CEDEFOP
REFERNET DEUTSCHLAND
GERMANY

CEDEFOP OPINION SURVEY ON VOCATIONAL EDUCATION AND TRAINING IN EUROPE

GERMANY

THEMATIC PERSPECTIVES

Federal Institute for Vocational Education and Training BIBB Researching Advising Shaping the future

Please cite this publication as:
Huismann (2018). *Cedefop European Public opinion survey on vocational education and training, country overview: Germany*. Cedefop ReferNet thematic perspectives series.
http://libserver.cedefop.europa.eu/vetelib/2018/opinion_survey_VET_Germany_Cedefop_ReferNet.pdf

Authors: Adrienne Huismann, ReferNet Germany at the Federal Institute for Vocational Education and Training (BIBB), Bonn, Germany
Contributor: Ute Hippach-Schneider, Coordinator ReferNet Germany at the Federal Institute for Vocational Education and Training (BIBB), Bonn, Germany
Reviewed by Cedefop

This thematic perspective was prepared based on data collected through the first Cedefop European public opinion survey on VET. The European report can be found at:
http://www.cedefop.europa.eu/files/5562_en.pdf
More information on the survey at: http://www.cedefop.europa.eu/en/events-and-projects/projects/opinion-survey-vocational-education-and-training-europe

ReferNet is a network of institutions across Europe representing the 28 Member States, plus Iceland and Norway. The network provides Cedefop with information and analysis on national vocational education and training (VET). ReferNet also disseminates information on European VET and Cedefop's work to stakeholders in the EU Member States, Iceland and Norway. http://www.cedefop.europa.eu/en/events-and-projects/networks/refernet

The thematic perspectives series complements the general information on vocational education and training (VET) systems provided in 'VET in Europe' reports. The themes presented in the series feature high on the European agenda.
Thematic perspectives provide national overviews of specific themes in a common format and offer comparative dimension across the EU Member States, Iceland and Norway. They are available at: http://www.cedefop.europa.eu/en/events-and-projects/networks/refernet/thematic-perspectives
The opinions expressed here do not necessarily reflect those of Cedefop. Thematic perspectives are co-financed by the European Union and ReferNet national partners. The publication has neither been edited nor proof-read by Cedefop's editing service.

Contents

Introduction

This article presents and analyses the German results of Cedefop's European Opinion Survey on Vocational Education and Training in a comparative way. It singles out aspects relevant to the national situation as compared to the EU average. Further, it provides contextualised interpretation within the German context. The article covers the four main topics addressed in the survey based on the data provided by Cedefop and concludes with suggestions for further research in the future waves of the survey:

Chapter 1: Awareness and knowledge of VET
Chapter 2: Attractiveness of IVET
Chapter 3: Experience with upper secondary education
Chapter 4. Outcomes and effectiveness of VET

The general image of IVET in Germany is clearly positive and significantly above the EU average. The outcomes of the Cedefop survey fit in the historical and societal context of VET in Germany. As reflected by BIBB's former Head of Research, Reinhold Weiß, the German dual VET system has evolved over many decades and is embedded in the culture of the enterprises and of society as a whole. Society's appreciation and the career objectives that can be achieved through VET are unique selling points. The goal at all times is to integrate young people into the world of work through initial and continuing education and training and to facilitate skilled employment (Weiss, R. 2013: BWP 3/2013: History of Vocational Education and Training). In fact, the labour market situation for young people in Germany presents a relatively balanced relation in supply and demand of qualifications with a low youth unemployment rate (lowest in the EU).

According to the Cedefop survey, among respondents in Germany who went to upper secondary education, a majority (55% vs EU average of 59%) say that their education was primarily general in nature, while two in five (44% vs EU average of 40%) say that it was primarily vocational. These results are close to participation rates reported by Eurostat ([1]): In 2015, 53.2% of students enrolled in upper secondary education were in general education compared to 46.8% in vocational education. In Germany, the so-called dual system of apprenticeship, combining two learning venues (vocational school with time-share of approx. 30% and in-company training for about 70% of time), is the prevailing form of

([1]) http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_uoe_enrs04

IVET: Approximately 70% of VET learners are in such a dual apprenticeship (BIBB Datenreport 2017, p 96).

It is important to point out that more than one in four apprentices in Germany have a higher education entrance qualification (2015: 27.7% in BIBB Datenreport 2017, p. 142) so this group followed successively both paths of education at upper secondary level: First the general followed by the vocational qualification. This shows how attractive dual IVET is, but also suggests that the definition used in the Cedefop survey was not adapted to this particularity. Further, IVET students are older than presumed by the survey definition, where the typical age is set between 16 and 18. In contrast, the average age of new apprentices in 2015 in Germany was 19.7 years (BIBB Data Report 2017, p. 178).

The most cited national surveys and sources in this article are the BIBB data reports, the survey among experts on the image of dual VET 'BIBB-Expertenmonitor 2012', the BMBF survey on the attractiveness of dual VET among young people (2014) as well as the BIBB / Maastricht University online survey among students (2015).

CHAPTER 1.

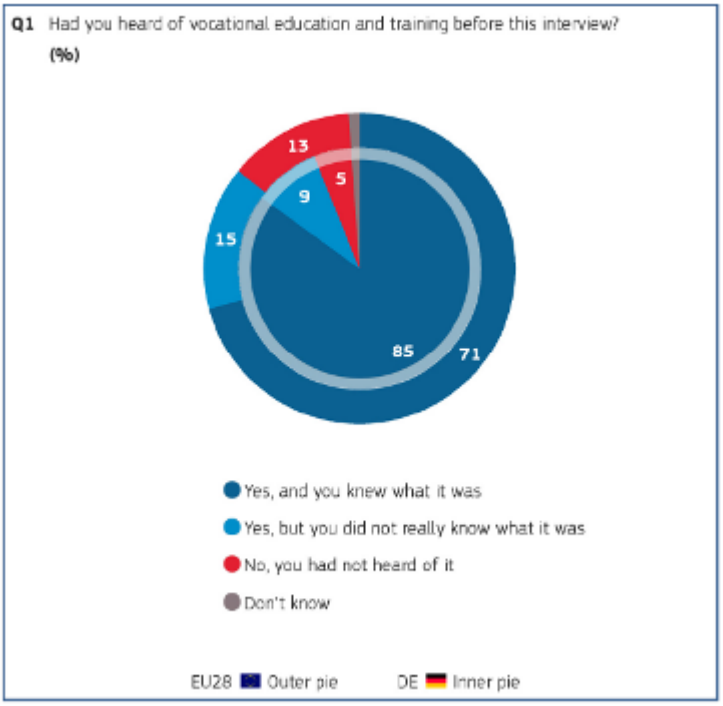
Awareness and knowledge of VET

Increasing participation in VET and making it a more attractive option requires that people are informed and aware of VET opportunities and of how VET differs from general education. The aim of this chapter is to investigate awareness and understanding of VET in Germany. To obtain unbiased responses based solely on respondents' own understanding of VET, the first questions relating to VET awareness (Figure 1) and conceptualisation (Figure 2) were asked without providing a definition. Only subsequently, respondents were given a definition of VET that was used across the whole survey.

1.1. Knowing and understanding of VET

Most respondents in Germany (94% vs EU average of 86%) say that they had heard of vocational education and training (VET) before their interview, and this includes 85% (vs EU average of 71%) who say that they have heard of it and know what it is. Predictably, awareness is even higher among respondents who did go to upper secondary education: for those who did vocational education (97%) and those who did general education (98%).

Figure 1. Knowing about VET



The Cedefop survey also explores how respondents conceptualise VET. Respondents were given eight statements and were asked to indicate to what extent they thought they applied to VET. The statements were addressing the following aspects of VET: school- versus work-based VET; continuous VET versus initial VET; its relationship to higher education; to occupations; to personal development, and to doing manual work.

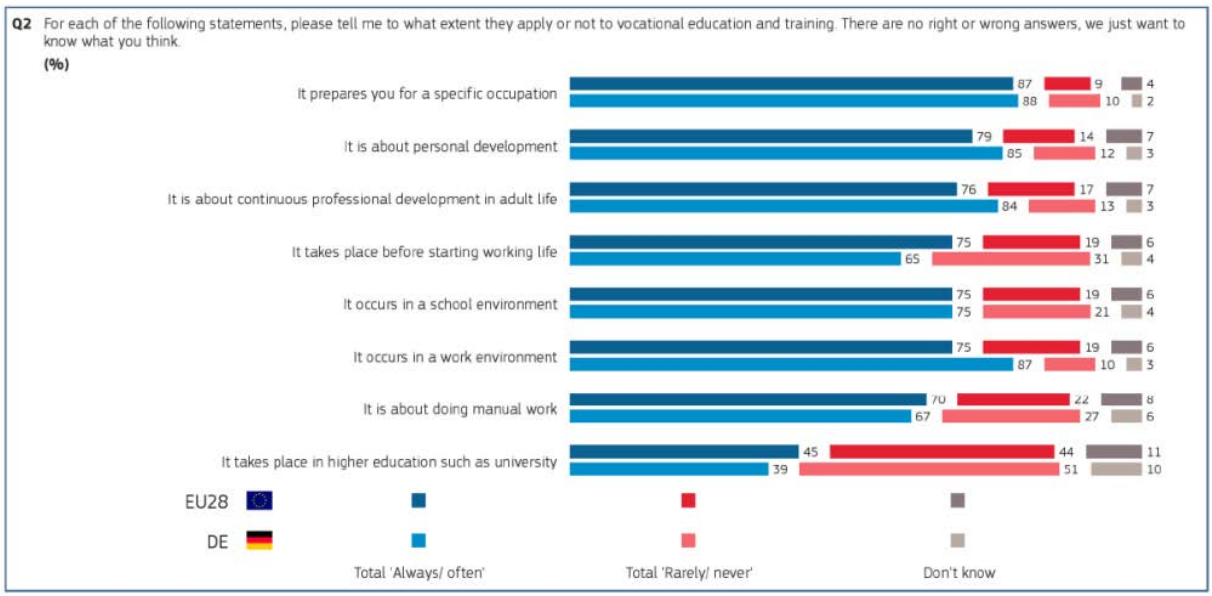
The results in Germany show that respondents relate VET to most of the identified aspects. All statements, except the connection to higher education, were considered to be 'always or often' applicable to VET by at least 65% of the respondents. The most distinctive characteristic of VET, according to respondents, is that 'it prepares you for a specific occupation'; almost nine in 10 respondents (88% vs EU average of 87%) say that this always or often applies to VET. In Germany, this aspect is closely followed by the characteristic that VET occurs in a work environment: 87% of respondents in Germany (vs EU average of 75%) agree with this statement. As might be expected, the characteristic less associated with VET is that it 'takes place in higher education such as university'. Less than half of respondents (39% vs EU average of 45%) agree that this statement applies always or often to VET.

A high share of respondents (85% vs EU average of 79%) say that VET is always or often 'about personal development'. Moreover, most respondents feel

that another statement always or often applies to VET: 'it is about continuous professional development in adult life' (84% vs EU average of 76%). 75% of respondents in Germany (equal to EU average) say that VET occurs in a school environment. Slightly lower proportions feel that two other statements always or often apply to VET: 'it is about doing manual work' (67% vs EU average of 70%) and 'it takes place before starting working life' (65% - but 71% of VET participants - vs EU average of 75%).

The data also indicate that VET is seen as something that combines and bridges the worlds of education and employment. Findings for this question are generally consistent between respondents who took vocational education at the upper secondary stage, and those who took general education.

Figure 2. Factors associated with VET



The answers given by respondents in Germany about knowing and understanding VET are not surprising since VET is in fact well-known and well-established in Germany and represents an option for many young people.

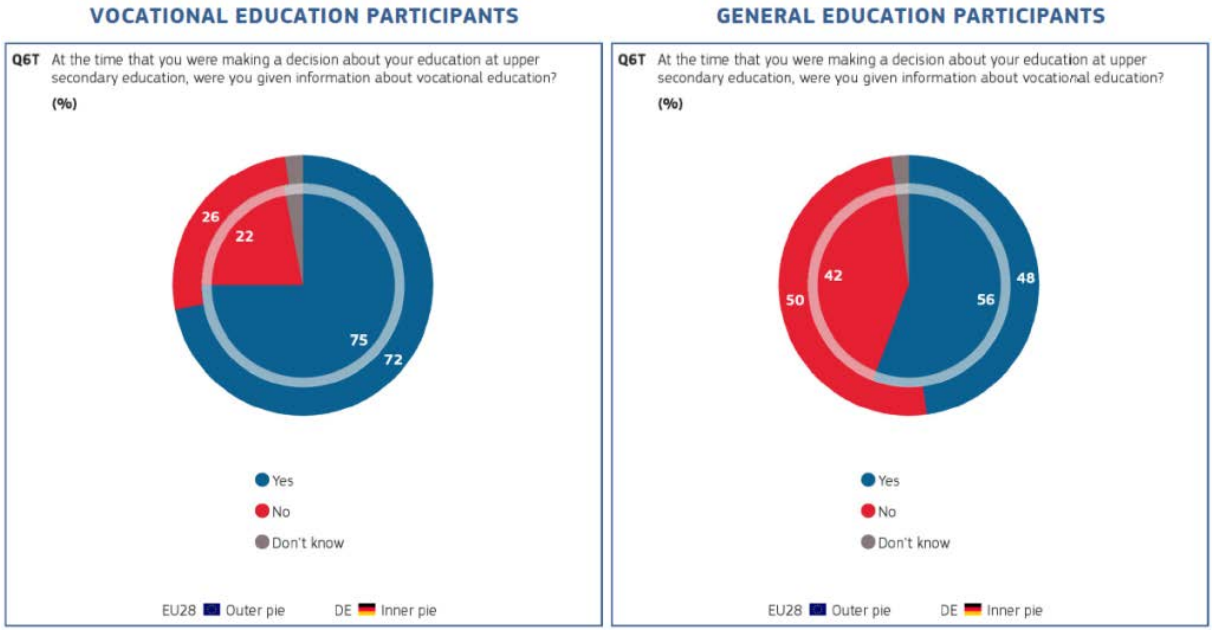
1.2. Provision of information and guidance

One of the main elements for raising awareness and participation in VET is the information and guidance provided to individuals when they have to choose an educational path. This section focuses on information and guidance in relation to the choice of upper secondary education and its orientation. First, it looks at whether respondents were given information about vocational education when

they were making this choice; it then examines the reasons for choosing an orientation at upper secondary level: either vocational or general education. Finally, it examines whether respondents that did not go to VET were advised against participating in vocational education.

According to the results of the Cedefop opinion survey, most of the respondents in Germany (64% vs EU average of 57%) who went to upper secondary received information about VET. However, there is a marked difference between general education and VET orientation. Among those whose upper secondary education was primarily vocational, 75% (similar to EU average of 72%) say that they were given information about VET when making a decision; this is true only for 56% (8 percentage points above EU average but almost 20 percentage points under VET participants) of the ones whose upper secondary was primarily general.

Figure 3. Provision of information (VET vs GE participants)



In the German case, it is important to point out that the decision to proceed with an IVET programme is also often made after completing upper secondary education, making it a relevant decision not only during secondary education. There are at least two different points in time when there is the option to proceed with the general/academic educational pathway or to opt for IVET. More than 25% of apprentices in Germany have a higher education entrance qualification. This also means that IVET students are older than presumed by the definition in the Cedefop opinion survey, where the typical age is set between 16 and 18, as

in Figure 3. In contrast, the average age of new apprentices in 2015 in Germany was 19.7 years (BIBB Data Report 2017, p. 178).

The results of a BIBB/Maastricht University online survey among 12 000 students in German universities in September 2015 show similar perceptions than in the Cedefop survey (Source: Attraktivität der beruflichen Bildung bei Studierenden, Ergebnisse einer bundesweiten Erhebung, Wissenschaftliche Diskussionspapiere WDP, Heft 183, BIBB, Bonn, 2017). The respondents were asked about their level of information regarding options of transfer to dual VET. Two thirds of respondents considered being not well-informed in contrast to 33% feeling well-informed. Women students feel the least well-informed as well as students coming directly from *Gymnasien* (in contrast to students having completed a VET qualification as well as international students). The most used career guidance among students is at the employment agencies, which is also among the best known (75%).

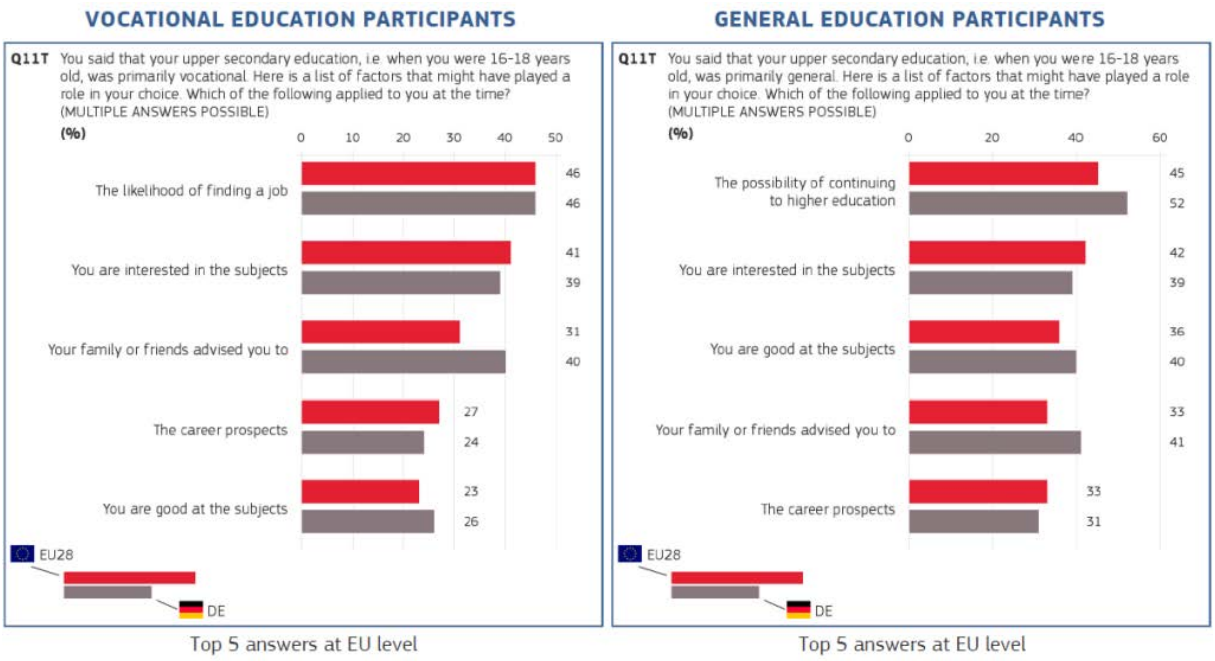
Moreover, the Cedefop survey looks at the reasons why respondents chose to do either vocational or general education when they were in upper secondary education. Respondents were asked to indicate from a list of 13 factors which ones might have played a role when deciding what to do in upper secondary education. According to the results, the advice of family or friends is a factor having a particularly high influence on the orientation decision of young people in Germany (41% vs EU average of 33%). Being interested in the subjects is a decisive factor as well. However, as in the EU, the most important factor of decision differs depending on the path chosen: for VET participants, it is the likelihood of finding a job, whereas for GE participants, it is the possibility of continuing to higher education.

Figure 4 shows the reasons split between the two groups: those who did VET and those who went to general education. The two main reasons given by vocational education respondents in Germany are the likelihood of finding a job (46%) and because their family or friends advised them to (40%). The next most frequently mentioned reasons are interest in the subjects (39%), the possibility of having a good salary (35% versus a much lower EU average), being good at the subjects (26%), and career prospects (24%). The same reasons also feature prominently among general education respondents in Germany. However, the most common reason among these respondents was the possibility of continuing to higher education (52% versus 11% of those who did vocational education).

A further comparison between the two groups in Germany shows a number of other differences. Those who took vocational education are more likely than those who took general education to say that it was because of the likelihood of finding a job (46% compared with 32%), because of (i.e. to avoid) the length of

studies (19% compared with 5%) and because someone from the world of work advised them to (15% compared with 7%). On the other side, further reasons that are more likely to be given by those who did general education than those who did vocational education include being good at the subject (40% compared with 26%), career prospects (31% compared with 24%), and because someone at school advised them to (19% compared with 13%).

Figure 4. Factors that influences decision on education path (VET vs GE participants)



The research series among school-leavers with higher education entrance qualification 'HIS *Studienberechtigtenbefragung*' examined reasons and motives for the chosen post-school careers of young people, who had considered both options (VET or study programme). The results were similar to those of the Cedefop survey: The most important motives for both groups was 'a secure job and professional career', 'affinity to prospective vocation', 'interest in the subject', 'being good at it', as well as the aspects of salary and prestige. Similar results were found in the survey 'DJI-*Übergangspanel*' (longitudinal data analysis of nine survey waves). Those who finally chose the VET programme over the course of studies were attracted by financial independence (apprenticeship allowance), practical work, meeting other people and social engagement.

The Cedefop survey also looks into discouragement from taking VET. Respondents that did not participate in VET at upper secondary level were asked whether anyone advised them against taking vocational education at the time

when they were aged 16 to 18 and were deciding on their orientation of upper secondary education. One in six respondents who took general education (16% vs EU average of 25%) say that someone advised them against taking vocational education. The advice was most commonly given by someone in their family (11%), but also came from someone at their school (4%) or from a friend (4%).

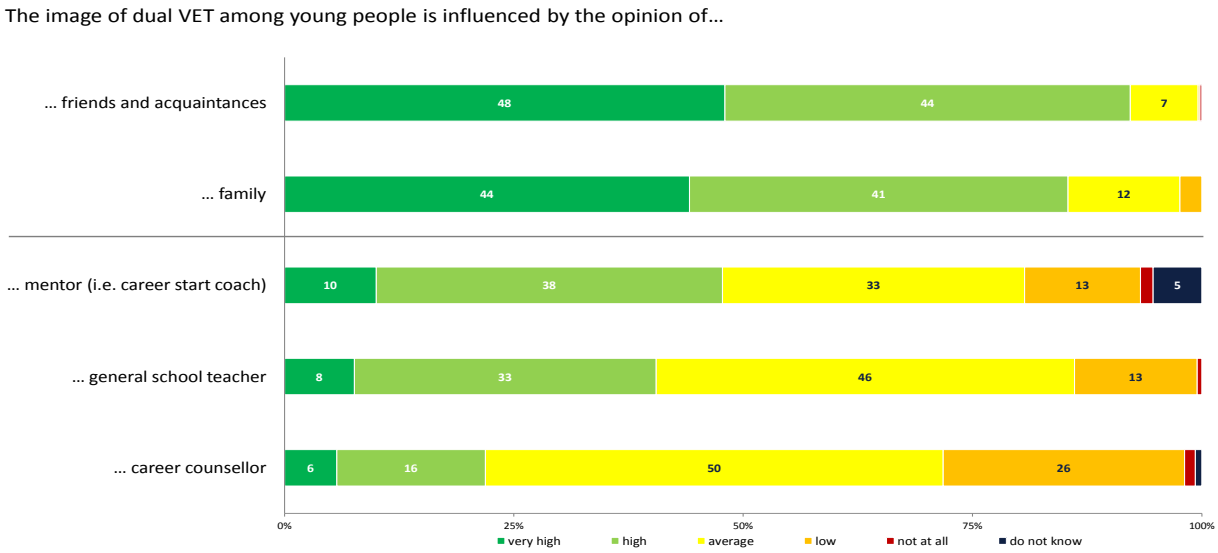
The results of the Cedefop survey in Germany show that the advice of a family member (mostly the parents) or friends influences greatly young people about to decide on their educational pathway. According to the BIBB Data Report 2010 (BIBB 2010: Datenreport 2010, Kapitel A3.2), the parents of young people are the most important source of information and support in the decision-making process of education and career orientation. This is confirmed by the BIBB data analysis of the German National Educational Panel Study (NEPS), which provides longitudinal data on educational processes and competence development. BIBB concentrates on the 'educational trajectories' of school-leavers after Grade 9, with or without a lower secondary school-leaving certificate (BMBF research project 'NEPS-BB'): Following Grade 9 at lower secondary school, slightly more than half of the sample (53%) joined a VET programme and the rest of the sample (47%) mostly joined a transitional VET preparation.

For part of the sample, not only the self-information of 9th-graders, but also their parents' survey data are available, so that their view of the career choice and application process can also be taken into account. As shown in Table A8.3-3 of BIBB Data Report 2017 (p 274), the parents of those 9th-graders who immediately started a VET qualifying programme offered significantly more often support when looking for VET provision or writing an application. They were very involved in their children's career orientation (91% vs 82% of the parents of 9th-graders who did not start VET directly). The educational preferences and estimations by the sample of 9th-graders and their parents are clearly connected. The data also confirmed the important role of friends in this transition process, as well as the significance of an in-company training during lower secondary schooling.

The outcome of a survey on the image of dual IVET carried out by the Federal Institute for Vocational Education and Training (BIBB) end of 2012 among more than 1,200 VET experts (from a range of institutions such as companies, schools, inter-company vocational training centres, chambers, employer associations, trade unions and research bodies) show similar perceptions. Figure 5 shows the influence of reference groups on the image of dual VET among young people, according to the experts interviewed (BIBB-Expertenmonitor 2012: Image der Berufsbildung in Deutschland, BIBB, Bonn,

2013). According to the experts, friends and family play a major role on the image of VET among young people.

Figure 5. Reference groups influencing the image of dual VET among young people



Source: BIBB-Expertenmonitor 2012

The Federal Ministry of Education (BMBF) published in October 2014 the results of a survey among young people on the attractiveness of dual VET (BMBF 2014: *Attraktivität des dualen Ausbildungssystems aus Sicht von Jugendlichen*, Band 17, Reihe Berufsbildungs-forschung, Bonn). According to the results, at an early stage of career orientation, parents - across all social milieus and achievement levels - are key contacts for young people when choosing an educational path. It therefore seems important to provide appropriate information to this target group in an adequate form. This is especially true for parents with a migration background, as there are often major information deficits in these milieus concerning the German education and training system. Therefore, BMBF/BIBB Jobstarter Plus published targeted information on VET and tips for parents with migration background in ten languages. Further, the school plays a central role in vocational orientation in principle. Introducing to the world of work and employment was prescribed by the conference of the education ministers of the federal states (KMK) in 1993 for lower secondary education. However, there is considerable variance (across all types of schools) in terms of quality and quantity of career guidance and transitional planning. The wide-range BMBF programme ‘Educational Chains’ (Bildungsketten, BOP) has therefore supported the career orientation in secondary schools. In-company training during

secondary education proves to be very helpful for the career decision-making process. Such measures should be developed especially in upper secondary schools ‘Gymnasien’ (preparing for higher education) since the subjects taught have little relevance to career orientation.

Furthermore, the results of an online survey among students in German universities mentioned above (BIBB 2017: WDP 183) also show the influence of family on the choice of educational path and career orientation. The students were asked which educational path their family had advised them to follow. Most of the family members advised the interviewee to take up studies after completing their school career. This applies to 63% of the sample. Only 11% of the respondents were advised by their family to start a dual apprenticeship and further 11%, to take up dual studies. This predominant position of higher education strongly depends on the parents’ own educational background.

CHAPTER 2.

Attractiveness of IVET

This chapter looks at the attractiveness of vocational education and training (VET) and its challenges in Germany. Attractiveness in VET has been defined as its capacity to encourage individuals to choose vocational education and training; offer quality qualifications that open up career prospects; persuade employers to recruit holders of VET certificates (Cedefop, 2014, p. 30). In Germany, we talk about the attractiveness of dual apprenticeship specifically, not just IVET, since it is the prevailing model: 68.1% dual apprenticeship versus 31.9% school-based IVET (BIBB Datenreport 2017, p. 96). Therefore, many studies that will be introduced in this paper will refer to the dual system. The Cedefop survey has operationalised attractiveness through a series of questions related to the image of VET and its perceived benefits. The chapter first looks at whether vocational education has a positive or negative image at national level and explores this image in more detail in relation to the labour market outcomes associated with VET. It presents data on recommendation for the next generation and on the prioritisation of VET over general education in terms of investment. In a second step, we explore the specific challenges in Germany: the attractiveness of VET in comparison to general education and the permeability of the education system ([2]).

2.1. Image of IVET in Germany

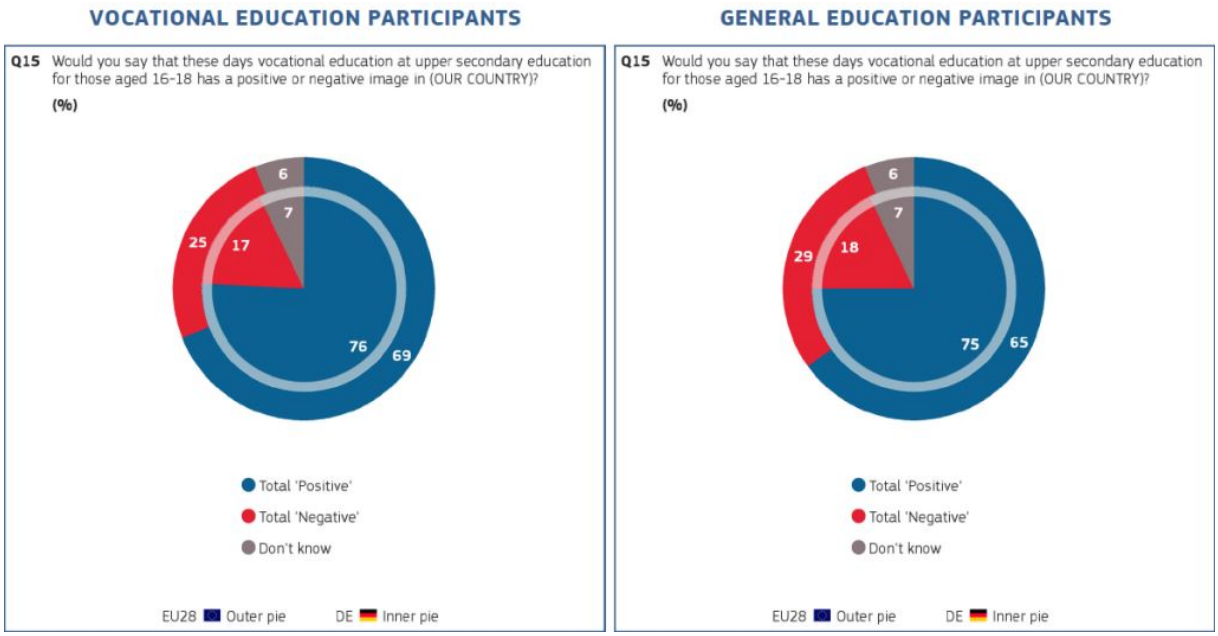
2.1.1. Vocational education image in general

The general image of IVET in Germany is clearly positive and significantly above the EU average. As Figure 6 shows, about three quarters of respondents to the Cedefop opinion survey in Germany think that vocational education at the upper secondary stage has a positive image (7 to 10 percentage points over the EU average), while only one in six say that it has a negative image (8 to 11 percentage points less than the EU average). Moreover, the proportion of

([2]) For further information about the German VET system, see Hippach-Schneider, U.; Huismann, A. (2016). *Vocational education and training in Europe – Germany*. Cedefop ReferNet VET in Europe reports; 2016. https://www.refernet.de/dokumente/pdf/2016_CR_DE.pdf

respondents with a positive image is almost identical among those that participated in VET and among general education participants.

Figure 6. Perceived IVET image in Germany and EU (VET vs GE participants)



This positive perception corresponds to the outcome of a survey on the image of dual IVET carried out by the Federal Institute for Vocational Education and Training (BIBB) end of 2012 among more than 1 200 VET experts (from a range of institutions such as companies, schools, inter-company vocational training centres, chambers, employer associations, trade unions and research bodies). Just under 70% of respondents felt that the general image of dual vocational education and training was rather positive. Additionally, around 23% of experts found the image of dual VET in Germany to be even very positive (BIBB-Expertenmonitor 2012: Image der Berufsbildung in Deutschland, BIBB, Bonn, 2013, https://expertenmonitor.bibb.de/).

The Federal Ministry of Education (BMBF) published in October 2014 the results of a survey among young people on the attractiveness of dual VET (BMBF 2014: *Attraktivität des dualen Ausbildungssystems aus Sicht von Jugendlichen*, Band 17, Reihe Berufsbildungs-forschung, Bonn). The first observation of the survey is the unbroken high affinity of young people for the dual system of vocational training (apprenticeship). An apprenticeship represents an important option for the majority of school leavers, the type/level of completed school leaving certificate being the decisive explanatory variable. Dual IVET may lose some of its attractiveness among the (relatively) growing number of school

leavers with higher education entrance qualification (Abitur), for whom the most attractive option appears to be higher education (BMBF 2014, p. 3).

The respondents to the BIBB Expert Monitor 2012 survey mentioned above had made a similar assessment: According to them, around 90% of school leavers with a lower (*Hauptschulabschluss*) or intermediate (*Realschulabschluss*) secondary school-leaving certificate have a positive to very positive opinion of dual IVET. In contrast, they estimated that only 40% of school-leavers with higher education entrance qualification (Abitur) would have a positive to very positive image of dual IVET, which still reflects a high esteem. The latest was not confirmed by the Cedefop survey, in which both GE and VET participants had a similarly positive opinion of VET.

The annual BIBB data reports illustrate this shift of image and of educational/career choice. In recent years, a so-called 'integrated education and training reporting system' (iABE) was developed to monitor the entrants in four education sectors: 1) IVET; 2) transition sector (preparation to IVET); 3) qualifying for entrance in higher education (Abitur) and 4) entering higher education. In the last decade, there has been a slight decrease of IVET entrants and a quite constant development in the number and rate of entrants to higher education following years of strong growth. 34.7% of all new entrants in 2016 opted for IVET, which is seen as part of secondary education, and 14.7% entered the pre-VET transition sector. Further, 25.4% entered a programme leading to a higher education entrance qualification and 25.2% started a higher education programme. The figures are independent from age or an age cohort, but cover all entrants in a year (BIBB-Datenreport 2017, p. 96-97).

2.1.2. Attractiveness of VET: labour market outcomes

The Cedefop public opinion survey also looked into the perceived labour market outcomes associated with IVET. As showed below, the findings clearly confirm the positive image of vocational education in Germany, particularly in terms of gaining relevant employment skills.

Nine in ten respondents in Germany agree that 'people in vocational education learn skills that are needed by employers in our country' (91%, i.e. 5 percentage points over the EU average), while only 5% disagree.

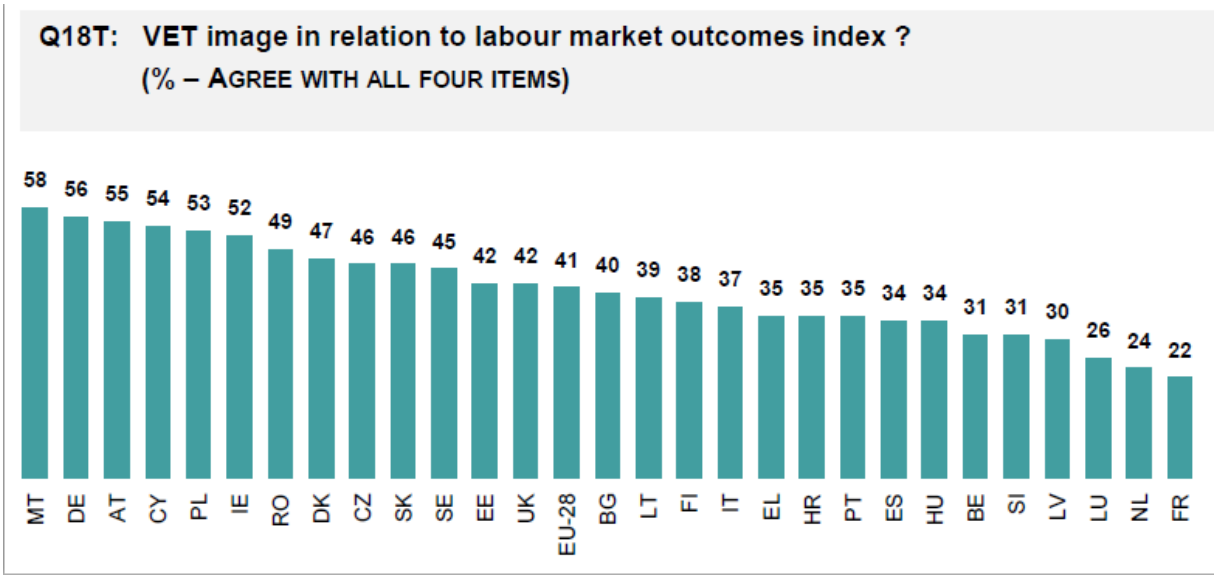
Three in four respondents in Germany agree on the other issues, while only one in five disagree:

(a) Vocational education leads to well-paid jobs (77% vs EU average of 61%);
(b) Vocational education allows you to find a job quickly after obtaining a qualification or diploma (76% - even 84% for those who participated in IVET - vs EU average of 67%);

(c) Vocational education leads to jobs that are highly regarded in our country (73% vs EU average of 60%).

Figure 7 summarises the findings of the four statements on VET and employment. It shows the proportion of respondents in each EU country that agree with all four statements. Germany is the second highest ranked country after Malta, with more than half of respondents agreeing with all four statements (56%) compared to an EU average of 41%. Among the respondents in Germany who participated in IVET, this rate even reached 64%.

Figure 7. VET image in relation to labour market outcomes index (*) in EU countries



Base: All respondents (n= 35 645).

(*) The index is created with the answers to all items in Q18: people in vocational education learn skills that are needed by the employers in [country]; vocational education allows you to find a job quickly after obtaining a qualification or diploma; vocational education leads to well-paid jobs; vocational education leads to jobs that are highly regarded in [country].

Source: Cedefop VET opinion survey.

In the BIBB Expert Monitor 2012 mentioned above (2.1.1.), the different experts were asked about the influence of labour market outcome aspects on the image of dual IVET among young people in Germany. According to the experts, the strongest influence on the image of dual IVET was attributed to the good prospects for employment owing to a dual vocational qualification: 88% of the respondents saw a positive to very positive image effect in the expected labour market chances. In the second place, 76% of respondents attributed a positive to very positive image effect to the earnings prospects following a dual vocational qualification. These results match the findings of the Cedefop survey.

Also from the perspective of today's apprentices, the core idea of the dual system - close interlocking of learning processes based on real and increasingly self-sufficient work tasks – is still very appealing (Krewerth/Beicht 2011, p. 238).

According to the IAB (Institute for Employment Research) Brief Report 20/2017, most apprentices find a work place quickly after obtaining their qualification: about 60% are taken on directly by their training company and another 20% find a workplace elsewhere without intermittent unemployment. Further 14% of dual VET graduates find a workplace within 3 months after graduating. To sum up, 94% of dual VET graduates find a job immediately or within 3 months after obtaining their qualification and only 6% of them are

unemployed for more than three months (data for 2013 and 2014). The expectations for good chances of employment owing to a dual vocational qualification are thus well-founded.

Concerning the questions on VET leading (a) to well-paid jobs and (b) to highly regarded jobs, it should be relativised depending on the occupation. In the BA/BIBB Applicant Survey, adolescents and young adults registered with the Federal Employment Agency (BA) as apprenticeship applicants are interviewed every two years. As part of the BIBB research project "Education and training orientation and decision-making of young people in the context of competing training provisions ", data from the 2014 Applicant Survey was analysed to present the expectations that young people and young adults have about certain occupations. The respondents to the 2014 survey expect a well-paid job especially as laboratory chemist (57%), media designer (45%) and medical assistant (32%). On the other end, the occupations for which high income is expected the least are baker (6%) and industrial cleaner (10%) (Source: BA/BIBB-Bewerberbefragung 2014, own calculations from BIBB research project ‘Education and training orientation and decision-making of young people in the context of competing training provisions’, in BIBB Data Report 2015, p 92).

The most highly regarded occupations according to the respondents to the 2010 applicant survey were bank clerk, office management clerk, media designer, industrial mechanic and IT system electronics technician (Source: BA/BIBB-Bewerberbefragung 2010). The results of a BIBB / Maastricht University online survey among 12 000 students in German universities in September 2015 show similar perceptions (Source: Attraktivität der beruflichen Bildung bei Studierenden, Ergebnisse einer bundesweiten Erhebung, Wissenschaftliche Diskussionspapiere WDP, Heft 183, BIBB, Bonn, 2017). In order to identify the image of dual VET in general, students were asked to rate holders of a dual apprenticeship qualification for given characteristics (ambition, education, intelligence, diligence, skill and wealth). On the one hand, students attribute a positive image to dual apprenticeship, but on the other, the dual VET paths are not very attractive for students' own educational biography. Persons with a dual VET qualification are perceived as especially hardworking, ambitious and skillful. In order to give the image analysis of dual apprenticeship more detail, the semantic differential was also applied to individual occupational fields. The surveyed students rated the image of the IT specialist most positively, followed by the medical assistant. The industrial cleaner and hairdresser occupations were attributed the worst image. As among pupils, skilled trades have a worse image among students than occupations in industry and commerce.

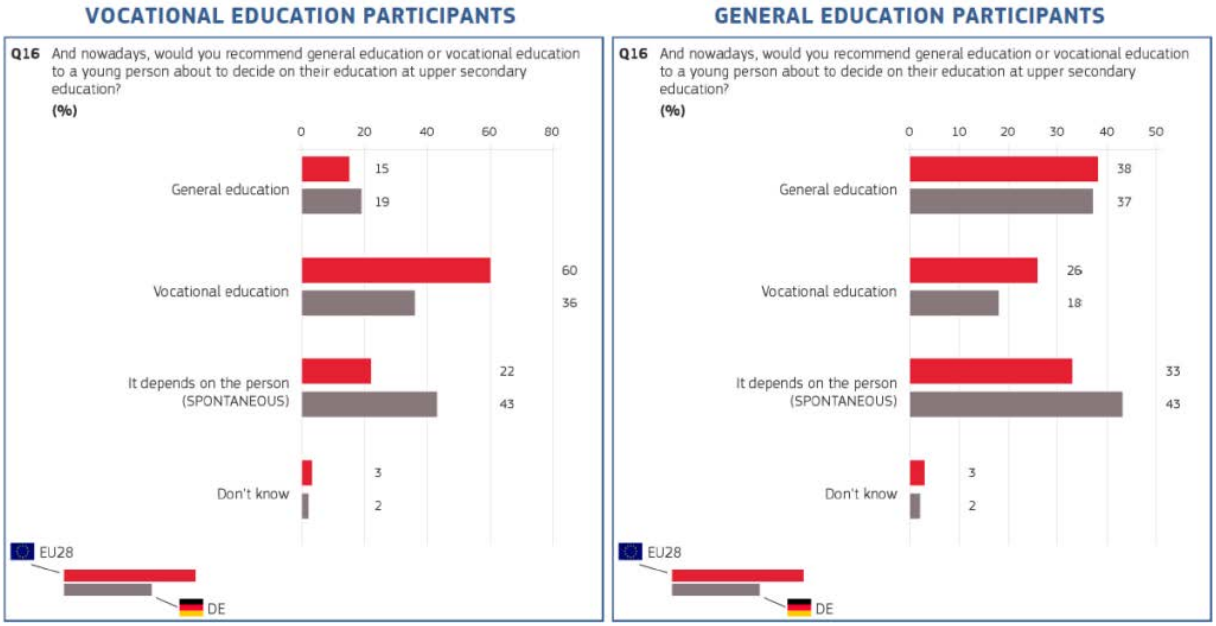
2.1.3. Recommendations for the next generation

The Cedefop VET opinion survey also explored the issue of attractiveness in terms of likelihood of recommending VET. Respondents were asked whether they would recommend general education or vocational education to a young person about to decide on their education at upper secondary level.

Interestingly, in Germany, only one third of respondents who went on vocational education themselves said they would recommend vocational education to a young person about to enter upper secondary education (36% versus a much higher EU average: 60%) rather than general education (19% vs EU average of 15%). As shown in Figure 8, a symmetric reverse pattern was found among respondents who followed general education, where 37% (similar to EU average: 38%) said they would recommend general education compared to 18% (8 percentage points lower than EU average: 26%) who would recommend vocational education.

Unlike in most EU countries, the respondents in Germany from both VET and GE backgrounds answered (without prompting) that such a recommendation mostly depended on the person concerned (41% of total responses versus a much lower EU average of 28%). This result could indicate that in Germany, due to a more positive context, such a recommendation is freer from image problems and labour market considerations. Ideally, such a choice should in fact primarily depend on the person and its talents and interests.

Figure 8. Recommending VET or GE to young people (VET vs GE participants)



The views of respondents in Germany about prioritising governmental funding in VET or GE show that this is not as big an issue as in most EU countries. Only one third of respondents in Germany (36% versus a much higher EU average of 49%) say that the national government should prioritise investment in vocational education over general education, while, untypically, the same proportion (36% versus a much lower EU average of 28%) thinks that general education should be prioritised. Respondents who followed vocational education themselves at upper secondary education are more likely than those who did general education to favour investment in vocational education (43% vs EU average of 69% compared to 26% vs EU average of 40%).

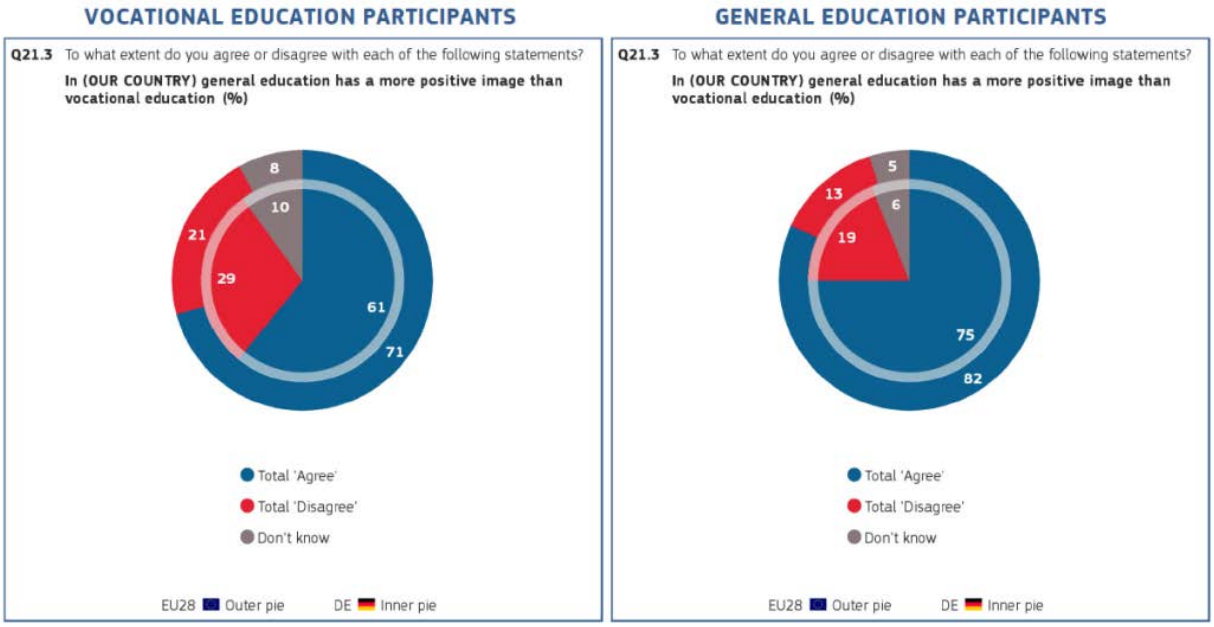
This result is not surprising in the light of the national context. The German dual VET system is based on a close cooperation between employers, trade unions and the government (at state and national level). The training companies finance the in-company apprenticeship. The federal states fund the vocational schools (mainly teachers' salaries) and the local authorities provide equipment and infrastructures. The federal government finances support measures for the improvement and promotion of the apprenticeship system. Even if all four parties involved are already investing in VET, some perceived potentials for improvements are detailed in the next chapter.

2.2. Challenges for attractiveness of IVET

2.2.1. VET image in comparison with general education

Even in Germany where IVET has a positive image and proves to be an important option for young people, most respondents agree that 'general education has a more positive image than vocational education', but to a lower extent than in other EU countries (65% - nine percentage points under the EU average of 74%). As shown in Figure 9, this applies in particular to respondents who went to general education themselves (75% vs EU average of 82%). However, those who participated in vocational education are also likely to agree with the statement (61%, but ten percentage points lower than the EU average of 71%). The proportion of respondents who disagree with such a statement is relatively high: 23% versus an EU average of 16%.

Figure 9. Image of VET compared to GE (VET vs GE participants)



The better image of general education compared to vocational training has historical roots (Rothe, 2011): a "neo-humanistic understanding of education" in 1900 strictly separated education and training and disregarded manual and other "low-level work". This historically conditioned "educational schism" (Baethge, 2006) consists in the institutional segmentation of general education and vocational training and a separation "between a higher general education lacking of practical relevance and a vocational training lacking of educational background" (ibid., p. 20).

As shown in a survey on the attractiveness of dual IVET (BMBF 2014), a large proportion of young people with higher education entrance qualification, for whom dual apprenticeship is an option in the first instance, ultimately decide on a course of study. Studying offers a number of advantages compared to dual IVET: a later ‘status passage’, more career options, better prospects of higher income and leading position and a much lower risk of unemployment (ibid., p. 22-23). Nonetheless, more than one in four new apprentices is holder of a higher education entrance qualification and this share has been constantly increasing in the last decade: from 20.3% in 2009 to 27.7% in 2015 (Source: ‘Datenbank Auszubildende’ in BIBB Data Report 2017, p. 142).

As already detailed in 2.1.1, there has been a slight decrease of IVET and a stagnation in the entrants rate to higher education following years of growth, mostly due to the relatively growing number of school-leavers with higher education entrance qualification. On the other hand, tertiary studies with more practical relevance, so-called dual study programmes, are being developed and

increasingly successful (refer to Hippach-Schneider; Huismann: VET in Germany 2016, p. 16-18).

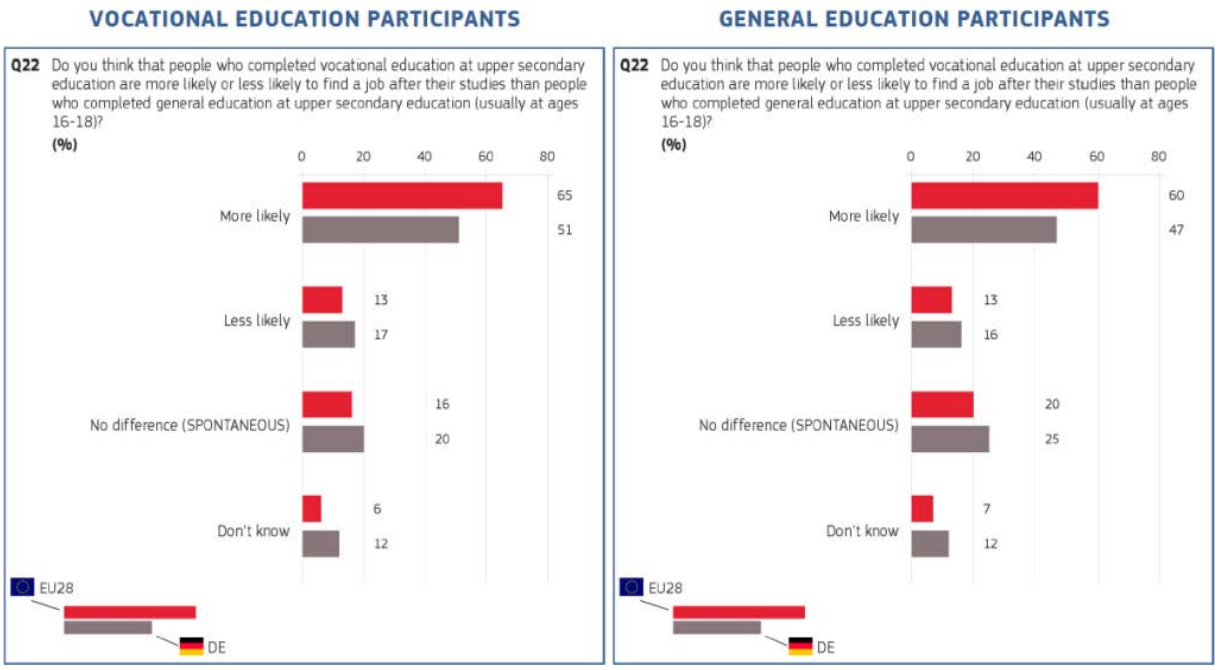
Comparing the image of VET with general education, the Cedefop opinion survey examined respondents' views on academic performance. They asked how much respondents agreed with the following statement: 'pupils with low grades are directed towards VET'. As in other EU countries, a clear majority see VET as a path for lower secondary pupils with low grades: Three in four respondents in Germany (same as EU average of 75%) agree with this statement, while 12% disagree. Those who went through general education are more likely to agree than those who went through vocational education (83% compared with 73%). However, the answer to this question does not automatically allow drawing conclusions on the image of VET, as the question and its interpretation may be biased by the "neo-humanistic understanding of education' mentioned above. Again, the share of new apprentices with a higher education entrance qualification (who can be considered as 'pupils with high grades' in the sense of the opinion survey) is on the rise in Germany, with almost 30% in 2015. This shows that in Germany, VET and general education are less seen in a vertical hierarchy but rather as equivalent although different options.

According to the respondents to the BIBB Expert Monitor 2012 survey mentioned in 2.1.1, around 90% of school leavers with a lower or intermediate secondary school-leaving certificate have a positive to very positive opinion of dual IVET. In fact, they represent the main target groups of dual IVET in Germany. They may have and develop different competences and get high grades in these practical subjects. This is also an important argument for school-leavers with higher education entrance qualification, together with the fact that apprentices are remunerated (training allowances).

Moreover, comparing the image of VET with general education, the Cedefop opinion survey examined respondents' views on the ease of obtaining a qualification. About half of respondents in Germany (54% vs EU average of 63%) agree that it is easier to get a qualification in vocational education than in general education, while 29% disagree. Responses on this issue are very similar between those who did vocational education and those who did general education at the upper secondary stage. Here again, the results would differ according to the occupation. As detailed in 2.1.2, the results of a BIBB online survey among students in German universities suggest this (BIBB, WDP 183, 2017). Germany has a vocational training sector, which prepares partly for very demanding occupational activities, for which a bachelor's degree has to be completed in other countries (VHU, 2014).

As shown in Section 2.1.2, the connection between VET and labour market outcomes seems relatively strong, with most respondents in Germany believing that VET has a positive impact on labour market issues: providing the skills that employers need, offering the possibility of finding a job quickly or providing well-paid jobs. This is confirmed by the outcomes of the Cedefop survey. A high rate in both groups (VET and GE participants) think that people who completed vocational education are more likely to find a job than those who completed general education at secondary level. However, the rates are lower in Germany than the EU average: 51% of respondents who took vocational education agree with this versus an EU average of 65%, while the proportions are only slightly lower among those who took general education (47% vs EU average of 60%). In both groups, at least one in five respondents say (spontaneously) that there is no difference between the two types of education: 20% (vs EU average of 16%) among those from vocational education, and 25% (vs EU average of 20%) of other respondents.

Figure 10. Likelihood of finding a job (VET vs GE participants)



The fact that participants in VET are more likely to find a job than those who complete general education seems logical, as general education usually prepares students to continue to further education. However, when respondents were asked to compare the work prospects of people who complete IVET with those who go on to complete higher (tertiary) education, respondents in Germany, unlike in most EU countries, do not consider VET as providing better

employment prospects in this case. Just one in three respondents in Germany (32% vs EU average of 40%) thinks that people who complete vocational education are more likely to find a job than those who go on to higher education, while 26% (even 34% of GE participants) think they are less likely to find a job, 24% say there is no difference, and 18% do not know.

This different perception compared to most EU countries can be explained by the labour market situation for young people in Germany: a relatively balanced relation in supply/demand of qualifications (about half an age cohort opts for IVET and half for a tertiary qualification) with a low youth unemployment rate (lowest in the EU). According to the Micro-census survey 2015, the surveyed unemployment rate ('*Erwerslosenquote vs. Arbeitslosenquote'*: refer to BIBB Datenreport 2017, p. 308) among the age group 18-34 was 6.3% in total. Among those with a dual IVET qualification, this rate was 4.7%; among those with a university degree, this rate was even lower: 2.7% (and even lower with a tertiary vocational qualification as Meister or Techniker: 1.4 %) (BIBB Data Report 2017, p. 309).

2.2.2. Permeability in VET

Another aspect that can contribute to the attractiveness of VET is the permeability of the education and training system, which means that a learner is able to move from one type of education to another and between different levels. Addressing this attractiveness issue has been considered a priority in the last decade in Germany (refer to recommendations and statements of the BIBB main board on the annual VET reports3). The Cedefop survey examines permeability issues through two questions: first, asking if the respondents think it is easy for someone doing VET to change to general education; then if they think, it is possible for VET students to continue to higher education.

As in most EU countries, views are divided in Germany as to whether it would be easy for someone aged 16-18 who had started vocational education to

---

([3]) For example:

- Empfehlung des Hauptausschusses des Bundesinstituts für Berufsbildung zur Förderung der Durchlässigkeit zwischen beruflicher und hochschulischer Bildung (139). Bonn 2010
- Stellungnahmen des Hauptausschusses des BIBB zum Entwurf des Berufsbildungsberichts der letzten Dekade
- Durchlässigkeit im Bildungssystem – Möglichkeiten zur Gestaltung individueller Bildungswege, Autor: Christian Vogel, BIBB, Bonn, 2017
- https://www.foraus.de/html/foraus_5517.php

switch to general education: two in five respondents (38%) say that it would be easy, but the same proportion (total: 38%; in the group of GE participants: 45%) think it would be difficult. The total share of 'don't know' responses is particularly high: 24% (vs EU average of 17%; but in the groups of GE and VET participants, the shares are lower: 17% and 20%). This may suggest that part of the respondents are not aware of the possibilities to move from VET to GE upper secondary education or that changing between the two pathways in secondary education is not a key issue in reality. For students in upper secondary general education it is simple to change to a VET pathway. For an apprenticeship, they just need a contract with a company. On the other way around, if apprentices opted for the IVET pathway, they mostly did this because they wanted to learn in practice and earn money while learning. There is no strong demand to change to the general school pathway, since apprenticeship also includes general and technical subjects at VET schools.

Germany does not have one federal school system but 16 state-controlled systems. Moreover, in contrast to school systems in other EU countries, 4th-graders in Germany choose between different types of schools upon entering secondary level. Most federal states have a three-tier or a two-tier system. Recent reforms have resulted in a multi-track school landscape with 22 variations of secondary schools in Germany and only the Gymnasium (academic and university oriented) exists in all 16 federal states. In the case of a three-tier system, it is not uncommon for school-leavers of lower secondary (*Hauptschule*; the most VET oriented) to join the last year of intermediate secondary school (*Realschule*; also VET oriented) and complete the intermediate secondary school-leaving certificate. As a further step after obtaining the intermediate certificate, it is possible to prepare the higher education entrance qualification (*Abitur* or *Fachabitur*), but this is more difficult and complicated, and thus less common. As concluded in a 2012 study on permeability in secondary schools in Germany ([4]), 'chances to ascend, i.e. change to a more academically demanding school, are rare in the German school system'.

As regards the second question, more than half of respondents in Germany (55% vs EU average of 54%) agree that 'it is easy to continue into higher education such as university after vocational education at upper secondary education', while 25% disagree (vs EU average of 31%). As in the previous question on permeability, the total share of 'don't know' responses is high: 20%

([4]) Bellenberg, G.: *Schulformwechsel in Deutschland – Durchlässigkeit und Selektion in den 16 Schulsystemen der Bundesländer innerhalb der Sekundarstufe I*; Bertelsmann Stiftung, 2012.

(vs EU average of 15%; but in the groups of GE and VET participants, the shares are considerably lower: 8% and 15%). Again, this may suggest that part of the respondents are not aware of the possibilities to continue into higher education such as university after completing a VET qualification at upper secondary level.

The relatively high share of respondents agreeing with the statement, especially among the groups with vocational or general upper secondary education (61% and 62%), may be explained by the fact that a significant share of dual VET graduates in Germany already obtained a higher education entrance qualification before starting IVET. In 2015, 27.7% of all new apprentices had a higher education entrance qualification (BIBB Datenreport 2017, p. 142). Even without the latter, it is possible to study in Germany. In order to harmonise and improve their access to university, the *Kultusministerkonferenz* (assembly of ministers of education of all federal states) introduced in 2009 new admission requirements for IVET graduates without higher education entrance qualification. Masters (Meisters) or someone with comparable further VET qualification, as well as individuals who have a vocational qualification and at least three years of experience in that vocation or the equivalent, can be entitled to access, without exams, to those courses of study that relate to their vocation.

Differences subsist between the federal states with 16 different ordinances for university admission but access has been improved and the share of university students without higher education entrance qualification has increased since 2010, even if it remains at a very low level (2015: 2.5% of new students)5. A website gives detailed and updated information: www.studieren-ohne-abitur.de. Moreover, two initiatives have been supporting projects committed to improve the permeability between VET and higher education: the BMBF initiative ANKOM (http://ankom.dzhw.eu/) and a common initiative between BMBF and the federal states on 'Advancing through education: open universities' (www.wettbewerb-offene-hochschule-bmbf.de). The demand for a greater permeability between VET and higher education is often associated with the demand for a fundamental revaluation of VET compared to university education. The EQF and the DQR offer the possibility of such equivalence through strict competence orientation (BIBB, Vogel, 2017, p. 19-25).

Regarding a survey question on international mobility prospects, six in ten (59% vs EU average of 67%) respondents who did vocational education themselves agree that vocational education provides opportunities to study or

(5) Sigrun Nickel; Nicole Schulz: Update 2017: Studieren ohne Abitur in Deutschland - Überblick über aktuelle Entwicklungen, CHE Arbeitspapiere 195, March 2017. www.studieren-ohne-abitur.de

work abroad. Those who did general education at the upper secondary stage are surprisingly even more likely to agree (69% vs EU average of 58%). In the BIBB Expert Monitor 2012 already mentioned in 2.1.1, the different experts were asked about the influence of several process-related measures on the image of dual IVET among young people in Germany. According to 62% of the experts, a greater promotion of stays abroad during apprenticeship would have a positive influence on the image of dual IVET. In fact, according to the National Agency Erasmus+ at BIBB, the numbers of apprentices staying abroad with Erasmus+ has considerably increased in the last two decades with a new peak in 2016: 19 022 apprentices obtained Erasmus+ funding for a stay abroad, which corresponds to an estimated share of 4.5% of all IVET learners. The aim is to increase this share to 20% until 2020 (Jahresbericht 2016, www.na-bibb.de).

CHAPTER 3.

Experience with upper secondary education

Chapters 1 and 2 showed perceptions of vocational education and training (VET). This chapter examines respondents' experience of their upper secondary education. Aspects surveyed include mode of delivery (whether it had any work-based components), respondent's satisfaction with specific aspects of education, and skills developed.

3.1. Mode of delivery: school versus workplace

As expected, general education is more likely to occur fully in a school environment, while VET is more likely to include work-based components. As in most EU countries, respondents in Germany reporting upper secondary education with a general orientation mostly say that all of it took place at school (87%).

Findings are substantially different for respondents in Germany reporting upper secondary education as primarily vocational. Nine in ten (88% vs EU average of 56%) say that this education took place at least partly in the workplace. Specifically, 46% (versus much lower EU average of 13%) say it was mostly in the workplace and partly in school, 31% (versus much lower EU average of 18%) say it was split equally between school and workplace, while only 10% (vs EU average of 24%) say that it took place mostly at school and partly in the workplace. Just one in ten respondents (11% vs much higher EU average of 43%) who went on vocational education say that this took place entirely at school, while 1% say that it was all in the workplace.

The results described above illustrate the importance of in-company training in Germany, the so-called dual system of apprenticeship, combining two learning venues: learning at a vocational school (time-share of approx. 30%) and learning at the workplace (about 70%). Approximately 70% of VET learners are in such a dual apprenticeship (BIBB 2017: Data Report 2017, *integrierte Ausbildungsberichterstattung* – iABE, p 96).

3.2. Satisfaction with different aspects of education

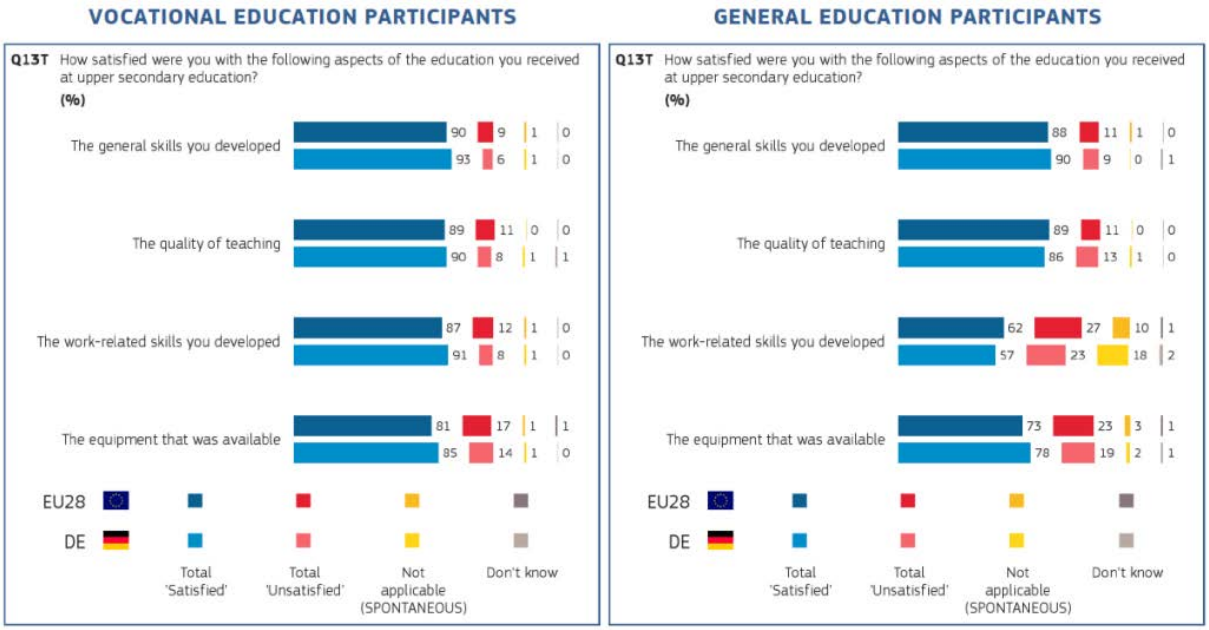
This section examines levels of satisfaction with vocational and general education at upper secondary level, in relation to the quality of teaching, the skills

developed and the equipment available. Respondents were asked how satisfied they were with various aspects of their upper secondary education. Most respondents were overall satisfied with most of the aspects prompted, irrespective of their educational orientation, but VET participants were generally even more satisfied.

Around nine in ten respondents in Germany (as in the EU) say they were satisfied with the general skills they developed and the quality of teaching. On both of these criteria, satisfaction levels are slightly higher among respondents who followed vocational education than among those from general education: 93% and 90% respectively in relation to the general skills they developed, and 90% and 86% respectively in relation to the quality of teaching.

There is an expectable discrepancy (34 percentage points in Germany vs 25 in EU average) between the two groups regarding their satisfaction with the work-related skills developed. Among those from vocational education, 91% were satisfied, considerably higher than those who followed general education (57%). Those who followed vocational education were also more likely to be 'very satisfied' with the work-related skills they developed (49% compared with 18% of those from general education). Remarkably, respondents from vocational education in Germany (as in the EU) were also more satisfied with the equipment that was available: 85%, compared to 78% of those from general education. It might be interesting to learn if the VET respondents refer to VET school equipment or the learning equipment in the companies, see Figure 11.

Figure 11. Satisfaction with aspects of education (VET vs GE participants)



Across the four items covered in the Cedefop survey, Germany, like some other EU countries (Finland, Bulgaria, Slovakia, UK), has consistently high levels of satisfaction among respondents who followed upper secondary vocational education. Among the respondents in Germany, 78% of VET participants were satisfied with each of the four aspects of their education versus only 44% of general education participants.

In the 2017 apprenticeship report of the Confederation of German Trade Unions youth department (DGB-Jugend: Ausbildungsreport 2017, Deutscher Gewerkschaftsbund Jugend), 71.9% of respondents were generally satisfied with their apprenticeship. More than 12,000 apprentices (from the 25 most common occupations according to BIBB) participated in the survey. As every year, four topics were examined (overtime in training company; apprenticeship allowance; professional quality of in-company training and personal assessment of apprenticeship). Additional focus in 2017 was the quality of instruction in the second learning venue of the dual VET system: vocational schools. 58% of respondents consider vocational school instruction to be of good to very good professional quality. Less apprentices (50.4%) feel well prepared by their vocational school at upper secondary level for the theoretical final examination. Three surveyed aspects influence significantly (strong linear correlation) the assessment of learning quality at vocational schools: the availability of equipment, the close coordination between school and training company, and the learning atmosphere in the school class. Only two third of respondents (68.1%) reported that the necessary equipment was always or mostly available at their vocational school. Further, only half of respondents (49.6%) think that the coordination between school and training company is good to very good.

The respondents to the BIBB Expert Monitor 2012 survey already mentioned previously came to a similar assessment regarding the quality of teaching. 84% think that a greater professionalisation of training staff and 81% say that a better coordination of curricula between vocational school and training company would have a positive to very positive effect on the image of dual VET among young people.

These results are in contrast to the feedback from university students in Germany. Regarding the satisfaction with work-related skills, 40.5% of respondents to the BIBB / Maastricht University online survey among students in German universities are dissatisfied or rather dissatisfied with the professional and practical relevance of their studies. This has a strong linear relationship (correlation) to general study satisfaction (Source: Attraktivität der beruflichen Bildung bei Studierenden, Ergebnisse einer bundesweiten Erhebung, Wissenschaftliche Diskussionspapiere WDP, Heft 183, BIBB, Bonn, 2017).

3.3. Development of key competences in education

This section explores the self-perceived acquisition of the key competences defined by the European Commission to be delivered at the end of initial education and consisting of the 'knowledge, skills, and attitudes that will help learners find personal fulfilment and, later in life, find work and take part in society' (European Commission: Education and training: Key competences). In addition to these eight key competences, the Cedefop survey examines aspects such as 'the ability to be creative', 'to think critically' or 'to work with others'.

In Germany, proportions of VET and GE participants who reported having acquired key competences during upper secondary education are similar in technical-related competences (science and technology, digital and computer skills) as well as the ability to think critically, to pursue and organise one's own learning and communication skills. Major differences are in relation to speaking a foreign language and cultural awareness.

VET participants are most likely to say that they developed the ability to work with others (96% vs EU average of 87%), followed by the ability to pursue and organise their own learning (87% vs EU average of 76%) and communication skills (86% vs EU average of 75%). Slightly smaller proportions of them say that they developed mathematical skills (77%), a sense of initiative and entrepreneurship (76%), as well as the ability to think critically (80%) and to be creative (75% vs EU average of 70%).

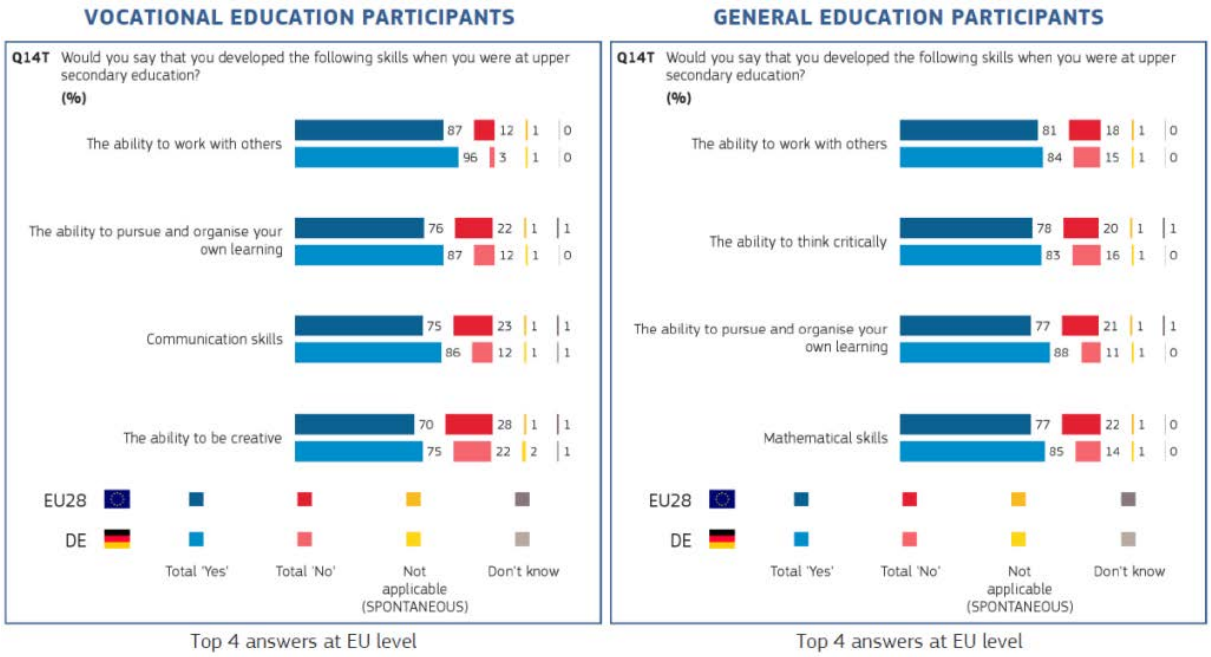
Further, VET participants were slightly less likely to say they developed science and technology skills (62%) and social and civic competences to engage in active democratic participation (55%). Less than two in five respondents who followed vocational education say that they developed the following skills: speaking a foreign language (38% vs EU average of 44%), digital and computer skills (40%) and cultural awareness (32% vs EU average of 40%).

The largest differences in perceived skills development between general education respondents and those from vocational education are in relation to speaking a foreign language (87% compared with 38%) and cultural awareness (69% compared with 32%). These discrepancies are larger in Germany than in the EU average. Respondents from general education are also more likely than VET participants to say that they developed social and civic competences (69% compared with 55%), mathematical skills (85% compared with 77%) and digital and computer skills (47% vs 40%).

By contrast, vocational education respondents are more likely than those from general education to say that they developed the ability to work with others (96% compared with 84%), a sense of initiative and entrepreneurship (76% compared with 67%) and the ability to be creative (75% compared with 69%).

These results seem to reflect the different objectives and features of the two pathways as well as the different vocational areas of IVET, where the needed competences vary.

Figure 12. Perceptions of development of key competences in education (VET vs GE)



CHAPTER 4.

Outcomes and effectiveness of VET

This chapter explores VET outcomes and effectiveness. First, respondents express their views on how VET contributes to strengthening the economy, combating unemployment and social exclusion. Then, all respondents that reported to be working, unemployed or retired answer questions relating to their labour market situation, career satisfaction and further education and training.

4.1. Vocational education in society

This section examines perceptions of the role of VET in society in Germany. There are high levels of agreement with each of three statements about VET in society (always above EU-average), indicating that respondents in Germany believe it brings many benefits.

Respondents in Germany generally agree that vocational education and training plays an important role in society, specifically by strengthening the country's economy (92% agree vs EU average of 84%), reducing unemployment (86% agree vs EU average of 80%) and tackling social exclusion (82% agree vs EU average of 78%). Levels of agreement are very similar between those who did vocational education and those who did general education at the upper secondary stage.

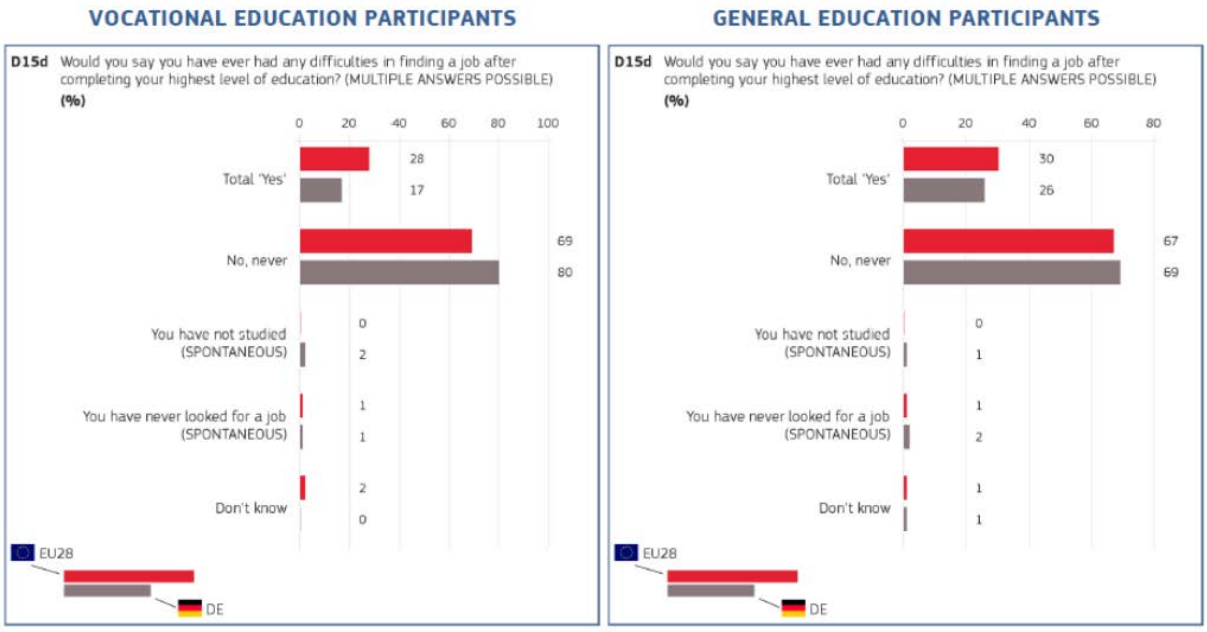
These findings fit in the historical and societal context of VET in Germany. As reflected by BIBB's former Head of Research, Reinhold Weiß, the German dual VET system has evolved over many decades and is embedded in the culture of the enterprises and of society as a whole. Society's appreciation and the career objectives that can be achieved through VET are unique selling points. The goal at all times is to integrate young people into the world of work through initial and continuing education and training and to facilitate skilled employment. (Weiss, R. 2013: BWP 3/2013: History of Vocational Education and Training).

4.2. Finding a job after studying

Respondents who were in employment, unemployment or retired were asked whether they had ever experienced any difficulties in finding a job after completing their highest level of education. Just under a quarter (23% vs EU average of 27%) reported having had difficulties of some kind, while more than

two-thirds (70%) say that they never had difficulties. The remaining 7% reported either having never looked for a job, not studied at all, or do not know. In Germany, the proportion of respondents that had difficulties is significantly lower for those from vocational education (17% vs higher EU average of 28%) than for those from general education (26% vs EU average of 30%) at the upper secondary stage.

Figure 13. Difficulties in finding a job (VET vs GE participants)



These findings on VET participants coincide with German sources: According to the IAB Brief Report 20/2017 (Institute for Employment Research; data for 2013 and 2014), most dual VET participants (apprentices) find a work place directly or within a month after obtaining their qualification, so presumably without any difficulties. For 19% of them, finding a job appears to be more difficult and they are unemployed for more than one month. However, less than 6% seem to encounter bigger difficulties by being unemployed four months and longer (for more details see below).

However, the Cedefop findings concerning the GE participants, most of whom continued at tertiary level, are not confirmed by national surveys: They do not seem to encounter more difficulties in finding a job than VET participants do, on the contrary. According to the Micro-census survey 2015, the surveyed unemployment rate ('*Erwerslosenquote vs*. *Arbeitslosenquote*': refer to BIBB Datenreport 2017, p. 308) among the age group 18-34 was 6.3% in total in Germany (but higher in East than West). Among those with a dual IVET

qualification, this rate was 4.7%; among those with a university degree, this rate was even lower: 2.7%. The lowest rate of all is for people with vocational higher education as Meister or Techniker, which is only 1.4 % (BIBB Data Report 2017, p. 309).

The Cedefop survey looked in more detail at the respondents (23%) who say that they have experienced difficulties in finding a job after completing their highest level of education by asking the reasons why respondents had difficulties (multiple answers were possible). Respondents are most likely to say that their difficulties were due to lack of relevant work experience (5% vs much higher EU average of 10%), that their skills were considered too low (4% vs EU average of 5%) and that they lacked the required qualifications or diplomas (2% vs EU average of 5%). Some respondents had difficulties relating to personal issues (3%) or health issues (3%), while a range of other reasons was also given (by 10%).

In a second step, respondents who were either working, in unemployment or retired were asked how long it took them to find their first long-term job after completing their main studies.

Most respondents in Germany whose upper secondary education was primarily vocational say that it took them no more than a month to find a long-term job after completing their main studies (80% vs EU average of 60%). In Germany, a clear majority even found a job before the end of their studies (58% vs much lower EU average of 30%) compared to those who found a job within one month of finishing their main studies (22% vs EU average of 30%). Only one in ten respondents from vocational education (10% vs EU average of 24%) say that it took between a month and a year to find a long-term job, while 6% (vs EU average of 9%) say that it took a year or more.

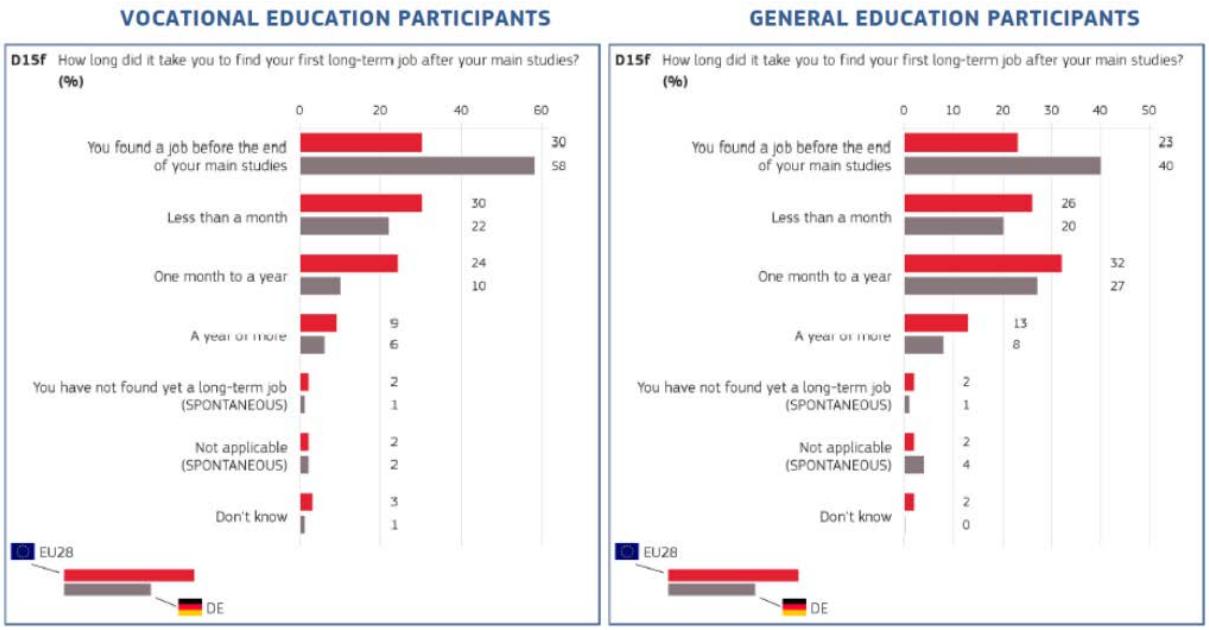
These findings on VET participants coincide approximately with German sources: According to the IAB (Institute for Employment Research) Brief Report 20/2017, 81% of apprentices find a work place directly or within a month after obtaining their qualification: About 60% are taken on directly by their training company and another 21% find a workplace elsewhere without intermittent unemployment. Further 14% of dual VET graduates find a workplace within one to three months after graduating. To sum up, 94% of dual VET graduates find a job immediately or within three months after obtaining their qualification and only 6% of them are unemployed for more than three months (data for 2013 and 2014).

Respondents whose upper secondary education was primarily general typically took longer to find a job after their studies. Two in five (40% vs much lower EU average of 23%) found a job before the end of their studies, while one

in five (20% vs EU average of 26%) say it took less than a month. More than one in four (27% vs EU average of 32%) took between a month and a year, while 8% (vs EU average of 13%) took a year or more to find a long-term job. This means that three in five (60% vs EU average of 49%) found a job within a month of ending their studies, less than for respondents from vocational education (80% vs EU average of 60%).

Again, these Cedefop findings concerning the GE participants, most of whom continued at tertiary level, do not seem to be confirmed by national surveys. As already mentioned, according to the Micro-census survey 2015, they seem to encounter even less difficulties in finding a job. The 2016 statistics of the Federal Employment Agency (*Statistik der Bundesagentur für Arbeit; Berichte: Blickpunkt Arbeitsmarkt - Akademikerinnen und Akademiker, Nürnberg*, July 2017, p. 29) with data on length of unemployment confirm this: Holders of university degrees finish unemployment even faster than VET graduates, especially long-term unemployment (one year and longer). Among unemployed with university degree in 2016, 12% were long-term unemployed compared to 17% among unemployed with VET degree.

Figure 14. Time lapse before finding a job (VET vs GE participants)



4.3. Career satisfaction

Most respondents to the Cedefop opinion survey in Germany say that they are satisfied with their professional career. Among respondents who were employed,

unemployed or retired at the time of the survey, six in seven (86% vs EU average of 81%) answer that they are satisfied with their career. This proportion is very similar among respondents whose upper secondary education was primarily vocational (90% vs EU average of 84%) and those who went on general education (91% vs EU average of 85%).

4.4. Further education and training

This section looks at respondents' experience of further education and training; specifically whether they continued studying at a higher level of education after finishing upper secondary education, and (if so) whether it was primarily vocational or general; and whether they have recently been on any work-related training.

4.4.1. Continuing to higher level education

In the German context, 'higher level education' used as an equivalent to 'tertiary education' comprises higher education at universities and universities of applied sciences as well as higher or advanced vocational education. Therefore, it is not clear what the respondents refer to when answering the questions. This has to be considered when interpreting the outcomes of the Cedefop opinion survey.

Respondents in Germany who finished upper secondary education were asked whether they continued studying at a higher level. Among those whose upper secondary education was primarily general, more than two-thirds (70%, similar to EU average of 72%) say that they continued to a higher level of education: 55% obtained a diploma or qualification, while 5% did not complete their higher education and 10% were currently attending higher education at the time of the survey. This is not surprising since general upper secondary education in Germany (for example in a Gymnasium) prepares to the higher education entrance qualification (*Abitur*).

Respondents who followed vocational education at upper secondary level were less likely to continue to a higher level of education (39% as EU average): 33% obtained a diploma or qualification, while 3% did not complete their higher education and 3% were currently attending 'higher level education' at the time of the survey. Presumably, in this case, most respondents refer to advanced vocational education, because after acquiring any IVET qualification there is the option to proceed with advanced vocational programmes in order to facilitate a professional career without academic qualification. It is an established and recognized alternative educational pathway to all higher levels of the German qualifications framework. The rate of 39% seems realistic since VET at upper

secondary level in Germany consists mostly in apprenticeship, which already prepares to enter directly the labour market by providing a complete professional qualification.

Respondents in Germany who continued to a higher level of education did not always stay with the same type of education as they had at the upper secondary stage. Among those, whose upper secondary education was primarily vocational, 78% (vs EU average of 82%) went on to a higher level of education that was also vocational, while 19% (vs EU average of 17%) switched to general education. In contrast, there was much more crossover among respondents whose upper secondary education was general. More than half (55% vs much lower EU average of 36%) moved on to 'higher level education' that was primarily vocational, while only 44% (vs EU average of 63%) stayed in education that was primarily general. It might be that a substantial part of these crossovers actually started an apprenticeship or another IVET programme after having completed general upper secondary school with a higher education entrance qualification. This is quite common in Germany and although IVET is categorised in upper secondary, it is still considered as a further level of qualification.

4.4.2. Work-related training

Around one in five respondents (18% vs EU average of 21%) whose upper secondary education was primarily vocational say that they have participated in work-related training in the previous 12 months. This proportion is slightly higher (26% as EU average) among those went on general education, but is much lower (EU average of 9%) among those who did not go to upper secondary education at all. Since the Adult Education Survey (AES) uses a broad definition of work-related training, the reported participation rates in 2014 are much higher than in the Cedefop survey and are not directly comparable. However, they are showing the same pattern depending on the type of education: 40% of IVET graduates took part in a work-related training in 2014 compared to 57% of university graduates. Here again, respondents without formal qualification have the lowest rate of participation at 29%. Remarkably, the highest participation rate in work-related training is found among graduates of higher VET as Meisters (BIBB 2016: Datenreport 2016, p 299).

Respondents who had been on work-related training in the previous 12 months were asked about the reason for taking part in their last training. Among respondents in Germany, the main reason by far was career development (64% vs EU average of 40%). This is followed by the acquisition of new skills (55%, similar to EU average of 51%) and updating existing skills (41% vs EU average of 50%), while only 5% (vs EU average of 8%) say that, it was to change career. In

Germany, these responses are similar among VET and GE participants, career development being by far the main reason in both groups (62% and 67% respectively). However, GE participants are more likely to say that their last training was to update existing skills (45% vs VET participants with 33%).

In fact, many human resources managers value the specific competence profile acquired during work-related training and such upgrading courses are leading to interesting development possibilities (Esser, F.H. Strengthening and raising the profile of vocational education and training. In BWP 5/2017, Career in the company, BIBB, Bonn).

CHAPTER 5.

Conclusion

In general, many outcomes of the Cedefop opinion survey coincide with results of national surveys and reflect the actual situation in Germany. The article highlighted the findings, which do not correspond to national sources.

The main suggestion for the future waves of the Cedefop opinion survey would be to clarify and revise the definitions used, especially the main definition on IVET. The definitions should be adapted to the situation (and language) of each country, to avoid misunderstandings among respondents and distorted outcomes. Here are two examples of German particularities to be considered in conceiving future surveys and formulating definitions:

(a) It is important to point out that more than one in four apprentices in Germany have a higher education entrance qualification (2015: 27.7% in BIBB Datenreport 2017 p. 142) so this group followed successively both paths of education at upper secondary level: First the general followed by the vocational qualification. This shows how attractive dual IVET is, but also suggests that the definition used in the Cedefop survey was not adapted to this particularity. Further, IVET students are older than presumed by the survey definition, where the typical age is set between 16 and 18. In contrast, the average age of new apprentices in 2015 in Germany was 19.7 years (BIBB Data Report 2017, p. 178).

(b) In the German context, ‘higher level education’ used as an equivalent to ‘tertiary education’ comprises higher education at universities and universities of applied sciences as well as higher or advanced vocational education. Therefore, it is not clear what the respondents refer to when answering the questions. This has to be considered when interpreting the outcomes of the Cedefop opinion survey.

References

BA 2017: Statistik der Bundesagentur für Arbeit; Berichte: Blickpunkt Arbeitsmarkt - Akademikerinnen und Akademiker, Nürnberg, Juli 2017, p 29. https://www.bak.de/w/files/bak/07-daten-und-fakten/arbeitsmarkt/broschuere-akademiker-2017.pdf

BIBB (2017): Datenreport 2017

BIBB (2017): BA/BIBB-Bewerberbefragung 2016, Bildungsverhalten von Jugendlichen. In: Datenreport 2017, p 237-260, BIBB, Bonn, 2017.

BIBB (2017): Attraktivität der beruflichen Bildung bei Studierenden, Ergebnisse einer bundesweiten Erhebung, Wissenschaftliche Diskussionspapiere WDP, Heft 183, BIBB, Bonn, 2017.

BIBB (2017): Durchlässigkeit im Bildungssystem – Möglichkeiten zur Gestaltung individueller Bildungswege, Autor: Christian Vogel, BIBB, Bonn, 2017.

BIBB (2016): Datenreport 2016.

BIBB (2016): Evaluation des Berufsbildungsgesetzes (BBiG), Evaluationsbericht, BIBB, Bonn, March 2016.

BIBB (2015): BA/BIBB-Bewerberbefragung 2014, BIBB research project 'Education and training orientation and decision-making of young people in the context of competing training provisions', in BIBB Data Report 2015, p. 92.

BIBB (2013): Expertenmonitor 2012: Image der Berufsbildung in Deutschland, BIBB, Bonn, Febr. 2013. https://expertenmonitor.bibb.de/

BIBB (2013): BWP, Sonderdruck „Attraktivität der Berufsbildung, BIBB, Bonn, 2012-13.

BIBB (2010): Empfehlung des Hauptausschusses des Bundesinstituts für Berufsbildung zur Förderung der Durchlässigkeit zwischen beruflicher und hochschulischer Bildung (139). Bonn 2010.

BA/BIBB (2010): BA/BIBB-Bewerberbefragung 2010.

BMBF (2014): Attraktivität des dualen Ausbildungssystems aus Sicht von Jugendlichen, Band 17 der Reihe Berufsbildungsforschung, Bonn, 2014.

Cedefop (2017). Cedefop European public opinion survey on vocational education and training. Luxembourg: Publications Office. Cedefop research paper; No 62. http://dx.doi.org/10.2801/264585

Cedefop (2014). Terminology of European education and training policy: a selection of 130 key terms. Luxembourg: Publications Office. http://www.cedefop.europa.eu/EN/Files/4117_en.pdf

Baethge, M. (2006): Das deutsche Bildungs-Schisma: Welche Probleme ein industrielles Bildungssystem in einer nachindustriellen Gesellschaft hat. In: SOFI-Mitteilungen 34, Göttingen.

Bellenberg, G. (2012): Schulformwechsel in Deutschland - Durchlässigkeit und Selektion in den 16 Schulsystemen der Bundesländer innerhalb der Sekundarstufe I; Im Auftrag der Bertelsmann Stiftung.

DGB-Jugend 2017: Ausbildungsreport 2017, Deutscher Gewerkschaftsbund Jugend, Berlin.

DJI-Übergangspanel

Esser, F.H. 2017: Strengthening and raising the profile of vocational education and training! In BWP 5/2017, Career in the company, BIBB, Bonn.

EU Apprenticeship toolbox: http://www.apprenticeship-toolbox.eu/

European Commission: Education and training: Key competences. http://ec.europa.eu/education/policy/school/competences_en

Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_uoe_enrs04

Hippach-Schneider, U.; Huismann, A. (2016). Vocational education and training in Europe – Germany. Cedefop ReferNet VET in Europe reports; 2016. https://www.refernet.de/dokumente/pdf/2016_CR_DE.pdf

HIS Studienberechtigtenbefragung

Krewerth, A. / Beicht, U. (2011): Qualität der Berufsausbildung in Deutschland: Ansprüche und Urteile von Auszubildenden. In: Krekel, E. M./ Lex, T. (Hrsg.): Neue Jugend, neue Ausbildung. Beiträge aus der Jugend- und Bildungsforschung. Bielefeld.

NA-BIBB (2017): NA-BIBB Jahresbericht 2016: www.na-bibb.de

Nickel, S.; Schulz, N. (2017): Update 2017: Studieren ohne Abitur in Deutschland - Überblick über aktuelle Entwicklungen, CHE Arbeitspapiere 195, March 2017. www.studieren-ohne-abitur.de

Rothe, G. (2011): Zur Zukunftsfähigkeit der Berufsbildung in Deutschland. In: Die berufsbildende Schule: Zeitschrift des Bundesverbandes der Lehrerinnen und Lehrer an Berufsbildenden Schulen. – 63 (2011), H. 5, S. 157-164.

VHU (2014): Vereinigung der Hessischen Unternehmerverbände e.V.: Bildung 4.0 – für die Arbeitswelt der Zukunft. Wie wir unser Bildungssystem neu ausrichten müssen. Frankfurt am Main, 2014.

Weiss, R. 2013: BWP 3/2013: History of Vocational Education and Training, BIBB, Bonn.