and coded: authors, year of publication, context of the research, journal of publication and analysis of co-occurrence of key words. Finally, the methodological and extrinsic characteristics of the primary studies were analysed. The studies were classified and analysed according to the research questions and the topics they addressed. Four categories of analysis were identified: organisation and functioning (7/22), career development guidance processes (6/22), educational drop-out (5/22) and career management competences (4/22).

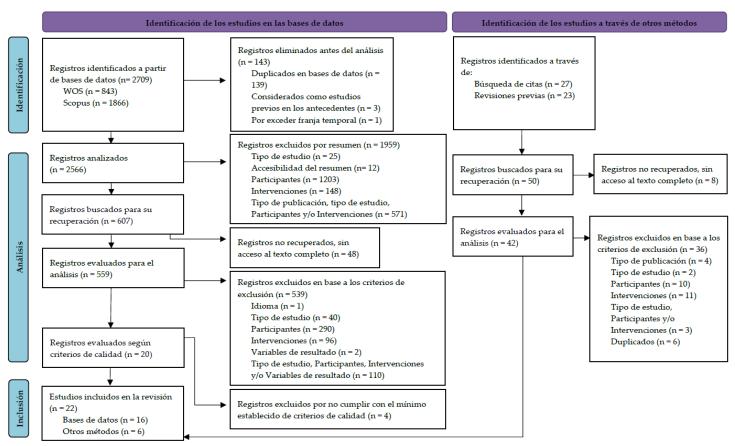


Figure 1. PRISMA Flowchart of the study extraction and selection process (Extracted and adapted from Page et al., 2021).

Results and discussion

The process of analysing the studies has made it possible to answer the research questions posed. The main results achieved according to the analysis of the characteristics of the studies and the content of their contributions are reported below, the details of which are included in the appendix, Table A1.

Descriptive analysis of the characteristics of the selected studies

One of the elements related to the characteristics of the studies is the analysis of the authors who have contributed to the study of career guidance in basic vocational education.

The 22 selected articles were written by 62 authors, 53% men (n=33) and 47% women (n=29). The most prolific are Olmos-Rueda (n=4 publications), and Romero-Rodríguez and Más-Torelló (n=3).

The period of greatest scientific production, within the time frame analysed, covers the years 2013-2015, coinciding in Spain with the approval of Organic Law 8/2013, of 9 December, for the improvement of educational quality and, subsequently, from 2020, with the approval of Organic Law 3/2020, of 29 December, which amends Organic Law 2/2006, of 3 May, on Education (Figure 2).

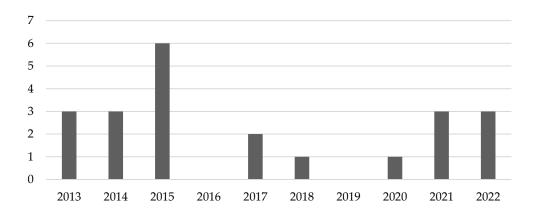


Figure 2. Number of publications per year in the 2013-2022 timeframe.

Most of the studies are research conducted in Spain (n=12), and to a lesser extent in Germany and Canada (n=2) and Switzerland, the Netherlands, Estonia, Turkey and Uganda (n=1)

As for the journals that publish the studies analysed, the majority are specialised journals in the subject of the study, with the publication in generalist journals in the field of education and, to a lesser extent, in other fields such as psychology (Table 3).

Table 3

Magazines by subject

Thematic	Journals and number of studies
Educational	International Journal for Educational and Vocational Guidance (2), Revista
and	Española de Orientación y Psicopedagogía (2) and L'orientation scolaire
vocational	et professionnelle (1).
guidance	
Vocational	Empirical Research in Vocational Education and Training (3), International
training	Journal for Research in Vocational Education and Training (1) and Journal of
	Education and Work (1).
Education	Bordón (2), Revista de Investigación en Educación (1), Revista de
	Investigación Educativa (1), Revista de Educación (1), Educar (1),
	Revista Electrónica Interuniversitaria de Formación del Profesorado
	(1), Educational Sciences: Theory & Practice (1), International Journal of
	Educational Development (1) and Exceptionality Education International (1).
Psychology	European Journal of Investigation in Health, Psychology and Education (1)
	and Frontiers in Psychology (1)

The co-occurrence analysis of the words in the abstracts of the selected publications, carried out using VOSviewer software (Centre for Science and Technology Studies, 2024), identified five clusters grouping 100 terms and their relationships (Figure 3). Cluster 1 (red), with more terms grouped together (28%), is linked to conditions and situations of vulnerability, with terms such as "risk", "youth", "exclusion" or "educational exclusion", among others. Cluster 2 (green) groups 23% of the terms, related to the school and vocational training context, including: "student", "teacher", "basic vocational education and training" or "academic achievement/failure". Clusters 3 and 4 (blue and yellow), which include 18% each, are linked to themes related to guidance processes: "career guidance", "decision making" or "career success", and include terms such as "dropout" or "risk youth". Finally, cluster 5 (purple colour) groups 13% of the terms, related to factors affecting risk situations, such as "special education needs", "problem/difficulty", "personal factors" and "environment". The clusters obtained show a layered context, reflecting relevant relationships between vocational education and training and situations of vulnerability and prevention factors, or the link between guidance processes and factors affecting school drop-out, which could be considered as study phenomena with interdependent relationships.

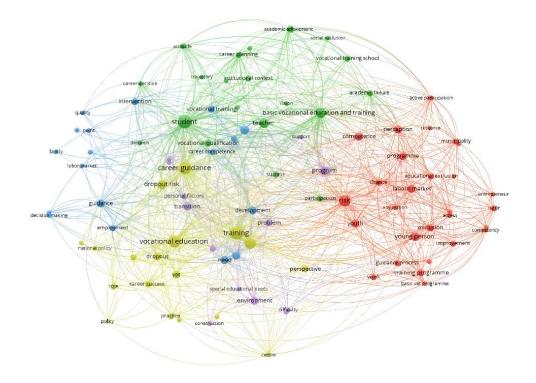


Figure 3. Analysis of study summaries using VOSviewer.

In terms of methodological characteristics and type of study, 81% (18/22) are empirical publications, and have been approached from a quantitative (8/18), qualitative (6/18), and mixed (4/18) paradigm. With regard to the characteristics of the samples, sample sizes of around 600 subjects on average stand out, focusing on different types of agents, especially students (present in 15 of the 18 articles), but also generalist teachers (7/18) and, to a lesser extent, employment agents (3/18), specialist teachers (1/18) and educational counsellors (1/18).

Different vocational training programmes have also been identified in other countries (Table 4), which indicates a certain heterogeneity within the basic vocational training cycles (CFGB) or the previous initial vocational qualification programmes (PCPI) and Basic Vocational Training (FPB) existing in Spain.

Table 4

Typology of initial vocational qualification programmes by country

Initial vocational training programmes	Countries
Zweijährige berufliche Grundbildung mit eidgenössischem Berufsattest (EBA) or La	Switzerland
formation professionnelle initiale de deux ans aboutissant à une attestation fédérale	
de formation professionnelle (AFP): vocational training programmes; two years;	

Federal Vocational Training Certificate; basic qualification level (Hofmann et	
al., 2021).	
Prevocational educational (PVE) and Secondary vocational education (SVE):	The
vocational training programmes after primary education (Meijers et al.,	Netherlands
2013).	
Choice of profession training (CoPT): preparatory transition programme for	Estonia
access to vocational training; recognises basic levels of vocational	
qualification; enables continuation of studies at later stages or entry into	
employment (Roos et al., 2021).	
Work Based Education (WBE), workplace learning programmes; paid work	Canada
experience (Taylor et al., 2015).	
Farm school, three-year programme; Uganda Junior Junior Technical	Uganda
Certificate (UJTC), ISCED level 2; aimed at young people who have dropped	
out of secondary school (Tukundane et al., 2015).	

The remaining four investigations have been considered theoretical studies, including a systematic review of the literature on dropout in vocational training (Cerda-Navarro et al., 2017), two focused on the analysis of reports and good practices in guidance (Psifidou et al., 2021; Romero-Rodríguez et al., 2022c) and a work related to the analysis of weaknesses, threats, strengths and opportunities (SWOT) of vocational training programmes (Tukundane et al., 2015).

With regard to extrinsic characteristics, only 10 of the 22 publications report the connection of the studies with research projects funded and subsidised by public.

The state of career development guidance in basic vocational education and training (VET)

Organisational and operational aspects of initial or basic vocational training programmes. They focus on the analysis of the educational, social, economic and professional reality from the teachers' perspective and the students' expectations and degree of satisfaction with this training at national (Amores and Ritacco, 2015; Aramendi et al., 2018; Martínez-Carmona et al., 2022) and international level (Masdonati et al., 2015; Tukundane et al., 2015). The studies by Olmos and Mas (2013) and Roos et al. (2021) analyse the situations of vulnerability of young people participating in these programmes and their potential for social inclusion.

Career development guidance processes, which address aspects related to the guidance needs of students at risk (Álvarez et al., 2015) and their link with factors influencing career transitions and career success, career identity, motivation, decision-making processes and work hope related to future careers (Hofmann et al., 2021; Meijers et al., 2013; Taylor et al., 2015). This perspective includes the work of Romero-Rodríguez et al. (2015, 2022c), which focuses on the evaluation of career guidance programmes and good practices. They highlight the need for guidance for the current context, which implies developing skills to foster personal reflection and satisfaction, exploration of the environment, employability and the ability to plan and manage one's own career based on the design of professional and life projects

Prevention of early school leaving in the context of vocational education and training. These studies have analysed disengagement profiles (Olmos et al., 2020) and the factors and motivations that influence the decision to leave education early and explore subsequent trajectories (Michaelis and Richter, 2022; Taş et al., 2013). While Michaelis and Ritcher (2022) point to the need to pay attention to risk factors such as low achievement levels, repetition or low educational level of the family, Taş et al. (2013) stress the need to take into account the expectations and behaviours of teachers and the peer group, and organisational aspects of the school, which are factors that may influence early leaving.

In this sense, Olmos et al. (2020) consider it fundamental to adopt a multidimensional conception, grouping personal, school, family, social, economic and behavioural factors.

Competences in career management, which brings together studies on knowledge, skills and attitudes aimed at achieving socio-occupational integration (Frey et al., 2014; García-Ruiz et al., 2013; Olmos, 2014; Olmos-Rueda and Mas-Torelló, 2017). They focus on the self-perception of young people at risk of dropping out and those in initial vocational training programmes on the acquisition and development of competences. They agree that these young people attribute a high degree of social, personal and vocational skills acquisition to themselves (Frey et al., 2014; García-Ruiz et al., 2013; Olmos, 2014). The studies by García-Ruiz et al. (2013), Olmos (2014) and Olmos-Rueda and Mas-Torelló (2017), which analyse the perceptions of teachers, counsellors and employer agents, show a large discrepancy between these agents and between their perceptions and those of students, with the former being much lower.

Future perspectives on the study of career guidance in basic vocational education and training (VET)

Taking into consideration the future lines of research raised in the studies analysed, some recommendations are proposed.

Firstly, collaborative research involving the analysis and understanding of the circumstances of the personal, social and professional context of the most vulnerable groups must be considered in order to contribute to the development of their employability and social inclusion in increasingly volatile and complex environments (Álvarez et al., 2015; Aramendi et al., 2018; Frey et al., 2014; García-Ruiz et al., 2013; Martínez-Carmona et al., 2022; Masdonati et al., 2015; Olmos-Rueda and Mas-Torelló, 2017; Taylor et al., 2015).

In this regard, Hofmann et al (2021), Michaelis and Richter (2022) and Olmos and Mas (2013) stress the importance of investigating changes along the transitions and trajectories after the training period or after the first departure from training.

It is also considered appropriate to promote research framed within a lifelong learning and guidance approach, highlighting the principles of prevention and social development for the construction of life and career projects (Álvarez et al., 2015; Aramendi et al., 2018). Meijers et al. (2013), Álvarez et al. (2015) and Roos et al. (2021) indicate that these approaches are associated with certain theoretical models: career construction theory, systemic models and the dialogical perspective, being the most appropriate paradigms to address the needs of vulnerable groups.

With regard to the role of teachers, to focus on the analysis of their functions and the recognition of the role played by guidance practition, as well as to design training actions to contribute to their competence development. The ultimate aim is to promote positive

attitudes towards students (Taş et al. 2013), the curricular integration of guidance (Frey et al., 2014; Michaelis and Richter, 2022), the promotion of tutorial action (Aramendi et al., 2018) and the improvement of socio-professional competences (Frey et al., 2014; Olmos, 2014) as strategies to prevent the risk of students dropping out of school early.

Finally, it is essential to continue analysing, on the one hand, basic vocational training programmes, in general, as a strategy to achieve the educational re-engagement of students and, in particular, those developed in third sector entities, such as second chance schools and other centres managed by local entities and administrations (Aramendi et al., 2018; García-Ruiz et al., 2013). In addition, national programmes should be contrasted with others at the international level (Olmos and Mas, 2013) in order to incorporate proposals to reduce early school dropout rates. In this sense, according to the results of previous research and systematic reviews, it will be necessary to focus on career guidance processes, a growing area of research (Martínez et al., 2022; Torrecilla-Sánchez et al., 2022). According to the review by Cerda-Navarro et al. (2017), it is necessary to understand how these processes are organised, what actions are carried out, which agents are involved and to what extent these types of actions take into account the needs of their recipients, given that greater personalisation of educational attention and career guidance will be key to achieving greater student motivation and improving relations between the different educational agents.

Conclusion

This study has provided a systematic literature review on the state of career guidance in basic vocational education and training and other vocational training programmes for at-risk learners. The aim was to find out about the latest trends in career guidance research and the challenges faced by those working with these students. The results obtained have led to the following conclusions in relation to the research questions.

With regard to the first, on the background of career guidance in basic vocational training, it should be noted that in recent years there has been a boom in publications (Torrecilla-Sánchez, 2022), especially from 2020 onwards there has been a gradual increase in scientific production on the subject, coinciding with the health crisis caused by COVID-19. At that time, different international organisations called for greater investment of personal and economic resources in this area (Cedefop et al., 2020, 2021), urging the articulation of an integrated vocational guidance system that promotes collaboration between education, vocational training and employment (Manzanares, 2013; Ministry of Education and Vocational Training, 2020). In this sense, it is appropriate to include perspectives from different educational, social and professional agents in research, promoting community-based research processes that bring research closer to the real needs of the participating groups.

The question focused on the predominant actions in vocational and career guidance is covered because studies have been identified which indicate that interventions should be approached from a systemic, integrated and lifelong guidance approach, in a threefold way: (a) providing information on academic pathways and job opportunities, which favour the improvement of the social recognition of vocational training; (b) encouraging student participation in the design of professional and life projects in decision-making and in the

acquisition and development of career management competences; (c) to foster collaboration and coordination between different institutions and guidance agents within and outside the educational system, reinforcing the role of tutorial action and the involvement of professionals from the social, employment services, health and family sectors, especially to address the prevention of early school leaving and promote the inclusion of the most disadvantaged groups (Cerda-Navarro et al., 2017; Pisfidou et al., 2021; Romero-Rodríguez et al., 2022c; Tukundane et al., 2015).

The third question focused on the analysis of the implications and effectiveness of career guidance in the prevention of early school leaving, the studies analysed argue that programmes will be effective if they are designed on the principle of personalisation and are activated from an early age in order to contribute to the permanence of students in the education system and to successful transitions later on, coinciding with Hooley et al.

Finally, in relation to students' competence development, the review shows that discrepancies between students' and teachers' perceptions call for a focus on the need to focus on developing positive and realistic expectations that will increase students' confidence in their abilities (Pinya et al..., 2017) and on designing a flexible curriculum that integrates life skills and career guidance (Oomen and Plant, 2014), which will favour the educational, social and occupational inclusion of students in these training modalities.

The limitations of the study lie in the sources of information consulted, which have been limited to two databases, although they are the most consolidated databases (Martín-Martín et al., 2021). Therefore, it will be necessary to carry out more exhaustive searches incorporating the analysis of grey literature and the consultation of informal sources such as national and European agencies and institutions in the field of career guidance and vocational education and training. Secondly, the variability and heterogeneity that characterises vocational education and training systems, as well as the plurality of terms associated with career guidance, has meant that searches have focused on certain programmes and concepts, while other more specific ones may exist, which may have led to a loss of results in this regard. Therefore, future research needs to analyse other types of educational experiences and training pathways in formal and non-formal education focusing on learners at risk.

Despite these limitations, having established measures for the control of bias in the screening and analysis of the information, through the evaluation of the quality of the primary studies and the independent review of the studies and the triangulation of the information in each of the phases by the three people who make up the research team, the conclusions reached are relevant to highlight the importance of continuing to promote research in career guidance from a socio-community approach for its implications for the prevention of dropout and the achievement of inclusion in the labour market, the conclusions reached are relevant to highlight the importance of continuing to promote research in career development guidance from a socio-community approach due to its implications for the prevention of dropout and the achievement of socio-occupational inclusion of the most vulnerable students.

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Appendix

Table A1
Summary of the studies included in the review in alphabetical order

Author(s)	Yea r	Country	Journal of publication	Key words	Type of study	Method	Sample	Programme of VET	Thematic
Álvarez et al.	2015	Spain	Bordon	Vocational training, Career guidance, School-to-work transition, Students' needs, Survey methods	Empirica I	Quantitative	4417 students, 27 centres	PCPI, CFGM and CFGS	Career development guidance processes
Amores & Ritacco	2015	Spain	Journal of Educational Research	Compulsory Secondary Education, Attention to Diversity, School Failure, Educational Exclusion	Empirica l	Mixed	803 students, 213 teachers, 50 centres	PCPI	Organisation and functioning
Aramendi et al.	2018	Spain	Bordon	Vocational initiation programmes, School failure, Social exclusion, Attention to diversity, Secondary education	Empirica l	Quantitative	91 teachers, 15 schools	CFGB	Organisation and functioning

Cerda- Navarro et al.	2017	Spain	Empirical Research in Vocational Education and Training	Dropout, Early school, Leaving, Dropout prevention, Academic engagement	Theoreti cal	Systematic review	60 studies	FP	Educational dropout
Frey et al.	2014	Germany	International Journal for Educational and Vocational Guidance	Transferable competences, Vocational training, Dropouts	Empirica l	Quantitativ e	409 students	FP	Career management skills
García- Ruiz et al.	2013	Spain	Spanish Journal of Counselling and Psychopedagogy	Pupils with academic difficulties, Personal qualities, Sociopersonal competences, Socio-occupational integration, Vocational training	Empirica l	Mixed	56 students, 3 counsellors, 8 centres	PCPI	Career management skills
Hofmann et al.	2021	Switzerla nd	International Journal for Research in Vocational Education and Training	Vocational Education and Training, VET, Special Education, Career Development, Outcomes of Education and Training, Employmen	Empirica l	Quantitative	418 students	AFP/EBA	Career development guidance processes
Martínez- Carmona et al.	2022	Spain	European Journal of Investigation in Health, Psychology and Education	Transition decisions, Secondary school, School tracks, Revealed students' preferences, Satisfaction, Quantitative method, Optimization	Empirica l	Quantitative	352 students	CFGB	Organisation and functioning

Masdonati et al.	2015	Canada	School and professional orientation	Vocational training, Social representations, Personal representations, Quebec, Choix d'orientation	Empirica l	Qualitative	53 students	FP	Organisation and functioning
Meijers et al.	2013	The Netherla nds	International Journal for Educational and Vocational Guidance	Career guidance, Outcome effects, Vocational education	Empirica l	Quantitative	3499 students, 166 teachers, 34 schools	PVE and SVE	Career development guidance processes
Michaelis & Richter	2022	Germany	Empirical Research in Vocational Education and Training	Vocational education and training, Premature training termination, Trajectories after a premature training termination, Early-risk factors, Withdrawal from education and training, Social and migration background, Educational background, Big Five, Sequence and cluster analysis	Empirica 1	Quantitative	944 students	FP	Educational dropout
Elms	2014	Spain	Journal of Educational Research	School failure, Basic competencies, Transition to adulthood, Self- concept	Empirica l	Mixed	228 students, 16 tutors, 9 business agents	РСРІ	Career management skills
Olmos & Mas	2013	Spain	Spanish Journal of Counselling and	School failure, Job training programmes, Unskilled youth, Basic	Empirica l	Mixed	228 students, 16 tutors, 9 entrepreneuri	PCPI	Organisation and functioning

			Psychopedagogy	skills, Job opportunities, Employment opportunities			al agents		
Olmos- Rueda & Mas- Torelló	2017	Spain	Education Magazine	Basic skills, Employability, Basic vocational training, Youth, Socio- occupational integration, Re-entry into education	Empirica l	Qualitative	17 mentors, 9 business agents	PCPI	Career management skills
Olmos et al.	2020	Spain	Educate	School drop-out, Student participation, Vocational education and training, Young people without qualifications, Transition	Empirica l	Quantitative	277 students	PCPI	Educational dropout
Psifidou et al.	2021	Europe	Journal of Education and Work	Early school leaving, Career guidance and counselling, Learners at risk, European Policies, Vocational education and training	Theoreti cal	Documentar y analysis	4 technical reports from three European bodies (Eurydice, Cedefop and Commission European)	FP	Educational dropout
Romero- Rodríguez et al.	2022	Spain	Frontiers in Psychology	Career development, Career guidance, Vocational Education and Training (VET),	Theoreti cal	Documentar y analysis	88 good practices related to guidance	FPB, CFGM and CFGS	Career development guidance processes

Romero- Rodríguez	2015	Spain	Inter-University Electronic	Education system, Comprehensive career guidance Career development guidance, Narrative-	Empirica I	Qualitative	16 students, 2 centres	PCPI and CFGM	Career development
et al.			Journal of Teacher Training	systemic approach, Professional training, Professional and life project					guidance processes
Roos et al.	2021	Estonia	Empirical Research in Vocational Education and Training	Transition program, At- risk students, Powerful learning environments, Vocational education and training	Empirica l	Qualitative	16 teachers and specialists	СоРТ	Organisation and functioning
Taş et al.	2013	Turkey	Educational Sciences: Theory & Practice	Vocational High School, Dropout, Reasons for Dropout, Individual, Social, Family	Empirica l	Qualitative	19 students who dropped out of VET without a certificate of completion	FP	Educational dropout
Taylor et al.	2015	Canada	Exceptionality Education International	There is no record of	Empirica l	Qualitative	7 students	WBE	Guidance processes for career development
Tukundane et al.	2015	Uganda	International Journal of Educational Development	Vocational education and training, Skills development, Marginalised youth, Labour market, SWOT analysis, Uganda	Theoreti cal	SWOT analysis	4 VET programmes	Farm School Non-formal skills training centre Young people's empowerment school	Organisation and functioning

Natalia Rodríguez-Muñiz, María-del-Henar Pérez-Herrero and Joaquín-Lorenzo Burguera

Apprenticeship training