

SKILLS MISMATCH 3

Apprenticeship Supply in the European Union,
Youth Engagement and the Labour Market



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ABOUT THINKYOUNG

ThinkYoung is the first think tank that focuses on young people. It was founded in 2007 and has expanded to have offices in Brussels, Geneva and Hong Kong. It is a not-for-profit organisation, with the aim of making the world a better place for young people, by involving them in decision making processes and by providing

decision makers with high quality research on key issues affecting young people. ThinkYoung conducts studies and surveys, makes documentary movies, writes policy proposals and develops education programmes: up to date, ThinkYoung projects have reached over 600'000 young people.

ABOUT WILFRIED MARTENS CENTRE

The Wilfried Martens Centre for European Studies (previously the Centre for European Studies) was established in 2007 as the political foundation and official think tank of the European People's Party (EPP). It embodies a pan-European mind-set based on centre-right, Christian Democrat, conservative and like-minded political values and research.

It serves as a framework for national political foundations linked to member parties of the EPP, with 29 foundations currently members.

The Martens Centre takes part in the preparation of EPP programmes and policy documents. It organises seminars and training on EU policies and on the process of European integration.

TABLE OF CONTENTS

Executive Summary	4
Key findings	5
Introduction	6
Rationale	7
Report Structure	7
Review of the Existing Literature	8
Knowledge, Perception and Attractiveness of VET	8
Socially Inclusive, Accessible, and Diverse VET Provision	9
Learning from Jobs	10
Skills Transferability and Mobility for Apprenticeships	11
Survey and Methodology	12
Knowledge and Perception of VET	13
Introduction	13
Career Guidance	13
Perception of VET	14
VET and General Education Analysis	14
Determinants of Choosing VET	15
Skills Transferability	15
Introduction	15
Availability of Further Education in VET	15
Future Goals and Employment	16
Qualifications Mismatch	16
Learning Outcomes of VET Education	17
Introduction	17
Work Readiness	18
21st Century Skills	18
Work Based Learning Component and 21st Century Skills	19
Quality of the VET Learning Experience	19
Insiders' Views on Apprenticeships	20
Improving VET Supply and Demand	21
Introduction	21
Increasing Uptake	21
Enhancing Quality	22
School to Work Transition: VET vs. General Education	23
Completion of a VET Course	23
Work Based Learning	23
Work Based Learning: VET and Non-VET	23
Conclusions	24
References	25
Appendix A	28
Appendix B	36

EXECUTIVE SUMMARY

WITH ASTONISHING RATES OF YOUTH UNEMPLOYMENT ACROSS MANY EUROPEAN MEMBER STATES, POLICY MAKERS ARE INCREASINGLY CALLED INTO ACTION IN ORDER TO TACKLE A GENERATIONAL PLAGUE AFFECTING BOTH EUROPEAN YOUTH, AND THE OVERALL PROSPERITY OF THE CONTINENT.

The observation that countries with low youth unemployment rates are those where Vocational Education and Training (VET) and apprenticeship programmes are more developed is driving the debate on effective education policies, and puts an emphasis on VET and apprenticeships as key instruments in tackling youth unemployment.

Apprenticeships are believed to promote a smoother transition from school to work for young people, giving them a good start to their working careers.

To test these claims, this ThinkYoung and Wilfried Martens Centre for European Studies report investigates young people's perceptions on the effective provision of VET schemes in 6 major European countries (the UK, Spain, Germany, Austria, France and Italy) and their role in addressing youth unemployment.

The report sheds light on young people's initial perception and attractiveness of VET, the determinants of choosing a VET based educational path, the experience and perceived quality of VET instruction, as well as options for skills transferability and sector mobility. This is done through a comparison of the findings from those who graduate from such programmes, and those pursuing a general education track.

KEY FINDINGS

Determinants of educational choice and VET attractiveness

- The most common information source when deciding which educational programme to pursue is individual research (70% in France and 66% in Austria). While school career advice is low internationally, it is particularly unused in Spain with only 8% of respondents stating this was a main contributor to their educational choice.
- On the whole VET students are influenced more by school guidance when compared to their non-VET counterparts.
- Across the board the prevailing view is that higher education is a more prestigious education choice. This viewpoint is particularly dominant in the UK.
- The chance to earn while learning is a key determinant of choosing VET in Austria (43%) and Germany (41%), while the ability to work while learning is important in Spain (41%).

Skills transferability and sector mobility

- While 37% of all VET respondents state they might have the ability to pursue further education depending on varying factors, only 13% have this option guaranteed as part of their course.
- The highest proportion of people guaranteed further education is in Germany (17%) and Austria (22%).
- Internationally, the most preferred route upon completion of VET is to either secure a job within the same industry as their course (49%).

Completing further education and qualifications was the preferred option for only 13% of respondents.

- Respondents in France are the least likely to seek employment in a different sector while the chance to pursue further qualifications was the most favoured in the UK (19%).
- Comparing the responses from a VET and non-VET background, a higher proportion of VET graduates (57%) are currently employed in the same sector as their educational course.
- The health (62%), automotive (62%) and electronics (59%) sectors have the highest number of employees trained in the same sector.

Learning outcomes of VET programmes

- Overall, VET students have positive perceptions of their education with reference to both the theoretical and practical foundations for their craft (76% and 73%, respectively).
- VET graduates (74.9%) perceived that their study programme was effective in developing communication skills to a greater extent than non-VET students and graduates (71.7%). This trend is confirmed in 4 out of 6 countries.
- More than two thirds of the surveyed students (67.3%) reported their study programme helped them acquire mathematical and numerical skills. Among them, 19.1% rated the programmes as very good for the development of their skills.
- 76% reported to have good teachers and instructors, with students in Germany and France (78%) being particularly satisfied.
- High levels of satisfaction with the practical experience gained were recorded, with 87% of respondents holding a positive view.
- Apprentices in the health sector (80%) are those who are best integrated into the internal organisational procedures of the host company when compared to individuals in the electronics sector (65%).

School to work transition: VET vs. general education

- From the non-VET sample the presence of a work based learning component in the curricula produces a higher chance for graduates to be employed at the time the survey was administered.
- Within VET curricula apprenticeships have a limited if not negative impact in terms of employability. The relevance to employment outcomes of the work based learning experience appear to be more important in non – VET settings.
- The assumption of VET education leading to smoother school to work transitions is confirmed by the regression analysis whereby VET graduates are more likely to be found in employment.

INTRODUCTION

AS A RESULT OF THE HIGH RATES OF YOUTH UNEMPLOYMENT IN EUROPE, AND RECOGNISING THE ESSENTIAL ROLE YOUNGER GENERATIONS HAVE IN INFLUENCING BOTH THE FUTURE OF THE EU, AND IN PROMOTING ITS ECONOMIC AND SOCIAL DEVELOPMENT, INCREASING ACCESS TO THE LABOUR MARKET HAS BECOME A KEY CONCERN IN MANY EUROPEAN COUNTRIES.

Education and training policies have been central in this respect, with the Lisbon Strategy of 2000, and the subsequent Copenhagen Process, recognising the central role the increased availability of education has in the creation and transmission of knowledge, and in fostering innovation.

As a result, ensuring the provision of high quality education, with a particular focus on the role of Vocational Education and Training (VET) and apprenticeship programmes, has become a key focus point for policy makers in Europe. With the intention of increasing youth employment, and in providing a smooth transition from school to gainful employment, this has consequentially been given top priority (OECD, 2014; European Commission, 2014). While there is no single and commonly accepted definition of an apprenticeship, Vocational Education and Training (VET) programmes are often defined as 'systematic, long-

term training alternating periods at the workplace and in an educational institution or training centre' (CEDEFOP, 2008, p. 29). Moreover, as competence based skills development programmes, designed and endorsed by employers for their employees, apprentices are often contractually linked to an employer providing the opportunity to earn while learning (House of Commons, 2012; EU Skill Panorama; 2014).

Perceived as a route that facilitates access to the labour market, the recent and substantial expansion of apprenticeship programmes across Europe reiterates the current climate of fostering training programs designed to mutually benefit both VET students and enterprises, through the combination of theoretical and practical skills development (EU Skills Panorama, 2014; European Commission, 2012b). Moreover, national studies have provided consistent evidence

of apprenticeships providing better job matches, apprentices spending a longer time in their first job when compared to other educational paths, and many apprentices securing work upon completion (Ibid.).

However, despite efforts to standardise apprenticeship and VET supply in Europe, varying national models are in place, with certain Member States having a stronger track record of ensuring the provision of high quality and accessible VET. Additionally, these models place a different emphasis on the role of work based and school based learning. Member states with a dual education system combining both practical and school based learning, including that of Austria and Germany, have widely been credited for their low rates of unemployment when compared to European average. (European Commission, 2012a; Crowley et.al, 2013).

Moreover, their well-developed apprenticeship systems have been regarded as a model for further VET provision in Europe. As a result it has become increasingly important to assess which models have been most effective in tackling youth unemployment, and how best the Europe wide provision of apprenticeships can be improved to ensure the availability of accessible, relevant, and attractive VET schemes.

RATIONALE

Varying approaches to VET provision are present between Member States, particularly in terms of the own importance of VET within overall national education system. While in countries including Austria, the Czech Republic, the Netherlands, and Germany, a wide majority of students follow the vocational path; Member States including the UK favour general education pathways (European Commission, 2012b). Moreover, further distinctions are present between the types of VET provided, and the preferred methods of combining work based and school based learning. With this in mind, and based on the increasing relevance of apprenticeships in providing young people with the technical skills and competencies required for entry to the labour market, the following multinational report is aimed at investigating the effective provision of VET schemes in the UK, Spain, Germany, Austria, France, and Italy. Taking into account the initial perception and attractiveness of VET, the determinants of choosing a VET based educational path, skills transferability and sector mobility, and the availability of achieving further qualifications, this report will present

the findings from respondents with a general education and VET based backgrounds, and will highlight the role apprenticeships play in tackling youth unemployment.

REPORT STRUCTURE

The first stage of this analysis (Part 1) will provide an overview of the key themes and trends within VET provision in Europe, and will analyse the efforts put in place to increase the awareness, information present, and perception of VET as an attractive career choice. The socially inclusive nature of apprenticeships will subsequently be discussed, taking into account the uptake of VET on the basis of gender, ethnic background, and individual status. Lastly, the provision of work-based learning and the role of apprenticeships in providing students with the relevant competencies needed to successfully enter the labour market will be assessed, taking into account the focus on skills transferability and the likelihood of apprentices being able to apply their skills across sectors, or internationally.

Part II will present the initial findings of the ThinkYoung and Martens Centre survey highlighting the key outcomes with reference to the perception of VET in relation to general education and university. Furthermore, it will detail the readiness for work upon completion of education and work-based learning, and the key skills and competencies gained. Lastly, it will present the opinions held on how best to improve VET supply and demand, the current employment and future employment paths of respondents, and availability of further education and qualifications in each country analysed.

Part III will subsequently detail the findings with reference to the learning outcomes of VET education, and will draw comparisons between perceptions of work readiness from respondents with varying educational backgrounds. Overall levels of satisfaction with both on the job training and theoretical learning will then be analysed. Lastly, and in light of the findings of the report, this will culminate in a set of key conclusions drawn with respect to the future of VET supply and demand in Europe.

REVIEW OF THE EXISTING LITERATURE

KNOWLEDGE, PERCEPTION AND ATTRACTIVENESS OF VET

Despite the provision of quality apprenticeships being widely recognised as a key element in providing young people with the job-specific skills needed for a smooth transition from school to gainful employment (CEDEFOP, 2014b); improving the perception and recognition of apprenticeships as an attractive career choice for young people is still an important issue in many European countries. A key determinant of this is that Vocational Education and Training (VET) courses, including apprenticeships, suffer from a poor image, and are often seen as a low status or second-class choice relative to continuing on in more general academic studies (Klaus, R & Grollman, P, 2009; OECD, 2014; Ratnata, 2013). Moreover, apprenticeships are often viewed as an education path best suited to individuals who performed less well in formal, classroom-based learning, and are frequently perceived as a less aspirational option (Bropy, McNeil & Shandro, 2009).

While improving the image of VET is a common goal in many countries, attractiveness is a subjective and value-laden concept, with it therefore

being difficult to measure (CEDEFOP, 2014a; Watters, 2009). However, attractiveness on the whole is taken to encompass both a subjective element (in the eye of the beholder) and a circumstantial element (including the relevance of VET to the labour market and quality assurance) (CEDEFOP, 2014a). Research has shown that a wide variety of factors can affect attractiveness, ranging from stakeholder opinions and involvement (Leney et al., 2004) to the diversity of quality learning environments (CEDEFOP, 2014a). While research highlights varying frameworks for the initial attractiveness of VET, the present study uses the status, image, relevance, and quality of VET programmes as the determinant of attractiveness. With this in mind, fostering high quality, relevant, accessible and esteemed VET for the purpose of gaining access to either employment or further learning is the fundamental criterion for improving the image and uptake of VET (Watters, 2009).

Understanding the need to make these improvements in Europe, the introduction of the Copenhagen Process by the European Commission in 2002 aimed at enhancing the quality and attractiveness of VET (Cerutti, 2012). Moreover, in an attempt to

both increase mobility and to promote permeability between educational sectors, the European Commission proposed the introduction of a European Qualifications Framework (EQF) and a European Quality Assurance Framework (EQARF); aimed at improving the image of VET, increasing the links between VET and the labour market, and in enhancing the tools for cooperation in VET (Arends and Baethge, 2009). Subsequently the Copenhagen declaration (2002), the Maastricht communiqué (2004), and the Helsinki communiqué (2006) established action plans to increase the accessibility of VET, and to promote VET as an attractive option for young people.

Most recently, the Bruges communiqué established that, by 2020, VET should contribute to excellence and equity in lifelong learning by being 'more attractive, relevant, career-orientated, innovative, accessible and flexible than in 2010' (European Commission, 2011). Detailing how VET can be promoted as an attractive learning option, it instructs member states to: raise the quality of VET by improving the competences of teachers and trainers, and to increase public awareness of the possibilities offered by VET; ensure key competences are integrated in VET curricula with an appropriate means

of assessment; monitor the transition of graduates into the labour market or further education, and to ensure the quality assurance of VET as a prerequisite for its attractiveness.

Through the introduction of these measures the EU has placed significant emphasis on tackling the stigma surrounding VET and apprenticeships, by both tackling the bias in favour of academic education in many European countries and in strengthening the accreditation of VET, the availability for further educational possibilities, and the likelihood of gainful employment in the labour market.

The engagement of employers is a further crucial element for the success of apprenticeships, whereby a further commitment to providing training places and in working in cooperation with schools in designing curricula will ensure that VET is attractive to both potential apprentices and employers. Moreover, the increased engagement of companies contributing to the content of training provision improves the quality of those entering the workforce, which will subsequently encourage businesses to provide more opportunities for their staff (European Commission, 2011).

Lastly, a further key aspect of promoting VET is tackling the wider societal factors impacting the amount of knowledge and information present in general. Ensuring that young people receive the required career advice and counselling necessary in order to make an informed decision when leaving school is key in this. This is particularly crucial as research has highlighted the content of careers guidance in some European countries favours general education options at the expense of VET, and focuses on academic

achievement instead of career planning and management skills (Lovsin, 2014; Watts, 2009). As a result it has become increasingly important to ensure students and young people are made fully aware of the VET options available, the qualifications they can lead to, their relevance and applicability to the labour market, and the salary and remuneration available.

Although significant headway has been made, improving the image of VET requires the input of all stakeholders (Keese, 2015). This includes the provision of high quality apprenticeships, acknowledged by students and employers alike, alongside the fostering of effective careers guidance for young people presenting VET as a viable alternative to university education.

Socially inclusive, accessible, and diverse VET provision

One main area of criticism levelled at VET and apprenticeships is the under-representation present particularly in terms of gender, ethnic origin or ability (European Commission, 2012; Newton & Williams, 2013). Improving the representation within apprenticeships has therefore become an issue of importance, particularly as higher levels of representation further impact the ability to tackle unemployment amongst these groups (Butler, 2012).

With respect to ethnic origin research has highlighted a significant disparity in the number of apprentices in certain sectors, with evidence from the UK demonstrating a severe lack of people from black and Asian minority backgrounds in the construction, hairdressing, vehicle maintenance or electro-technical sectors (European Commission, 2012). Moreover, it

has been noted that in Germany, approximately one third of young women and less than half of all young men with a migration background, and interested in starting dual vocational training, started a company-based training twelve months after leaving school. This is compared to 50.8% and 67.8% of their peers with no migration background, respectively (Ibid.).

Gender imbalance is a further key consideration in fostering inclusive VET, with young women usually being underrepresented, especially in certain professions perceived as 'male occupations' (Bartlett et al., 2013; European Commission, 2012). Moreover, a sector specific approach highlights further imbalances, whereby female apprentices on the whole are more likely to be found in the service sectors where pay, qualification levels and career prospects tend to be lower (Fuller & Unwin, 2013). Taking the UK as an example, it has been noted this applies to the construction, plumbing, and electro-technical and engineering sectors - a theme concurrent in many European countries (Marangozov et al, 2009). In response to this it has been argued monitoring and evaluation schemes with an integrated gender perspective aimed at developing more effective VET based policies should be ensured (European Commission, 2014). Adopting this approach, it has been argued, will further ensure the rights of women from diverse backgrounds (including age variants, women from disadvantaged backgrounds, or women with disabilities) to have equitable access to vocational education and training (Miles & Rickert, 2009).

This is particularly based on the experiences of employment for men and women being highly different,

with further insights into the causes of this needing to be analysed. In relation to ensuring better levels of representation for ethnic minorities, it has also been suggested further research into the specific barriers to access be undertaken (including the potential for unwitting discrimination). Moreover, it has been noted the image and perceived esteem of VET needs to be raised in specific communities in order to increase the level of apprentices, and role models and support mechanisms need to be put in place (Newton & Williams, 2013).

Lastly, the European Commission has highlighted the need for further inclusionary policies in relation to the acceptance of learners often excluded from VET, with nations taking the appropriate measures to ensure access on an equal basis, especially for low skilled people, older workers and people with special needs (European Commission, 2011).

Progress has been made in this respect, with countries including Austria having an inclusive learning path for learners with disabilities as a regular option in VET (Granados, 2014). Countries including Finland, Denmark, Norway, Ireland and France provide financial incentives and support for students with disadvantaged backgrounds or learning disabilities, including disability supplements, adapted teaching materials and scholarships (Smith & Brennan, 2013; Granados, 2011). As a result it can be seen that significant steps have been made in addressing the profile imbalances of VET students, and in ensuring inclusionary policies ensure the further uptake of VET from a variety of backgrounds.

Learning from Jobs

Research on vocational education and training (VET) programmes shows that such programmes, especially those that include an apprenticeship component, offer students much-needed, real-work experience. Students learn about the particular values and cultures of given enterprises, which helps facilitate a better and more rapid integration of students into the enterprises. Students also gain much practical knowledge of relevant work routines and equipment, oftentimes the most up-to-date ones, which in turn helps prepare them for the actual demands of the labour market (European Centre for the Development of Vocational Training, 2014a; 2014b; European Commission, 2012). Such skill accumulation has been found to benefit not only students themselves but their colleagues as well through so-called spill-over effects (European Centre for the Development of Vocational Training, 2013, 2015a).

Moreover, research shows that VET programmes provide students with key sector-specific competencies. Students learn about the day-to-day realities of working in given sectors, including actual working conditions, types of tasks performed, and what is considered appropriate and inappropriate behaviour (Eurobarometer, 2011; European Commission, 2012). Such important learning outcomes are likely to reduce possible, future disappointments among both students and their employers, and may even strengthen students' abilities to engage in future networking efforts due to their accumulation of business and professional contacts (European Commission, 2012).

Finally, research shows that VET programmes teach students more general, workplace skills and values. Students learn such important skills as how to communicate effectively with others, work in teams, engage in negotiation and conflict-management, and solve problems. Students also learn such important values as punctuality, reliability, and the necessity of being open to trying new things (European Centre for the Development of Vocational Training, 2015a). The fact that students learn such skills and values is particularly significant considering that many employers complain more about contemporary youths' lack of so-called "soft" skills and appropriate attitudes toward work than they do about shortcomings in their more "technical" skills (Danish Technological Institute, 2014a; 2014b; European Commission, 2012).

More generally, research shows that VET programmes, especially those that include an apprenticeship component, offer students a much more realistic learning environment than the ones found in traditional classrooms or simulated work environments, thereby enhancing the relevance of students' learning to the demands of the labour market (Eurobarometer, 2011; European Centre for the Development of Vocational Training, 2014a; 2014b; European Commission, 2012). That learning environment has also been found to be more efficient: it is much easier to develop students' professional skills in a real-work environment than it is to transfer theoretical knowledge, learned in a traditional classroom or a simulated work environment, into an actual work environment (European Commission, 2002).

Aside from the actual skills learned and values internalised, VET programmes have also been found to enhance students' motivation, self-esteem, and optimism about the future (European Centre for the Development of Vocational Training, 2011a; 2015b). Students feel more confident about their ability to find well-paying jobs upon graduation, including the possibility of practicing their profession in another EU country than the one in which they were originally trained (Eurobarometer, 2011). Taken together, these attributes combine to form a positive attitude towards work which has been found to be a major determinant of students' actual ability to find suitable employment (European Centre for the Development of Vocational Training, 2015a).

Indeed, research shows that, compared to graduates of traditional, school-based educational programmes, graduates of VET programmes, especially those that include an apprenticeship component, are more likely to find suitable employment and to do so faster. This also happens to be one of the reasons why students choose to enrol in such programmes in the first place (European Centre for the Development of Vocational Training, 2012; 2013; European Commission, 2012). Students are also likely to make higher wages (especially those in business-oriented and technical specialisations) and be offered the opportunity to advance in the professional hierarchy within given enterprises (European Centre for the Development of Vocational Training, 2011a; 2012; 2013, 2014a; 2014b). The EU countries with the highest proportion of young people in apprenticeships are also those with the lowest rates of youth unemployment (European Commission, 2012). This is

particularly significant considering that young people who experience long stretches of unemployment are more likely to have difficulties finding suitable employment and to make lower wages later in life (European Commission, 2012).

VET programmes have been found to benefit not only students but also the enterprises involved with their training and even society more generally. Research shows that such programmes tend to reduce labour turnover by increasing employee commitment to the enterprise (European Centre for the Development of Vocational Training, 2013), expand the employee pool from which the enterprise can select future managers (Danish Technological Institute, 2014b; European Centre for Development and Vocational Training, 2013; 2015a), and may even enhance the enterprise's innovation capacity, productivity, and growth (European Centre for the Development of Vocational Training, 2009; 2012; 2015a; European Commission, 2012). These are benefits that tend to accrue the longer the apprenticeship (European Commission, 2012). At the societal level, VET programmes have been credited with making it easier for policy-makers to identify important skills shortages in the labour market (European Commission, 2012), and even with helping to strengthen social cohesion by integrating marginalised social groups into the labour market (Danish Technological Institute, 2014b; European Centre for the Development of Vocational Training, 2009; 2011a; 2013).

While much is known about students' learning from VET programmes, especially those that include an apprenticeship component, there are significant gaps which the present

investigation is meant to address. For example, while research shows that students learn key sector-specific competencies, it is not known whether learning is higher in certain sectors than in others. Similarly, it is not known whether student learning is balanced among enterprise-specific, sector-specific, and more general workplace skills, or whether student learning is higher in one or more of these domains. More generally, it remains unknown whether the degree of student learning is dependent on such variables as the country in which the programme is situated, the length of the apprenticeship component, and whether the programme includes study time in another EU country, among many other potentially significant variables (see the study survey for the full range of variables under investigation).

Skills transferability and mobility for apprenticeships

Research on VET programmes shows not only that students learn important enterprise-specific, sector-specific, and more general workplace skills; those skills are also transferable. Graduates of VET programmes have been found to have a relatively easy time finding employment in other enterprises than the ones in which they were originally trained (European Centre for the Development of Vocational Training, 2011a). This is not surprising considering that a majority (two-thirds) of enterprises are very satisfied with the level and relevance of skills possessed by graduates (Danish Technological Institute, 2014b). Yet, when graduates do not remain with their original employer, they are still more likely to find employment in enterprises belonging to the same sector as the one they trained in than they are

finding employment outside that sector. This is especially the case when the training was provided by an enterprise belonging to a larger inter-enterprise network that collaborated on the provision of training (European Centre for the Development of Vocational Training, 2012).

More generally, however, relatively few enterprises are part of such co-operative training networks. While large enterprises tend to offer their own training programmes to ensure the right specialisation of their graduates and to avoid compromising their competitive advantage in the marketplace, small enterprises tend to perceive such co-operative training networks as attractive but lack the necessary resources to create them (Danish Technological Institute, 2014b).

With respect to education, research shows that significant portions of graduates of VET programmes (approximately 30 percent) continue their formal education upon graduation, including by enrolling in traditional higher education programmes. Which route VET graduates choose (employment or further education) depends on the practical workplace content of the programme: the higher the workplace content, the higher the propensity for graduates to move directly into the labour market and the lower the propensity for them to continue with formal education (European Centre for the Development of Vocational Training, 2012; Hoeckel, 2008; Werner, Rodriguez-Planas, Schmidl, & Zimmerman, 2012).

Finally, it is worth noting that different EU countries have instituted different mechanisms to enhance the transferability of skills possessed by VET graduates. With respect

to employment, some countries have implemented standardized educational curricula; professional-grade examinations upon the completion of studies; and financial support for the previously mentioned inter-enterprise co-operative training networks. Similarly, with respect to education, some countries have made it easier for VET graduates to receive credits for their learning experiences when applying for admission to other education programmes; enhanced the permeability of different types and levels of education more generally; and even created higher education degrees that combine school-based and work-based training to ease the integration of VET graduates (European Commission, 2012).

While much is known about the transferability of skills possessed by graduates of VET programmes, important questions remain unaddressed. For example, while it is known that graduates of VET programmes tend to find employment within the same sector in which they were trained, especially when the training was provided by a larger inter-enterprise co-operative training network, little is known about whether other characteristics of VET programmes make the skills taught more or less transferable. For example, are the skills taught in certain sectors inherently more transferable than those taught in other sectors? Does the transferability of skills depend on whether the programme includes an apprenticeship component, the particular country in which the programme is situated, and whether the programme included study time in another EU country? The present investigation is meant to address these and many other possible variables. Similarly, it remains unknown whether

graduates of certain types of VET programmes, in certain sectors, in certain countries are more or less likely to pursue and successfully obtain further education.

SURVEY AND METHODOLOGY

The ensuing section discusses the results of the ThinkYoung and Martens Centre survey on young people's perceptions of VET and apprenticeship programmes.

The data collection exercise was performed between September and November 2015 through an online survey administered amongst young adults 18-32. The survey reached a targeted audience of 200 respondents for each country involved in the study (Austria, France, Germany, Italy, Spain and United Kingdom) for a total of 1200 respondents. In order to guarantee the sample's representativeness a 50% VET background threshold was established for each of the surveyed countries.

The questions were framed in mutually exclusive and mutually non-exclusive terms. When appropriate a Likert scale was adopted.

The statistical analysis was performed using SPSS and STATA. Standard statistics for normality and correlation were employed. Correlation and significance were tested and logistic regression techniques were employed.

KNOWLEDGE AND PERCEPTION OF VET

Key Messages

The most common information source when deciding which educational programme to pursue was individual research (70% in France and 66% in Austria). While school career advice was low internationally, this was particularly prevalent in Spain with only 8% of respondents stating this was a main contributor to their educational choice.

On the whole VET students are influenced more by school guidance when compared to their non-VET counterparts.

Across the board the prevailing view is that higher education is a more prestigious education choice. This viewpoint is particularly prevalent in the UK.

The chance to earn while learning is a key determinant of choosing VET in Austria (43%) and Germany (41%), while the ability to work while learning was important in Spain (41%).

Introduction

The information provided, and guidance received, for school leavers when deciding to choose a career path significantly affects the uptake of either an apprenticeship or VET based programme, or higher education. Based on the varying national preferences for promoting the uptake of different educational pathways, the following section presents the experiences of respondents to the ThinkYoung and Martens Centre survey in relation to their initial perception of the different educational programmes available,

and details the key determining factors behind their decision to pursue either an apprenticeship or general education course. Based on the need for increasing the image and attractiveness of VET in Europe, as detailed in the preceding discussion, a specific focus will be placed on national perceptions of apprenticeships as a viable route to gainful employment.

Career Guidance

Country Level Analysis (General Education Students)

Analysing the key information sources, and influencers, of the respondent's decision to undertake general education, individual research was the most common source across the board (60%). This was particularly high in both France (70%) and Austria (66%). While school careers advice was low amongst all countries, less than half as many students in Spain (8%) were influenced by school advice when compared to in Italy (23%). Moreover, only 2% of the respondents in Spain were influenced by a careers fair; compared to 12% in Germany and 14% in France. Family was also an important influence with 47% in Austria and 46% in Spain (compared to 32% in France and 34% in Germany).

VARYING CAREER GUIDANCE PREFERENCES

INDIVIDUAL RESEARCH

FRANCE	70%
AUSTRIA	66%

SCHOOL CAREER ADVICE

SPAIN	8%
ITALY	23%

FAMILY

AUSTRIA	47%
SPAIN	46%

VET and General Education Analysis

Interesting comparisons can be made when respondents from both a VET and non-VET background are compared. On the whole, students deciding to undertake VET were more influenced by school careers guidance (19.5%) when compared to their non-VET counterparts (13%). VET students were also influenced most by school guidance in the UK (27%) and Italy (26.5%). Compared to general education students (60%) VET students relied on their own research less (47%). Lastly, VET students in the UK (21%) were more influenced by career fairs compared to both Spain (2%) and Germany (5%).

CAREER GUIDANCE PREFERENCES BY EDUCATION CHOISE

STUDENTS INFLUENCED BY SCHOOL CAREER GUIDANCE

VET 19.5%
NON-VET 13%

STUDENTS THAT RELIED ON THEIR OWN RESEARCH

VET 47%
NON-VET 60%

Perception of VET

International Analysis

According to the responses from the international sample across the board, the most prevalent perception of VET was that higher education was seen as a more prestigious education choice (41%), followed by the perception of VET as being more practical (21%), and the view that both choices were equal (19%). Additionally, 17% of respondents felt VET was a more prestigious and important education path, 14% felt higher education was more likely to ensure future employment and only 7% felt VET was a second choice for students with a weaker academic performance.

STUDENTS PERCEPTION OF VET: INTERNATIONAL RESULTS

41% THINK THAT HIGHER EDUCATION IS MORE PRESTIGIOUS
21% THINK THAT VET IS MORE PRACTICAL

Country Level Analysis

The most notable differences in the perception of VET between countries include a higher percentage of respondents in the UK (51%) viewing higher education as a more prestigious option (compared to 41% internationally and 35% in both Spain and France). Additionally, students in Austria (23.5%) have the highest perception of VET as more prestigious, while the highest proportion of respondents viewing VET as more practical are in Spain (23%) and France (23%).

VET and General Education Analysis

Taking into account the responses from people with either a VET or non-VET based educational background, the view that VET was a more prestigious option was held more by VET students (26%) when compared to general education (8%). Similarly, a higher number of respondents with a general education background (60%) held the opinion of higher education being more prestigious when compared to VET students (22%). Additionally, a higher percentage of VET based students viewed VET as a more practical option (29%) and was more likely to lead to future employment (16%) when compared to non-VET based respondents (13% and 7% respectively).

Interestingly, while 21% of general education respondents viewed higher education as being more likely to ensure employment, only 7% of VET based respondents held this opinion.

PERCEPTION OF VET BY EDUCATION CHOISE

STUDENTS THAT VIEW HIGHER EDUCATION AS BEING MORE LIKELY TO ENSURE EMPLOYMENT

VET 7%
NON-VET 21%

Determinants of Choosing VET

Country Level Analysis

Detailing the reasons for deciding to pursue a VET based education path, the chance to earn while learning was a much more prevalent factor in both Austria (43%) and Germany (41%) when compared to in Spain (14%) and France (17%). Moreover, the ability to work while learning was a key determinant in Spain (41%) compared to only 20% in Germany, while only 30% of VET students in the UK stated that job prospects was an important factor in the decision to pursue a VET based course (compared to 40% in Italy and 36% internationally). Avoiding tuition fees was a further consideration for students in the UK (16%) compared to only 2% in Spain and 3% in Italy.

REASONS FOR CHOOSING VET: INTERNATIONAL ANALYSIS

STUDENTS THAT CHOOSE VET TO EARN WHILE LEARNING

AUSTRIA	70%
GERMANY	66%
SPAIN	14%
FRANCE	17%

Socio-Economic Analysis

Taking into account the average household income of the respondents, it is interesting to note the ability to work and learn simultaneously was less of a persuading factor for choosing VET for people from an above average household (19%) compared to an average household (28%). Job

prospects was the most influential factor for people from both an average (38%) and below average (37%) household, while the chance to earn while learning was the most influential factor for above average household income students (30.5%). Additionally, the ability to earn further qualifications was more prominent for people from an above average household (15%) compared to people from a below average household (6%).

SKILLS TRANSFERABILITY

Key Messages

While 37% of all VET respondent stated they might have the ability to pursue further education depending on varying factors, only 13% have this option guaranteed as part of their course.

The highest proportion of people guaranteed further education is in Germany (17%) and Austria (22%).

Internationally, the preferred route upon completion of VET is to secure a job within the same industry as the course undertaken (49%). Completing further education and qualifications was the preferred option for only 13% of respondents.

Respondents in France were the least likely to seek employment in a different sector while the change to pursue further qualifications was the most favoured in the UK (19%).

Comparing the responses from a VET and non-VET background, a higher proportion of VET graduates (57%) are currently employed in the same sector as their educational course.

Lastly, the health (62%), automotive (62%) and electronics (59%) sectors have the highest number of employees trained in the same sector.

Introduction

Students and graduates taking part in the ThinkYoung and Martens Centre survey were asked to detail their opinions with respect to their future employment goals, and with reference to graduates currently in employment, whether they were employed in the same field or sector as their educational course. Based on the transferability of skills being a key factor within educational courses, and a priority for European policy makers, the following section focuses on the relationship between skills mismatch and the labour market. Moreover, the section presents the availability of VET participants and graduates to pursue further higher education and gain further qualifications, an element which impacts upon the perception of VET as both an attractive and rewarding educational option.

Availability of Further Education in VET International Analysis

As the international sample highlights, 37% of all respondents from a VET background have the possibility to pursue further education or to gain further qualifications as part of their course, depending on various factors. Moreover, 21% stated they have the option once their course is completed. However, 26% noted that once their course is completed, no possibility is present to gain further qualifications. Only 13% of the sample stated that their VET course guaranteed the option for further education in the future.

FURTHER EDUCATION POSSIBILITIES: INTERNATIONAL ANALYSIS

37% HAVE THE POSSIBILITY TO PURSUE FURTHER EDUCATION / GAIN FURTHER QUALIFICATIONS AS PART OF THEIR COURSE

21% STATED THEY HAVE THE OPTION ONCE THEIR COURSE IS COMPLETED

26% NOTED THAT ONCE THEIR COURSE IS COMPLETED, NO POSSIBILITY IS PRESENT TO GAIN FURTHER QUALIFICATIONS

13% STATED THAT THEIR VET COURSE GUARANTEED THE OPTION FOR FURTHER EDUCATION IN THE FUTURE

Country Level Analysis

The availability of further education and qualifications raises some key distinctions when the country level analysis is taken into account. While only 11% of respondents in Germany and 12% in Austria stated no further education was available once they had completed their VET course, 40% in the UK stated the same (compared to only 21% internationally). Furthermore, only 3% of respondents in the UK noted that their apprenticeship guaranteed the option of further education, compared to 22% in Austria and 17% in Germany. However, 22% of respondents in the UK noted the option is available, compared to only 15% in Spain and higher than the international average of 21%.

Future Goals and Employment

International Analysis

Internationally, the most preferred goal once having completed education and work based learning was to secure a job within the industry for which

the respondents had been training in (49%), followed by working for the same company they are currently working for (27%), and working for a different company (18%). Interestingly, moving onto further higher education (degree level or higher) was the second to last preferred option (13%) followed by starting a business (8%).

Country Level Analysis

From the analysis of country variations, respondents undertaking VET in the UK were the least likely to plan in securing a job in the same industry as their course (37%), with students in Germany (57%) and Spain (54%) being the most likely to do so. French VET respondents (16%) were the most likely to cross sectors and seek a job in a different industry (compared to 9% internationally and only 5% in Spain), and respondents in the UK were the most likely to pursue further higher education (19%) when compared to their counterparts in both Italy (9%) and Spain (12%). Lastly, Austrian based respondents (14%) were more than four times as likely to start a business than their counterparts in the UK (3%).

Qualifications Mismatch

Country Level Analysis

Analysing the subsequent employment destinations of the respondents, it is interesting to note that country variations are prevalent with reference to whether the current work undertaken is in the same field or trade as either the VET based or general education course. While a higher number of respondents in Austria (57%) were currently working in a different sector from their initial studies, this trend is reversed in France with 57% working within the same field. Additionally, respondents in the UK have the highest

percentage (60%) currently employed in the same field as their studies.

CURRENT EMPLOYMENT: COUNTRY VARIANTS

RESPONDENTS THAT WERE CURRENTLY WORKING IN A DIFFERENT SECTOR FROM THEIR INITIAL STUDIES

AUSTRIA 57%

RESPONDENTS THAT WERE CURRENTLY WORKING WITHIN THE SAME FIELD

FRANCE 57%
UK 60%

VET and General Education Analysis

Drawing distinctions between the responses from either a VET or general education background clear differences in the link between education and employment are present, with a higher number of VET students (57%) currently working in the same field as their education. This is compared to 46% from respondents with a general education and university based educational background.

Country Level Analysis: VET and General Education

Taking a country level analysis to the VET and general education distinction made previously, significant variations are present. This is most notably demonstrated by the high number of VET based respondents in both the UK (82%) and Spain (78%) being employed in the same field or specialisation as their education

course. However, while across the board internationally a higher number of VET students are working in the field, the percentage is much less for Germany (56%), France (64%) and Spain (64%).

With reference to the respondents from a general education background, while France (55%) and the UK (53%) have a majority currently employed in the same sector as their university education; Austria (41%), Germany (46%), Italy (45%), and Spain (44%) have a majority employed in a different sector.

Sector/Industry Level Analysis

Taking into account the varying sectors present within the analysis, it is interesting to note that amongst the respondents with a VET and apprenticeship based background; the sectors with the highest number of people working in the same field as their education are the health (62%), automotive (62%) and electronics (59%) sectors. However, the industries with the lowest amount of VET students working in the same field as their studies are the business administration (45%) and the hospitality (48%) sectors.

Furthermore, while VET based respondents across all sectors have a majority of respondents employed in the same sector as their education, the results are much lower for respondents with a general education background. This trend is particularly prevalent in the hospitality and business administration sectors, with only 37% and 42%, respectively of respondents specialising in that field during education subsequently being employed.

CURRENT EMPLOYMENT: SECTOR-INDUSTRY ANALYSIS

SECTORS WITH THE HIGHEST NUMBER OF PEOPLE WORKING IN THE SAME FIELD AS THEIR EDUCATION

HEALTH	62%
AUTOMOTIVE	62%
ELECTRONICS	59%

INDUSTRIES WITH THE LOWEST AMOUNT OF VET STUDENTS WORKING IN THE SAME FIELD AS THEIR STUDIES

BUSINESS ADMINISTRATION	45%
HOSPITALITY	48%

LEARNING OUTCOMES OF VET EDUCATION

Key Messages

Overall, VET students have positive perceptions of their education with reference to both the theoretical and practical foundations for their craft (76% and 73%, respectively).

VET graduates (74.9%) perceived that their study programme was effective in developing communication skills to a greater extent than non-VET students and graduates (71.7%). This trend is confirmed in 4 out of 6 countries.

More than two thirds of the surveyed students (67.3%) reported their study programme helped them acquire mathematical and numerical skills. Among them, 19.1% rated the

programmes as very good for the development of their skills.

76% reported to have good teachers and instructors, with students in Germany and France (78%) being particularly satisfied.

High levels of satisfaction with the practical experience gained were recorded, with 87% of respondents holding a positive view.

Apprentices in the health sector (80%) are those who are best integrated into the internal organisational procedures of the host company when compared to individuals in the electronics sector (65%).

Introduction

Education programmes have multiple objectives including those of ensuring access to quality jobs and developing a sense of citizenship to positively influence societal prosperity. In the following section the results of the ThinkYoung and Martens Centre survey will shed light on student perception on the outcomes of their educational journey in terms of acquisition of skills and their job relevance. A particular emphasis will be placed on students in VET programmes who have a spent a period of at least 6 months in an apprenticeship programme, thus providing insights on student experiences in the “black box” of apprenticeships. At the same time, attention will be drawn on the acquisition of transversal skills such as critical thinking, problem solving and communication with the aim of assessing whether or not being enrolled in a more vocational track comes at the expenses of developing such skills.

Work Readiness

Students and graduates participating in the ThinkYoung and Martens Centre survey were asked to express their judgment on how their education prepares them for the labour world in terms of providing theoretical and practical foundation for their craft, hands on experience and team work. The following section will investigate the issue comparing VET and general education graduates opinions and will assess whether work based learning experiences provide significant benefits in this sense.

Theoretical foundations

Overall, students hold positive views on how their education provided them with theoretical foundation for their craft or field. This is confirmed by 75.6% of them reporting this opinion with peaks in Spain (81.5%) and Austria (81.%). In France only 69% hold positive views on how their education provided them with solid theoretical foundation for their craft and field.

VET graduates (77%) report more positive views about the theoretical foundation provided by their education programmes than non-VET ones (74%). This trend is confirmed in all countries except from France where 67.5% of VET graduates hold less positive views than their non-VET fellows (68%).

Practical foundations

Overall, students and graduates hold positive views on how their education provided them with practical foundations for their craft or field. This is confirmed by 73% of them reporting this opinion, a little bit lower than the score registered for theoretical foundations with peaks in Spain

(78%) and United Kingdom (74%). Surprisingly, given the long tradition of the dual system, students and graduates in Germany (69%) consider that their education system fulfil to a lesser extent their mission of providing practical foundation than in the other surveyed countries.

As expected, VET graduates (76%) report more positive views about the practical foundation component of their education programmes than non-VET ones (69%). The largest difference in satisfaction is registered in countries with an old tradition of the dual system such as Austria (15%) and Germany (14%) where the VET graduates hold much better views on the practical component of their programme.

Ability to solve work related problems

There is general agreement among the survey population that the chosen education programme teaches students how to solve work related problems. This is illustrated by 75% of students and graduates agreeing that the programme taught them this central skill. This is particularly remarkable in the United Kingdom where 79% of students and graduates hold positive views on solving work related problems. On the contrary Italian students and graduates (69%) are less positive about the effectiveness of their programme to teach them how to solve work related problems.

Albeit with little difference than one may expect, VET graduates (77%) report more positive views about the problem-solving component of their education programmes than non-VET ones (73%). The differences are more pronounced in Spain (9%) whereas the only country where non-VET graduates report a stronger effectiveness of their

programmes in equipping them with problem solving skills is again France (71%).

Work Based Learning Component and Work Readiness

As illustrated by the table on page 19 the presence of work based learning components of at least 6 months has limited impact on the examined dimensions of work readiness when compared to the impact of being enrolled in a VET programme tout court. Some impact is registered on student perception about the effectiveness of their education program in providing practical foundations (80% vs. 76%) and teaching them how to solve work related problems (77% vs. 77%). The largest impact of the work based learning component is registered for VET graduates with regard to the provision of practical foundations for the work where 83.6% affirm that their programme rightly provided them with this skill.

21st Century Skills

The following section investigates young people's perception on the effectiveness of their study programme in providing them with skills for the new economy (21st Century skills). It does so by focusing on skills such as effective communication, critical thinking and the use of numeracy in real life situations, amongst others.

Effective communication

Study programmes are perceived by young people to be fairly effective in having them develop communication skills. Overall, 73% of students and graduates believed their programmes had at least a good impact on the development of these skills. Across

	VET	NON VET	WORK BASED COMPONENT	NO WORK BASED COMPONENT
PROVIDING THEORETICAL FOUNDATIONS	77.0%	74.3%	77.4%	75.2%
PROVIDING PRACTICAL FOUNDATIONS	76.2%	69.3%	79.7%	71.2%
TEACHING HOW TO SOLVE WORK RELATED PROBLEMS	77.3%	72.9%	79.3%	74.2%

countries the students and graduates who were the most positive on their programmes' effectiveness in developing communication skills were Austria (79%) and Spain (77%). On the contrary, French students (66%) were less enthusiastic about the development of their communication skills compared to the other countries surveyed.

VET graduates (75%) perceived that their study programme was effective in developing communication skills to a greater extent than non-VET students and graduates (72%). This trend is confirmed in 4 out of 6 countries whereas in Austria (83.5%) and France (67%) non-VET graduates had better opinions than their VET fellows on the effectiveness of their programmes in developing communication skills.

Critical thinking

Students and graduates were also asked to evaluate the contribution of their study programme to the development of their ability to think critically. 75% of students and graduates considered the contribution to critical thinking ability being at least good, of which 25% of them thought it was very good. The most enthusiastic students were those coming from the United Kingdom (79%) closely followed by in Spain (78%). However, students in Italy (70%) were the least enthusiastic in this respect.

Students and graduates perceive non-VET education programmes as being more effective for the development of critical thinking skills. This is illustrated by 79% of them reporting that their non-VET career choice helped them thinking critically compared to only 73% reporting the same for their VET educational choice.

Numeracy in real life settings

More than two thirds of the surveyed students (67%) reported their study programme helped acquire mathematical and numerical skills. Among them, 19% rated the programmes as very good for the development of their skills. Spanish (76%) and Italian students (71%) reported the highest rates for the development of numerical skills in real life settings whereas German students (62%) expressed a moderate enthusiasm.

With the exception of Italy, VET students and graduates (69%) expressed higher appreciation to the contribution of their study programme to numeracy development compared to their non-VET (66%) fellows.

Work Based Learning Component and 21st Century Skills

As demonstrated in the table on page 20 the presence of a work based component is not perceived as a

major driver for the development of 21st century skills. The only area where it is found to have an impact on students and graduates perceptions is numeracy applied to real life problems. Interestingly, the presence of a work based learning component has opposite effects on the perceptions on the development of critical thinking depending on the selected educational track. While among VET students a work based learning experience increases the impact on critical thinking, non-VET students and graduates believe it decreases it.

Quality of the VET Learning Experience

Respondents to the survey were asked to rate on a scale from 1 to 4 several aspects of their vocational learning programmes related to their in school and on the job experiences. These include instructional and infrastructural quality, level of practical experiences and of the school based technical training.

School based instruction

When asked to rate the quality of the school based technical training they received, survey respondents displayed a very positive impression. This is illustrated by 78% of them saying that the level of school based technical training was at least good. Internationally it is interesting to observe some variations where Spanish (84%) and Italian (81%) students and graduates were among the most satisfied in this aspect. On the contrary, students and graduates from the United Kingdom displayed lower satisfaction with 28% of them being displeased by the quality of the school based technical training they received.

Slightly lower degrees of satisfaction were observed with regards to the relevance of school training to work experience where 73% of respondents indicated the relevance as being at least good. The most and least satisfied students and graduates were found among the two countries with an old tradition of dual systems: Austria (77%) reporting the highest number of satisfied students and Germany (67%) reporting the lowest.

Respondents were also asked how satisfied they were of the quality of their teachers/instructors.

Overall the impressions were positive with 76% saying they had good teachers and instructors. This impression was confirmed across countries with little variation, whereby the most satisfied were the German and French students (78%) when compared to the least satisfied in the UK (73%). The most striking impact of the presence of a work based learning experience was found with regard to the relevance of the training for the workplace. Apprenticeship graduates (76%) were considerably more likely to report positive relevance of their training than those who didn't pursue that opportunity (66%).

Practical foundations

Young people's opinion on the level of the practical experience they gained through their vocational programme is very high with 87% of them holding a positive view. The result is driven by the enthusiasm of those who undertook an apprenticeship registering an 89% satisfaction rate concerning their practical experience. This result is particularly striking in countries such as Italy where the difference in satisfaction between those who undertook an apprenticeship and those who didn't

	VET	NON VET	APPRENTICESHIP	NO APPRENTICESHIP
EFFECTIVE COMMUNICATION	74.9%	71.7%	74.2%	73.1%
CRITICAL THINKING	72.9%	78.6%	75.6%	75.9%
NUMERACY FOR REAL LIFE PROBLEMS	68.9%	65.8%	69.1%	66.9%

was 31%. In the UK the impact was also remarkable with a difference of 15%.

Insiders' Views on Apprenticeships

Young people's experiences with apprenticeship schemes provide invaluable insights on what is happening in the so-called black box of apprenticeships. To this end, the survey asked apprentices and graduates to evaluate key aspects of their apprenticeship scheme, with a special focus on the obligations that the hosting organisation is expected to fulfil as a standard for quality. Among those, the following analysis will shed light on learning and organisational components of a fruitful and satisfactory apprenticeship and highlight whether significant differences exist across economic sectors and positioning in the value chain.

Development of sector specific competencies

The first level of analysis reports whether students felt that the organisation they did their training with provided them with enough sector specific competencies. Overall the vast majority of students in the selected countries expressed a positive view (73%), with 23% of them showing high levels of satisfaction. The most satisfied students about their hosting organisation in terms of sector specific

competence development were in France (83%) whereas the least satisfied were those who completed their education in Austria (60%).

The survey results show some variations across trade sectors where students undertake their apprenticeship. Most notably, students specialising in logistics and administration report higher levels of satisfaction regarding the development of trade specific skills (83%) whereas satisfaction is much lower for those training in both hospitality and automotive (62%). Moreover, a significant difference can be appreciated moving up in value added where students training in high added value sectors display higher satisfaction (+8%) than their peers.

Establishment of well-defined learning objectives

Another element of interest with regards to the apprentice's learning experience relates to the extent to which his or her experience was structured in terms of objectives and milestones to achieve. 76% of apprenticeship graduates reported their hosting organisation to have fulfilled this obligation, and among them 22% said that it was completely fulfilled. Some variation exists across the board with French students (81%) being the most satisfied about their host organisation's duty fulfilment, contrary to only 71% in Germany.

Some variation can be appreciated when providers are split according to their trade. Apprenticeship providers in the health sector appear to be the most precise in defining a proper learning path for their students who in turn report that in 78% of the cases this requirement was satisfied. On the contrary, students in electronics 72% report a lower level of fulfilment of their host organisation in these regards.

Integration into host organisation internal procedures

The integration of the apprentice into the host organisation's internal procedures is a key component for the success of the work based learning experience. According to graduates this requirement is usually fulfilled by the host organisation (74%) while 20% reported that it was completely fulfilled. Across countries considerable variation can be found among those where host organisations are more likely to integrate their apprentices such as the United Kingdom (85%), and France (65%) where apprentices are integrated less.

As the nature of the hosting organisation and the task the apprentice is assigned to greatly differ across trades, it is expected that some sectors will integrate their apprentices more than others. The results show that apprentices in the health sector (80%) are those who are best integrated into internal organisational procedures whereas apprentices in electronics are those who reported being integrated the least (65%).

IMPROVING VET SUPPLY AND DEMAND

Key Messages

Improving the general image and attractiveness of VET is the most favoured means of increasing the number of VET students internationally (35%). This view is particularly prevalent in Austria (47%).

In the UK (25%), France (22%) and Italy (26%) a focus on promoting skilled trades in schools is seen as the best means of improving VET uptake. This is compared to only 12% in Austria and 14% in Germany.

A higher percentage of VET students (37%) see the need to improve career guidance at school when compared to their general education counterparts.

With reference to improving VET courses, a focus on workplace training is preferred by respondents in Austria (52%) when compared to in Spain (34%). Austrian respondents also see the importance of skills transferability in increasing the quality of VET courses.

While 52% of VET students in Austria perceive an increase in workplace training as a key factor, only 40% of general education students see this as important. Conversely, in Germany a higher number of non-VET students see this as a crucial factor (44%) compared to 41% from a non-VET background.

Introduction

Promoting increased levels of VET and apprenticeship programme uptake in Europe has been a key policy priority at the both the EU and national level. As emphasised in the Bruges communiqué, improving the image of VET is directly related to the increase

of participants, with the fostering of programmes with a high relevance to the labour market being fundamental in this respect. With this in mind, the survey asked respondents from a both an apprenticeship and general education background to outline their opinions on the most effective means of both increasing the uptake of VET, and in improving the quality of the VET provision available. The following section presents these key findings and highlights the differing perceptions between respondents from varying educational backgrounds.

Increasing Uptake

International Analysis

According to the responses from the international sample, the most effective means of improving the number of apprentices and enrolled students in VET programmes is to improve their general image and attractiveness (35%), closely followed by improving careers advice and guidance at school (30%). Interestingly, only 10.5% of the respondents felt further knowledge of the salaries available in VET professions would increase levels of uptake.

INCREASING UPTAKE INTERNATIONAL SAMPLE

**MOST EFFECTIVE MEANS OF IMPROVING
THE NUMBER OF APPRENTICES AND
ENROLLED STUDENTS IN
VET PROGRAMMES**

35%	IMPROVE THEIR GENERAL IMAGE AND ATTRACTIVENESS
30%	IMPROVING CAREERS ADVICE AND GUIDANCE AT SCHOOL

Country Level Analysis

Varying perceptions of how best to increase the uptake of VET are present when the country level responses are taken into account. The promotion of skilled trades in schools is seen as an important measure in the UK (25%), France (22%) and Italy (26%), when compared to only 12% in Austria and 14% in Germany. Moreover, while improving the image of VET is a popular measure across the board (35%), more than twice as many respondents from Austria (47%) saw this a key priority when compared to Italy (27%). French respondents (26%) were also the least likely to view the improvement of career guidance at school as an effective means of increasing VET uptake.

VET and General Education Analysis

The relationship between educational background and perceptions of how to improve VET uptake on a national scale raise some important distinctions. Most notably, respondents from a non-VET background in Austria place more emphasis on the need to improve the image of VET (54%) when compared to VET students (41%). Conversely, while only 19% of non-VET students see the improvement of career guidance as important, 37% of VET students specify this as an important measure.

Enhancing Quality

Country Level Analysis (VET Students)

As table 16 demonstrates, opinions on how best to improve the quality of VET courses differ considerably between countries. While improving the focus on workplace training is a key priority for respondents in Austria (52%), only 34% of VET students in Spain saw this as important, instead favouring

a focus on school based learning (49%). Additionally, only 13% of VET students in both France and Germany saw the need for further cooperation between stakeholders and businesses (compared to 25% in the UK and 26% in Italy). Austrian respondents (35%) were also more than five times as likely to view an increase in skills transferability as a key aspect of increasing quality when compared to both the UK and Italy (5% and 7% respectively).

ENHANCING QUALITY COUNTRY SAMPLE (VET STUDENTS)

AUSTRIA

52%

OF RESPONDENTS THINK IMPROVING THE FOCUS ON WORKPLACE TRAINING IS A KEY PRIORITY

SPAIN

49%

OF RESPONDENTS THINK FAVOURING A FOCUS ON SCHOOL BASED LEARNING IS A KEY PRIORITY

VET and General Education Analysis

Comparing the responses from people who have undertaken either a VET or general education pathway, differing perceptions of how to improve VET courses are prevalent. While 52% of VET students in Austria perceive an increase in workplace training as a key factor, only 40% of general education students see this as important. Conversely, in Germany a higher number of non-VET students see this as a crucial factor (44%) compared to 41% from a non-VET background. Additionally, in both France and Austria a lower percentage of VET based students see the need for further cooperation between stakeholders (13% and 23.5%) when compared to non-VET students (25% and 37%).

ENHANCING QUALITY BY EDUCATIONAL CHOICE

PERCEPTIONS OF HOW TO IMPROVE VET COURSES

AUSTRIA

52%

OF VET RESPONDENTS PERCEIVE AN INCREASE IN WORKPLACE TRAINING AS A KEY FACTOR

FRANCE

13%

OF VET RESPONDENTS SEE THE NEED FOR FURTHER COOPERATION BETWEEN STAKEHOLDERS

SCHOOL TO WORK TRANSITION: VET VS. GENERAL EDUCATION

Key Messages

From the non-VET sample the presence of a work based learning component in the curricula produces a higher chance for graduates to be employed at the time the survey was administered.

Within VET curricula apprenticeships have a limited if not negative impact in terms of employability. The relevance to employment outcomes of the work based learning experience appear to be more important in non – VET settings.

The assumption of VET education leading to smoother school to work transitions is confirmed by the regression analysis whereby VET graduates are more likely to be found in employment.

Introduction

The following section aims to empirically estimate whether or not VET education fares better than non-VET in ensuring smoother school to work transitions, as it is widely claimed in the current policy discourse.

To this end, the study uses a logistic regression approach whereby the interest lies in understanding the determinants of being employed according to the elements described so far in the analysis.

More specifically, the study takes into account how socioeconomic status, international mobility, the presence of a work based learning component, the completion of a VET course, the degree of self-perceived proficiency in 21st Century skills and the perceived

quality of the received instruction affect the likelihood to be employed after graduation.

Completion of a VET Course

From the results, one can infer that there are some positive effects to employability of VET and apprenticeships programmes. More specifically, the analysis of the regression coefficients and the odds ratio tells that those who were enrolled in a VET programme were 1.16 more likely to be employed at the time of the survey administration than their non-VET peers.

In addition, the presence of a work based learning component in the curriculum (VET and non-VET) increased the likelihood to be employed by 11%.

Work Based Learning

According to this model specification those graduates who have experienced a period equal or longer than 3 months in an on the job training are 1.44 times more likely to be employed after graduation than those who didn't undertake such training.

Interestingly, when changing the threshold that determines what is considered as an appropriate training period to a longer one the results are somewhat more moderate. More specifically, when the training period is equal or longer than 6 months the odds ratio imply that those with an on the job training experience of such length are 1.16 more likely to be employed when compared to their peers.

Work Based Learning: VET and Non-VET

The presence of a work based learning component has so far been analysed on the overall sample of VET and general education graduates, raising questions as to whether the key to smoother school to work transition is to be found in the promotion of VET programmes or in the promotion of work based learning experiences across all educational paths.

The results seem to point to a clear interpretation: on the non-VET sample the presence of a work based learning component in the curricula gives a 1.66 higher chance to graduates to be employed at the time the survey was administered, whereas in VET curricula apprenticeships have a limited if not negative impact in terms of employability as demonstrated by an odd ratio of 0.91.

Overall the results seem to point to two main conclusions: the first tells that the presence of a work based learning component is key to employability and that the duration of such a component is not as important as one may think. This reinforces the view that such a component is a signal to employers of someone's general ability to perform in a working environment rather than an instrument to develop specific skills.

Secondly, the relevance to employment outcomes of the work based learning experience appear to be more important in non – VET settings to somehow make up for the more theoretical approach taken in such paths. Moreover, the assumption of VET education leading to smoother school to work transitions is confirmed by the regression analysis whereby VET graduates are more likely to be found in employment.

CONCLUSIONS

THIS STUDY HAS ATTEMPTED TO SHED SOME LIGHT ON YOUNG PEOPLE'S PERCEPTIONS ABOUT VOCATIONAL EDUCATION AND TRAINING (VET) AND APPRENTICESHIPS, AS WELL AS TO PROVIDE FURTHER ELEMENTS TO THE DEBATE ON THE PROVISION OF SUCH TRAINING PROGRAMMES ACROSS EUROPE.

According to the results young people still perceive Vocational Education and Training as a less prestigious option than university education, although they nonetheless highly value their learning experience and the competencies that they acquire through this educational choice. The study finds that the key drivers informing career choice are individual research and parental advice, and thus calls on policy makers to act upon the stigma surrounding VET, and to increase the perception that VET is a good career choice for young people. This is crucial if higher levels of VET attainment are to be pursued. Moreover, the results show that choosing VET is no longer a life binding choice as the majority of students still have the possibility to pursue further education if they want, either academic or professional.

Regardless of the Vocational or non-Vocational educational choice, the presence of a work based learning component is found to bring about a smoother school to work transition, given that graduates who undertook a work experience during their studies are more likely to be found in employment. However, this result is more prominent in non-VET graduates and it is not related to the duration of the experience, implying that employers might value more a signal of work readiness than the acquisition of specific, and at the same time undefined skills, when looking at the candidate pool.

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APPENDIX A

I undertook/currently undertake my education/training in...			School career guidance/advisor	b) Own initiative/ online research	c) Careers fair/event	d) Family	e) Friends	f) Job centre
non-VET	Austria	Count	8	64	8	46	12	0
		% within q0007	8.2%	66.0%	8.2%	47.4%	12.4%	0.0%
	France	Count	12	70	14	32	9	4
		% within q0007	12.0%	70.0%	14.0%	32.0%	9.0%	4.0%
	Germany	Count	13	68	13	36	20	4
		% within q0007	12.3%	64.2%	12.3%	34.0%	18.9%	3.8%
	Italy	Count	26	50	6	40	14	5
		% within q0007	23.0%	44.2%	5.3%	35.4%	12.4%	4.4%
	Spain	Count	9	58	2	52	10	5
		% within q0007	8.0%	51.8%	1.8%	46.4%	8.9%	4.5%
	UK	Count	20	81	8	56	14	1
		% within q0007	15.4%	62.3%	6.2%	43.1%	10.8%	0.8%
Total		Count	88	391	51	262	79	19

I undertook/currently undertake my education/training in...			School career guidance/advisor	b) Own initiative/ online research	c) Careers fair/event	d) Family	e) Friends	f) Job centre
VET	Austria	Count	12	54	9	39	12	7
		% within q0007	12.1%	54.5%	9.1%	39.4%	12.1%	7.1%
	France	Count	24	62	17	21	6	11
		% within q0007	22.2%	57.4%	15.7%	19.4%	5.6%	10.2%
	Germany	Count	16	50	5	44	10	11
		% within q0007	14.8%	46.3%	4.6%	40.7%	9.3%	10.2%
	Italy	Count	27	48	11	36	6	2
		% within q0007	26.5%	47.1%	10.8%	35.3%	5.9%	2.0%
	Spain	Count	15	42	2	47	12	6
		% within q0007	14.4%	40.4%	1.9%	45.2%	11.5%	5.8%
	UK	Count	27	39	21	32	15	3
		% within q0007	27.0%	39.0%	21.0%	32.0%	15.0%	3.0%
Total		Count	121	295	65	219	61	40

I undertook/currently undertake my education/training in...			a) Higher education (university) was seen as a more prestigious/ important option	b) VET was seen as a more prestigious/ important option	c) All career routes/education choices were seen as equal	d) VET was perceived as more practical	e) VET was seen as a second option for students with weaker academic performance	f) VET was more likely to ensure future employment	g) Higher education was more likely to ensure future employment
VET	Austria	Count	84	46	32	45	18	20	36
		% within q0007	42.9%	23.5%	16.3%	23.0%	9.2%	10.2%	18.4%
	France	Count	71	29	44	46	21	22	19
		% within q0007	35.5%	14.5%	22.0%	23.0%	10.5%	11.0%	9.5%
	Germany	Count	91	31	35	61	15	36	36
		% within q0007	42.5%	14.5%	16.4%	28.5%	7.0%	16.8%	16.8%
	Italy	Count	89	31	52	39	13	18	23
		% within q0007	41.4%	14.4%	24.2%	18.1%	6.0%	8.4%	10.7%
	Spain	Count	75	29	39	34	8	28	36
		% within q0007	34.7%	13.4%	18.1%	15.7%	3.7%	13.0%	16.7%
	United Kingdom	Count	116	44	39	36	19	17	33
		% within q0007	51.1%	19.4%	17.2%	15.9%	8.4%	7.5%	14.5%
Total		Count	526	210	241	261	94	141	183

		a) Higher education (university) was seen as a more prestigious/important option	b) VET was seen as a more prestigious/important option	c) All career routes/education choices were seen as equal	d) VET was perceived as more practical	e) VET was seen as a second option for students with weaker academic performance	f) VET was more likely to ensure future employment	g) Higher education was more likely to ensure future employment
non-VET	Count	392	51	108	86	40	43	139
	% within VET	59.9%	7.8%	16.5%	13.1%	6.1%	6.6%	21.3%
VET	Count	134	159	133	175	54	98	44
	% within VET	21.8%	25.9%	21.7%	28.5%	8.8%	16.0%	7.2%
Total		Count	526	210	241	261	94	141

VET education: I undertook/currently undertake my education/training in...			a) The ability to work and learn simultaneously	b) The job prospects	c) The chance to earn while learning	d) A wish to focus on practical learning	e) The ability to earn further qualifications in the future	f) Avoiding tuition fees for Universities	g) Continuing my family trade	h) None of the above
VET	Austria	Count	17	36	41	12	9	6	2	11
		% within q0007	17.9%	37.9%	43.2%	12.6%	9.5%	6.3%	2.1%	11.6%
	France	Count	35	42	18	23	16	4	2	2
		% within q0007	32.7%	39.3%	16.8%	21.5%	15.0%	3.7%	1.9%	1.9%
	Germany	Count	22	39	43	24	10	6	3	7
		% within q0007	20.8%	36.8%	40.6%	22.6%	9.4%	5.7%	2.8%	6.6%
	Italy	Count	35	41	21	11	15	3	3	3
		% within q0007	34.3%	40.2%	20.6%	10.8%	14.7%	2.9%	2.9%	2.9%
	Spain	Count	42	33	14	17	8	2	4	4
		% within q0007	40.8%	32.0%	13.6%	16.5%	7.8%	1.9%	3.9%	3.9%
	UK	Count	3	28	32	28	15	15	8	4
		% within q0007	3.2%	29.8%	34.0%	29.8%	16.0%	16.0%	8.5%	4.3%

			Compared to the national average would you say your household income is?		
			above avg	avg	below avg
VET	VET Choise	a) The ability to work and learn simultaneously	27	102	25
			19.1%	27.9%	24.8%
		b) The job prospects	42	140	37
			29.8%	38.4%	36.6%
		c) The chance to earn while learning	43	97	29
			30.5%	26.6%	28.7%
		d) A wish to focus on practical learning	29	69	17
			20.6%	18.9%	16.8%
		e) The ability to earn further qualifications in the future	21	46	6
			14.9%	12.6%	5.9%
		f) Avoiding tuition fees for Universities	17	12	7
			12.1%	3.3%	6.9%
		g) Continuing my family trade	5	14	3
			3.5%	3.8%	3.0%
		h) None of the above	8	13	10
			5.7%	3.6%	9.9%
		Total	141	365	101

VET education: I undertook/currently undertake my education/training in...			There is a possibility depending on different factors	Once I have finished there is no possibility	Once finishes I have the option	My apprenticeship guarantees the option for further education	Don't know
VET	Austria	Count	31	12	25	22	9
		% within q0007	13.6%	9.4%	18.8%	27.5%	17.3%
	France	Count	40	26	21	16	5
		% within q0007	17.5%	20.3%	15.8%	20.0%	9.6%
	Germany	Count	35	12	29	18	14
		% within q0007	15.4%	9.4%	21.8%	22.5%	26.9%
	Italy	Count	45	20	21	6	10
		% within q0007	19.7%	15.6%	15.8%	7.5%	19.2%
	Spain	Count	43	18	15	15	13
		% within q0007	18.9%	14.1%	11.3%	18.8%	25.0%
	UK	Count	34	40	22	3	1
		% within q0007	14.9%	31.3%	16.5%	3.8%	1.9%
	Total	Count	228	128	133	80	52
			100.0%	100.0%	100.0%	100.0%	100.0%

VET education: I undertook/ currently undertake my education/training in...			a) Get a job in the industry I have been training in	b) Work for the same company I currently work for	c) Work for a different company	d) Work in a different sector/industry entirely	e) Move onto further education (degree level/ masters level)	f) Start my own business	g) Don't know	h) Other (please specify)
VET	Austria	Count	46	15	12	11	13	14	15	1
		% within q0007	46.5%	15.2%	12.1%	11.1%	13.1%	14.1%	15.2%	1.0%
	France	Count	48	29	21	17	14	10	2	0
		% within q0007	44.4%	26.9%	19.4%	15.7%	13.0%	9.3%	1.9%	0.0%
	Germany	Count	62	24	12	11	13	5	15	2
		% within q0007	57.4%	22.2%	11.1%	10.2%	12.0%	4.6%	13.9%	1.9%
	Italy	Count	53	31	12	7	9	11	8	1
		% within q0007	52.0%	30.4%	11.8%	6.9%	8.8%	10.8%	7.8%	1.0%
	Spain	Count	56	27	23	5	12	5	7	0
		% within q0007	53.8%	26.0%	22.1%	4.8%	11.5%	4.8%	6.7%	0.0%
	UK	Count	37	39	33	9	19	3	1	1
		% within q0007	37.0%	39.0%	33.0%	9.0%	19.0%	3.0%	1.0%	1.0%
	Total		302	165	113	60	80	48	48	5

			Have you Undertaken an Apprenticeship?			
				YES	NO	Total
Austria	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	74	11	85
			% within apprent	41.1%	68.8%	43.4%
		No	Count	106	5	111
			% within apprent	58.9%	31.3%	56.6%
	Total		Count	180	16	196
			% within apprent	100.0%	100.0%	100.0%
France	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	93	25	118
			% within apprent	55.0%	64.1%	56.7%
		No	Count	76	14	90
			% within apprent	45.0%	35.9%	43.3%
	Total		Count	169	39	208
			% within apprent	100.0%	100.0%	100.0%
Germany	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	91	10	101
			% within apprent	46.4%	55.6%	47.2%
		No	Count	105	8	113
			% within apprent	53.6%	44.4%	52.8%
	Total		Count	196	18	214
			% within apprent	100.0%	100.0%	100.0%
Italy	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	73	34	107
			% within apprent	45.1%	64.2%	49.8%
		No	Count	89	19	108
			% within apprent	54.9%	35.8%	50.2%
	Total		Count	162	53	215
			% within apprent	100.0%	100.0%	100.0%
Spain	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	78	31	109
			% within apprent	44.3%	77.5%	50.5%
		No	Count	98	9	107
			% within apprent	55.7%	22.5%	49.5%
	Total		Count	176	40	216
			% within apprent	100.0%	100.0%	100.0%
UK	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	95	42	137
			% within apprent	53.1%	82.4%	59.6%
		No	Count	84	9	93
			% within apprent	46.9%	17.6%	40.4%
	Total		Count	179	51	230
			% within apprent	100.0%	100.0%	100.0%

			VET Education			
Sector				non-VET	VET	Total
Hospitality	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	60	60	120
			% within apprent	36.8%	52.2%	43.2%
		No	Count	103	55	158
			% within apprent	63.2%	47.8%	56.8%
	Total		Count	163	115	278
			% within apprent	100.0%	100.0%	100.0%
Electronics	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	66	82	148
			% within apprent	56.9%	59.0%	58.0%
		No	Count	50	57	107
			% within apprent	43.1%	41.0%	42.0%
	Total		Count	116	139	255
			% within apprent	100.0%	100.0%	100.0%
Business and Administration	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	100	129	229
			% within apprent	42.4%	54.9%	48.6%
		No	Count	136	106	242
			% within apprent	57.6%	45.1%	51.4%
	Total		Count	236	235	471
			% within apprent	100.0%	100.0%	100.0%
Automotive	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	36	31	67
			% within apprent	57.1%	62.0%	59.3%
		No	Count	27	19	46
			% within apprent	42.9%	38.0%	40.7%
	Total		Count	63	50	113
			% within apprent	100.0%	100.0%	100.0%
Health	Are you currently employed in the same field/trade as your apprenticeship/university degree?	YES	Count	37	46	83
			% within apprent	48.1%	62.2%	55.0%
		No	Count	40	28	68
			% within apprent	51.9%	37.8%	45.0%
	Total		Count	77	74	151
			% within apprent	100.0%	100.0%	100.0%

VET Education	Which of the following measures do you think should be implemented in order to increase the number of VET students?				
I undertook/currently undertake my education/training in...	Improve the general image and attractiveness of VET	Improve career guidance at school	Promote skilled trades in schools and VET as an alternative to university.	Increase the understanding of what salaries can be earned from VET related jobs.	Increase the awareness and uptake of females and ethnic minorities
Austria	47.2%	27.7%	12.3%	9.7%	3.1%
France	37.2%	25.6%	22.2%	9.2%	5.8%
Germany	39.7%	29.0%	13.6%	12.6%	5.1%
Italy	27.1%	34.1%	26.2%	6.5%	6.1%
Spain	35.3%	30.2%	16.3%	15.8%	2.3%
UK	25.2%	34.8%	24.8%	9.1%	6.1%
Total	35.0%	30.4%	19.4%	10.5%	4.8%

VET Education	Which of the following measures do you think should be implemented in order to increase the number of VET students?					
Non-VET	I undertook/currently undertake my education/training in...	Improve the general image and attractiveness of VET	Improve career guidance at school	Promote skilled trades in schools and VET as an alternative to university.	Increase the understanding of what salaries can be earned from VET related jobs.	Increase the awareness and uptake of females and ethnic minorities
	Austria	53.6%	18.6%	14.4%	10.3%	3.1%
	France	34.3%	24.2%	25.3%	10.1%	6.1%
	Germany	38.7%	31.1%	14.2%	9.4%	6.6%
	Italy	25.9%	33.0%	25.0%	8.9%	7.1%
	Spain	33.9%	31.3%	17.9%	16.1%	0.9%
	UK	23.8%	31.5%	26.9%	8.5%	9.2%
	Total	34.3%	28.7%	20.9%	10.5%	5.6%
VET						
	Austria	40.8%	36.7%	10.2%	9.2%	3.1%
	France	39.8%	26.9%	19.4%	8.3%	5.6%
	Germany	40.7%	26.9%	13.0%	15.7%	3.7%
	Italy	28.4%	35.3%	27.5%	3.9%	4.9%
	Spain	36.9%	29.1%	14.6%	15.5%	3.9%
	UK	27.0%	39.0%	22.0%	10.0%	2.0%
	Total	35.7%	32.1%	17.8%	10.5%	3.9%

VET education: I undertook/ currently undertake my education/training in...			Increase the focus on workplace training	Increase the focus on technical/school based training	Ensure a Europe wide/ homogenous set of quality standards and qualifications for VET schemes	Further cooperation between stakeholders and business in VET courses	Foster exchange programs and international mobility in VET courses	Provide a broader range of training and experience for apprentices for skills transferability
VET	Austria	Count	51	29	17	23	17	34
		% within q0007	52.0%	29.6%	17.3%	23.5%	17.3%	34.7%
	France	Count	44	45	32	14	15	8
		% within q0007	40.7%	41.7%	29.6%	13.0%	13.9%	7.4%
	Germany	Count	44	24	32	14	15	25
		% within q0007	40.7%	22.2%	29.6%	13.0%	13.9%	23.1%
	Italy	Count	48	30	33	26	10	7
		% within q0007	47.5%	29.7%	32.7%	25.7%	9.9%	6.9%
	Spain	Count	35	51	27	25	13	10
		% within q0007	33.7%	49.0%	26.0%	24.0%	12.5%	9.6%
	UK	Count	40	45	29	25	12	5
		% within q0007	40.0%	45.0%	29.0%	25.0%	12.0%	5.0%
	Total	Count	262	224	170	127	82	89

VET education: I undertook/ currently undertake my education/training in...			Increase the focus on workplace training	increase the focus on technical/school based training	Ensure a Europe wide/ homogenous set of quality standards and qualifications for VET schemes	Further cooperation between stakeholders and business in VET courses	Foster exchange programs and international mobility in VET courses	Provide a broader range of training and experience for apprentices for skills transferability
non-VET	Austria	Count	39	37	24	36	20	27
		% within q0007	40.2%	38.1%	24.7%	37.1%	20.6%	27.8%
	France	Count	35	41	21	25	21	13
		% within q0007	35.4%	41.4%	21.2%	25.3%	21.2%	13.1%
	Germany	Count	47	25	36	16	19	30
		% within q0007	44.3%	23.6%	34.0%	15.1%	17.9%	28.3%
	Italy	Count	41	44	36	34	13	15
		% within q0007	36.6%	39.3%	32.1%	30.4%	11.6%	13.4%
	Spain	Count	32	30	38	29	15	18
		% within q0007	28.8%	27.0%	34.2%	26.1%	13.5%	16.2%
	UK	Count	64	37	28	25	11	29
		% within q0007	49.2%	28.5%	21.5%	19.2%	8.5%	22.3%
	Total	Count	258	214	183	165	99	132

APPENDIX B

The following equation was tested using a logistic regression model:

$$emp_{ij} = \alpha_{ij} + \beta_1 SES_{ij} + \beta_2 mob_{ij} + \beta_3 wbl_{ij} + \beta_4 VET_{ij} + \beta_5 skills_{ij} + \beta_6 quality_{ij} + \varepsilon_{ij} \quad (1)$$

Where emp is a dichotomous variable, SES varies from 1 to 3, mob takes the values from no time spent abroad to more than 12 months spent abroad, wbl takes the values from no time spent in work based learning and more than 12 months spent in work based learning programmes and VET is a dummy variable specifying the enrolment into a VET programme.

This estimation exercise yields the following results:

emp	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
SES	-.6496276	.1237972	-5.25	0.000	-.8922656 -.4069897
mobility	.0700536	.0451648	1.55	0.121	-.0184679 .1585751
wbl	.102126	.0625925	1.63	0.103	-.020553 .224805
VET	.1496332	.1533363	0.98	0.329	-.1509004 .4501668
skills	.0277041	.0175969	1.57	0.115	-.0067852 .0621933
quality	.0296131	.0168535	1.76	0.079	-.0034191 .0626452
_cons	.5475423	.4187693	1.31	0.191	-.2732303 1.368315

A different specification of the model where the work based learning component is treated as dichotomous variable yields more convincing results concerning its effectiveness in term of employability as illustrated in the below table.

emp	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
SES	-.6436461	.1239565	-5.19	0.000	-.8865964 -.4006958
mobility	.0677653	.0450553	1.50	0.133	-.0205416 .1560721
apprent2	.3694772	.2006057	1.84	0.066	-.0237028 .7626571
VET	.1458964	.1533705	0.95	0.341	-.1547043 .446497
skills	.0281418	.0175961	1.60	0.110	-.0063459 .0626294
quality	.0293887	.0168458	1.74	0.081	-.0036285 .0624059
_cons	.6332563	.4069394	1.56	0.120	-.1643303 1.430843

Work Based Learning: VET and Non-VET

In order to present the findings of a work based learning component further investigations on the sample have been conducted whereby the regression analysis has been performed on the subset of VET and non-VET graduates according to equation 2.

$$emp_{ij} = \alpha_{ij} + \beta_1 SES_{ij} + \beta_2 mob_{ij} + \beta_3 wbl_{ij} + \beta_4 skills_{ij} + \beta_5 quality_{ij} \quad (2)$$

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