

Chapter 17

Preparing Students for the School-to-Work Transition: A Systematic Review of Research on Secondary School-Based Vocational Education



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Abstract The school-to-work transition is a critical step in the careers of vocationally educated graduates. Preparing graduates for this transition could help them obtain a permanent high-quality job. Preparation within the school, focusing on the development of personal resources, is considered essential. Accordingly, the aim of this systematic literature review is to integrate findings concerning vocational outcomes and personal resources and structural factors of secondary vocational education influencing these outcomes. Results of the summative content analysis of 36 articles indicate that obtaining a secondary vocational education degree reduces the risk of unemployment. Jobs filled by these graduates are often fixed-term and require lower levels of skills. Nevertheless, these students seem to be poorly prepared as they do not possess strong personal resources, such as professional functioning and career development skills. Concerning structural factors, attending a public school and following a specific vocational programme both help when finding a job.

Keywords School-to-work transition · Secondary school-based vocational education · Personal resources · Structural factors

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The school-to-work transition is a critical step in the careers of recent graduates, both in the short and the long term (Koen et al., 2012). In the short term, the school-to-work transition has consequences for well-being and life satisfaction (Koen et al., 2012). In the long term, the school-to-work transition impacts earnings, career satisfaction, and career prospects (Koen et al., 2012). The consequences are not only at the individual level, but also at the organisational (e.g., turnover) and the societal level (e.g., economic returns of a healthy labour market) and have, thus, a far-reaching impact (Akkermans et al., 2015). However, this step is not without challenges and can be characterised by periods of unemployment, underemployment, and cycling between insecure positions before obtaining a stable and satisfying job (Akkermans et al., 2015; Lassibille et al., 2001). Not surprisingly, graduates experience this transition as a period of chaos, shock, and uncertainty (Kowtha, 2011).

Preparing students for this critical step could facilitate the transition to the labour market (Akkermans et al., 2015). In this respect, previous research has indicated that personal resources are vital for the school-to-work transition (e.g., Baay et al., 2014a; Kanfer et al., 2001; West et al., 1987). Personal resources or “those entities that either are centrally valued in their own right (e.g., self-esteem, close attachments, health, and inner peace) or act as a means to obtain centrally valued ends (e.g., money, social support, and credit)” (Hobfoll, 2002, p. 307) can help to overcome difficulties and cope with less comfortable experiences (e.g., Baay et al., 2014a; Kanfer et al., 2001; West et al., 1987). Hence, they exert an important influence on the outcomes of the school-to-work transition.

Prior research indicated the contribution of resources in the school to the development of personal resources (Kehrhahn & Peterson, 2014; Lüftenegger et al., 2012; Meyer & Wise, 1982). These resources in the school environment include structural factors (e.g., autonomy, workload, and support) as well as the curriculum (Lüftenegger et al., 2012; Schreiber, 2002). Furthermore, these structural factors also directly influence the school-to-work transition (Baranowska et al., 2011; Béduwé & Giret, 2011; Crawford et al., 1997). Structural characteristics of the school have the potential to implement change in order to facilitate the school-to-work transition and the development of personal resources. Therefore, structural factors in the school environment have the potential to leverage the preparation for the transition to the labour market.

Despite the fact that graduates from secondary vocational education are expected to enter the labour market immediately after graduation (Billett, 2011; CEDEFOP, 2008), concerns arise as to whether education effectively meets the economic and social requirements of the labour market (Pavlova et al., 2017). In this respect, the Indian government, for example, acknowledged the challenge of relevant vocational education at the secondary level in order to adequately prepare students to meet the requirements of the world of work (Pavlova et al., 2017). As such, it seems that graduates from secondary vocational education would probably benefit most from a qualitative preparation for the transition to work given their less favourable position in the labour market, especially in the long term (Kyndt et al., 2012).

In order to qualify them for skilled work, students in secondary school-based vocational education are offered both theory-oriented and practice-oriented courses (Billett, 2011; Corrales-Herrero & Rodriguez-Prado, 2012; OECD, European Union, & UNESCO-UIS, 2015; Shavit & Müller, 2000). Additionally, workplace learning is included in the educational programme as an internship – a sustained period in an organisation to use the practical skills learned during classes in actual practice (Lopez-Mayan & Nicodemo, 2013). This combination of theory and practice within secondary education contributes to the vocational competence (i.e., pieces of integrated knowledge, skills, and attitudes) of these students, which is necessary for adequate functioning on the job (Baartman & Bruijn, 2011). Students need to integrate knowledge learned in theoretical classes with the skills and attitudes learned in practical classes and transfer these integrated pieces of knowledge, skills, and attitudes to the internship environment (Baartman & Bruijn, 2011). Hence, this combination of, on the one hand, theory-oriented and practice-oriented courses in school and, on the other hand, workplace learning in an organisation is potentially crucial for preparing secondary vocational students for entering the labour market.

Considering the facts that immediate outcomes of the school-to-work transition have potential long-lasting consequences for their future career and that graduates from secondary school-based vocational education have a less favourable position on the labour market, more insight into the vocational outcomes of these graduates and how these transition outcomes can be improved is needed. Furthermore, a clear overview of which structural factors of the school help facilitate the school-to-work transition, as well as which personal resources should be fostered and how they are related to the vocational outcomes, is lacking. In this respect, this systematic review investigates (1) what is known about the outcomes of the school-to-work transition, (2) what personal resources contribute to the outcomes of the school-to-work transition, and (3) what structural factors of secondary school-based vocational education contribute either directly or indirectly to the outcomes of the school-to-work transition.

This study focuses on graduates from secondary vocational education situated at ISCED 3 (i.e., upper secondary education) level. This study does not include articles that merely focus on graduates from other secondary tracks or vocational education situated at other ISCED levels. Furthermore, because workplace learning has a central place in the educational programme of secondary school-based vocational education, this systematic literature review will contribute to workplace literature by investigating the outcomes of the school-to-work transition in relation to the structural characteristics of the secondary vocational school.

In the following section, the school-to-work transition and the outcomes of the transition are outlined. Next, the method and results are presented. Finally, the results are discussed and suggestions for future research are provided.

17.1 Conceptual Background

17.1.1 *The School-to-Work Transition*

According to van Daal et al. (2013), the school-to-work transition is defined broadly by Nicholson (1990) as starting within education, towards the period between graduation and finding employment, until the first period at work. This is different from other definitions that are narrower in scope and define this transition solely as the period between graduation from education and finding employment (Vanoverberghe et al., 2008). The broader definition of Nicholson (1990) acknowledges the role of education in the preparation for the school-to-work transition. Furthermore, the model proposed by Nicholson and West (1988) acknowledges the complexity of the transition. The transition is seen as a process in which outcomes are related to individual experiences. This relatedness between individual experiences and vocational outcomes is inherent to the transition to the labour market (Goodwin & O'Connor, 2005). As such, this broader definition is appropriate when capturing the complex reality of the transition from education to work.

According to Nicholson (1990) and Nicholson and West (1988), each transition into a new work role or a new (paid) job comprises four stages: the preparation, encounter, adjustment, and stabilisation stage. During the *preparation stage* people are getting psychologically ready for the transition by creating expectations about the future and by anticipating the upcoming change (Nicholson & West, 1988). The early *encounter stage* starts with the job interview and other formal presentations or meetings as part of the selection process and lasts until the first few weeks of the new job (Matthews, 2002). When the change is integrated and the new worker has found their way in the new organisation, he or she can start settling down into the occupational community during the *adjustment stage* (Nicholson & West, 1988). Once the new worker is less conscious of the adjustment and feels relatively comfortable in their understanding of the new job, the *stabilisation stage* is achieved (Matthews, 2002). The experiences and acquired knowledge and skills resulting from performing in the new work context during this last stage are a preparation for future changes and, eventually, the breeding ground for a new transition (Nicholson, 1990).

Even though the different stages are described as a successive process (Nicholson, 1990), the transition to the labour market is often a non-linear process (Goodwin & O'Connor, 2005). The school-to-work transition is heavily individualised, complex, and fragmented, potentially involving breaks, extended or repeated periods of unemployment, and even return to education after a period in the labour market (Goodwin & O'Connor, 2005). Not surprisingly, recent graduates might cycle between the different stages of the transition process before settling down into a stable job. It is, however, clear that the phase before the first job transition, namely entry to the labour market, can be considered a preparation phase. As such, this study of the transition from education to work focuses on the preparation stage and how this stage contributes to outcomes of the school-to-work transition. More

precisely, the role of personal resources and characteristics of the school (i.e., structural factors), in this first stage of the transition process, is unravelled.

The school-to-work transition is not only heavily individualised, it is also embedded in the context of the country where the transition occurs (Zimmermann et al., 2013). Demographic structure, economic climate, labour market characteristics, active labour market policy programmes, and education and training interact in the transition to the labour market (Zimmermann et al., 2013). With regard to the school-to-work transition, the demographic structure relates to the size of younger cohorts. The economic climate refers to the structure of the economy and the economic growth. Labour market characteristics influencing the school-to-work transition are the minimum wages and regulations with regard to employment protection for permanent and temporary jobs. Active labour market policy programmes refer to the programmes for youngsters who failed to complete general or vocational education. Education and training refer to the formal preparation for the labour market (Zimmermann et al., 2013). Across countries and world regions, education and training is seen as the core factor in determining the chance of successfully transitioning to the labour market because it has a particular role in preparing recent graduates for their school-to-work transition (Quintini et al., 2007; Raffe, 2011; Zimmermann et al., 2013). More precisely, vocational education, compared to general education and pure on-the-job training, increases the chance of achieving a successful school-to-work transition across world regions. Graduates who follow vocational education are taught technical skills in school and require little on-the-job training if the skills taught in school are aligned to the labour market (Quintini et al., 2007; Zimmermann et al., 2013). Furthermore, workplace learning during an internship can help strengthen general employability skills and personal development (Zimmermann et al., 2013). It should be noted, however, that the assumption that knowledge, skills, and attitudes developed in practice settings are more closely related to work requirements compared to knowledge, skills, and attitudes developed in school settings is too easy and too straightforward. It is the alignment of education with the expectations and needs of the labour market that could overcome the hurdles, which stem from the other factors mentioned (Zimmermann et al., 2013). In this respect, Zimmermann et al. (2013) conducted worldwide research on unemployment of graduates stemming from vocational education. Their findings indicated that the school-to-work transition of vocational graduates across the world share many similarities with regard to finding a first job. These similarities across countries allow an integration of findings concerning the school-to-work transition across countries (Raffe, 2011).

17.1.2 Outcomes of the School-to-Work Transition

The transition from school to work can be divided into three types of vocational outcomes: job quantity, job quality, and job stability (Akkermans et al., 2015). *Job quantity* refers to attaining employment and is often used to define a fluent transition

(Akkermans et al., 2015; Taylor, 2005). Finding employment has implications on different levels. First, attaining employment leads to a reduction in depressive symptoms, an increase in self-esteem, and fosters the social network and social inclusion of the new employee (Akkermans et al., 2015; Evans & Repper, 2000; Wald & Martinez, 2003). Conversely, remaining unemployed has a negative influence on future career success (Koivisto et al., 2007). Furthermore, organisations need to recruit talented new employees in order to increase and maintain their competitive advantages (Akkermans et al., 2015). For society, recent graduates attaining employment implies a reduced cost of unemployment (Akkermans et al., 2015).

Job quality refers to the quality of employment in terms of monetary (i.e., earnings) and non-monetary job benefits, such as on-the-job training, promotion opportunities, and task variety (Jencks et al., 1988). Attaining a high-quality job is crucial for young people, as the first employment can determine future career success (Akkermans et al., 2015; Ng & Feldman, 2007). Furthermore, job quality is related to increased mental health, career development, and job satisfaction (Akkermans et al., 2015; Saks & Ashforth, 2002; Stone & Josiam, 2000). In this respect, the correlations of poor job quality are more similar to unemployment compared to adequate employment (Akkermans et al., 2015; Dooley & Prause, 1997).

Job stability refers to the time employees work in the same job (Giannelli et al., 2012). Finding a temporary job represents a less optimal transition because temporary jobs often lack adequate learning opportunities and pay (Akkermans et al., 2015; Yates, 2005).

These three types of outcomes are often examined as state variables and are measured only once in time. In this respect, the moment when the outcomes are measured influences the perception of the outcomes of the school-to-work transition. Scholars find mixed results concerning the outcomes of the school-to-work transition of less-educated graduates. Achieving a secondary vocational education degree lowers the risk of unemployment and offers protection against extended periods of joblessness compared to graduates from secondary general education (Arum & Shavit, 1995). Nevertheless, less-educated graduates seem to experience more difficulties in finding a job and often find jobs of lower quality compared to higher educated graduates (Akkermans et al., 2015; McGinnity et al., 2005). It has been argued that these difficulties could be overcome by preparing these students for the school-to-work transition (Meyer & Wise, 1982).

17.2 Present Study

The transition from secondary vocational education to the labour market is a major step in early careers characterised by periods of unemployment, underemployment, and cycling between insecure positions before obtaining a stable and satisfying job. In this respect, recent graduates should be well prepared in order to achieve an optimal transition in terms of job quantity, job quality, and job stability. This preparation should focus on personal resources related to the transition. Moreover, structural

factors within secondary vocational education should be considered carefully when preparing students for the transition to the labour market. These structural factors could be directly related to the outcomes of the transition or indirectly related via their influence on the development of personal resources affecting the outcomes of the transition process. Because the school is given a more central place in secondary school-based vocational education compared to other pathways of secondary vocational education, this study focuses on graduates from secondary school-based vocational education situated at ISCED 3. Despite the importance of preparing recent graduates for the school-to-work transition, a clear overview of the outcomes achieved, as well as the personal resources and structural factors related to these outcomes, is lacking. Therefore, this systematic literature review focuses on the following research questions (RQ):

- RQ1: *What is known about the school-to-work transition of recent graduates stemming from secondary school-based vocational education in terms of job quantity, job quality, and job stability?*
- RQ2: *What personal resources contribute to the school-to-work transition in terms of job quantity, job quality, and job stability?*
- RQ3: *What structural factors of secondary school-based vocational education contribute either directly or indirectly to the school-to-work transition in terms of job quantity, job quality, and job stability?*

17.3 Method

17.3.1 Literature Search and Selection

The literature was systematically searched for relevant primary studies. As the school-to-work transition is a multidisciplinary field, databases of social sciences, educational sciences, psychology, and economics were included. More specifically, primary studies of this systematic review were searched in ERIC (OvidSP), Social Science Citation Index, Econlit, and FRANCIS. Primary studies focusing on the school-to-work transition were searched by coupling the term 'transition' with all combinations of 'school', 'education', 'college',¹ or 'university',¹ on the one hand, and 'work', 'employment', or 'labo(u)r market,' on the other hand. Furthermore, different combinations were also created by using the infix 'to' instead of the term 'transition'. This search led to 55,835 hits. After deleting all duplicates, 23,844 unique primary studies remained.

¹ These search terms were included because this study is part of a broader project focusing on the transition of students with different vocational educational degrees. Each study has its own focus within the transition. Whereas this study focuses on outcomes of the school-to-work transition, the study of Grosemans, Coertjens, and Kyndt (2017) focuses on learning during the transition from higher education to work.

The selection of primary studies involved several steps and followed the guidelines of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) which specifies the steps that should be reported for the identification of documents (Moher et al., 2009). These steps are depicted in Fig. 17.1. In the first phase, all studies focusing on the school-to-work transition of vocationally educated graduates were retained. Several exclusion criteria were used in order to prevent bias in the findings obtained: (a) articles not focusing on the school-to-work transition, (b) studies focusing on specific subgroups of students like early school leavers, students with disabilities, and gifted students, (c) studies exclusively focusing on career counselling, (d) primary studies referring to specific reform practices, policy oriented initiatives, and instructional guidelines, (e) descriptive studies, (f)

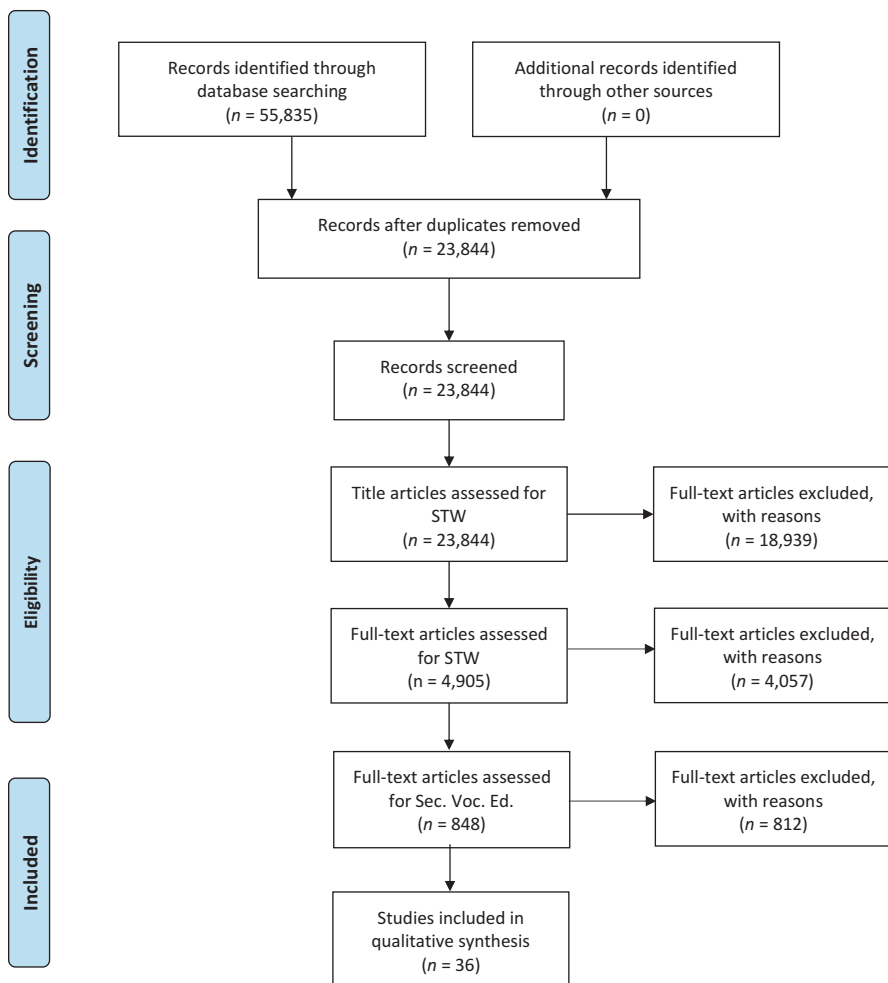


Fig. 17.1 PRISMA flow diagram detailing steps in the search and screening of sources

non-empirical studies, (g) non-peer-reviewed studies, and (h) studies not written in English. Studies that clearly met one of the criteria were excluded. In the case of doubt, the primary study was retained until the next step.

First, primary studies were screened by the title of the manuscript. After this selection, 4905 primary studies remained. The remaining primary studies were screened by their abstract, leaving 1080 primary studies. The 21 studies of which the abstract could not be retrieved were also excluded, leaving 1059 primary studies. Finally, only studies published in the last 25 years were included. Consequently, all studies before 1990 were excluded, resulting in 848 remaining primary studies focusing on the transition from education to work in general.

In the second phase, a further refinement was made to retain only articles focusing on the transition of students from *secondary school-based vocational education* to the labour market. Therefore, the title, abstract, theoretical framework, and/or method section were skimmed. Furthermore, the educational system of the country/countries included was checked to confirm that secondary school-based vocational education was offered. Consequently, articles only focusing on apprenticeships or vocational education of a level other than ISCED 3, and that did not mention anything about secondary school-based vocational education, were excluded. This resulted in a final selection of 36 primary studies concentrating on the transition from secondary school-based vocational education to the labour market. In the last step, the remaining full texts were carefully read and references were traced back.

17.3.2 Critical Appraisal

In order to exclude low quality studies, the selected primary studies were critically appraised according to the guidelines from the Critical Appraisal Skills Programme (CASP, 2013) for qualitative and mixed-method studies and the checklists for quantitative studies based on the criteria of the National Institute for Health and Clinical Excellence (2009). The critical appraisal mainly focused on a clear description of the aims and results of the study, the appropriateness of the research design and recruitment strategy, and ethical issues. The selected studies all had a high or medium quality score and no studies were excluded due to low quality. [Appendix A](#) and [Appendix B](#) include the details of this critical appraisal.

17.3.3 Analyses of Literature

The selected articles were analysed according to the guidelines of Aveyard (2010). In the first step, the characteristics of the study (e.g., country, participants, and methodology) were analysed and inventoried in [Appendix C](#). Next, all studies were explored in-depth and the summative content analyses method was used to categorise relevant findings for the research questions (Aveyard, 2010). Each relevant

passage of text was labelled with a code in order to identify relevant information to answer the research questions. In the last step, the coded findings were analysed across the different studies. This synthesis provided all the information of former studies in order to integrate the findings (Aveyard, 2010).

17.4 Results

Before going into more detail, the general characteristics of the selected articles (e.g. method, sample, research questions) are presented. First, most of the studies ($n = 32$) used quantitative methods to survey the participants. Qualitative ($n = 3$) and mixed methods ($n = 21$) were used to a lesser extent. Second, most studies ($n = 27$) provided information about one of the research questions. Some of the articles ($n = 9$) provided information about two of the research questions, but none of them contained information about all three research questions.

17.4.1 *Outcomes of the School-to-Work Transition*

The first research question concerns the outcomes of the school-to-work transition according to the following types: job quantity, quality, and stability. Fourteen primary studies provided information on job quantity, thirteen primary studies on job quality, and nine primary studies on job stability. An overview of the results per type of outcome are presented below.

Job Quantity Obtaining a degree from secondary vocational education reduces the risk of unemployment in comparison with the risk faced by graduates who solely possess a secondary general education degree or young adults leaving education without an educational degree (Ainsworth & Roscigno, 2005; Arum & Shavit, 1995; Audas et al., 2005; Bernardi, 2003; Bonnal et al., 2002; Genda & Kurosawa, 2001; Iannelli, 2004; Iannelli & Raffe, 2007; Lopez-Mayan & Nicodemo, 2013; Shavit & Müller, 2000). In this respect, studies show that most graduates from secondary vocational education immediately start with full-time employment (Corrales-Herrero & Rodriguez-Prado, 2012; Soro-Bonmati, 2000). Only a smaller number start working in part-time jobs within three years after graduation (Corrales-Herrero & Rodriguez-Prado, 2012). Furthermore, graduates from secondary vocational education, compared to generally educated graduates, find a first job with relative ease and with fewer difficulties (Baranowska et al., 2011; Lopez-Mayan & Nicodemo, 2013). The ease of this transition is explained by the large number of organisations that recruit new workers directly via the secondary vocational school (Brinton & Tang, 2010).

Job Quality Recent graduates with a secondary vocational education degree are mostly employed in blue-collar jobs (i.e., service and sales workers, skilled

agricultural workers, or craft and related trade workers) compared to graduates of higher levels of vocational education who are mostly employed in white-collar jobs (i.e., managers and professionals, technicians and associate professionals, or clerical support) (Lopez-Mayan & Nicodemo, 2013). Furthermore, compared to graduates with higher levels of education, these graduates often find jobs of lower quality in terms of required skills and job complexity (Shavit & Müller, 2000). Compared to graduates of general education, recent graduates with a secondary vocational education degree have a greater chance of working as a skilled rather than unskilled worker (Shavit & Müller, 2000). Nevertheless, there is no difference in occupational advancement or occupational status (Kim & Passmore, 2016). However, this is nuanced by the findings of Arum and Shavit (1995), who found that secondary vocational graduates can find a high-quality job compared to secondary general graduates, but it depends on the vocational track they followed during secondary school. More precisely, these authors found that the vocational business track provides the greatest chance of gaining higher quality jobs in terms of task variety.

Two aspects of this job quality have been investigated more exhaustively: horizontal, vertical, and gender-related (mis)fit, and wages. More precisely, vertical fit refers to the fit between the level of education obtained by the student and the level of education required by the job. Horizontal fit is the extent of fit between the field of study and the job (Grosemans et al., 2017). For example, a graduate with a plumbing degree who is working as a truck driver does not have a horizontal fit, whereas a graduate with a plumbing degree who is working as a plumber in an organisation has a horizontal fit. Results show that the jobs of secondary vocational graduates are generally not a fit with the vocational background of the graduate, and this misfit persists during their further career (Ainsworth & Roscigno, 2005; Baert et al., 2013; Bédoué & Giret, 2011; Bieri et al., 2016; Lopez-Mayan & Nicodemo, 2013; Paleocrassas et al., 2003). In this respect, a minority of the recent graduates secure a job that fits both the educational level (i.e., vertical fit) and the field of study (i.e., horizontal fit), and approximately half of the recent graduates obtain a job that only fits their educational level. Furthermore, one-third of the recent graduates obtain a first job that does not require any educational level, which has a negative effect on earnings (Lopez-Mayan & Nicodemo, 2013). Crucial for finding a job that fits the educational attainment is the time between graduating from secondary vocational education and finding the first job (Witte & Kalleberg, 1995). The longer it takes to find a job, the higher the chance the graduate starts in position that does not fit with the field of study (Witte & Kalleberg, 1995).

Gender-relatedness may concern the vocational track (i.e., vocational tracks that are two-thirds dominated by either male or female students) or the job. According to Paleocrassas et al. (2003), female vocational tracks have a slightly better horizontal fit rate than male tracks. Yet, men are more likely to work in a gender-typical jobs than women (Bieri et al., 2016).

Regarding wages, graduating from secondary vocational education used to have a negative influence on wages compared to higher levels of education when starting a first job (Cooke, 2003; Crawford et al., 1997). Compared to graduates of secondary general education, recent graduates catch up relatively early in their career

(Cooke, 2003). Furthermore, this negative effect on wages has been neutralised during the last twenty years, indicating that nowadays there is no longer a difference in wages between recent graduates from secondary general and secondary vocational education at the beginning of their careers (Cooke, 2003).

Job Stability Most of the secondary vocational graduates find a job that lasts longer than six months. However, this depends on the vocational track and the employment protection legislation of a country (Lopez-Mayan & Nicodemo, 2013; Verdú et al., 2008; Wolbers, 2007). More precisely, the expected duration of time to find a job that lasts longer than six months decreases by 50% when recent graduates completed a programme in building or manufacturing in Spain (Lopez-Mayan & Nicodemo, 2013) and increases in all countries when employment relations are more regulated (Wolbers, 2007). Furthermore, job (in)stability is influenced by two aspects which are discussed below: type of contract and voluntary turnover.

Concerning type of contract, recent graduates have a higher probability of transitioning into permanent employment compared to graduates from other secondary tracks (Baranowska et al., 2011). However, fixed-term contracts are the norm rather than the exception (Lopez-Mayan & Nicodemo, 2013; McGinnity et al., 2005). This transition from school into fixed-term contracts seems to be influenced by the vocational sector that recent graduates work in and the occupational field to which a vocational track belongs (Brinton & Tang, 2010; Corrales-Herrero & Rodriguez-Prado, 2012). When recent graduates are starting in a fixed-term position, there is a high chance that they are working in the manufacturing sector (Brinton & Tang, 2010) or that they had followed one of the following vocational tracks: chemistry, image and sound, or construction and civil work (Corrales-Herrero & Rodriguez-Prado, 2012). Finally, the transition from fixed-term to permanent contracts is independent of the vocational skills these graduates have acquired during previous fixed-term jobs (Baranowska et al., 2011).

Considering voluntary resignation, recent graduates who obtained a secondary vocational degree are less inclined to leave an employer compared to graduates of secondary general education (Genda & Kurosawa, 2001; Okano, 2004). More precisely, less than one-fifth of the female graduates in the study by Okano (2004) had resigned within the first year after graduation.

17.4.2 Personal Resources Affecting the Outcomes of the School-to-Work Transition

Nine studies investigated the role of personal resources in the school-to-work transition. Five personal resources are important in the transition process: career adaptability, career development skills, professional functioning, social capital and the use of personal contacts, and work motivation. Below, the results are structured into two subsections. First, results concerning personal resources during the preparation of the students for the transition are outlined. Next, the influences of personal resources on the outcomes are presented.

Preparing Final Year Students for Entering the Labour Market First, personal resources influence job search behaviour (i.e., preparatory job search behaviour and job search intentions). More specifically, findings concerning *work motivation* suggest that overall work motivation of secondary vocational graduates (i.e., intrinsic and extrinsic work motivation) is positively related to more preparatory job search behaviour and more job search intentions (Baay et al., 2014b). Moreover, these graduates rely more on their *personal contacts* during the search for a job compared to graduates from higher levels of education (Kogan et al., 2013).

Second, personal resources influence the preparedness for taking occupational decisions. According to Phillips et al. (2002), *career adaptability* positively influences objective (i.e., possessing generalisable work skills and developing a realistic plan for the school-to-work transition) and subjective psychological readiness (i.e., showing optimism about the plan for the school-to-work transition and resilience when facing obstacles). This career adaptability is influenced by the social support from the secondary vocational school felt by the graduate (Han & Rojewski, 2015). Furthermore, secondary vocational graduates achieve a lower score on *professional functioning* and *career development skills* such as knowledge of the world of work, decision-making principles, planning, and exploration, and score significantly higher on career indecision in comparison to higher levels of education (Creed et al., 2010). In this respect, secondary vocational graduates seem to be poorly prepared to make occupational decisions. They make decisions based on scarce career information, poor understanding of the world of work, and insufficient decision-making skills (Creed et al., 2010). However, being prepared to respond to uncertain outcomes in the job search and organisational entry process is positively related with finding employment (Koivisto et al., 2011).

Personal Resources in Relation to Outcomes Job quantity is influenced by personal resources. More precisely, *social capital* (i.e., the resources available because of the social relations) is significantly related to a higher number of job offers before and after graduation (Baay et al., 2014a). Furthermore, once these recent graduates left secondary vocational school, access to working class social capital increases the chances of finding a job, whereas access to lower class social capital decreases the odds of finding a job (Verhaeghe et al., 2015). Finally, social capital has no effect on the status of the occupation according to the International Socio-Economic Index (Verhaeghe et al., 2015).

17.4.3 Structural Factors in Relation to the Outcomes of the Transition

The role of structural factors in education in the transition to the labour market was investigated in eight articles. The influence of the structure can be situated at different levels, namely school and programme, which is discussed below in relation to the outcomes of the school-to-work transition.

Structural Factors in Relation to Job Quantity At the level of the educational *school*, Lopez-Mayan and Nicodemo (2013) found that recent graduates find a job more easily when they attended a public school compared to a semi-private school.

Considering the level of the educational *programme*, the findings indicate that the vocational specificity of the programme positively influences the employment status and job attainment (Shavit & Müller, 2000; Wolbers, 2007). The more specific the programme is, the more rapidly these graduates enter into a first job. These findings are in line with the findings of two primary studies that compared secondary school-based vocational education with apprenticeships in relation to job quantity. These primary studies indicate that apprenticeships facilitate the entry into the labour market compared to school-based learning programmes (Baranowska et al., 2011; Bonnal et al., 2002). This can be explained by the findings of Phillips et al. (2002) who identified that objective (i.e., work skills and realistic plan) and subjective (i.e., resilience and optimism about a clear vision) readiness is promoted by work-based learning. However, the findings of one primary study indicate that graduates from apprenticeships, compared with school-based learning programmes, suffer from longer periods of unemployment when they do not immediately find a job (Bonnal et al., 2002).

Structural Factors in Relation to Job Quality The learning programme also influences the quality of the first job. More precisely, recent graduates who followed a school-based vocational programme are less likely to obtain a job that fits the occupation for which they are trained (Bertschy et al., 2009). Nevertheless, these findings are not replicated by Béduwé and Giret (2011) who found no difference between apprenticeships and school-based vocational programmes in vertical or horizontal fit rate. Furthermore, there is no difference in earnings between graduates from school-based learning programmes or apprenticeships (Riphahn & Zibrowius, 2016).

Structural Factors in Relation to Job Stability The learning programme has no influence on job stability. According to Baranowska et al. (2011), neither school-based nor apprenticeship training lowers the relative risk of entering a fixed-term contract.

17.5 Discussion

This chapter contributes to the state-of-the-art of workplace learning by focusing on the preparation of graduates from secondary school-based vocational education for the school-to-work transition. This study began by clarifying the central role and added value of workplace learning during internships for the vocational and professional competence of students in secondary vocational education. Furthermore, the process of school-to-work transition was presented and developed by outlining the different outcomes of the transition. It was stated that the role of personal resources and structural factors of secondary vocational schools cannot be ignored when preparing students for the school-to-work transition. In the following sections, the main findings and implications are highlighted and discussed.

17.5.1 Conclusions and Implications for Practice

The interest of scholars in the school-to-work transition of graduates from secondary school-based vocational education seems to be rather recent. Only four of the selected studies were published between 1990 and 2000, whereas 22 studies were published in the last ten years. Certainly, studies concerning personal resources are rather recent, as they were mostly published in the last five to ten years.

Outcomes of the School-to-Work Transition The school-to-work transition is embedded in the context of the country where the transition occurs. However, in line with Zimmermann et al. (2013) and Raffè (2011), our findings show that the school-to-work transition of secondary school-based vocational graduates across the world share many similarities with regard to finding a first job. Results show that a degree from secondary school-based vocational education serves as a safety net for unemployment in Australia, France, Germany, Hungary, Israel, Italy, Ireland, Japan, the Netherlands, Scotland, Spain, Sweden, Switzerland, Taiwan, the United Kingdom, and the United States and leads, most of the time, to full-time employment in Germany, Italy, and Spain (Arum & Shavit, 1995; Audas et al., 2005; Bernardi, 2003; Bonnal et al., 2002; Corrales-Herrero & Rodriguez-Prado, 2012; Genda & Kurosawa, 2001; Iannelli, 2004; Iannelli & Raffè, 2007; Lopez-Mayan & Nicodemo, 2013; Shavit & Müller, 2000; Soro-Bonmati, 2000).

Outcomes of the school-to-work transition can be divided into three types: job quantity, job quality, and job stability (Akkermans et al., 2015). Compared to graduates with higher levels of education, graduates from secondary school-based vocational education achieve less good outcomes. Even though they find a job quite quickly after leaving secondary school-based vocational education, the quality of the job is often lower compared to jobs obtained by graduates from higher levels of education (Brinton & Tang, 2010; Shavit & Müller, 2000). These graduates received lower earnings compared to other educational degrees, although this gap has become narrower during the last twenty years (Cooke, 2003; Crawford et al., 1997). Furthermore, often these jobs do not fit their educational background and this misfit persists during the graduates' further career (Ainsworth & Roscigno, 2005; Baert et al., 2013; Béduwé & Giret, 2011; Bieri et al., 2016; Lopez-Mayan & Nicodemo, 2013; Paleocrassas et al., 2003). Compared to graduates from secondary general education, secondary school-based vocationally educated graduates achieve better outcomes when transitioning to the labour market. Recent graduates find a more qualitative job in terms of task variety and receive similar wages (Arum & Shavit, 1995; Cooke, 2003). Furthermore, they have a higher probability of transitioning into a permanent contract instead of a fixed contract.

Personal Resources as the Main Focus of the Preparation According to the model of Nicholson (1990), personal resources are important during the preparation stage of the transition process. In this stage, personal resources are necessary to anticipate the upcoming change (Kammeyer-Mueller & Wanberg, 2003; Matthews, 2002). This systematic literature review uncovered that six personal resources which have been investigated (i.e., work motivation, personal contact, career adapt-

ability, professional functioning, career development skills, and social capital) are all positively related to the school-to-work transition. More precisely, the work motivation, both intrinsic and extrinsic, of students stemming from secondary school-based vocational education is related to more preparatory job search behaviour, such as reading about getting a job, and more job search intentions, such as investing more time in job search (Baay et al., 2014b). Furthermore, these students rely on their personal contacts when they are searching for a job (Kogan et al., 2013). The resources available because of their social relations (i.e., social capital) are related to the number of job offers they receive before and after graduation (Baay et al., 2014b; Verhaeghe et al., 2015). Nevertheless, students from secondary school-based vocational education seem to be poorly prepared for the transition as they score low on professional functioning and career development skills (Creed et al., 2010).

Secondary Vocational Education in Relation to the Outcomes of the Transition One of the aims of secondary school-based vocational education is to prepare students for the labour market (Kyndt et al., 2014; Schaap et al., 2012). In this respect, the structural characteristics of the school should be focused on providing the best possible preparation for entering the labour market. This systematic literature review uncovered two levels of structural factors within secondary school-based vocational education which are related to influence of the outcomes of the school-to-work transition: the school and the programme. Whereas the school only seems to be related to attaining a job (i.e., job quantity), the programme is related to all three types of outcomes. A more specific vocational programme facilitates the entrance into the labour market because skills are more closely related to an occupation (Shavit & Müller, 2000; Wolbers, 2007).

The secondary vocational school can play a major role in the alignment of the programme to the needs of the labour market. The combination of theory-oriented and practice-oriented classes in school with workplace learning during an internship adds to the vocational specificity of the programme which is, in turn, related to securing a first job. Consequently, students will only benefit from their preparation if there is a close coordination between theory and practice taught in school and the expectations of the labour market. Furthermore, according to Tynjälä (2008) and Griffiths and Guile (2003), work-experiences should be reconsidered by discussing and re-analysing the experiences gained during the workplace learning component in the light of theory taught at school. This way of working will help students to integrate the skills, knowledge, and attitudes learned during classes with the experiences gained during the internship and will, thus, add to their professional and vocational competence (Baartman & Bruijn, 2011). Furthermore, combining theory taught at school with workplace experiences should overcome the risk of marginalising core subjects, such as mathematics and languages, and should contribute to a proper preparation for the school-to-work transition.

17.5.2 Limitations

Like other studies, this systematic literature review has some limitations. First, although the literature was searched systematically, it remains possible that not all studies concerning the transition were taken into account. The primary studies that were taken into account mentioned or referred to the school-to-work transition. Consequently, studies focusing on specific parts of the transition and that did not mention the transition explicitly may not be included. In this respect, it can be noted that a few studies were included that focused on topics such as job search behaviour and career adaptability, from which can be assumed that they were related to the transition. However, in order to include articles that did not mention the transition explicitly, a large range of search terms was used. Second, some results are based on the findings of only one or two studies. Therefore, the results should be interpreted with caution. Third, the results are based on studies conducted in twenty-seven countries. Despite differences between countries, findings regarding the outcomes of the school-to-work transition share important similarities. However, it is important to be sensitive to the fact that these results could be prone to the demographic structure, economic climate, or labour market characteristics of the country in which the study took place (Zimmermann et al., 2013). Fourth, the school-to-work transition is defined as a complex process which starts within education until the first period at work and in which outcomes are related to individual experiences (Nicholson, 1990). However, outcomes of the transition were measured as a state rather than a trait, as the outcomes were measured only once. This single measure does not consider the complexity of the transition process and did not consider personal experiences. This measurement is, thus, incorrect and volatile. Consequently, the results should be considered with caution. Finally, this systematic review study entails possible publication bias. This study only included published studies as unpublished work is difficult to retrieve.

17.5.3 Implications and Future Research

Implications for theory are related to the elaboration of the transition model of Nicholson (1990). According to this model, each transition comprises four stages: preparation, encounter, adjustment, and stabilisation. Within the preparation stage, psychological readiness is the key concern (Nicholson & West, 1988). Based on the findings of this study, six personal resources could add to the psychological readiness of students stemming from secondary school-based vocational education for the school-to-work transition: work motivation, personal contact, career adaptability, professional functioning, career development skills, and social capital. However, the facilitating role of these personal resources in the other stages of the transition remains uncharted. Furthermore, the preparation stage of the model could be expanded with the structural characteristics of the school found in this study: type of school (i.e., public versus semi-private) and characteristics of the educational programme (e.g.,

vocational specificity). These characteristics might influence the outcomes of the transition process. Notwithstanding these results, the facilitating role of the personal resources and the influence of the characteristics of the school should be further elaborated given the limited number of studies which investigated these two topics.

The findings of this systematic literature review also contain different implications for practice. First, it is important for secondary vocational schools to invest in the development of personal resources. In particular, the development of resources related to career development should receive more attention. Recent graduates from secondary school-based vocational education are poorly prepared for making occupational decisions as they are performing poorly on career development skills compared to higher levels of education (Creed et al., 2010). However, good preparation is necessary because of the implications of the school-to-work transition on the individual, organisational, and societal level both in the short and the long term (Akkermans et al., 2015; Koen et al., 2012). In order to better prepare students, secondary vocational schools could provide more information on possible career paths and on how the labour market operates and/or could invest more in the decision-making skills of these students (Creed et al., 2010). Furthermore, secondary vocational schools could invest in the work motivation of students; for instance, by providing experiences at the workplace (Dornan et al., 2007).

Second, the findings of this systematic literature review showed that secondary school-based vocationally educated graduates often obtain a job which is not a fit with their educational background. This misfit often persists during their further career and might have a negative influence on earnings (Ainsworth & Roscigno, 2005; Baert et al., 2013; Béduwé & Giret, 2011; Bieri et al., 2016; Lopez-Mayan & Nicodemo, 2013; Paleocrassas et al., 2003). In order to overcome this misfit, secondary vocational schools could try to connect with different organisations. Such connections could help recent graduates from secondary school-based vocational education to connect with jobs that fit their educational degree. Furthermore, having contact with different organisations can help to align schooling to the demands of the labour market (Brinton & Tang, 2010). By collaborating with different organisations, recruitment relationships could emerge which could shorten the period of joblessness (Brinton & Tang, 2010). This could, in turn, decrease the chance of vocational misfit (Witte & Kalleberg, 1995). Lastly, by connecting students with different organisations, secondary schools can help enlarge the social capital of final-year students, which affects outcomes of the school-to-work transition (Baay et al., 2014a).

Although the results of this systematic review shed light on the preparation for the school-to-work transition, more research is needed to fill remaining gaps. In this respect, research investigating the transition as a process is rather scarce. Moreover, current research investigated merely linear relations and did not take into account the heavily individualised, complex, and fragmented process which often characterises the transition process (Goodwin & O'Connor, 2005). Therefore, future research should explore all the stages of the school-to-work transition in greater depth. Scholars could interview people who have just transitioned to the labour market to identify more deeply the hindrances and successes recent graduates experienced during the different stages of their transition process (Phillips et al., 2002; Weiss, 1995). In a second step, scholars could investigate how these hindrances and successes are

related to the eventual outcomes of the transition. Additionally, future research should invest more in longitudinal research into the transition process. This type of research can provide insight into the possible dynamics between the different stages and can examine these dynamics in relation to the outcomes of the school-to-work transition (Nicholson, 1990; Ployhart & Vandenberg, 2010). Therefore, longitudinal research will provide more profound knowledge of the school-to-work transition as a process (Grosemans et al., 2017; Nicholson, 1990). Gathering more information on the different stages of the transition process will provide insight into the complexity of transitioning to the labour market. This additional in-depth information will help prepare recent graduates more sufficiently for making this transition.

More profound knowledge of this process could also be gathered by re-examining the outcomes of the school-to-work transition. Although the types of outcomes described by Akkermans et al. (2015) are interesting for examination of the school-to-work transition, they are not sufficient to measure all aspects of the transition. First, the three suggested types of outcomes are objective in nature and might not fully grasp the subjective aspect (Hirschi, 2010). In this respect, subjective elements which could be related to the feelings employees experience regarding their current job, such as job satisfaction or engagement (Hirschi, 2010), should also be taken into account. Furthermore, these objective outcomes are less appropriate to measure experiences during the different stages of the transition process. Therefore, future research should try to reveal different objective outcomes and subjective experiences by measuring the complete school-to-work transition process and, consequently, unravel a more profound theory concerning the transition to the labour market.

Future research could also place greater focus on how recent graduates can be prepared to achieve optimal outcomes. Some studies have already indicated the relation of personal resources with outcomes of the transition process (e.g., Baay et al., 2014a; Creed et al., 2010) and the contribution of secondary vocational schools to the development of these resources (e.g., Baay et al., 2014b). Nevertheless, scholars should explore which personal resources are useful during the school-to-work transition and how secondary vocational schools could foster their development.

Finally, scholars could consider the context when investigating the outcomes of the school-to-work transition. First, Baay et al. (2014b) indicated a relation between ethnic groups' work norms, on the one hand, and work motivation and preparatory job search behaviour and job search intentions during the school-to-work transition, on the other hand. Furthermore, job prerequisites (Finnie, 2004) and job-related variables (Vansteenkiste et al., 2016) could also have an influence on the transition to the labour market. Lastly, characteristics of the demographic structure, economic climate, labour market, and active labour market policy programmes of a country could also influence the outcomes of the school-to-work transition (Zimmermann et al., 2013). In this respect, Wolbers (2007) has already indicated the influence of labour market policies concerning permanent and fixed-term jobs on the ease of the transition to the labour market. Taking into account the context – the social context of the individual, the requirements set by the employers, and the country in which the transition is embedded – when investigating the school-to-work transition, could provide more in-depth insight into favourable and less favourable conditions for achieving optimal outcomes when transitioning to the labour market.

Appendices

Appendix A: Critical Appraisal Qualitative and Mixed Method Studies

Study	Type of study ^a	Was there a clear statement of the aims of the research?	Is a qualitative/mixed methods methodology appropriate?	Was the research design appropriate to address the aims of the research?	Was the recruitment strategy appropriate to the aims of the research?	Were the data collected in a way that addressed the research issue?	Has the relationship between researcher and participants been adequately considered?	Have ethical issues been taken into consideration?	Was the data analysis sufficiently rigorous?	Is there a clear statement of findings?	Overall quality rating
Baranowska et al. (2011)	QL	Y	Y	Y	Y	Y	N	N	Y	Y	H
Okano (2004)	QL	Y	Y	Y	Y	Y	N	N	N	Y	M
Philips et al. (2002)	QL	Y	Y	Y	Y	Y	N	N	Y	Y	H
Verhaeghe et al. (2015)	MM	Y	Y	Y	Y	Y	N	N	Y	Y	H

Note. Each research study was confronted with every question in the checklist and could be only answered with yes (Y) or no (N). Whenever there was no information available around a specific criterion, it was assumed that the researcher did not take it into consideration. Conclusively, every research was given a quality rating. This rating depended on how they scored on the questions:

(L) Low: 0–3 times answered yes

(M) Medium: 4–6 times answered yes

(H) High: 7–9 times answered yes

If the answers in the first three questions were negative, the study should be excluded, and could be identified as fatally flawed

^aQL Qualitative study, MM Mixed method study

Appendix B: Critical Appraisal Quantitative Studies

	Was there a clear statement of the aims of the research?*	Was the research design appropriate to address the aims of the research?	Was the recruitment strategy well described?	Was the sample representative of the population (no selection bias) and was the response rate acceptable?	Was the selection of explanatory variables based on a sound theoretical basis?	Is the questionnaire valid and reliable?	Have confounding factors been considered?	Is there a clear statement of the findings?	Are the findings generalizable to the source population?	Overall quality rating
Study	Criteria for appraising quantitative research									
Ainsworth and Roscigno (2005)	Y	Y	N	Y	Y	Y	Y	Y	Y	H
Arum and Shavit (1995)	Y	Y	Y	Y	Y	Y	Y	Y	Y	H
Audas et al. (2005)	N	Y	N	Y	N	Y	Y	Y	N	M
Baay et al. (2014a)	Y	Y	Y	N	Y	Y	N	Y	N	M
Baay et al. (2014b)	Y	Y	Y	N	Y	Y	N	Y	N	M
Bédoué and Giret (2011)	Y	Y	Y	Y	Y	Y	N	Y	Y	H
Baert et al. (2013)	Y	Y	N	Y	Y	Y	Y	Y	Y	H

(continued)

	Was there a clear statement of the aims of the research?*	Was the research design appropriate to address the aims of the research?*	Was the recruitment strategy well described?*	Was the sample representative of the population (no selection bias) and was the response rate acceptable?*	Was the selection of explanatory variables based on a sound theoretical basis?*	Is the questionnaire valid and reliable?*	Have confounding factors been considered?*	Is there a clear statement of the findings?*	Are the findings generalizable to the population?*	Overall quality rating
Study	Criteria for appraising quantitative research									
Bernardi (2003)	Y	Y	N	Y	Y	Y	Y	Y	Y	H
Bertschy et al. (2009)	Y	Y	Y	N	Y	Y	Y	Y	N	H
Bieri et al. (2016)	Y	Y	Y	Y	Y	Y	N	Y	Y	H
Bonnal et al. (2002)	Y	Y	Y	Y	Y	Y	Y	Y	Y	H
Brinton and Tang (2010)	Y	Y	N	Y	Y	Y	Y	Y	Y	H
Cooke (2003)	Y	Y	N	Y	Y	Y	Y	Y	Y	H
Corrales-Herrero and Rodríguez-Prado (2012)	Y	Y	N	Y	N	Y	Y	Y	Y	H
Crawford et al. (1997)	Y	Y	N	Y	Y	Y	Y	Y	Y	H
Creed et al. (2010)	Y	Y	Y	N	Y	Y	Y	Y	N	H

Genda and Kurosawa (2001)	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	N	M
Han and Rojewski (2015)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	H
Iannelli (2004)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	H
Iannelli and Raffae (2007)	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	H
Kim and Passmore (2016)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	H
Kogan et al. (2013)	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	H
Koivisto et al. (2011)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	H
Lopez-Mayan and Nicodemo (2013)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	H
McGinnity et al. (2005)	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	H
Paleocrassas et al. (2003)	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	H
Riphahn and Zibrowius (2016)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	H

(continued)

	Was there a clear statement of the aims of the research?"	Was the research design appropriate to address the aims of the research?"	Was the recruitment strategy well described?"	Was the sample representative of the population (no selection bias) and was the response rate acceptable?"	Was the selection of explanatory variables based on a sound theoretical basis?"	Is the questionnaire valid and reliable?"	Have confounding factors been considered?"	Is there a clear statement of the findings?"	Are the findings generalizable to the source population?"	Overall quality rating
Study	Criteria for appraising quantitative research									
Shavit and Müller (2000)	Y	Y	N	Y	Y	Y	N	Y	Y	H
Soro-Bonmatí (2000)	Y	Y	Y	Y	Y	Y	Y	Y	Y	H
Verdú et al. (2008)	Y	Y	Y	Y	Y	Y	Y	Y	Y	H
Witte and Kalleberg (1995)	Y	Y	N	Y	Y	Y	Y	Y	Y	H
Wolbers (2007)	Y	Y	N	Y	Y	Y	Y	Y	Y	H

Note. Each research study was confronted with every question in the checklist and could be only answered with yes (Y) or no (N). Whenever there was no information available around a specific criterion, it was assumed that the researcher did not take it into consideration. Conclusively, every research was given a quality rating. This rating depended on how they scored on the questions:

- (L) Low: 0–3 times answered yes
- (M) Medium: 4–6 times answered yes
- (H) High: 7–9 times answered yes

If the answers in the first three questions were negative, the study should be excluded, and could be identified as fatally flawed

Appendix C: Study Characteristics

Author(s)	Year	Country	Participants	Study type	Methodology	Research question		
						RQ1	RQ2	RQ3
Ainsworth and Roscigno	2005	USA	Subsample of the 14489 participants	QN	National Survey	x		
Arum and Shavit	1995	USA	6980 participants	QN	High School and Beyond data set.	x		
Audas et al.	2005	Hungary	3132 participants	QN	Longitudinal data	x		
Baay et al.	2014a	The Netherlands	685 participants	QN	Longitudinal data		x	
Baay et al.	2014b	The Netherlands	591 participants	QN	Survey		x	x
Baert et al.	2013	Belgium	4390 participants	QN	Sonar Survey	x		
Baranowska et al.	2011	Poland	16431 participants	QL	Polish School Leaver Survey (face-to-face interviews)	x		x
Béduwé and Giret	2011	France	2170 participants	QN	Generation 98 Survey	x		x
Bernardi	2003	Italy	7058 participants	QN	Italian Household Longitudinal Survey	x		
Bertschy et al.	2009	Switzerland	642 participants	MM	Longitudinal survey (TREE)	x		
Bieri et al.	2016	Bulgaria	1006 participants	QL	Individual interviews	x		
Bonnal et al.	2002	France	1399 participants	QN	Survey: "Panel mesures jeunes" from the Clercq			x
Brinton and Tang	2010	Japan	749 firms send 969 job announcements to 12 schools	QN	Longitudinal job placement data and interviews with teachers	x	x	
Cooke	2003	Germany	772 participants	QN	Socio Economic Panel	x		

(continued)

Author(s)	Year	Country	Participants	Study type	Methodology	Research question		
						RQ1	RQ2	RQ3
Corrales-Herrero and Rodríguez-Prado	2012	Spain	7612 participants	QN	Survey on Educational-Training and Labour Integration	x		x
Crawford et al.	1997	USA	3043 participants	QN	High School and Beyond Survey (longitudinal)			x
Creed et al.	2010	Australia	692 students	QN	Survey		x	
Genda and Kurosawa	2001	Japan	21000 participants	QN	Survey on Young Employees	x		
Han and Rojewski	2015	South-Korea	3869 participants	QN	National Survey		x	x
Iannelli	2004	Ireland Scotland The Netherlands	16566 participants	QN	Cross-national database	x		
Iannelli and Raffae	2007	Ireland Scotland The Netherlands Sweden	23707 participants	QN	Cross-national database	x		
Kim and Passmore	2016	USA	935 participants	QN	Longitudinal Survey (NLSY)	x		
Kogan et al.	2013	Ukraine Croatia	1977 participants	QN	National Survey (SLS)		x	
Koivisto et al.	2011	Finland	416 participants	QN	Survey		x	
Lopez-Mayan and Nicodemo	2013	Spain	12133 participants	QN	National Survey	x		x
McGinnity et al.	2005	Germany	2500 participants	QN	National Survey (GLHS)	x		
Okano	2004	Japan	21 participants	QL	Individual interview	x		
Paleocrassas et al.	2003	Greece	4986 participants	QN	Survey	x		
Phillips et al.	2002	USA	17 participants	QL	Individual interview		x	x
Riphahn and Zibrowius	2016	Germany	1839 participants	QN	National survey (SOEP)	x		

(continued)

Author(s)	Year	Country	Participants	Study type	Methodology	Research question		
						RQ1	RQ2	RQ3
Shavit and Müller	2000	Australia France Germany Israel Italy The Netherlands Sweden Switzerland Taiwan UK USA	Not specified	QN	Survey	x		x
Soro-Bonmatí	2000	Germany Italy	3746 participants	QN	National Survey	x		
Verdú et al.	2008	Spain	14467 participants	QN	European Union Labour Force Survey 2000	x		
Verhaeghe et al.	2015	Belgium	2179 senior high school students fill out the questionnaire and 1080 high school graduates participated in an interview	MM	Labour market entry and Social Capital Survey		x	
Witte and Kalleberg	1995	Germany	15159 participants	QN	National Survey: GSOEP	x		
Wolbers	2007	Austria Belgium Finland France Greece Italy Luxembourg The Netherlands Portugal Spain Sweden	52651 participants	QN	Cross-national survey: EU LFS 2000	x		

Note: *QL* Qualitative study, *QN* Quantitative study, *MM* Mixed Method study

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